

as of December 31, 2018



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June 12, 2019

Clay County Soil and Water Conservation District Liberty, 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 December 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 Drazilor



# 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			
Benefit	Employee	Prior Service	Current	Disability	Total Employer Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	General	0.10%	4.10%	0.20%	4.40%
L-3	General	0.10	5.60	0.30	6.00
LT-4(65)	General	0.10	4.70	0.20	5.00
LT-5(65)	General	0.10	6.10	0.30	6.50
L-7	General	0.20	7.20	0.30	7.70
LT-8(65)	General	0.20	7.50	0.30	8.00
L-12	General	0.20	8.80	0.40	9.40
LT-14(65)	General	0.20	9.00	0.40	9.60
L-6	General	0.30	10.40	0.50	11.20

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



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

		Pe	Percents of Active Member Payroll		
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.10%	4.30%	0.20%	4.60%
L-3	General	0.10	5.90	0.30	6.30
LT-4(65)	General	0.10	4.90	0.20	5.20
LT-5(65)	General	0.20	6.40	0.30	6.90
L-7	General	0.20	7.60	0.30	8.10
LT-8(65)	General	0.20	7.90	0.30	8.40
L-12	General	0.20	9.20	0.40	9.80
LT-14(65)	General	0.20	9.40	0.40	10.00
L-6	General	0.30	10.90	0.50	11.70

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



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

		Percents of Active Member Payroll			roll
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.20%	7.50%	0.20%	7.90%
L-3	General	0.20	9.10	0.30	9.60
LT-4(65)	General	0.20	8.10	0.20	8.50
LT-5(65)	General	0.20	9.60	0.30	10.10
L-7	General	0.20	10.80	0.30	11.30
LT-8(65)	General	0.30	11.10	0.30	11.70
L-12	General	0.30	12.40	0.40	13.10
LT-14(65)	General	0.30	12.60	0.40	13.30
L-6	General	0.30	14.10	0.50	14.90

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



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

		Percents of Active Member Payroll			roll
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.20%	7.70%	0.20%	8.10%
L-3	General	0.20	9.40	0.30	9.90
LT-4(65)	General	0.20	8.30	0.20	8.70
LT-5(65)	General	0.20	9.90	0.30	10.40
L-7	General	0.30	11.10	0.30	11.70
LT-8(65)	General	0.30	11.40	0.30	12.00
L-12	General	0.30	12.80	0.40	13.50
LT-14(65)	General	0.30	13.00	0.40	13.70
L-6	General	0.30	14.50	0.50	15.30

<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			roll
Benefit	Employee	Prior Service Cost *	Current	Disability	Total Employer Contribution
Program	Groups	COST	Cost	Cost	Rate
L-1	General	0.10%	4.50%	0.20%	4.80%
L-3	General	0.20	6.20	0.30	6.70
LT-4(65)	General	0.20	5.70	0.20	6.10
LT-5(65)	General	0.20	7.10	0.30	7.60
L-7	General	0.20	7.90	0.30	8.40
LT-8(65)	General	0.30	8.50	0.30	9.10
L-12	General	0.30	9.60	0.40	10.30
LT-14(65)	General	0.30	9.90	0.40	10.60
L-6	General	0.30	11.30	0.50	12.10

<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.

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

		Percents of Active Member Payroll			roll
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.10%	4.80%	0.20%	5.10%
L-3	General	0.20	6.50	0.30	7.00
LT-4(65)	General	0.20	6.00	0.20	6.40
LT-5(65)	General	0.20	7.40	0.30	7.90
L-7	General	0.20	8.30	0.30	8.80
LT-8(65)	General	0.30	8.90	0.30	9.50
L-12	General	0.30	10.00	0.40	10.70
LT-14(65)	General	0.30	10.30	0.40	11.00
L-6	General	0.30	11.80	0.50	12.60

<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 - 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	0.20%	7.90%	0.20%	8.30%
L-3	General	0.20	9.70	0.30	10.20
LT-4(65)	General	0.30	9.10	0.20	9.60
LT-5(65)	General	0.30	10.60	0.30	11.20
L-7	General	0.30	11.50	0.30	12.10
LT-8(65)	General	0.30	12.00	0.30	12.60
L-12	General	0.30	13.20	0.40	13.90
LT-14(65)	General	0.40	13.50	0.40	14.30
L-6	General	0.40	15.00	0.50	15.90

<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			roll
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.20%	8.20%	0.20%	8.60%
L-3	General	0.30	10.00	0.30	10.60
LT-4(65)	General	0.30	9.40	0.20	9.90
LT-5(65)	General	0.30	10.90	0.30	11.50
L-7	General	0.30	11.80	0.30	12.40
LT-8(65)	General	0.30	12.40	0.30	13.00
L-12	General	0.40	13.60	0.40	14.40
LT-14(65)	General	0.40	13.90	0.40	14.70
L-6	General	0.40	15.50	0.50	16.40

- # 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.



