

as of July 31, 2019



## **Table of Contents**

	Page
actuary's Certification Letter	1
lternate Plans Available	3
mployer Contribution Rates	
Regular Eligibility: Contributory Plan	4
Non-Contributory Plan	6
Rule of 80 Eligibility: Contributory Plan	8
Non-Contributory Plan	10
mployer Contribution Dollars	12
ppendix I	
Unfunded Actuarial Accrued Liability	15
ppendix II	
Summary of Financial Assumptions	17
ppendix III	
Summary of LAGERS Provisions	21
ppendix IV	
Benefit Illustrations	24
ppendix V	
Age and Service Characteristics of Employees	33
ppendix VI	
Pick Commentany	24





March 10, 2020

Buchanan County Soil and Water Conservation District Saint Joseph, 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, 2019.

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, 2019. 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 Draylor



# 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			roll
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
	Gloups				nace
L-1	General	0.50%	2.00%	0.20%	2.70%
L-3	General	0.70	3.00	0.30	4.00
LT-4(65)	General	0.60	2.50	0.20	3.30
LT-5(65)	General	0.80	3.40	0.30	4.50
L-7	General	0.90	4.20	0.30	5.40
LT-8(65)	General	1.00	4.40	0.30	5.70
L-12	General	1.20	5.20	0.40	6.80
LT-14(65)	General	1.20	5.30	0.40	6.90
L-6	General	1.40	6.40	0.50	8.30

<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	0.60%	2.20%	0.20%	3.00%
L-3	General	0.80	3.20	0.30	4.30
LT-4(65)	General	0.60	2.70	0.20	3.50
LT-5(65)	General	0.80	3.60	0.30	4.70
L-7	General	1.00	4.40	0.30	5.70
LT-8(65)	General	1.00	4.70	0.30	6.00
L-12	General	1.20	5.50	0.40	7.10
LT-14(65)	General	1.20	5.70	0.40	7.30
L-6	General	1.40	6.70	0.50	8.60

<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	0.70%	5.50%	0.20%	6.40%
L-3	General	0.90	6.70	0.30	7.90
LT-4(65)	General	0.80	6.00	0.20	7.00
LT-5(65)	General	1.00	7.00	0.30	8.30
L-7	General	1.10	7.90	0.30	9.30
LT-8(65)	General	1.20	8.10	0.30	9.60
L-12	General	1.30	9.00	0.40	10.70
LT-14(65)	General	1.30	9.10	0.40	10.80
L-6	General	1.50	10.20	0.50	12.20

<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	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
Program	Gloups	Cost	Cost	Cost	nate
L-1	General	0.80%	5.70%	0.20%	6.70%
L-3	General	1.00	6.90	0.30	8.20
LT-4(65)	General	0.90	6.20	0.20	7.30
LT-5(65)	General	1.00	7.30	0.30	8.60
L-7	General	1.20	8.10	0.30	9.60
LT-8(65)	General	1.20	8.40	0.30	9.90
L-12	General	1.30	9.30	0.40	11.00
LT-14(65)	General	1.40	9.40	0.40	11.20
L-6	General	1.50	10.50	0.50	12.50

<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	0.60%	2.80%	0.20%	3.60%
L-3	General	0.90	4.00	0.30	5.20
LT-4(65)	General	0.90	4.30	0.20	5.40
LT-5(65)	General	1.10	5.10	0.30	6.50
L-7	General	1.10	5.30	0.30	6.70
LT-8(65)	General	1.30	5.90	0.30	7.50
L-12	General	1.40	6.50	0.40	8.30
LT-14(65)	General	1.40	7.00	0.40	8.80
L-6	General	1.60	7.90	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.



# 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	0.70%	3.00%	0.20%	3.90%
L-3	General	0.90	4.20	0.30	5.40
LT-4(65)	General	1.00	4.50	0.20	5.70
LT-5(65)	General	1.20	5.40	0.30	6.90
L-7	General	1.20	5.50	0.30	7.00
LT-8(65)	General	1.30	6.30	0.30	7.90
L-12	General	1.40	6.90	0.40	8.70
LT-14(65)	General	1.50	7.30	0.40	9.20
L-6	General	1.70	8.30	0.50	10.50

- # 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 (Non-Contributory Plan - 5 Year FAS) (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	0.90%	6.30%	0.20%	7.40%
L-3	General	1.10	7.60	0.30	9.00
LT-4(65)	General	1.10	7.70	0.20	9.00
LT-5(65)	General	1.30	8.70	0.30	10.30
L-7	General	1.30	9.00	0.30	10.60
LT-8(65)	General	1.40	9.70	0.30	11.40
L-12	General	1.50	10.30	0.40	12.20
LT-14(65)	General	1.60	10.70	0.40	12.70
L-6	General	1.70	11.70	0.50	13.90

<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.

# Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS) (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	0.90%	6.50%	0.20%	7.60%
L-3	General	1.10	7.90	0.30	9.30
LT-4(65)	General	1.20	8.00	0.20	9.40
LT-5(65)	General	1.30	9.00	0.30	10.60
L-7	General	1.30	9.30	0.30	10.90
LT-8(65)	General	1.50	10.00	0.30	11.80
L-12	General	1.50	10.70	0.40	12.60
LT-14(65)	General	1.60	11.10	0.40	13.10
L-6	General	1.80	12.10	0.50	14.40

- # 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	r FAS
Benefit	
Program	General
L-1	\$ 1,586
L-3	2,350
LT-4(65)	1,938
LT-5(65)	2,643
L-7	3,172
LT-8(65)	3,348
L-12	3,994
LT-14(65)	4,053
L-6	4,876

3 Yea	r FAS
Benefit	
Program	General
L-1	\$ 1,762
L-3	2,526
LT-4(65)	2,056
LT-5(65)	2,761
L-7	3,348
LT-8(65)	3,525
L-12	4,171
LT-14(65)	4,288
L-6	5,052

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

5 Year FAS		
Benefit		
Program	General	
L-1	\$ 3,759	
L-3	4,641	
LT-4(65)	4,112	
LT-5(65)	4,876	
L-7	5,463	
LT-8(65)	5,639	
L-12	6,285	
LT-14(65)	6,344	
L-6	7,167	

