

as of July 31, 2018



## **Table of Contents**

Page
Actuary's Certification Letter1
Alternate Plans Available
Employer Contribution Rates
Regular Eligibility: Contributory Plan4
Non-Contributory Plan6
Rule of 80 Eligibility: Contributory Plan8
Non-Contributory Plan10
Employer Contribution Dollars
Appendix I
Unfunded Actuarial Accrued Liability15
Appendix II
Summary of Financial Assumptions
Appendix III
Summary of LAGERS Provisions21
Appendix IV
Benefit Illustrations24
Appendix V
Age and Service Characteristics of Employees
Appendix VI
Risk Commentary 34





January 24, 2019

McDonald County Soil & Water Conservation District Neosho, 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). This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

This report was prepared at the request of the political subdivision and is intended for use by the political subdivision and those designated or approved by the political subdivision. This report may be provided to parties other than the political subdivision only in its entirety and only with the permission of the political subdivision. GRS is not responsible for unauthorized use of this report.

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. This valuation assumed the ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our expertise and not performed. 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 July 31, 2018. The valuation was based on data furnished from your records concerning individual employees (see Appendix V).

This report includes risk commentary in Appendix VI, but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

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

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the political subdivision as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the actuarial standards of practice issued by the Actuarial Standards Board, and with applicable statutes.

Mita D. 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 contained herein.

The signing actuary is independent of the plan sponsor.

Respectfully submitted,

Mita D. Drazilov, ASA, FCA, MAAA

Mita Drazilos



# 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.



## Employer Contribution Rates (Contributory Plan - 5 Year FAS) (4% member contributions are additional)

		Percents of Active Member Payroll			
		Dui ou			Total
Benefit	Employee	Prior Service	Current	Disability	Employer Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	General	0.30%	2.20%	0.20%	2.70%
L-3	General	0.40	3.30	0.30	4.00
LT-4(65)	General	0.40	2.80	0.20	3.40
LT-5(65)	General	0.50	3.70	0.30	4.50
L-7	General	0.60	4.40	0.30	5.30
LT-8(65)	General	0.60	4.70	0.30	5.60
L-12	General	0.70	5.60	0.40	6.70
LT-14(65)	General	0.70	5.70	0.40	6.80
L-6	General	0.80	6.80	0.50	8.10

<sup>\*</sup> Prior service credit was given for vesting purposes only.



## Employer Contribution Rates (Contributory Plan - 3 Year FAS) (4% member contributions are additional)

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.30%	2.40%	0.20%	2.90%
L-3	General	0.50	3.50	0.30	4.30
LT-4(65)	General	0.40	2.90	0.20	3.50
LT-5(65)	General	0.50	3.90	0.30	4.70
L-7	General	0.60	4.70	0.30	5.60
LT-8(65)	General	0.60	4.90	0.30	5.80
L-12	General	0.70	5.90	0.40	7.00
LT-14(65)	General	0.70	6.00	0.40	7.10
L-6	General	0.80	7.20	0.50	8.50

<sup>\*</sup> Prior service credit was given for vesting purposes only.



## <u>Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)</u> (No member contributions)

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.50%	5.70%	0.20%	6.40%
L-3	General	0.60	6.90	0.30	7.80
LT-4(65)	General	0.60	6.20	0.20	7.00
LT-5(65)	General	0.70	7.30	0.30	8.30
L-7	General	0.80	8.10	0.30	9.20
LT-8(65)	General	0.80	8.40	0.30	9.50
L-12	General	0.90	9.30	0.40	10.60
LT-14(65)	General	0.90	9.40	0.40	10.70
L-6	General	1.00	10.50	0.50	12.00

<sup>\*</sup> Prior service credit was given for vesting purposes only.



## <u>Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)</u> (No member contributions)

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.50%	5.90%	0.20%	6.60%
L-3	General	0.70	7.10	0.30	8.10
LT-4(65)	General	0.60	6.40	0.20	7.20
LT-5(65)	General	0.70	7.50	0.30	8.50
L-7	General	0.80	8.40	0.30	9.50
LT-8(65)	General	0.80	8.60	0.30	9.70
L-12	General	0.90	9.60	0.40	10.90
LT-14(65)	General	0.90	9.70	0.40	11.00
L-6	General	1.00	10.90	0.50	12.40

<sup>\*</sup> Prior service credit was given for vesting purposes only.



## Employer Contribution Rates (Contributory Plan - 5 Year FAS) (4% member contributions are additional)

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.40%	2.90%	0.20%	3.50%
L-3	General	0.50	4.10	0.30	4.90
LT-4(65)	General	0.50	4.20	0.20	4.90
LT-5(65)	General	0.60	5.10	0.30	6.00
L-7	General	0.60	5.30	0.30	6.20
LT-8(65)	General	0.70	6.00	0.30	7.00
L-12	General	0.80	6.70	0.40	7.90
LT-14(65)	General	0.80	7.00	0.40	8.20
L-6	General	0.90	8.10	0.50	9.50

- # 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.



## Employer Contribution Rates (Contributory Plan - 3 Year FAS) (4% member contributions are additional)

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.40%	3.10%	0.20%	3.70%
L-3	General	0.50	4.30	0.30	5.10
LT-4(65)	General	0.50	4.40	0.20	5.10
LT-5(65)	General	0.70	5.30	0.30	6.30
L-7	General	0.70	5.60	0.30	6.60
LT-8(65)	General	0.80	6.30	0.30	7.40
L-12	General	0.80	7.10	0.40	8.30
LT-14(65)	General	0.90	7.40	0.40	8.70
L-6	General	1.00	8.50	0.50	10.00

- # 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.