# **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 Yea	5 Year FAS				
Benefit					
Program	General				
L-1	\$ 2,639				
L-3	3,599				
LT-4(65)	2,999				
LT-5(65)	3,899				
L-7	4,619				
LT-8(65)	4,799				
L-12	5,639				
LT-14(65)	5,759				
L-6	6,719				

3 Yea	nr FAS
Benefit	
Program	General
L-1	\$ 2,759
L-3	3,779
LT-4(65)	3,119
LT-5(65)	4,139
L-7	4,859
LT-8(65)	5,039
L-12	5,879
LT-14(65)	5,999
L-6	7,018

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

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 4,739			
L-3	5,759			
LT-4(65)	5,099			
LT-5(65)	6,059			
L-7	6,779			
LT-8(65)	7,018			
L-12	7,858			
LT-14(65)	7,978			
L-6	8,938			

3 Year FAS					
Benefit					
Program	General				
L-1	\$ 4,859				
L-3	5,939				
LT-4(65)	5,219				
LT-5(65)	6,239				
L-7	7,018				
LT-8(65)	7,198				
L-12	8,098				
LT-14(65)	8,218				
L-6	9,178				

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	\$ 2,879				
L-3	4,019				
LT-4(65)	3,659				
LT-5(65)	4,559				
L-7	5,039				
LT-8(65)	5,459				
L-12	6,179				
LT-14(65)	6,359				
L-6	7,258				

Ī	3 Year FAS					
	Benefit					
	Program	General				
	L-1	\$ 3,059				
	L-3	4,199				
	LT-4(65)	3,839				
	LT-5(65)	4,739				
	L-7	5,279				
	LT-8(65)	5,699				
	L-12	6,419				
	LT-14(65)	6,599				
	L-6	7,558				

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

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 4,979			
L-3	6,119			
LT-4(65)	5,759			
LT-5(65)	6,719			
L-7	7,258			
LT-8(65)	7,558			
L-12	8,338			
LT-14(65)	8,578			
L-6	9,538			

3 Year FAS					
Benefit					
Program	General				
L-1	\$ 5,159				
L-3	6,359				
LT-4(65)	5,939				
LT-5(65)	6,899				
L-7	7,438				
LT-8(65)	7,798				
L-12	8,638				
LT-14(65)	8,818				
L-6	9,838				

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	\$ 59,987

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:

#### **Clay County Soil and Water Conservation District**

		Contril	outory	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	\$ 854	\$ 907	\$ 1,758	\$ 1,815
L-3	General	1,290	1,389	2,203	2,275
LT-4(65)	General	1,109	1,165	2,014	2,085
LT-5(65)	General	1,483	1,588	2,392	2,470
L-7	General	1,772	1,893	2,622	2,715
LT-8(65)	General	1,894	2,020	2,757	2,842
L-12	General	2,271	2,395	3,069	3,168
LT-14(65)	General	2,332	2,461	3,136	3,244
L-6	General	2,734	2,871	3,508	3,625



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

		Contril	butory	Non-Con	tributory
Benefit	Employee	UAAL	UAAL	UAAL	UAAL
Group	Group	(5 Year FAS)	(3 Year FAS)	(5 Year FAS)	(3 Year FAS)
L-1	General	\$ 1,192	\$ 1,279	\$ 2,103	\$ 2,178
L-3	General	1,734	1,840	2,617	2,723
LT-4(65)	General	1,939	2,053	2,846	2,954
LT-5(65)	General	2,292	2,411	3,175	3,304
L-7	General	2,311	2,446	3,147	3,264
LT-8(65)	General	2,678	2,835	3,524	3,649
L-12	General	2,890	3,040	3,669	3,803
LT-14(65)	General	3,080	3,227	3,851	3,998
L-6	General	3,456	3,616	4,202	4,353





**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	⁄len	We	omen	P	olice	F	ire
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			<u>bers</u> 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		
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	\$ 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>quot;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 <sup>1</sup> )

Final	Estimated		Estima	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	\$ 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>&</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> )

Average Salary (FAS) <sup>1</sup> LAGERS BENEFIT <sup>3</sup> Social Security <sup>2</sup> Monthly Total \$ % of FAS           35 Years of Service:         \$1,500         \$ 788         \$ 889         \$1,677         112%           2,000         1,050         1,032         2,082         104%	
35 Years of Service: \$1,500 \$ 788 \$ 889 \$1,677 112%	
\$1,500 \$ 788 \$ 889 \$1,677 112%	
2,000 1,050 1,032 2,082 1,04%	%
2,000 1,000 1,002 2,002	%
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		
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	\$ 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		<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	\$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	e:						
\$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	<b>e</b> :						
\$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	nated	Perc	ent
Average	BENI	EFIT <sup>3</sup>	Social	Monthl	ly 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	2:						
\$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	2:						
\$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 Estimated		Percent		
Average	BENI	EFIT <sup>3</sup>	Social	Month	ly 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	<b>:</b> :						
\$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	2:						
\$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	2:						
\$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	EFIT <sup>3</sup>	Social	Month	y Total	of FAS		
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	\$ 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	e:							
\$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	e:							
\$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

#### **December 31, 2018**

## By Attained Age and Years of Service

		Yea	ars of Se		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									
30-34	1							1	\$ 32,136
35-39									
40-44									
45-49									
50-54									
55-59	1							1	\$ 27,851
60-64									
65-69									
70 & Over									
Totals	2							2	\$ 59,987

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

Age: 42.5 years.