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 3,936			
L-3	4,817			
LT-4(65)	4,288			
LT-5(65)	5,052			
L-7	5,639			
LT-8(65)	5,815			
L-12	6,462			
LT-14(65)	6,579			
L-6	7,343			

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	\$ 2,115			
L-3	3,055			
LT-4(65)	3,172			
LT-5(65)	3,818			
L-7	3,936			
LT-8(65)	4,406			
L-12	4,876			
LT-14(65)	5,169			
L-6	5,874			

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 2,291			
L-3	3,172			
LT-4(65)	3,348			
LT-5(65)	4,053			
L-7	4,112			
LT-8(65)	4,641			
L-12	5,111			
LT-14(65)	5,404			
L-6	6,168			

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

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 4,347			
L-3	5,287			
LT-4(65)	5,287			
LT-5(65)	6,050			
L-7	6,227			
LT-8(65)	6,697			
L-12	7,167			
LT-14(65)	7,460			
L-6	8,165			

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 4,464			
L-3	5,463			
LT-4(65)	5,522			
LT-5(65)	6,227			
L-7	6,403			
LT-8(65)	6,932			
L-12	7,401			
LT-14(65)	7,695			
L-6	8,459			

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	\$ 58,742

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:

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

		Contril	butory	Non-Con	tributory
Benefit Group	Employee Group	UAAL UAAL (5 Year FAS)		UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 5,395	\$ 5,696	\$ 7,693	\$ 7,927
L-3	General	7,568	7,971	9,607	9,936
LT-4(65)	General	6,349	6,702	8,650	8,926
LT-5(65)	General	8,287	8,708	10,344	10,669
L-7	General	9,815	10,271	11,518	11,915
LT-8(65)	General	10,296	10,770	11,990	12,414
L-12	General	11,980	12,496	13,460	13,905
LT-14(65)	General	12,227	12,744	13,702	14,147
L-6	General	14,074	14,636	15,390	15,878



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

		Contri	butory	Non-Con	tributory
Benefit	Employee	UAAL (E Voor EAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
Group	Group	(5 Year FAS)	(5 fear FAS)	(5 fear FAS)	(5 fear FAS)
L-1	General	\$ 6,667	\$ 7,028	\$ 8,865	\$ 9,180
L-3	General	9,134	9,629	11,063	11,467
LT-4(65)	General	9,654	10,140	11,845	12,272
LT-5(65)	General	11,389	11,946	13,307	13,789
L-7	General	11,673	12,217	13,280	13,739
LT-8(65)	General	13,167	13,759	14,769	15,286
L-12	General	14,128	14,733	15,496	16,032
LT-14(65)	General	14,870	15,509	16,241	16,809
L-6	General	16,511	17,196	17,725	18,320





**SUMMARY OF FINANCIAL ASSUMPTIONS** 

### **Summary of Assumptions Used in Actuarial Valuations**

### **Assumptions Adopted by Board of Trustees After Consulting With Actuary**

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



#### Schedule 1.

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

Percent of Active Members Separating Within Next Year

	·	General Members							
Sample	Years of	N	Men Women Police		Women		olice	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	<b>During Next Year</b>					
Ages	General & Police	Fire				
25	6.55%	7.15%				
30	5.75	6.05				
35	5.25	5.15				
40	4.75	4.45				
45	4.25	4.15				
50	3.85	3.85				
55	3.65	3.65				
60	3.55	3.25				
65	3.25	3.25				



#### Schedule 2.

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

### **Early Retirement**

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

#### **Normal Retirement**

Retirement	General	Members	Retirement		
Ages	Men	Women	Ages	Police	Fire
60	10%	10%	55	10%	13%
61	10	10	56	10	13
62	25	15	57	10	13
63	20	15	58	10	13
64	20	15	59	10	13
65 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, 2019 (Section references are to RSMo)

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

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

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

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

L-1 Benefit Program: 1.00% for life L-3 Benefit Program: 1.25% for life L-7 Benefit Program: 1.50% for life L-12 Benefit Program: 1.75% for life L-6 Benefit Program: 2.00% for life

LT-4(65) Benefit Program: 1.00% for life, plus 1.00% to age 65 LT-5(65) Benefit Program: 1.25% for life, plus 0.75% to age 65 LT-8(65) Benefit Program: 1.50% for life, plus 0.50% to age 65 LT-14(65) Benefit Program: 1.75% for life, plus 0.25% to age 65

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

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

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

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



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

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

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

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

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

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

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

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

- (a) The surviving spouse receives an allowance equal to the Option A allowance (joint and 75% survivor benefit) computed based upon the deceased members' service & earnings record to time of death.
- (b) When no spouse benefit is payable, the dependent children under age 18 (age 23 if they are full time students) each receive an equal share of 60% of an age & service allowance computed based upon the deceased member's service & earnings record to time of death.
- (c) If the death is determined to be duty related, the 5 year service requirement is waived and the benefit is based on years of credited service the member would have completed had the member continued in LAGERS-covered employment to age 60.



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

- (a) Subject to the maximum in (b), the redetermined amount is the amount other-wise payable multiplied by: 100% plus up to 4%, as determined by the LAGERS Board of Trustees, for each full year of retirement.
- (b) The redetermined amount may not exceed the amount otherwise payable multiplied by the ratio of the Consumer Price Index for the immediately preceding month of June to the Consumer Price Index for the month of June immediately preceding retirement.