## <u>Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)</u> (No member contributions)

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.60%	6.30%	0.20%	7.10%
L-3	General	0.70	7.70	0.30	8.70
LT-4(65)	General	0.70	7.60	0.20	8.50
LT-5(65)	General	0.80	8.60	0.30	9.70
L-7	General	0.80	9.00	0.30	10.10
LT-8(65)	General	0.90	9.70	0.30	10.90
L-12	General	1.00	10.40	0.40	11.80
LT-14(65)	General	1.00	10.70	0.40	12.10
L-6	General	1.10	11.80	0.50	13.40

<sup>#</sup> 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.



<sup>\*</sup> Prior service credit was given for vesting purposes only.

## <u>Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)</u> (No member contributions)

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.60%	6.50%	0.20%	7.30%
L-3	General	0.70	7.90	0.30	8.90
LT-4(65)	General	0.70	7.90	0.20	8.80
LT-5(65)	General	0.90	8.90	0.30	10.10
L-7	General	0.90	9.30	0.30	10.50
LT-8(65)	General	1.00	10.00	0.30	11.30
L-12	General	1.00	10.80	0.40	12.20
LT-14(65)	General	1.10	11.10	0.40	12.60
L-6	General	1.20	12.20	0.50	13.90

- # 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.



## **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	\$ 1,793			
L-3	2,657			
LT-4(65)	2,258			
LT-5(65)	2,989			
L-7	3,520			
LT-8(65)	3,719			
L-12	4,450			
LT-14(65)	4,516			
L-6	5,380			

3 Year FAS					
Benefit					
Program	General				
L-1	\$ 1,926				
L-3	2,856				
LT-4(65)	2,325				
LT-5(65)	3,122				
L-7	3,719				
LT-8(65)	3,852				
L-12	4,649				
LT-14(65)	4,716				
L-6	5,645				

#### **Non-Contributory Plan**

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 4,251			
L-3	5,180			
LT-4(65)	4,649			
LT-5(65)	5,513			
L-7	6,110			
LT-8(65)	6,310			
L-12	7,040			
LT-14(65)	7,107			
L-6	7,970			

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 4,383			
L-3	5,380			
LT-4(65)	4,782			
LT-5(65)	5,645			
L-7	6,310			
LT-8(65)	6,442			
L-12	7,239			
LT-14(65)	7,306			
L-6	8,236			

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.



## **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	\$ 2,325			
L-3	3,254			
LT-4(65)	3,254			
LT-5(65)	3,985			
L-7	4,118			
LT-8(65)	4,649			
L-12	5,247			
LT-14(65)	5,446			
L-6	6,310			

3 Year FAS					
Benefit					
Program	General				
L-1	\$ 2,457				
L-3	3,387				
LT-4(65)	3,387				
LT-5(65)	4,184				
L-7	4,383				
LT-8(65)	4,915				
L-12	5,513				
LT-14(65)	5,778				
L-6	6,642				

#### **Non-Contributory Plan**

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 4,716			
L-3	5,778			
LT-4(65)	5,645			
LT-5(65)	6,442			
L-7	6,708			
LT-8(65)	7,239			
L-12	7,837			
LT-14(65)	8,036			
L-6	8,900			

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 4,848			
L-3	5,911			
LT-4(65)	5,845			
LT-5(65)	6,708			
L-7	6,974			
LT-8(65)	7,505			
L-12	8,103			
LT-14(65)	8,368			
L-6	9,232			

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.



#### **Employees and Payroll Included in the Valuation**

	General
Number of Employees	2
Annual Payroll	\$ 66,416

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





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:

#### **McDonald County Soil & Water Conservation District**

		Contril	butory	Non-Con	tributory
Benefit Group	Employee Group	UAAL UAAL (5 Year FAS) (3 Year FAS)		UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 3,529	\$ 3,740	\$ 5,908	\$ 6,110
L-3	General	5,036	5,292	7,379	7,656
LT-4(65)	General	4,297	4,547	6,691	6,910
LT-5(65)	General	5,611	5,901	7,948	8,241
L-7	General	6,501	6,800	8,870	9,184
LT-8(65)	General	6,893	7,207	9,239	9,580
L-12	General	7,926	8,291	10,326	10,713
LT-14(65)	General	8,115	8,469	10,542	10,917
L-6	General	9,343	9,741	11,822	12,245



#### **Unfunded Actuarial Accrued Liability (UAAL)**

		Contri	butory	Non-Con	tributory
Benefit Group	Employee Group	UAAL UAAL (5 Year FAS)		UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 4,293	\$ 4,532	\$ 6,622	\$ 6,869
L-3	General	5,975	6,263	8,292	8,579
LT-4(65)	General	6,112	6,420	8,444	8,749
LT-5(65)	General	7,320	7,677	9,651	9,994
L-7	General	7,602	7,965	9,942	10,312
LT-8(65)	General	8,528	8,911	10,849	11,242
L-12	General	9,208	9,618	11,587	12,025
LT-14(65)	General	9,659	10,080	12,042	12,500
L-6	General	10,804	11,264	13,245	13,726





**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.
- 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

		General Members					_		
Sample	Years of	N	Men Women		Police		Fire		
Ages	Service	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

## Percent Increase in Individual's Pay

Sample	During Next Year				
Ages	<b>General &amp; Police</b>	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 66	25 25	25 25	60 61	10 10	15 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	<b>General Members</b>			
Ages	Men	Women	Police	Fire
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		





**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:

LT-5(65) Benefit Program:

LT-8(65) Benefit Program:

1.00% for life, plus 1.00% to age 65

1.25% for life, plus 0.75% to age 65

LT-14(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.





**BENEFIT ILLUSTRATIONS** 

(L-1 Benefit Program is Years of Credited Service times: 1.00% of FAS 1)

Final	Estimated Estimated		ated	
Average	LAGERS	Social	Monthly	/ Total
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% 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>&</sup>quot;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>&</sup>lt;sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.