Benefit Service: 0.0 years. Annual Pay: \$29,994.





**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.





June 12, 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 December 31, 2018 Initial Actuarial Valuation of LAGERS benefits for the employees of

Clay County Soil and Water Conservation District

Sincerely,

Mita D. Drazilov, ASA, FCA, MAAA

Mita Drazilor

MDD:wp



June 12, 2019

Clay County Soil and Water Conservation District Liberty, 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 December 31, 2018 Initial Valuation for the Clay County Soil and Water Conservation District dated June 12, 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			3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	Contribution		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	\$ 59,987	4.4%	\$2,639	\$ 854	6.0%	\$3,599	\$ 1,290	5.0%	\$2,999	\$ 1,109
2019	61,937	4.4	2,725	866	6.0	3,716	1,308	5.0	3,097	1,124
2020	63,950	4.4	2,814	877	6.0	3,837	1,324	5.0	3,198	1,138
2021	66,028	4.4	2,905	887	6.0	3,962	1,339	5.0	3,301	1,151
2022	68,174	4.4	3,000	896	6.0	4,090	1,353	5.0	3,409	1,163
2023	70,390	4.4	3,097	904	6.0	4,223	1,365	5.0	3,520	1,173
2024	72,678	4.4	3,198	911	6.0	4,361	1,375	5.0	3,634	1,182
2025	75,040	4.4	3,302	916	6.0	4,502	1,383	5.0	3,752	1,189
2026	77,479	4.4	3,409	920	6.0	4,649	1,388	5.0	3,874	1,194
2027	79,997	4.4	3,520	922	6.0	4,800	1,391	5.0	4,000	1,196

			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	\$ 59,987	6.5%	\$3,899	\$ 1,483	7.7%	\$4,619	\$ 1,772	8.0%	\$4,799	\$ 1,894	
2019	61,937	6.5	4,026	1,503	7.7	4,769	1,796	8.0	4,955	1,920	
2020	63,950	6.5	4,157	1,522	7.7	4,924	1,819	8.0	5,116	1,944	
2021	66,028	6.5	4,292	1,539	7.7	5,084	1,840	8.0	5,282	1,966	
2022	68,174	6.5	4,431	1,555	7.7	5,249	1,859	8.0	5,454	1,986	
2023	70,390	6.5	4,575	1,569	7.7	5,420	1,875	8.0	5,631	2,003	
2024	72,678	6.5	4,724	1,580	7.7	5,596	1,889	8.0	5,814	2,018	
2025	75,040	6.5	4,878	1,589	7.7	5,778	1,900	8.0	6,003	2,029	
2026	77,479	6.5	5,036	1,595	7.7	5,966	1,907	8.0	6,198	2,037	
2027	79.997	6.5	5.200	1.598	7.7	6.160	1.911	8.0	6.400	2.041	

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		Estimated Employer Contribution		Estimated Employer Contribution		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	\$ 59,987	9.4%	\$5,639	\$ 2,271	9.6%	\$5,759	\$ 2,332	11.2%	\$6,719	\$ 2,734
2019	61,937	9.4	5,822	2,302	9.6	5,946	2,364	11.2	6,937	2,771
2020	63,950	9.4	6,011	2,331	9.6	6,139	2,394	11.2	7,162	2,806
2021	66,028	9.4	6,207	2,358	9.6	6,339	2,421	11.2	7,395	2,838
2022	68,174	9.4	6,408	2,382	9.6	6,545	2,446	11.2	7,635	2,867
2023	70,390	9.4	6,617	2,403	9.6	6,757	2,467	11.2	7,884	2,892
2024	72,678	9.4	6,832	2,421	9.6	6,977	2,485	11.2	8,140	2,913
2025	75,040	9.4	7,054	2,435	9.6	7,204	2,499	11.2	8,404	2,929
2026	77,479	9.4	7,283	2,444	9.6	7,438	2,509	11.2	8,678	2,940
2027	79,997	9.4	7,520	2,449	9.6	7,680	2,514	11.2	8,960	2,946