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

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

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

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





**BENEFIT ILLUSTRATIONS** 

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

	Estimated	ated Estimated	
LAGERS	Social Monthly Total		/ Total
BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% of FAS
\$ 525	\$ 930	\$1,455	97%
700	1,076	1,776	89%
875	1,223	2,098	84%
1,050	1,370	2,420	81%
1,225	1,516	2,741	78%
1,400	1,662	3,062	77%
\$ 375	\$ 930	\$1,305	87%
500	1,076	1,576	79%
625	1,223	1,848	74%
750	1,370	2,120	71%
875	1,516	2,391	68%
1,000	1,662	2,662	67%
\$225	\$ 930	\$1,155	77%
300	1,076	1,376	69%
375	1,223	1,598	64%
450	1,370	1,820	61%
525	1,516	2,041	58%
600	1,662	2,262	57%
	\$ 525 700 875 1,050 1,225 1,400 \$ 375 500 625 750 875 1,000 \$ 225 300 375 450 525	LAGERS Security Secur	LAGERS BENEFIT³         Social Security²         Monthly Security²           \$ 525         \$ 930         \$1,455           700         1,076         1,776           875         1,223         2,098           1,050         1,370         2,420           1,225         1,516         2,741           1,400         1,662         3,062           \$ 375         \$ 930         \$1,305           500         1,076         1,576           625         1,223         1,848           750         1,370         2,120           875         1,516         2,391           1,000         1,662         2,662           \$225         \$ 930         \$1,155           300         1,076         1,376           375         1,223         1,598           450         1,370         1,820           525         1,516         2,041

<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>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 2019 - 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> )

Estimated Estimated		ated	
LAGERS	Social Monthly Total		/ Total
BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% of FAS
\$ 656	\$ 930	\$1,586	106%
875	1,076	1,951	98%
1,094	1,223	2,317	93%
1,313	1,370	2,683	89%
1,531	1,516	3,047	87%
1,750	1,662	3,412	85%
\$ 469	\$ 930	\$1,399	93%
625	1,076	1,701	85%
781	1,223	2,004	80%
938	1,370	2,308	77%
1,094	1,516	2,610	75%
1,250	1,662	2,912	73%
\$281	\$ 930	\$1,211	81%
375	1,076	1,451	73%
469	1,223	1,692	68%
563	1,370	1,933	64%
656	1,516	2,172	62%
750	1,662	2,412	60%
	\$ 656 875 1,094 1,313 1,531 1,750 \$ 469 625 781 938 1,094 1,250 \$281 375 469 563 656	LAGERS Security Secur	LAGERS BENEFIT³         Social Security²         Monthly Security²           \$ 656         \$ 930         \$1,586           875         1,076         1,951           1,094         1,223         2,317           1,313         1,370         2,683           1,531         1,516         3,047           1,750         1,662         3,412           \$ 469         \$ 930         \$1,399           625         1,076         1,701           781         1,223         2,004           938         1,370         2,308           1,094         1,516         2,610           1,250         1,662         2,912           \$281         \$ 930         \$1,211           375         1,076         1,451           469         1,223         1,692           563         1,370         1,933           656         1,516         2,172

<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 2019 - 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> )

Estimated Estimated		ated	
LAGERS	Social Monthly Total		/ Total
BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% of FAS
\$ 788	\$ 930	\$1,718	115%
1,050	1,076	2,126	106%
1,313	1,223	2,536	101%
1,575	1,370	2,945	98%
1,838	1,516	3,354	96%
2,100	1,662	3,762	94%
\$ 563	\$ 930	\$1,493	100%
750	1,076	1,826	91%
938	1,223	2,161	86%
1,125	1,370	2,495	83%
1,313	1,516	2,829	81%
1,500	1,662	3,162	79%
\$338	\$ 930	\$1,268	85%
450	1,076	1,526	76%
563	1,223	1,786	71%
675	1,370	2,045	68%
788	1,516	2,304	66%
900	1,662	2,562	64%
	\$ 788 1,050 1,313 1,575 1,838 2,100 \$ 563 750 938 1,125 1,313 1,500 \$ \$338 450 563 675 788	LAGERS         Social	LAGERS BENEFIT³         Social Security²         Monthly           \$ 788         \$ 930         \$1,718           1,050         1,076         2,126           1,313         1,223         2,536           1,575         1,370         2,945           1,838         1,516         3,354           2,100         1,662         3,762           \$ 563         \$ 930         \$1,493           750         1,076         1,826           938         1,223         2,161           1,125         1,370         2,495           1,313         1,516         2,829           1,500         1,662         3,162           \$338         \$ 930         \$1,268           450         1,076         1,526           563         1,223         1,786           675         1,370         2,045           788         1,516         2,304

<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 2019 - 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 <sup>1</sup>)

Final	Estimated Estimated		ated		
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	\$ 930	\$1,849	123%	
2,000	1,225	1,076	2,301	115%	
2,500	1,531	1,223	2,754	110%	
3,000	1,838	1,370	3,208	107%	
3,500	2,144	1,516	3,660	105%	
4,000	2,450	1,662	4,112	103%	
25 Years of Service:					
\$1,500	\$ 656	\$ 930	\$1,586	106%	
2,000	875	1,076	1,951	98%	
2,500	1,094	1,223	2,317	93%	
3,000	1,313	1,370	2,683	89%	
3,500	1,531	1,516	3,047	87%	
4,000	1,750	1,662	3,412	85%	
15 Years of Service:					
\$1,500	\$ 394	\$ 930	\$1,324	88%	
2,000	525	1,076	1,601	80%	
2,500	656	1,223	1,879	75%	
3,000	788	1,370	2,158	72%	
3,500	919	1,516	2,435	70%	
4,000	1,050	1,662	2,712	68%	

<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>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 2019 - 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 Total		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	\$ 930	\$1,980	132%
2,000	1,400	1,076	2,476	124%
2,500	1,750	1,223	2,973	119%
3,000	2,100	1,370	3,470	116%
3,500	2,450	1,516	3,966	113%
4,000	2,800	1,662	4,462	112%
25 Years of Service:				
\$1,500	\$ 750	\$ 930	\$1,680	112%
2,000	1,000	1,076	2,076	104%
2,500	1,250	1,223	2,473	99%
3,000	1,500	1,370	2,870	96%
3,500	1,750	1,516	3,266	93%
4,000	2,000	1,662	3,662	92%
15 Years of Service:				
\$1,500	\$ 450	\$ 930	\$1,380	92%
2,000	600	1,076	1,676	84%
2,500	750	1,223	1,973	79%
3,000	900	1,370	2,270	76%
3,500	1,050	1,516	2,566	73%
4,000	1,200	1,662	2,862	72%

<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 2019 - it does not include any amounts which might be payable to an eligible spouse or children.