<sup>&</sup>lt;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.

(L-3 Benefit Program is Years of Credited Service times: 1.25% of FAS 1)

Final	Estimated Estimat		ated	
Average	LAGERS	Social	Monthly	/ Total
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% 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%
	750	•		59%

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



<sup>&</sup>lt;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.

(L-7 Benefit Program is Years of Credited Service times: 1.50% of FAS <sup>1</sup> )

Final		Estimated	Estimated		
Average	LAGERS	Social	<b>Monthly Total</b>		
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% 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>&</sup>quot;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>&</sup>lt;sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.



<sup>&</sup>lt;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.

(L-12 Benefit Program is Years of Credited Service times: 1.75% of FAS 1)

Final	Estimated Estimated		ated	
Average	LAGERS	Social	Monthly	/ Total
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% 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>&</sup>quot;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.

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



<sup>&</sup>lt;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.

(L-6 Benefit Program is Years of Credited Service times: 2.00% of FAS <sup>1</sup> )

Final		Estimated	Estimated	
Average	LAGERS	Social	Monthly	y Total
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% 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>&</sup>lt;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>&</sup>lt;sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.



<sup>&</sup>lt;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.

#### **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	LAG	ERS	Estimated	Estim	nated	Perc	ent
Average	BENI	EFIT <sup>3</sup>	Social	Month	y Total	of F	AS
Salary (FAS) <sup>1</sup>	To 65	At 65	Security <sup>2</sup>	To 65	At 65	To 65	At 65
35 Years of Service	2:						
\$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	e:						
\$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	e:						
\$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%
4							

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



<sup>&</sup>lt;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.

#### **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	LAG	ERS	Estimated	Estim	ated	Pero	ent
Average	BENI	EFIT <sup>3</sup>	Social	Monthl	y Total	of F	AS
Salary (FAS) <sup>1</sup>	To 65	At 65	Security <sup>2</sup>	To 65	At 65	To 65	At 65
35 Years of Service	2:						
\$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	<b>e</b> :						
\$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	<b>e</b> :						
\$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>&</sup>lt;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>&</sup>lt;sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.



<sup>&</sup>lt;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.

# **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	LAGERS		Estimated	Estimated		Percent		
Average	BENI	EFIT <sup>3</sup>	Social	Monthl	y Total	of F	AS	
Salary (FAS) <sup>1</sup>	To 65	At 65	Security <sup>2</sup>	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>&</sup>lt;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>&</sup>lt;sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.



<sup>&</sup>lt;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.

#### **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	LAGERS		Estimated	Estimated		Percent	
Average	BENI	FIT <sup>3</sup>	Social	Monthl	y Total	of F	AS
Salary (FAS) <sup>1</sup>	To 65	At 65	Security <sup>2</sup>	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>&</sup>lt;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>&</sup>lt;sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.



<sup>&</sup>lt;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.



AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

### July 31, 2018

## By Attained Age and Years of Service

		Years of Service to Valuation Date Totals												
Attained									Valuation					
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll					
Under 20														
20-24														
25-29	1							1	\$ 32,136					
30-34	1							1	\$ 34,280					
35-39														
40-44														
45-49														
50-54														
55-59														
60-64														
65-69														
70 & Over														
Totals	2							2	\$ 66,416					

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

Age: 30.1 years.

Benefit Service: 0.0 years. Annual Pay: \$33,208.





**RISK COMMENTARY** 

# **Risk Commentary**

The determination of the accrued liability and the actuarially determined contribution (i.e., total employer contribution rate) requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

- Investment Risk actual investment returns may differ from the expected returns;
- 2. **Asset/Liability Mismatch Risk** changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
- 3. **Contribution Risk** actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
- 4. **Salary and Payroll Risk** actual salaries and total payroll may differ from expected, resulting in actual future accrued liability, contributions and contribution rates differing from expected;
- 5. **Longevity Risk** members may live longer or shorter than expected and receive pensions for a period of time other than assumed; and
- 6. **Other Demographic Risks** members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The computed contribution rates shown on pages 4 thru 11 may be considered as a minimum contribution rate for the selected benefit provisions that complies with the Board's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.



# **Risk Commentary (Concluded)**

#### PLAN MATURITY MEASURES

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures are described below.

#### RATIO OF MARKET VALUE OF ASSETS TO PAYROLL

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

#### RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

#### RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

#### **DURATION OF ACTUARIAL ACCRUED LIABILITY**

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

#### ADDITIONAL RISK ASSESSMENT

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.





January 24, 2019 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 July 31, 2018 Initial Actuarial Valuation of LAGERS benefits for the employees of

McDonald County Soil & Water Conservation District

Sincerely,

Mita D. Drazilov, ASA, FCA, MAAA

Mita Drazilor

MDD:wp



January 24, 2019

McDonald County Soil & Water Conservation District Neosho, 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 July 31, 2018 Initial Valuation for the McDonald County Soil & Water Conservation District dated January 24, 2019.