- 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 Pro	gram	L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l 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	\$ 59,987	4.6%	\$2,759	\$ 907	6.3%	\$3,779	\$ 1,389	5.2%	\$3,119	\$ 1,165
2019	61,937	4.6	2,849	919	6.3	3,902	1,408	5.2	3,221	1,181
2020	63,950	4.6	2,942	931	6.3	4,029	1,426	5.2	3,325	1,196
2021	66,028	4.6	3,037	942	6.3	4,160	1,442	5.2	3,433	1,210
2022	68,174	4.6	3,136	952	6.3	4,295	1,457	5.2	3,545	1,222
2023	70,390	4.6	3,238	960	6.3	4,435	1,470	5.2	3,660	1,233
2024	72,678	4.6	3,343	967	6.3	4,579	1,481	5.2	3,779	1,242
2025	75,040	4.6	3,452	972	6.3	4,728	1,489	5.2	3,902	1,249
2026	77,479	4.6	3,564	976	6.3	4,881	1,495	5.2	4,029	1,254
2027	79,997	4.6	3,680	978	6.3	5,040	1,498	5.2	4,160	1,256

			LT-5(65) Benefit Program			7 Benefit Pro	gram	LT-8(65) Benefit Program		
	Faktor ak a d	Estimated Employer Contribution		Unfunded		d Employer	Unfunded	Estimated Employer Contribution		Unfunded Actuarial
	Estimated			Actuarial		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	\$ 59,987	6.9%	\$4,139	\$ 1,588	8.1%	\$4,859	\$ 1,893	8.4%	\$5,039	\$ 2,020
2019	61,937	6.9	4,274	1,610	8.1	5,017	1,919	8.4	5,203	2,048
2020	63,950	6.9	4,413	1,630	8.1	5,180	1,943	8.4	5,372	2,074
2021	66,028	6.9	4,556	1,649	8.1	5,348	1,965	8.4	5,546	2,098
2022	68,174	6.9	4,704	1,666	8.1	5,522	1,985	8.4	5,727	2,119
2023	70,390	6.9	4,857	1,681	8.1	5,702	2,002	8.4	5,913	2,138
2024	72,678	6.9	5,015	1,693	8.1	5,887	2,017	8.4	6,105	2,154
2025	75,040	6.9	5,178	1,703	8.1	6,078	2,028	8.4	6,303	2,166
2026	77,479	6.9	5,346	1,710	8.1	6,276	2,036	8.4	6,508	2,174
2027	79 997	6.9	5 520	1 713	8.1	6.480	2 040	8.4	6.720	2 178

		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	\$ 59,987	9.8%	\$5,879	\$ 2,395	10.0%	\$5,999	\$ 2,461	11.7%	\$7,018	\$ 2,871
2019	61,937	9.8	6,070	2,428	10.0	6,194	2,495	11.7	7,247	2,910
2020	63,950	9.8	6,267	2,459	10.0	6,395	2,526	11.7	7,482	2,947
2021	66,028	9.8	6,471	2,487	10.0	6,603	2,555	11.7	7,725	2,981
2022	68,174	9.8	6,681	2,512	10.0	6,817	2,581	11.7	7,976	3,011
2023	70,390	9.8	6,898	2,534	10.0	7,039	2,604	11.7	8,236	3,037
2024	72,678	9.8	7,122	2,552	10.0	7,268	2,623	11.7	8,503	3,059
2025	75,040	9.8	7,354	2,566	10.0	7,504	2,638	11.7	8,780	3,076
2026	77,479	9.8	7,593	2,576	10.0	7,748	2,648	11.7	9,065	3,088
2027	79,997	9.8	7,840	2,581	10.0	8,000	2,653	11.7	9,360	3,094

- 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	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	Contribution		Contribution		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	\$ 59,987	7.9%	\$4,739	\$ 1,758	9.6%	\$5,759	\$ 2,203	8.5%	\$5,099	\$ 2,014
2019	61,937	7.9	4,893	1,782	9.6	5,946	2,233	8.5	5,265	2,042
2020	63,950	7.9	5,052	1,804	9.6	6,139	2,261	8.5	5,436	2,068
2021	66,028	7.9	5,216	1,825	9.6	6,339	2,287	8.5	5,612	2,092
2022	68,174	7.9	5,386	1,844	9.6	6,545	2,310	8.5	5,795	2,113
2023	70,390	7.9	5,561	1,860	9.6	6,757	2,330	8.5	5,983	2,132
2024	72,678	7.9	5,742	1,874	9.6	6,977	2,347	8.5	6,178	2,148
2025	75,040	7.9	5,928	1,885	9.6	7,204	2,360	8.5	6,378	2,160
2026	77,479	7.9	6,121	1,892	9.6	7,438	2,369	8.5	6,586	2,168
2027	79,997	7.9	6,320	1,896	9.6	7,680	2,374	8.5	6,800	2,172