(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	<b>Monthly Total</b>		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	\$ 930	\$1,050	\$1,455	70%	97%
2,000	1,400	700	1,076	1,400	1,776	70%	89%
2,500	1,750	875	1,223	1,750	2,098	70%	84%
3,000	2,100	1,050	1,370	2,100	2,420	70%	81%
3,500	2,450	1,225	1,516	2,450	2,741	70%	78%
4,000	2,800	1,400	1,662	2,800	3,062	70%	77%
25 Years of Service	e:						
\$1,500	\$ 750	\$ 375	\$ 930	\$ 750	\$1,305	50%	87%
2,000	1,000	500	1,076	1,000	1,576	50%	79%
2,500	1,250	625	1,223	1,250	1,848	50%	74%
3,000	1,500	750	1,370	1,500	2,120	50%	71%
3,500	1,750	875	1,516	1,750	2,391	50%	68%
4,000	2,000	1,000	1,662	2,000	2,662	50%	67%
15 Years of Service	<b>e</b> :						
\$1,500	\$ 450	\$225	\$ 930	\$ 450	\$1,155	30%	77%
2,000	600	300	1,076	600	1,376	30%	69%
2,500	750	375	1,223	750	1,598	30%	64%
3,000	900	450	1,370	900	1,820	30%	61%
3,500	1,050	525	1,516	1,050	2,041	30%	58%
4,000	1,200	600	1,662	1,200	2,262	30%	57%

<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 2019 - it does not include any amounts which might be payable to an eligible spouse or children.

(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)

LAG	ERS	Estimated	Estim	nated	Perc	ent
BENI	EFIT <sup>3</sup>	Social	Month	y Total	of F	AS
To 65	At 65	Security <sup>2</sup>	To 65	At 65	To 65	At 65
2:						
\$1,050	\$ 656	\$ 930	\$1,050	\$1,586	70%	106%
1,400	875	1,076	1,400	1,951	70%	98%
1,750	1,094	1,223	1,750	2,317	70%	93%
2,100	1,313	1,370	2,100	2,683	70%	89%
2,450	1,531	1,516	2,450	3,047	70%	87%
2,800	1,750	1,662	2,800	3,412	70%	85%
<b>:</b> :						
\$ 750	\$ 469	\$ 930	\$ 750	\$1,399	50%	93%
1,000	625	1,076	1,000	1,701	50%	85%
1,250	781	1,223	1,250	2,004	50%	80%
1,500	938	1,370	1,500	2,308	50%	77%
1,750	1,094	1,516	1,750	2,610	50%	75%
2,000	1,250	1,662	2,000	2,912	50%	73%
e:						
\$ 450	\$281	\$ 930	\$ 450	\$1,211	30%	81%
600	375	1,076	600	1,451	30%	73%
750	469	1,223	750	1,692	30%	68%
900	563	1,370	900	1,933	30%	64%
1,050	656	1,516	1,050	2,172	30%	62%
1,200	750	1,662	1,200	2,412	30%	60%
	\$1,050 1,400 1,750 2,100 2,450 2,800 2: \$ 750 1,000 1,250 1,500 1,750 2,000 2: \$ 450 600 750 900 1,050	\$1,050 \$ 656 1,400 875 1,750 1,094 2,100 1,313 2,450 1,531 2,800 1,750 E: \$ 750 \$ 469 1,000 625 1,250 781 1,500 938 1,750 1,094 2,000 1,250 E: \$ 450 \$281 600 375 750 469 900 563 1,050 656	BENEFIT 3         Social Security 2           2:         \$1,050         \$ 656         \$ 930           1,400         875         1,076           1,750         1,094         1,223           2,100         1,313         1,370           2,450         1,531         1,516           2,800         1,750         1,662           3:         \$ 750         \$ 469         \$ 930           1,000         625         1,076           1,250         781         1,223           1,500         938         1,370           1,750         1,094         1,516           2,000         1,250         1,662           3:         \$ 450         \$ 281         \$ 930           600         375         1,076           750         469         1,223           900         563         1,370           1,050         656         1,516	BENEFIT <sup>3</sup> Social Security <sup>2</sup> Month To 65           1,050         \$ 656         \$ 930         \$1,050           1,400         875         1,076         1,400           1,750         1,094         1,223         1,750           2,100         1,313         1,370         2,100           2,450         1,531         1,516         2,450           2,800         1,750         1,662         2,800           2:         \$ 750         \$ 469         \$ 930         \$ 750           1,000         625         1,076         1,000           1,250         781         1,223         1,250           1,500         938         1,370         1,500           1,750         1,094         1,516         1,750           2,000         1,250         1,662         2,000           2:         \$ 450         \$ 281         \$ 930         \$ 450           600         375         1,076         600           750         469         1,223         750           900         563         1,370         900           1,050         656         1,516         1,050	BENEFIT³         Social         Monthly Total           To 65         At 65         Security²         To 65         At 65           \$1,050         \$ 656         \$ 930         \$1,050         \$1,586           1,400         875         1,076         1,400         1,951           1,750         1,094         1,223         1,750         2,317           2,100         1,313         1,370         2,100         2,683           2,450         1,531         1,516         2,450         3,047           2,800         1,750         1,662         2,800         3,412           ***           \$ 750         \$ 469         \$ 930         \$ 750         \$1,399           1,000         625         1,076         1,000         1,701           1,250         781         1,223         1,250         2,004           1,500         938         1,370         1,500         2,308           1,750         1,094         1,516         1,750         2,610           2,000         1,250         1,662         2,000         2,912           **         \$ 450         \$ 281         \$ 930         \$ 450         \$1,211	Social   Monthly Total   Of F

<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 2019 - 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	BENE	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	\$ 788	\$ 930	\$1,050	\$1,718	70%	115%
2,000	1,400	1,050	1,076	1,400	2,126	70%	106%
2,500	1,750	1,313	1,223	1,750	2,536	70%	101%
3,000	2,100	1,575	1,370	2,100	2,945	70%	98%
3,500	2,450	1,838	1,516	2,450	3,354	70%	96%
4,000	2,800	2,100	1,662	2,800	3,762	70%	94%
25 Years of Service	:						
\$1,500	\$ 750	\$ 563	\$ 930	\$ 750	\$1,493	50%	100%
2,000	1,000	750	1,076	1,000	1,826	50%	91%
2,500	1,250	938	1,223	1,250	2,161	50%	86%
3,000	1,500	1,125	1,370	1,500	2,495	50%	83%
3,500	1,750	1,313	1,516	1,750	2,829	50%	81%
4,000	2,000	1,500	1,662	2,000	3,162	50%	79%
15 Years of Service	:						
\$1,500	\$ 450	\$338	\$ 930	\$ 450	\$1,268	30%	85%
2,000	600	450	1,076	600	1,526	30%	76%
2,500	750	563	1,223	750	1,786	30%	71%
3,000	900	675	1,370	900	2,045	30%	68%
3,500	1,050	788	1,516	1,050	2,304	30%	66%
4,000	1,200	900	1,662	1,200	2,562	30%	64%