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 Draylov Mita D. Drazilov, ASA, FCA, MAAA

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

(4% member contributions are additional)

#### Regular Retirement Eligibility

		L-1 Benefit Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 66,416	2.7%	\$1,793	\$ 3,529	4.0%	\$2,657	\$ 5,036	3.4%	\$2,258	\$ 4,297
2019	68,575	2.7	1,852	3,577	4.0	2,743	5,105	3.4	2,332	4,356
2020	70,804	2.7	1,912	3,622	4.0	2,832	5,169	3.4	2,407	4,411
2021	73,105	2.7	1,974	3,663	4.0	2,924	5,228	3.4	2,486	4,461
2022	75,481	2.7	2,038	3,700	4.0	3,019	5,281	3.4	2,566	4,506
2023	77,934	2.7	2,104	3,732	4.0	3,117	5,327	3.4	2,650	4,546
2024	80,467	2.7	2,173	3,759	4.0	3,219	5,366	3.4	2,736	4,579
2025	83,082	2.7	2,243	3,780	4.0	3,323	5,396	3.4	2,825	4,605
2026	85,782	2.7	2,316	3,795	4.0	3,431	5,417	3.4	2,917	4,623
2027	88,570	2.7	2,391	3,802	4.0	3,543	5,427	3.4	3,011	4,632

			LT-5(65) Benefit Program			7 Benefit Pro	gram	LT-8(65) Benefit Program		
	Estimated	Estimated Employer cd Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	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	\$ 66,416	4.5%	\$2,989	\$ 5,611	5.3%	\$3,520	\$ 6,501	5.6%	\$3,719	\$ 6,893
2019	68,575	4.5	3,086	5,688	5.3	3,634	6,590	5.6	3,840	6,987
2020	70,804	4.5	3,186	5,760	5.3	3,753	6,673	5.6	3,965	7,075
2021	73,105	4.5	3,290	5,826	5.3	3,875	6,749	5.6	4,094	7,156
2022	75,481	4.5	3,397	5,885	5.3	4,000	6,818	5.6	4,227	7,229
2023	77,934	4.5	3,507	5,937	5.3	4,131	6,878	5.6	4,364	7,292
2024	80,467	4.5	3,621	5,980	5.3	4,265	6,928	5.6	4,506	7,345
2025	83,082	4.5	3,739	6,014	5.3	4,403	6,967	5.6	4,653	7,387
2026	85,782	4.5	3,860	6,037	5.3	4,546	6,994	5.6	4,804	7,416
2027	88.570	4.5	3.986	6.049	5.3	4.694	7.007	5.6	4.960	7.430

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	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	\$ 66,416	6.7%	\$4,450	\$ 7,926	6.8%	\$4,516	\$ 8,115	8.1%	\$5,380	\$ 9,343
2019	68,575	6.7	4,595	8,035	6.8	4,663	8,226	8.1	5,555	9,471
2020	70,804	6.7	4,744	8,136	6.8	4,815	8,330	8.1	5,735	9,590
2021	73,105	6.7	4,898	8,229	6.8	4,971	8,425	8.1	5,922	9,700
2022	75,481	6.7	5,057	8,313	6.8	5,133	8,511	8.1	6,114	9,799
2023	77,934	6.7	5,222	8,386	6.8	5,300	8,586	8.1	6,313	9,885
2024	80,467	6.7	5,391	8,447	6.8	5,472	8,649	8.1	6,518	9,957
2025	83,082	6.7	5,566	8,495	6.8	5,650	8,698	8.1	6,730	10,013
2026	85,782	6.7	5,747	8,528	6.8	5,833	8,732	8.1	6,948	10,052
2027	88,570	6.7	5,934	8,544	6.8	6,023	8,749	8.1	7,174	10,071

- 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.



# Employer Contribution Rates (Contributory Plan - 3 Year FAS) (4% member contributions are additional)

#### Regular Retirement Eligibility

		L-1 Benefit Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	bution	Actuarial	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 66,416	2.9%	\$1,926	\$ 3,740	4.3%	\$2,856	\$ 5,292	3.5%	\$2,325	\$ 4,547
2019	68,575	2.9	1,989	3,791	4.3	2,949	5,364	3.5	2,400	4,609
2020	70,804	2.9	2,053	3,839	4.3	3,045	5,432	3.5	2,478	4,667
2021	73,105	2.9	2,120	3,883	4.3	3,144	5,494	3.5	2,559	4,720
2022	75,481	2.9	2,189	3,922	4.3	3,246	5,550	3.5	2,642	4,768
2023	77,934	2.9	2,260	3,956	4.3	3,351	5,599	3.5	2,728	4,810
2024	80,467	2.9	2,334	3,985	4.3	3,460	5,640	3.5	2,816	4,845
2025	83,082	2.9	2,409	4,008	4.3	3,573	5,672	3.5	2,908	4,872
2026	85,782	2.9	2,488	4,023	4.3	3,689	5,694	3.5	3,002	4,891
2027	88,570	2.9	2,569	4,031	4.3	3,809	5,705	3.5	3,100	4,900

			LT-5(65) Benefit Program			7 Benefit Pro	gram	LT-8(65) Benefit Program		
	Estimated	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	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	\$ 66,416	4.7%	\$3,122	\$ 5,901	5.6%	\$3,719	\$ 6,800	5.8%	\$3,852	\$ 7,207
2019	68,575	4.7	3,223	5,982	5.6	3,840	6,893	5.8	3,977	7,306
2020	70,804	4.7	3,328	6,057	5.6	3,965	6,980	5.8	4,107	7,398
2021	73,105	4.7	3,436	6,126	5.6	4,094	7,060	5.8	4,240	7,483
2022	75,481	4.7	3,548	6,188	5.6	4,227	7,132	5.8	4,378	7,559
2023	77,934	4.7	3,663	6,242	5.6	4,364	7,195	5.8	4,520	7,625
2024	80,467	4.7	3,782	6,287	5.6	4,506	7,247	5.8	4,667	7,681
2025	83,082	4.7	3,905	6,323	5.6	4,653	7,288	5.8	4,819	7,724
2026	85,782	4.7	4,032	6,347	5.6	4,804	7,316	5.8	4,975	7,754
2027	88.570	4.7	4.163	6.359	5.6	4.960	7.330	5.8	5.137	7.769