			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	\$ 59,987	10.1%	\$6,059	\$ 2,392	11.3%	\$6,779	\$ 2,622	11.7%	\$7,018	\$ 2,757	
2019	61,937	10.1	6,256	2,425	11.3	6,999	2,658	11.7	7,247	2,795	
2020	63,950	10.1	6,459	2,456	11.3	7,226	2,692	11.7	7,482	2,830	
2021	66,028	10.1	6,669	2,484	11.3	7,461	2,723	11.7	7,725	2,862	
2022	68,174	10.1	6,886	2,509	11.3	7,704	2,751	11.7	7,976	2,891	
2023	70,390	10.1	7,109	2,531	11.3	7,954	2,775	11.7	8,236	2,916	
2024	72,678	10.1	7,340	2,549	11.3	8,213	2,795	11.7	8,503	2,937	
2025	75,040	10.1	7,579	2,563	11.3	8,480	2,811	11.7	8,780	2,954	
2026	77,479	10.1	7,825	2,573	11.3	8,755	2,822	11.7	9,065	2,965	
2027	79.997	10.1	8.080	2.578	11.3	9.040	2.827	11.7	9.360	2.971	

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated	Estimated Employer imated 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	\$ 59,987	13.1%	\$7,858	\$ 3,069	13.3%	\$7,978	\$ 3,136	14.9%	\$8,938	\$ 3,508
2019	61,937	13.1	8,114	3,111	13.3	8,238	3,179	14.9	9,229	3,556
2020	63,950	13.1	8,377	3,150	13.3	8,505	3,219	14.9	9,529	3,601
2021	66,028	13.1	8,650	3,186	13.3	8,782	3,256	14.9	9,838	3,642
2022	68,174	13.1	8,931	3,218	13.3	9,067	3,289	14.9	10,158	3,679
2023	70,390	13.1	9,221	3,246	13.3	9,362	3,318	14.9	10,488	3,711
2024	72,678	13.1	9,521	3,270	13.3	9,666	3,342	14.9	10,829	3,738
2025	75,040	13.1	9,830	3,288	13.3	9,980	3,361	14.9	11,181	3,759
2026	77,479	13.1	10,150	3,301	13.3	10,305	3,374	14.9	11,544	3,774
2027	79,997	13.1	10,480	3,307	13.3	10,640	3,380	14.9	11,920	3,781

- 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	bution	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	\$ 59,987	8.1%	\$4,859	\$ 1,815	9.9%	\$5,939	\$ 2,275	8.7%	\$5,219	\$ 2,085
2019	61,937	8.1	5,017	1,840	9.9	6,132	2,306	8.7	5,389	2,114
2020	63,950	8.1	5,180	1,863	9.9	6,331	2,335	8.7	5,564	2,141
2021	66,028	8.1	5,348	1,884	9.9	6,537	2,362	8.7	5,744	2,165
2022	68,174	8.1	5,522	1,903	9.9	6,749	2,386	8.7	5,931	2,187
2023	70,390	8.1	5,702	1,920	9.9	6,969	2,407	8.7	6,124	2,206
2024	72,678	8.1	5,887	1,934	9.9	7,195	2,425	8.7	6,323	2,222
2025	75,040	8.1	6,078	1,945	9.9	7,429	2,439	8.7	6,528	2,235
2026	77,479	8.1	6,276	1,953	9.9	7,670	2,448	8.7	6,741	2,244
2027	79,997	8.1	6,480	1,957	9.9	7,920	2,453	8.7	6,960	2,248

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		Estimated Employer Contribution			d 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	\$ 59,987	10.4%	\$6,239	\$ 2,470	11.7%	\$7,018	\$ 2,715	12.0%	\$7,198	\$ 2,842	
2019	61,937	10.4	6,441	2,504	11.7	7,247	2,752	12.0	7,432	2,881	
2020	63,950	10.4	6,651	2,536	11.7	7,482	2,787	12.0	7,674	2,917	
2021	66,028	10.4	6,867	2,565	11.7	7,725	2,819	12.0	7,923	2,950	
2022	68,174	10.4	7,090	2,591	11.7	7,976	2,848	12.0	8,181	2,980	
2023	70,390	10.4	7,321	2,614	11.7	8,236	2,873	12.0	8,447	3,006	
2024	72,678	10.4	7,559	2,633	11.7	8,503	2,894	12.0	8,721	3,028	
2025	75,040	10.4	7,804	2,648	11.7	8,780	2,910	12.0	9,005	3,045	
2026	77,479	10.4	8,058	2,658	11.7	9,065	2,921	12.0	9,297	3,057	
2027	79.997	10.4	8.320	2.663	11.7	9.360	2.927	12.0	9.600	3.063	