<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 2019 - 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	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	\$ 930	\$1,050	\$1,849	70%	123%	
2,000	1,400	1,225	1,076	1,400	2,301	70%	115%	
2,500	1,750	1,531	1,223	1,750	2,754	70%	110%	
3,000	2,100	1,838	1,370	2,100	3,208	70%	107%	
3,500	2,450	2,144	1,516	2,450	3,660	70%	105%	
4,000	2,800	2,450	1,662	2,800	4,112	70%	103%	
25 Years of Service:	:							
\$1,500	\$ 750	\$ 656	\$ 930	\$ 750	\$1,586	50%	106%	
2,000	1,000	875	1,076	1,000	1,951	50%	98%	
2,500	1,250	1,094	1,223	1,250	2,317	50%	93%	
3,000	1,500	1,313	1,370	1,500	2,683	50%	89%	
3,500	1,750	1,531	1,516	1,750	3,047	50%	87%	
4,000	2,000	1,750	1,662	2,000	3,412	50%	85%	
15 Years of Service:	:							
\$1,500	\$ 450	\$ 394	\$ 930	\$ 450	\$1,324	30%	88%	
2,000	600	525	1,076	600	1,601	30%	80%	
2,500	750	656	1,223	750	1,879	30%	75%	
3,000	900	788	1,370	900	2,158	30%	72%	
3,500	1,050	919	1,516	1,050	2,435	30%	70%	
4,000	1,200	1,050	1,662	1,200	2,712	30%	68%	

<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 2019 - it does not include any amounts which might be payable to an eligible spouse or children.



AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

# July 31, 2019

# By Attained Age and Years of Service

		Yea	ars of Se	rvice to \		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	\$ 26,127
30-34		1						1	\$ 32,615
35-39									
40-44									
45-49									
50-54									
55-59									
60-64									
65-69									
70 & Over									
Totals	1	1						2	\$ 58,742

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

Age: 30.2 years.

Benefit Service: 0.0 years. Annual Pay: \$29,371.





**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:

- 1. 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.





March 10, 2020 E-mail

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

Dear Bob:

Enclosed is the report of the July 31, 2019 Initial Actuarial Valuation of LAGERS benefits for the employees of

**Buchanan County Soil and Water Conservation District** 

Sincerely,

Mita D. Drazilov, ASA, FCA, MAAA

Mita Drazilor

MDD:wp



March 10, 2020

Buchanan County Soil and Water Conservation District Saint Joseph, 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, 2019 Initial Valuation for the Buchanan County Soil and Water Conservation District dated March 10, 2020.

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, 2019.

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 Diagilov 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 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	Contri	bution	Actuarial	Contri	ibution 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
2019	\$ 58,742	2.7%	\$1,586	\$ 5,395	4.0%	\$2,350	\$ 7,568	3.3%	\$1,938	\$ 6,349
2020	60,651	2.7	1,638	5,469	4.0	2,426	7,672	3.3	2,001	6,436
2021	62,622	2.7	1,691	5,538	4.0	2,505	7,769	3.3	2,067	6,517
2022	64,657	2.7	1,746	5,601	4.0	2,586	7,858	3.3	2,134	6,592
2023	66,758	2.7	1,802	5,658	4.0	2,670	7,938	3.3	2,203	6,659
2024	68,928	2.7	1,861	5,708	4.0	2,757	8,008	3.3	2,275	6,717
2025	71,168	2.7	1,922	5,750	4.0	2,847	8,066	3.3	2,349	6,766
2026	73,481	2.7	1,984	5,782	4.0	2,939	8,112	3.3	2,425	6,804
2027	75,869	2.7	2,048	5,804	4.0	3,035	8,143	3.3	2,504	6,830
2028	78,335	2.7	2,115	5,815	4.0	3,133	8,159	3.3	2,585	6,843

		LT-5(65) Benefit Program			L	7 Benefit Pro	gram	LT-8(65) Benefit Program		
Estimate	Estimated		stimated Employer Un Contribution Ad			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
2019	\$ 58,742	4.5%	\$2,643	\$ 8,287	5.4%	\$3,172	\$ 9,815	5.7%	\$3,348	\$ 10,296
2020	60,651	4.5	2,729	8,401	5.4	3,275	9,949	5.7	3,457	10,437
2021	62,622	4.5	2,818	8,507	5.4	3,382	10,074	5.7	3,569	10,569
2022	64,657	4.5	2,910	8,604	5.4	3,491	10,189	5.7	3,685	10,690
2023	66,758	4.5	3,004	8,691	5.4	3,605	10,293	5.7	3,805	10,799
2024	68,928	4.5	3,102	8,767	5.4	3,722	10,383	5.7	3,929	10,894
2025	71,168	4.5	3,203	8,831	5.4	3,843	10,459	5.7	4,057	10,973
2026	73,481	4.5	3,307	8,881	5.4	3,968	10,518	5.7	4,188	11,035
2027	75,869	4.5	3,414	8,915	5.4	4,097	10,559	5.7	4,325	11,078
2028	78,335	4.5	3,525	8,932	5.4	4,230	10,579	5.7	4,465	11,099