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated	Estimated Employer ated Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	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	\$ 66,416	7.0%	\$4,649	\$ 8,291	7.1%	\$4,716	\$ 8,469	8.5%	\$5,645	\$ 9,741
2019	68,575	7.0	4,800	8,405	7.1	4,869	8,585	8.5	5,829	9,874
2020	70,804	7.0	4,956	8,511	7.1	5,027	8,693	8.5	6,018	9,999
2021	73,105	7.0	5,117	8,608	7.1	5,190	8,792	8.5	6,214	10,113
2022	75,481	7.0	5,284	8,695	7.1	5,359	8,881	8.5	6,416	10,216
2023	77,934	7.0	5,455	8,771	7.1	5,533	8,959	8.5	6,624	10,306
2024	80,467	7.0	5,633	8,835	7.1	5,713	9,024	8.5	6,840	10,381
2025	83,082	7.0	5,816	8,885	7.1	5,899	9,075	8.5	7,062	10,440
2026	85,782	7.0	6,005	8,919	7.1	6,091	9,110	8.5	7,291	10,480
2027	88,570	7.0	6,200	8,936	7.1	6,288	9,127	8.5	7,528	10,500

- 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.



# Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS) (0% member contributions are additional)

#### Regular Retirement Eligibility

		L-1 Benefit Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 66,416	6.4%	\$4,251	\$ 5,908	7.8%	\$5,180	\$ 7,379	7.0%	\$4,649	\$ 6,691
2019	68,575	6.4	4,389	5,989	7.8	5,349	7,480	7.0	4,800	6,783
2020	70,804	6.4	4,531	6,065	7.8	5,523	7,574	7.0	4,956	6,869
2021	73,105	6.4	4,679	6,134	7.8	5,702	7,661	7.0	5,117	6,948
2022	75,481	6.4	4,831	6,196	7.8	5,888	7,739	7.0	5,284	7,019
2023	77,934	6.4	4,988	6,250	7.8	6,079	7,807	7.0	5,455	7,081
2024	80,467	6.4	5,150	6,296	7.8	6,276	7,864	7.0	5,633	7,133
2025	83,082	6.4	5,317	6,332	7.8	6,480	7,908	7.0	5,816	7,173
2026	85,782	6.4	5,490	6,356	7.8	6,691	7,939	7.0	6,005	7,201
2027	88,570	6.4	5,668	6,368	7.8	6,908	7,954	7.0	6,200	7,215

			LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
	Estimated	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	
Valuation Year	Projected Payroll	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	\$ 66,416	8.3%	\$5,513	\$ 7,948	9.2%	\$6,110	\$ 8,870	9.5%	\$6,310	\$ 9,239	
2019	68,575	8.3	5,692	8,057	9.2	6,309	8,992	9.5	6,515	9,366	
2020	70,804	8.3	5,877	8,159	9.2	6,514	9,105	9.5	6,726	9,484	
2021	73,105	8.3	6,068	8,252	9.2	6,726	9,209	9.5	6,945	9,592	
2022	75,481	8.3	6,265	8,336	9.2	6,944	9,303	9.5	7,171	9,689	
2023	77,934	8.3	6,469	8,409	9.2	7,170	9,385	9.5	7,404	9,774	
2024	80,467	8.3	6,679	8,470	9.2	7,403	9,453	9.5	7,644	9,845	
2025	83,082	8.3	6,896	8,518	9.2	7,644	9,506	9.5	7,893	9,901	
2026	85,782	8.3	7,120	8,551	9.2	7,892	9,543	9.5	8,149	9,939	
2027	88.570	8.3	7.351	8.567	9.2	8.148	9.561	9.5	8.414	9.958	

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	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	\$ 66,416	10.6%	\$7,040	\$ 10,326	10.7%	\$7,107	\$ 10,542	12.0%	\$7,970	\$ 11,822
2019	68,575	10.6	7,269	10,467	10.7	7,338	10,686	12.0	8,229	11,984
2020	70,804	10.6	7,505	10,599	10.7	7,576	10,821	12.0	8,496	12,135
2021	73,105	10.6	7,749	10,720	10.7	7,822	10,945	12.0	8,773	12,274
2022	75,481	10.6	8,001	10,829	10.7	8,076	11,056	12.0	9,058	12,399
2023	77,934	10.6	8,261	10,924	10.7	8,339	11,153	12.0	9,352	12,508
2024	80,467	10.6	8,530	11,004	10.7	8,610	11,234	12.0	9,656	12,599
2025	83,082	10.6	8,807	11,066	10.7	8,890	11,297	12.0	9,970	12,670
2026	85,782	10.6	9,093	11,109	10.7	9,179	11,341	12.0	10,294	12,719
2027	88,570	10.6	9,388	11,130	10.7	9,477	11,363	12.0	10,628	12,743

- 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.



# Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS) (0% member contributions are additional)

#### Regular Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contri	bution	Actuarial	Contri	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 66,416	6.6%	\$4,383	\$ 6,110	8.1%	\$5,380	\$ 7,656	7.2%	\$4,782	\$ 6,910
2019	68,575	6.6	4,526	6,194	8.1	5,555	7,761	7.2	4,937	7,005
2020	70,804	6.6	4,673	6,272	8.1	5,735	7,859	7.2	5,098	7,093
2021	73,105	6.6	4,825	6,344	8.1	5,922	7,949	7.2	5,264	7,174
2022	75,481	6.6	4,982	6,408	8.1	6,114	8,030	7.2	5,435	7,247
2023	77,934	6.6	5,144	6,464	8.1	6,313	8,101	7.2	5,611	7,311
2024	80,467	6.6	5,311	6,511	8.1	6,518	8,160	7.2	5,794	7,364
2025	83,082	6.6	5,483	6,548	8.1	6,730	8,206	7.2	5,982	7,406
2026	85,782	6.6	5,662	6,573	8.1	6,948	8,238	7.2	6,176	7,435
2027	88,570	6.6	5,846	6,586	8.1	7,174	8,254	7.2	6,377	7,449