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
	Estimated		l Employer ibution	Unfunded Actuarial		d 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	\$ 59,987	13.5%	\$8,098	\$ 3,168	13.7%	\$8,218	\$ 3,244	15.3%	\$9,178	\$ 3,625
2019	61,937	13.5	8,361	3,211	13.7	8,485	3,288	15.3	9,476	3,675
2020	63,950	13.5	8,633	3,251	13.7	8,761	3,329	15.3	9,784	3,721
2021	66,028	13.5	8,914	3,288	13.7	9,046	3,367	15.3	10,102	3,764
2022	68,174	13.5	9,203	3,321	13.7	9,340	3,401	15.3	10,431	3,802
2023	70,390	13.5	9,503	3,350	13.7	9,643	3,431	15.3	10,770	3,835
2024	72,678	13.5	9,812	3,374	13.7	9,957	3,456	15.3	11,120	3,863
2025	75,040	13.5	10,130	3,393	13.7	10,280	3,476	15.3	11,481	3,885
2026	77,479	13.5	10,460	3,406	13.7	10,615	3,489	15.3	11,854	3,900
2027	79,997	13.5	10,800	3,413	13.7	10,960	3,496	15.3	12,240	3,907

- 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	\$ 59,987	4.8%	\$2,879	\$ 1,192	6.7%	\$4,019	\$ 1,734	6.1%	\$3,659	\$ 1,939
2019	61,937	4.8	2,973	1,208	6.7	4,150	1,758	6.1	3,778	1,966
2020	63,950	4.8	3,070	1,223	6.7	4,285	1,780	6.1	3,901	1,991
2021	66,028	4.8	3,169	1,237	6.7	4,424	1,800	6.1	4,028	2,014
2022	68,174	4.8	3,272	1,250	6.7	4,568	1,818	6.1	4,159	2,034
2023	70,390	4.8	3,379	1,261	6.7	4,716	1,834	6.1	4,294	2,052
2024	72,678	4.8	3,489	1,270	6.7	4,869	1,847	6.1	4,433	2,067
2025	75,040	4.8	3,602	1,277	6.7	5,028	1,857	6.1	4,577	2,079
2026	77,479	4.8	3,719	1,282	6.7	5,191	1,864	6.1	4,726	2,087
2027	79,997	4.8	3,840	1,284	6.7	5,360	1,868	6.1	4,880	2,091

	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		d Employer ibution	Unfunded Actuarial		d Employer ibution	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	\$ 59,987	7.6%	\$4,559	\$ 2,292	8.4%	\$5,039	\$ 2,311	9.1%	\$5,459	\$ 2,678
2019	61,937	7.6	4,707	2,323	8.4	5,203	2,343	9.1	5,636	2,715
2020	63,950	7.6	4,860	2,352	8.4	5,372	2,373	9.1	5,819	2,749
2021	66,028	7.6	5,018	2,379	8.4	5,546	2,400	9.1	6,009	2,780
2022	68,174	7.6	5,181	2,403	8.4	5,727	2,424	9.1	6,204	2,808
2023	70,390	7.6	5,350	2,424	8.4	5,913	2,445	9.1	6,405	2,833
2024	72,678	7.6	5,524	2,442	8.4	6,105	2,463	9.1	6,614	2,854
2025	75,040	7.6	5,703	2,456	8.4	6,303	2,477	9.1	6,829	2,870
2026	77,479	7.6	5,888	2,465	8.4	6,508	2,487	9.1	7,051	2,881
2027	79,997	7.6	6,080	2,470	8.4	6,720	2,492	9.1	7,280	2,887

		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	\$ 59,987	10.3%	\$6,179	\$ 2,890	10.6%	\$6,359	\$ 3,080	12.1%	\$7,258	\$ 3,456
2019	61,937	10.3	6,380	2,930	10.6	6,565	3,122	12.1	7,494	3,503
2020	63,950	10.3	6,587	2,967	10.6	6,779	3,161	12.1	7,738	3,547
2021	66,028	10.3	6,801	3,001	10.6	6,999	3,197	12.1	7,989	3,588
2022	68,174	10.3	7,022	3,031	10.6	7,226	3,229	12.1	8,249	3,624
2023	70,390	10.3	7,250	3,058	10.6	7,461	3,257	12.1	8,517	3,656
2024	72,678	10.3	7,486	3,080	10.6	7,704	3,281	12.1	8,794	3,683
2025	75,040	10.3	7,729	3,097	10.6	7,954	3,300	12.1	9,080	3,704
2026	77,479	10.3	7,980	3,109	10.6	8,213	3,313	12.1	9,375	3,718
2027	79,997	10.3	8,240	3,115	10.6	8,480	3,319	12.1	9,680	3,725

- 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 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	\$ 59,987	5.1%	\$3,059	\$ 1,279	7.0%	\$4,199	\$ 1,840	6.4%	\$3,839	\$ 2,053
2019	61,937	5.1	3,159	1,297	7.0	4,336	1,865	6.4	3,964	2,081
2020	63,950	5.1	3,261	1,313	7.0	4,477	1,889	6.4	4,093	2,107
2021	66,028	5.1	3,367	1,328	7.0	4,622	1,911	6.4	4,226	2,131
2022	68,174	5.1	3,477	1,341	7.0	4,772	1,930	6.4	4,363	2,153
2023	70,390	5.1	3,590	1,353	7.0	4,927	1,947	6.4	4,505	2,172
2024	72,678	5.1	3,707	1,363	7.0	5,087	1,961	6.4	4,651	2,188
2025	75,040	5.1	3,827	1,371	7.0	5,253	1,972	6.4	4,803	2,200
2026	77,479	5.1	3,951	1,376	7.0	5,424	1,980	6.4	4,959	2,209
2027	79,997	5.1	4,080	1,379	7.0	5,600	1,984	6.4	5,120	2,213