		L-12 Benefit Program			LT-14	1(65) Benefit I	Program	L-6 Benefit Program		
		Estimated	l Employer	Unfunded	Estimated Employer		Unfunded	Estimated	l Employer	Unfunded
	Estimated Contributi		ibution	tion Actuarial		Contribution		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
2019	\$ 58,742	6.8%	\$3,994	\$ 11,980	6.9%	\$4,053	\$ 12,227	8.3%	\$4,876	\$ 14,074
2020	60,651	6.8	4,124	12,144	6.9	4,185	12,395	8.3	5,034	14,267
2021	62,622	6.8	4,258	12,297	6.9	4,321	12,551	8.3	5,198	14,447
2022	64,657	6.8	4,397	12,438	6.9	4,461	12,694	8.3	5,367	14,612
2023	66,758	6.8	4,540	12,564	6.9	4,606	12,823	8.3	5,541	14,760
2024	68,928	6.8	4,687	12,674	6.9	4,756	12,936	8.3	5,721	14,890
2025	71,168	6.8	4,839	12,766	6.9	4,911	13,030	8.3	5,907	14,998
2026	73,481	6.8	4,997	12,838	6.9	5,070	13,104	8.3	6,099	15,083
2027	75,869	6.8	5,159	12,888	6.9	5,235	13,155	8.3	6,297	15,141
2028	78,335	6.8	5,327	12,913	6.9	5,405	13,180	8.3	6,502	15,170

- 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		Estimated Employer  Contribution			Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Pavroll	Annual Dollars	Accrued Liability	As a % of Pavroll	Annual Dollars	Accrued Liability
2019	\$ 58,742	3.0%	\$1,762	\$ 5,696	4.3%	\$2,526	\$ 7,971	3.5%	\$2,056	\$ 6,702
2020	60,651	3.0	1,820	5,774	4.3	2,608	8,080	3.5	2,123	6,794
2021	62,622	3.0	1,879	5,847	4.3	2,693	8,182	3.5	2,192	6,880
2022	64,657	3.0	1,940	5,914	4.3	2,780	8,276	3.5	2,263	6,959
2023	66,758	3.0	2,003	5,974	4.3	2,871	8,360	3.5	2,337	7,030
2024	68,928	3.0	2,068	6,026	4.3	2,964	8,433	3.5	2,412	7,092
2025	71,168	3.0	2,135	6,070	4.3	3,060	8,494	3.5	2,491	7,144
2026	73,481	3.0	2,204	6,104	4.3	3,160	8,542	3.5	2,572	7,184
2027	75,869	3.0	2,276	6,128	4.3	3,262	8,575	3.5	2,655	7,212
2028	78,335	3.0	2,350	6,140	4.3	3,368	8,591	3.5	2,742	7,226

		LT-5(65) Benefit Program			L-	7 Benefit Pro	gram	LT-8(65) Benefit Program		
		Estimated	d Employer	Unfunded	Estimated	Estimated Employer		Estimated	d Employer	Unfunded
	Estimated	Contribution		Actuarial	Contribution		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
2019	\$ 58,742	4.7%	\$2,761	\$ 8,708	5.7%	\$3,348	\$ 10,271	6.0%	\$3,525	\$ 10,770
2020	60,651	4.7	2,851	8,827	5.7	3,457	10,412	6.0	3,639	10,918
2021	62,622	4.7	2,943	8,938	5.7	3,569	10,543	6.0	3,757	11,056
2022	64,657	4.7	3,039	9,040	5.7	3,685	10,664	6.0	3,879	11,182
2023	66,758	4.7	3,138	9,132	5.7	3,805	10,772	6.0	4,005	11,296
2024	68,928	4.7	3,240	9,212	5.7	3,929	10,867	6.0	4,136	11,395
2025	71,168	4.7	3,345	9,279	5.7	4,057	10,946	6.0	4,270	11,478
2026	73,481	4.7	3,454	9,331	5.7	4,188	11,008	6.0	4,409	11,543
2027	75,869	4.7	3,566	9,367	5.7	4,325	11,051	6.0	4,552	11,588
2028	78 335	47	3 682	9 385	5.7	4 465	11 072	6.0	4 700	11 610

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		l Employer ibution			d Employer ibution	Unfunded Actuarial		d Employer ibution	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
2019	\$ 58,742	7.1%	\$4,171	\$ 12,496	7.3%	\$4,288	\$ 12,744	8.6%	\$5,052	\$ 14,636
2020	60,651	7.1	4,306	12,667	7.3	4,428	12,919	8.6	5,216	14,837
2021	62,622	7.1	4,446	12,827	7.3	4,571	13,082	8.6	5,385	15,024
2022	64,657	7.1	4,591	12,974	7.3	4,720	13,232	8.6	5,561	15,196
2023	66,758	7.1	4,740	13,106	7.3	4,873	13,366	8.6	5,741	15,350
2024	68,928	7.1	4,894	13,221	7.3	5,032	13,483	8.6	5,928	15,485
2025	71,168	7.1	5,053	13,317	7.3	5,195	13,581	8.6	6,120	15,598
2026	73,481	7.1	5,217	13,392	7.3	5,364	13,658	8.6	6,319	15,686
2027	75,869	7.1	5,387	13,444	7.3	5,538	13,711	8.6	6,525	15,747
2028	78,335	7.1	5,562	13,470	7.3	5,718	13,737	8.6	6,737	15,777

- 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		Estimated Employer Contribution		Unfunded Actuarial		l Employer bution	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
2019	\$ 58,742	6.4%	\$3,759	\$ 7,693	7.9%	\$4,641	\$ 9,607	7.0%	\$4,112	\$ 8,650
2020	60,651	6.4	3,882	7,798	7.9	4,791	9,739	7.0	4,246	8,769
2021	62,622	6.4	4,008	7,896	7.9	4,947	9,862	7.0	4,384	8,880
2022	64,657	6.4	4,138	7,986	7.9	5,108	9,975	7.0	4,526	8,982
2023	66,758	6.4	4,273	8,067	7.9	5,274	10,076	7.0	4,673	9,073
2024	68,928	6.4	4,411	8,138	7.9	5,445	10,164	7.0	4,825	9,153
2025	71,168	6.4	4,555	8,197	7.9	5,622	10,238	7.0	4,982	9,220
2026	73,481	6.4	4,703	8,243	7.9	5,805	10,296	7.0	5,144	9,272
2027	75,869	6.4	4,856	8,275	7.9	5,994	10,336	7.0	5,311	9,308
2028	78,335	6.4	5,013	8,291	7.9	6,188	10,356	7.0	5,483	9,326