	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	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	\$ 66,416	8.5%	\$5,645	\$ 8,241	9.5%	\$6,310	\$ 9,184	9.7%	\$6,442	\$ 9,580
2019	68,575	8.5	5,829	8,354	9.5	6,515	9,310	9.7	6,652	9,711
2020	70,804	8.5	6,018	8,459	9.5	6,726	9,427	9.7	6,868	9,833
2021	73,105	8.5	6,214	8,556	9.5	6,945	9,535	9.7	7,091	9,945
2022	75,481	8.5	6,416	8,643	9.5	7,171	9,632	9.7	7,322	10,046
2023	77,934	8.5	6,624	8,719	9.5	7,404	9,717	9.7	7,560	10,134
2024	80,467	8.5	6,840	8,783	9.5	7,644	9,788	9.7	7,805	10,208
2025	83,082	8.5	7,062	8,833	9.5	7,893	9,843	9.7	8,059	10,266
2026	85,782	8.5	7,291	8,867	9.5	8,149	9,881	9.7	8,321	10,306
2027	88.570	8.5	7.528	8.884	9.5	8.414	9.900	9.7	8.591	10.326

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated		Estimated Employer Contribution			l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	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	\$ 66,416	10.9%	\$7,239	\$ 10,713	11.0%	\$7,306	\$ 10,917	12.4%	\$8,236	\$ 12,245
2019	68,575	10.9	7,475	10,860	11.0	7,543	11,067	12.4	8,503	12,413
2020	70,804	10.9	7,718	10,997	11.0	7,788	11,207	12.4	8,780	12,570
2021	73,105	10.9	7,968	11,123	11.0	8,042	11,335	12.4	9,065	12,714
2022	75,481	10.9	8,227	11,236	11.0	8,303	11,450	12.4	9,360	12,843
2023	77,934	10.9	8,495	11,335	11.0	8,573	11,551	12.4	9,664	12,956
2024	80,467	10.9	8,771	11,418	11.0	8,851	11,635	12.4	9,978	13,050
2025	83,082	10.9	9,056	11,483	11.0	9,139	11,701	12.4	10,302	13,124
2026	85,782	10.9	9,350	11,527	11.0	9,436	11,746	12.4	10,637	13,175
2027	88,570	10.9	9,654	11,549	11.0	9,743	11,768	12.4	10,983	13,200

- 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.



# Employer Contribution Rates (Contributory Plan - 5 Year FAS) (4% member contributions are additional)

#### Rule of 80 Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contri	bution	Actuarial	Contri	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 66,416	3.5%	\$2,325	\$ 4,293	4.9%	\$3,254	\$ 5,975	4.9%	\$3,254	\$ 6,112
2019	68,575	3.5	2,400	4,352	4.9	3,360	6,057	4.9	3,360	6,196
2020	70,804	3.5	2,478	4,407	4.9	3,469	6,133	4.9	3,469	6,274
2021	73,105	3.5	2,559	4,457	4.9	3,582	6,203	4.9	3,582	6,346
2022	75,481	3.5	2,642	4,502	4.9	3,699	6,266	4.9	3,699	6,410
2023	77,934	3.5	2,728	4,542	4.9	3,819	6,321	4.9	3,819	6,466
2024	80,467	3.5	2,816	4,575	4.9	3,943	6,367	4.9	3,943	6,513
2025	83,082	3.5	2,908	4,601	4.9	4,071	6,403	4.9	4,071	6,550
2026	85,782	3.5	3,002	4,619	4.9	4,203	6,428	4.9	4,203	6,575
2027	88,570	3.5	3,100	4,628	4.9	4,340	6,440	4.9	4,340	6,588

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated	Estimated Employer Contribution		Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial	
Valuation Year	Projected Payroll	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	\$ 66,416	6.0%	\$3,985	\$ 7,320	6.2%	\$4,118	\$ 7,602	7.0%	\$4,649	\$ 8,528	
2019	68,575	6.0	4,115	7,420	6.2	4,252	7,706	7.0	4,800	8,645	
2020	70,804	6.0	4,248	7,514	6.2	4,390	7,803	7.0	4,956	8,754	
2021	73,105	6.0	4,386	7,600	6.2	4,533	7,892	7.0	5,117	8,854	
2022	75,481	6.0	4,529	7,677	6.2	4,680	7,972	7.0	5,284	8,944	
2023	77,934	6.0	4,676	7,744	6.2	4,832	8,042	7.0	5,455	9,023	
2024	80,467	6.0	4,828	7,800	6.2	4,989	8,101	7.0	5,633	9,089	
2025	83,082	6.0	4,985	7,844	6.2	5,151	8,147	7.0	5,816	9,140	
2026	85,782	6.0	5,147	7,874	6.2	5,318	8,179	7.0	6,005	9,175	
2027	88.570	6.0	5.314	7.889	6.2	5.491	8.195	7.0	6.200	9.193	

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated		l Employer	Unfunded		l Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 66,416	7.9%	\$5,247	\$ 9,208	8.2%	\$5,446	\$ 9,659	9.5%	\$6,310	\$ 10,804
2019	68,575	7.9	5,417	9,334	8.2	5,623	9,791	9.5	6,515	10,952
2020	70,804	7.9	5,594	9,452	8.2	5,806	9,914	9.5	6,726	11,090
2021	73,105	7.9	5,775	9,560	8.2	5,995	10,027	9.5	6,945	11,217
2022	75,481	7.9	5,963	9,657	8.2	6,189	10,129	9.5	7,171	11,331
2023	77,934	7.9	6,157	9,742	8.2	6,391	10,218	9.5	7,404	11,431
2024	80,467	7.9	6,357	9,813	8.2	6,598	10,292	9.5	7,644	11,514
2025	83,082	7.9	6,563	9,868	8.2	6,813	10,350	9.5	7,893	11,579
2026	85,782	7.9	6,777	9,906	8.2	7,034	10,390	9.5	8,149	11,624
2027	88,570	7.9	6,997	9,925	8.2	7,263	10,410	9.5	8,414	11,646

- 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.