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
	Estimated		d 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	\$ 59,987	7.9%	\$4,739	\$ 2,411	8.8%	\$5,279	\$ 2,446	9.5%	\$5,699	\$ 2,835
2019	61,937	7.9	4,893	2,444	8.8	5,450	2,480	9.5	5,884	2,874
2020	63,950	7.9	5,052	2,475	8.8	5,628	2,511	9.5	6,075	2,910
2021	66,028	7.9	5,216	2,503	8.8	5,810	2,540	9.5	6,273	2,943
2022	68,174	7.9	5,386	2,528	8.8	5,999	2,566	9.5	6,477	2,973
2023	70,390	7.9	5,561	2,550	8.8	6,194	2,589	9.5	6,687	2,999
2024	72,678	7.9	5,742	2,569	8.8	6,396	2,608	9.5	6,904	3,021
2025	75,040	7.9	5,928	2,584	8.8	6,604	2,623	9.5	7,129	3,038
2026	77,479	7.9	6,121	2,594	8.8	6,818	2,633	9.5	7,361	3,050
2027	79.997	7.9	6.320	2.599	8.8	7.040	2.638	9.5	7.600	3.056

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated	Estimated Employer Contribution		Unfunded Actuarial		d 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	\$ 59,987	10.7%	\$6,419	\$ 3,040	11.0%	\$6,599	\$ 3,227	12.6%	\$7,558	\$ 3,616
2019	61,937	10.7	6,627	3,082	11.0	6,813	3,271	12.6	7,804	3,666
2020	63,950	10.7	6,843	3,121	11.0	7,035	3,312	12.6	8,058	3,712
2021	66,028	10.7	7,065	3,157	11.0	7,263	3,350	12.6	8,320	3,754
2022	68,174	10.7	7,295	3,189	11.0	7,499	3,384	12.6	8,590	3,792
2023	70,390	10.7	7,532	3,217	11.0	7,743	3,414	12.6	8,869	3,825
2024	72,678	10.7	7,777	3,240	11.0	7,995	3,439	12.6	9,157	3,853
2025	75,040	10.7	8,029	3,258	11.0	8,254	3,458	12.6	9,455	3,875
2026	77,479	10.7	8,290	3,271	11.0	8,523	3,471	12.6	9,762	3,890
2027	79,997	10.7	8,560	3,277	11.0	8,800	3,478	12.6	10,080	3,897

- 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 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	Contri	ibution	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	\$ 59,987	8.3%	\$4,979	\$ 2,103	10.2%	\$6,119	\$ 2,617	9.6%	\$5,759	\$ 2,846
2019	61,937	8.3	5,141	2,132	10.2	6,318	2,653	9.6	5,946	2,885
2020	63,950	8.3	5,308	2,159	10.2	6,523	2,686	9.6	6,139	2,921
2021	66,028	8.3	5,480	2,184	10.2	6,735	2,717	9.6	6,339	2,954
2022	68,174	8.3	5,658	2,206	10.2	6,954	2,745	9.6	6,545	2,984
2023	70,390	8.3	5,842	2,225	10.2	7,180	2,769	9.6	6,757	3,010
2024	72,678	8.3	6,032	2,241	10.2	7,413	2,789	9.6	6,977	3,032
2025	75,040	8.3	6,228	2,254	10.2	7,654	2,805	9.6	7,204	3,049
2026	77,479	8.3	6,431	2,263	10.2	7,903	2,816	9.6	7,438	3,061
2027	79,997	8.3	6,640	2,267	10.2	8,160	2,821	9.6	7,680	3,067

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		Estimated Employer Contribution			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	\$ 59,987	11.2%	\$6,719	\$ 3,175	12.1%	\$7,258	\$ 3,147	12.6%	\$7,558	\$ 3,524
2019	61,937	11.2	6,937	3,218	12.1	7,494	3,190	12.6	7,804	3,572
2020	63,950	11.2	7,162	3,259	12.1	7,738	3,230	12.6	8,058	3,617
2021	66,028	11.2	7,395	3,296	12.1	7,989	3,267	12.6	8,320	3,658
2022	68,174	11.2	7,635	3,329	12.1	8,249	3,300	12.6	8,590	3,695
2023	70,390	11.2	7,884	3,358	12.1	8,517	3,329	12.6	8,869	3,727
2024	72,678	11.2	8,140	3,382	12.1	8,794	3,353	12.6	9,157	3,754
2025	75,040	11.2	8,404	3,401	12.1	9,080	3,372	12.6	9,455	3,775
2026	77,479	11.2	8,678	3,414	12.1	9,375	3,385	12.6	9,762	3,790
2027	79.997	11.2	8.960	3.421	12.1	9.680	3.391	12.6	10.080	3.797