		LT-5(65) Benefit Program			L-	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	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
2019	\$ 58,742	8.3%	\$4,876	\$ 10,344	9.3%	\$5,463	\$ 11,518	9.6%	\$5,639	\$ 11,990
2020	60,651	8.3	5,034	10,486	9.3	5,641	11,676	9.6	5,822	12,154
2021	62,622	8.3	5,198	10,618	9.3	5,824	11,823	9.6	6,012	12,307
2022	64,657	8.3	5,367	10,739	9.3	6,013	11,958	9.6	6,207	12,448
2023	66,758	8.3	5,541	10,848	9.3	6,208	12,080	9.6	6,409	12,574
2024	68,928	8.3	5,721	10,943	9.3	6,410	12,186	9.6	6,617	12,684
2025	71,168	8.3	5,907	11,023	9.3	6,619	12,275	9.6	6,832	12,776
2026	73,481	8.3	6,099	11,085	9.3	6,834	12,344	9.6	7,054	12,848
2027	75,869	8.3	6,297	11,128	9.3	7,056	12,392	9.6	7,283	12,898
2028	78 335	8.3	6 502	11 149	93	7 285	12 416	9.6	7 520	12 923

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		Estimated Employer Contribution			d Employer ibution	Unfunded Actuarial		d Employer ibution	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
2019	\$ 58,742	10.7%	\$6,285	\$ 13,460	10.8%	\$6,344	\$ 13,702	12.2%	\$7,167	\$ 15,390
2020	60,651	10.7	6,490	13,644	10.8	6,550	13,890	12.2	7,399	15,601
2021	62,622	10.7	6,701	13,816	10.8	6,763	14,065	12.2	7,640	15,798
2022	64,657	10.7	6,918	13,974	10.8	6,983	14,226	12.2	7,888	15,979
2023	66,758	10.7	7,143	14,116	10.8	7,210	14,371	12.2	8,144	16,141
2024	68,928	10.7	7,375	14,240	10.8	7,444	14,497	12.2	8,409	16,283
2025	71,168	10.7	7,615	14,344	10.8	7,686	14,603	12.2	8,682	16,402
2026	73,481	10.7	7,862	14,425	10.8	7,936	14,686	12.2	8,965	16,495
2027	75,869	10.7	8,118	14,481	10.8	8,194	14,743	12.2	9,256	16,559
2028	78,335	10.7	8,382	14,509	10.8	8,460	14,771	12.2	9,557	16,591

- 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		Estimated Employer Contribution		Estimated Employer  Contribution		Unfunded Actuarial		l Employer bution	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
2019	\$ 58,742	6.7%	\$3,936	\$ 7,927	8.2%	\$4,817	\$ 9,936	7.3%	\$4,288	\$ 8,926
2020	60,651	6.7	4,064	8,036	8.2	4,973	10,072	7.3	4,428	9,048
2021	62,622	6.7	4,196	8,137	8.2	5,135	10,199	7.3	4,571	9,162
2022	64,657	6.7	4,332	8,230	8.2	5,302	10,316	7.3	4,720	9,267
2023	66,758	6.7	4,473	8,314	8.2	5,474	10,421	7.3	4,873	9,361
2024	68,928	6.7	4,618	8,387	8.2	5,652	10,513	7.3	5,032	9,443
2025	71,168	6.7	4,768	8,448	8.2	5,836	10,590	7.3	5,195	9,512
2026	73,481	6.7	4,923	8,496	8.2	6,025	10,650	7.3	5,364	9,566
2027	75,869	6.7	5,083	8,529	8.2	6,221	10,691	7.3	5,538	9,603
2028	78,335	6.7	5,248	8,545	8.2	6,423	10,711	7.3	5,718	9,621

	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		Estimated Employer Contribution			Estimated Employer Contribution			d Employer ibution	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
2019	\$ 58,742	8.6%	\$5,052	\$ 10,669	9.6%	\$5,639	\$ 11,915	9.9%	\$5,815	\$ 12,414
2020	60,651	8.6	5,216	10,815	9.6	5,822	12,078	9.9	6,004	12,584
2021	62,622	8.6	5,385	10,951	9.6	6,012	12,230	9.9	6,200	12,743
2022	64,657	8.6	5,561	11,076	9.6	6,207	12,370	9.9	6,401	12,889
2023	66,758	8.6	5,741	11,189	9.6	6,409	12,496	9.9	6,609	13,020
2024	68,928	8.6	5,928	11,287	9.6	6,617	12,606	9.9	6,824	13,134
2025	71,168	8.6	6,120	11,369	9.6	6,832	12,698	9.9	7,046	13,230
2026	73,481	8.6	6,319	11,433	9.6	7,054	12,770	9.9	7,275	13,305
2027	75,869	8.6	6,525	11,477	9.6	7,283	12,819	9.9	7,511	13,356
2028	78.335	8.6	6.737	11.499	9.6	7.520	12.843	9.9	7.755	13.382

		L-:	12 Benefit Pro	gram	LT-14	1(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated					d Employer ibution	Unfunded Actuarial		### Annual Dollars \$7,343	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
2019	\$ 58,742	11.0%	\$6,462	\$ 13,905	11.2%	\$6,579	\$ 14,147	12.5%	\$7,343	\$ 15,878
2020	60,651	11.0	6,672	14,095	11.2	6,793	14,341	12.5	7,581	16,096
2021	62,622	11.0	6,888	14,273	11.2	7,014	14,522	12.5	7,828	16,299
2022	64,657	11.0	7,112	14,436	11.2	7,242	14,688	12.5	8,082	16,485
2023	66,758	11.0	7,343	14,583	11.2	7,477	14,837	12.5	8,345	16,653
2024	68,928	11.0	7,582	14,711	11.2	7,720	14,967	12.5	8,616	16,799
2025	71,168	11.0	7,828	14,818	11.2	7,971	15,076	12.5	8,896	16,921
2026	73,481	11.0	8,083	14,902	11.2	8,230	15,161	12.5	9,185	17,017
2027	75,869	11.0	8,346	14,960	11.2	8,497	15,220	12.5	9,484	17,083
2028	78,335	11.0	8,617	14,989	11.2	8,774	15,249	12.5	9,792	17,116