# Employer Contribution Rates (Contributory Plan - 3 Year FAS) (4% member contributions are additional)

#### Rule of 80 Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Prog	gram	LT-4	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contri	bution	Actuarial	Contri	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 66,416	3.7%	\$2,457	\$ 4,532	5.1%	\$3,387	\$ 6,263	5.1%	\$3,387	\$ 6,420
2019	68,575	3.7	2,537	4,594	5.1	3,497	6,349	5.1	3,497	6,508
2020	70,804	3.7	2,620	4,652	5.1	3,611	6,429	5.1	3,611	6,590
2021	73,105	3.7	2,705	4,705	5.1	3,728	6,503	5.1	3,728	6,665
2022	75,481	3.7	2,793	4,753	5.1	3,850	6,569	5.1	3,850	6,733
2023	77,934	3.7	2,884	4,795	5.1	3,975	6,627	5.1	3,975	6,792
2024	80,467	3.7	2,977	4,830	5.1	4,104	6,675	5.1	4,104	6,841
2025	83,082	3.7	3,074	4,857	5.1	4,237	6,713	5.1	4,237	6,880
2026	85,782	3.7	3,174	4,876	5.1	4,375	6,739	5.1	4,375	6,907
2027	88,570	3.7	3,277	4,885	5.1	4,517	6,752	5.1	4,517	6,920

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		d Employer ibution	Unfunded Actuarial		Estimated Employer  Contribution		Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	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	\$ 66,416	6.3%	\$4,184	\$ 7,677	6.6%	\$4,383	\$ 7,965	7.4%	\$4,915	\$ 8,911
2019	68,575	6.3	4,320	7,782	6.6	4,526	8,074	7.4	5,075	9,033
2020	70,804	6.3	4,461	7,880	6.6	4,673	8,176	7.4	5,239	9,147
2021	73,105	6.3	4,606	7,970	6.6	4,825	8,269	7.4	5,410	9,252
2022	75,481	6.3	4,755	8,051	6.6	4,982	8,353	7.4	5,586	9,346
2023	77,934	6.3	4,910	8,122	6.6	5,144	8,426	7.4	5,767	9,428
2024	80,467	6.3	5,069	8,181	6.6	5,311	8,487	7.4	5,955	9,497
2025	83,082	6.3	5,234	8,227	6.6	5,483	8,535	7.4	6,148	9,551
2026	85,782	6.3	5,404	8,259	6.6	5,662	8,568	7.4	6,348	9,588
2027	88.570	6.3	5.580	8.275	6.6	5.846	8.584	7.4	6.554	9.606

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated		Estimated Employer Contribution			d Employer ibution	Unfunded Actuarial		ibution Annual Dollars \$6,642	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll		Accrued Liability
2018	\$ 66,416	8.3%	\$5,513	\$ 9,618	8.7%	\$5,778	\$ 10,080	10.0%	\$6,642	\$ 11,264
2019	68,575	8.3	5,692	9,750	8.7	5,966	10,218	10.0	6,858	11,418
2020	70,804	8.3	5,877	9,873	8.7	6,160	10,347	10.0	7,080	11,562
2021	73,105	8.3	6,068	9,986	8.7	6,360	10,465	10.0	7,311	11,694
2022	75,481	8.3	6,265	10,087	8.7	6,567	10,571	10.0	7,548	11,813
2023	77,934	8.3	6,469	10,176	8.7	6,780	10,664	10.0	7,793	11,917
2024	80,467	8.3	6,679	10,250	8.7	7,001	10,742	10.0	8,047	12,004
2025	83,082	8.3	6,896	10,308	8.7	7,228	10,803	10.0	8,308	12,072
2026	85,782	8.3	7,120	10,348	8.7	7,463	10,845	10.0	8,578	12,119
2027	88,570	8.3	7,351	10,368	8.7	7,706	10,866	10.0	8,857	12,142

- 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.



# Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS) (0% member contributions are additional)

#### Rule of 80 Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contri	bution	Actuarial	Contri	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 66,416	7.1%	\$4,716	\$ 6,622	8.7%	\$5,778	\$ 8,292	8.5%	\$5,645	\$ 8,444
2019	68,575	7.1	4,869	6,713	8.7	5,966	8,406	8.5	5,829	8,560
2020	70,804	7.1	5,027	6,798	8.7	6,160	8,512	8.5	6,018	8,668
2021	73,105	7.1	5,190	6,876	8.7	6,360	8,609	8.5	6,214	8,767
2022	75,481	7.1	5,359	6,946	8.7	6,567	8,696	8.5	6,416	8,856
2023	77,934	7.1	5,533	7,007	8.7	6,780	8,772	8.5	6,624	8,934
2024	80,467	7.1	5,713	7,058	8.7	7,001	8,836	8.5	6,840	8,999
2025	83,082	7.1	5,899	7,098	8.7	7,228	8,886	8.5	7,062	9,050
2026	85,782	7.1	6,091	7,125	8.7	7,463	8,920	8.5	7,291	9,085
2027	88,570	7.1	6,288	7,139	8.7	7,706	8,937	8.5	7,528	9,102