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit F	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	\$ 59,987	13.9%	\$8,338	\$ 3,669	14.3%	\$8,578	\$ 3,851	15.9%	\$9,538	\$ 4,202
2019	61,937	13.9	8,609	3,719	14.3	8,857	3,904	15.9	9,848	4,260
2020	63,950	13.9	8,889	3,766	14.3	9,145	3,953	15.9	10,168	4,314
2021	66,028	13.9	9,178	3,809	14.3	9,442	3,998	15.9	10,498	4,363
2022	68,174	13.9	9,476	3,848	14.3	9,749	4,039	15.9	10,840	4,407
2023	70,390	13.9	9,784	3,882	14.3	10,066	4,074	15.9	11,192	4,446
2024	72,678	13.9	10,102	3,910	14.3	10,393	4,104	15.9	11,556	4,478
2025	75,040	13.9	10,431	3,932	14.3	10,731	4,127	15.9	11,931	4,503
2026	77,479	13.9	10,770	3,947	14.3	11,079	4,143	15.9	12,319	4,520
2027	79,997	13.9	11,120	3,955	14.3	11,440	4,151	15.9	12,720	4,529

- 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	\$ 59,987	8.6%	\$5,159	\$ 2,178	10.6%	\$6,359	\$ 2,723	9.9%	\$5,939	\$ 2,954
2019	61,937	8.6	5,327	2,208	10.6	6,565	2,760	9.9	6,132	2,994
2020	63,950	8.6	5,500	2,236	10.6	6,779	2,795	9.9	6,331	3,032
2021	66,028	8.6	5,678	2,262	10.6	6,999	2,827	9.9	6,537	3,067
2022	68,174	8.6	5,863	2,285	10.6	7,226	2,856	9.9	6,749	3,098
2023	70,390	8.6	6,054	2,305	10.6	7,461	2,881	9.9	6,969	3,125
2024	72,678	8.6	6,250	2,322	10.6	7,704	2,902	9.9	7,195	3,148
2025	75,040	8.6	6,453	2,335	10.6	7,954	2,918	9.9	7,429	3,166
2026	77,479	8.6	6,663	2,344	10.6	8,213	2,929	9.9	7,670	3,178
2027	79,997	8.6	6,880	2,348	10.6	8,480	2,935	9.9	7,920	3,184

	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
Valuation Year		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	\$ 59,987	11.5%	\$6,899	\$ 3,304	12.4%	\$7,438	\$ 3,264	13.0%	\$7,798	\$ 3,649
2019	61,937	11.5	7,123	3,349	12.4	7,680	3,309	13.0	8,052	3,699
2020	63,950	11.5	7,354	3,391	12.4	7,930	3,351	13.0	8,314	3,746
2021	66,028	11.5	7,593	3,430	12.4	8,187	3,389	13.0	8,584	3,789
2022	68,174	11.5	7,840	3,465	12.4	8,454	3,423	13.0	8,863	3,827
2023	70,390	11.5	8,095	3,495	12.4	8,728	3,453	13.0	9,151	3,861
2024	72,678	11.5	8,358	3,520	12.4	9,012	3,478	13.0	9,448	3,889
2025	75,040	11.5	8,630	3,540	12.4	9,305	3,498	13.0	9,755	3,911
2026	77,479	11.5	8,910	3,554	12.4	9,607	3,512	13.0	10,072	3,926
2027	79.997	11.5	9.200	3.561	12.4	9.920	3.519	13.0	10.400	3,933

	Estimated	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
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	\$ 59,987	14.4%	\$8,638	\$ 3,803	14.7%	\$8,818	\$ 3,998	16.4%	\$9,838	\$ 4,353
2019	61,937	14.4	8,919	3,855	14.7	9,105	4,053	16.4	10,158	4,413
2020	63,950	14.4	9,209	3,904	14.7	9,401	4,104	16.4	10,488	4,469
2021	66,028	14.4	9,508	3,949	14.7	9,706	4,151	16.4	10,829	4,520
2022	68,174	14.4	9,817	3,989	14.7	10,022	4,193	16.4	11,181	4,566
2023	70,390	14.4	10,136	4,024	14.7	10,347	4,230	16.4	11,544	4,606
2024	72,678	14.4	10,466	4,053	14.7	10,684	4,261	16.4	11,919	4,640
2025	75,040	14.4	10,806	4,076	14.7	11,031	4,285	16.4	12,307	4,666
2026	77,479	14.4	11,157	4,092	14.7	11,389	4,302	16.4	12,707	4,684
2027	79,997	14.4	11,520	4,100	14.7	11,760	4,310	16.4	13,120	4,693

- 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.