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		d Employer ibution	Unfunded Actuarial		Estimated Employer  Contribution		Estimated Employer Contribution		Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 66,416	9.7%	\$6,442	\$ 9,651	10.1%	\$6,708	\$ 9,942	10.9%	\$7,239	\$ 10,849
2019	68,575	9.7	6,652	9,783	10.1	6,926	10,078	10.9	7,475	10,998
2020	70,804	9.7	6,868	9,906	10.1	7,151	10,205	10.9	7,718	11,137
2021	73,105	9.7	7,091	10,019	10.1	7,384	10,322	10.9	7,968	11,264
2022	75,481	9.7	7,322	10,121	10.1	7,624	10,427	10.9	8,227	11,378
2023	77,934	9.7	7,560	10,210	10.1	7,871	10,519	10.9	8,495	11,478
2024	80,467	9.7	7,805	10,284	10.1	8,127	10,596	10.9	8,771	11,562
2025	83,082	9.7	8,059	10,342	10.1	8,391	10,656	10.9	9,056	11,627
2026	85,782	9.7	8,321	10,382	10.1	8,664	10,697	10.9	9,350	11,672
2027	88.570	9.7	8.591	10.402	10.1	8.946	10.717	10.9	9.654	11.694

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
			l Employer	Unfunded		l Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 66,416	11.8%	\$7,837	\$ 11,587	12.1%	\$8,036	\$ 12,042	13.4%	\$8,900	\$ 13,245
2019	68,575	11.8	8,092	11,746	12.1	8,298	12,207	13.4	9,189	13,426
2020	70,804	11.8	8,355	11,894	12.1	8,567	12,361	13.4	9,488	13,595
2021	73,105	11.8	8,626	12,030	12.1	8,846	12,502	13.4	9,796	13,750
2022	75,481	11.8	8,907	12,152	12.1	9,133	12,629	13.4	10,114	13,890
2023	77,934	11.8	9,196	12,259	12.1	9,430	12,740	13.4	10,443	14,012
2024	80,467	11.8	9,495	12,348	12.1	9,737	12,833	13.4	10,783	14,114
2025	83,082	11.8	9,804	12,418	12.1	10,053	12,906	13.4	11,133	14,194
2026	85,782	11.8	10,122	12,466	12.1	10,380	12,956	13.4	11,495	14,249
2027	88,570	11.8	10,451	12,490	12.1	10,717	12,981	13.4	11,868	14,276

- 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.



# Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS) (0% member contributions are additional)

#### Rule of 80 Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer		Unfunded	Estimated Employer		Unfunded	Estimated Employer		Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 66,416	7.3%	\$4,848	\$ 6,869	8.9%	\$5,911	\$ 8,579	8.8%	\$5,845	\$ 8,749
2019	68,575	7.3	5,006	6,963	8.9	6,103	8,697	8.8	6,035	8,869
2020	70,804	7.3	5,169	7,051	8.9	6,302	8,807	8.8	6,231	8,981
2021	73,105	7.3	5,337	7,132	8.9	6,506	8,908	8.8	6,433	9,084
2022	75,481	7.3	5,510	7,204	8.9	6,718	8,999	8.8	6,642	9,176
2023	77,934	7.3	5,689	7,267	8.9	6,936	9,078	8.8	6,858	9,257
2024	80,467	7.3	5,874	7,320	8.9	7,162	9,144	8.8	7,081	9,324
2025	83,082	7.3	6,065	7,361	8.9	7,394	9,196	8.8	7,311	9,377
2026	85,782	7.3	6,262	7,389	8.9	7,635	9,232	8.8	7,549	9,413
2027	88,570	7.3	6,466	7,403	8.9	7,883	9,250	8.8	7,794	9,431

	Estimated	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
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 66,416	10.1%	\$6,708	\$ 9,994	10.5%	\$6,974	\$ 10,312	11.3%	\$7,505	\$ 11,242
2019	68,575	10.1	6,926	10,131	10.5	7,200	10,453	11.3	7,749	11,396
2020	70,804	10.1	7,151	10,259	10.5	7,434	10,585	11.3	8,001	11,540
2021	73,105	10.1	7,384	10,376	10.5	7,676	10,706	11.3	8,261	11,672
2022	75,481	10.1	7,624	10,481	10.5	7,926	10,815	11.3	8,529	11,791
2023	77,934	10.1	7,871	10,573	10.5	8,183	10,910	11.3	8,807	11,895
2024	80,467	10.1	8,127	10,650	10.5	8,449	10,989	11.3	9,093	11,982
2025	83,082	10.1	8,391	10,710	10.5	8,724	11,051	11.3	9,388	12,050
2026	85,782	10.1	8,664	10,751	10.5	9,007	11,094	11.3	9,693	12,097
2027	88.570	10.1	8.946	10.772	10.5	9.300	11.115	11.3	10.008	12.120

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer		Unfunded	Estimated Employer		Unfunded	Estimated Employer		Unfunded
Estimated		Contribution		Actuarial	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 66,416	12.2%	\$8,103	\$ 12,025	12.6%	\$8,368	\$ 12,500	13.9%	\$9,232	\$ 13,726
2019	68,575	12.2	8,366	12,190	12.6	8,640	12,671	13.9	9,532	13,914
2020	70,804	12.2	8,638	12,344	12.6	8,921	12,831	13.9	9,842	14,089
2021	73,105	12.2	8,919	12,485	12.6	9,211	12,978	13.9	10,162	14,250
2022	75,481	12.2	9,209	12,612	12.6	9,511	13,110	13.9	10,492	14,395
2023	77,934	12.2	9,508	12,723	12.6	9,820	13,225	13.9	10,833	14,521
2024	80,467	12.2	9,817	12,816	12.6	10,139	13,321	13.9	11,185	14,627
2025	83,082	12.2	10,136	12,888	12.6	10,468	13,396	13.9	11,548	14,710
2026	85,782	12.2	10,465	12,938	12.6	10,809	13,448	13.9	11,924	14,767
2027	88,570	12.2	10,806	12,963	12.6	11,160	13,474	13.9	12,311	14,795

- 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.