- 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	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial		l Employer bution	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
2019	\$ 58,742	3.6%	\$2,115	\$ 6,667	5.2%	\$3,055	\$ 9,134	5.4%	\$3,172	\$ 9,654
2020	60,651	3.6	2,183	6,758	5.2	3,154	9,259	5.4	3,275	9,786
2021	62,622	3.6	2,254	6,843	5.2	3,256	9,376	5.4	3,382	9,909
2022	64,657	3.6	2,328	6,921	5.2	3,362	9,483	5.4	3,491	10,022
2023	66,758	3.6	2,403	6,991	5.2	3,471	9,579	5.4	3,605	10,124
2024	68,928	3.6	2,481	7,052	5.2	3,584	9,663	5.4	3,722	10,213
2025	71,168	3.6	2,562	7,103	5.2	3,701	9,733	5.4	3,843	10,287
2026	73,481	3.6	2,645	7,143	5.2	3,821	9,788	5.4	3,968	10,345
2027	75,869	3.6	2,731	7,171	5.2	3,945	9,826	5.4	4,097	10,385
2028	78,335	3.6	2,820	7,185	5.2	4,073	9,845	5.4	4,230	10,405

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		Estimated Employer Contribution			d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Actuarial Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 58,742	6.5%	\$3,818	\$ 11,389	6.7%	\$3,936	\$ 11,673	7.5%	\$4,406	\$ 13,167
2020	60,651	6.5	3,942	11,545	6.7	4,064	11,833	7.5	4,549	13,347
2021	62,622	6.5	4,070	11,691	6.7	4,196	11,982	7.5	4,697	13,515
2022	64,657	6.5	4,203	11,825	6.7	4,332	12,119	7.5	4,849	13,670
2023	66,758	6.5	4,339	11,945	6.7	4,473	12,242	7.5	5,007	13,809
2024	68,928	6.5	4,480	12,050	6.7	4,618	12,350	7.5	5,170	13,930
2025	71,168	6.5	4,626	12,138	6.7	4,768	12,440	7.5	5,338	14,031
2026	73,481	6.5	4,776	12,207	6.7	4,923	12,510	7.5	5,511	14,110
2027	75,869	6.5	4,931	12,254	6.7	5,083	12,558	7.5	5,690	14,165
2028	78 335	6.5	5.092	12 277	6.7	5 248	12 582	7.5	5 875	14 192

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated Valuation Projected		Estimated Employer Contribution			d Employer ibution	Unfunded Actuarial		ribution A	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
2019	\$ 58,742	8.3%	\$4,876	\$ 14,128	8.8%	\$5,169	\$ 14,870	10.0%	\$5,874	\$ 16,511
2020	60,651	8.3	5,034	14,322	8.8	5,337	15,074	10.0	6,065	16,737
2021	62,622	8.3	5,198	14,503	8.8	5,511	15,264	10.0	6,262	16,948
2022	64,657	8.3	5,367	14,669	8.8	5,690	15,439	10.0	6,466	17,142
2023	66,758	8.3	5,541	14,818	8.8	5,875	15,596	10.0	6,676	17,316
2024	68,928	8.3	5,721	14,948	8.8	6,066	15,733	10.0	6,893	17,468
2025	71,168	8.3	5,907	15,057	8.8	6,263	15,848	10.0	7,117	17,595
2026	73,481	8.3	6,099	15,142	8.8	6,466	15,938	10.0	7,348	17,694
2027	75,869	8.3	6,297	15,201	8.8	6,676	16,000	10.0	7,587	17,762
2028	78,335	8.3	6,502	15,230	8.8	6,893	16,031	10.0	7,834	17,796

- 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		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial		l Employer bution	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
2019	\$ 58,742	3.9%	\$2,291	\$ 7,028	5.4%	\$3,172	\$ 9,629	5.7%	\$3,348	\$ 10,140
2020	60,651	3.9	2,365	7,124	5.4	3,275	9,761	5.7	3,457	10,279
2021	62,622	3.9	2,442	7,214	5.4	3,382	9,884	5.7	3,569	10,409
2022	64,657	3.9	2,522	7,296	5.4	3,491	9,997	5.7	3,685	10,528
2023	66,758	3.9	2,604	7,370	5.4	3,605	10,099	5.7	3,805	10,635
2024	68,928	3.9	2,688	7,435	5.4	3,722	10,188	5.7	3,929	10,728
2025	71,168	3.9	2,776	7,489	5.4	3,843	10,262	5.7	4,057	10,806
2026	73,481	3.9	2,866	7,531	5.4	3,968	10,320	5.7	4,188	10,867
2027	75,869	3.9	2,959	7,560	5.4	4,097	10,360	5.7	4,325	10,909
2028	78,335	3.9	3,055	7,574	5.4	4,230	10,380	5.7	4,465	10,930

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
		Estimated	d Employer	Unfunded	Estimated	d Employer	Unfunded	Estimated	d 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
2019	\$ 58,742	6.9%	\$4,053	\$ 11,946	7.0%	\$4,112	\$ 12,217	7.9%	\$4,641	\$ 13,759
2020	60,651	6.9	4,185	12,110	7.0	4,246	12,384	7.9	4,791	13,947
2021	62,622	6.9	4,321	12,263	7.0	4,384	12,540	7.9	4,947	14,123
2022	64,657	6.9	4,461	12,403	7.0	4,526	12,683	7.9	5,108	14,284
2023	66,758	6.9	4,606	12,529	7.0	4,673	12,812	7.9	5,274	14,429
2024	68,928	6.9	4,756	12,639	7.0	4,825	12,925	7.9	5,445	14,556
2025	71,168	6.9	4,911	12,731	7.0	4,982	13,019	7.9	5,622	14,662
2026	73,481	6.9	5,070	12,803	7.0	5,144	13,093	7.9	5,805	14,745
2027	75,869	6.9	5,235	12,853	7.0	5,311	13,144	7.9	5,994	14,802
2028	78 335	6.9	5 405	12 878	7.0	5 483	13 169	7 9	6 188	14 830

		L-:	12 Benefit Pro	gram	LT-14	4(65)Benefit	Program	L-	-6 Benefit Pro	gram
	Estimated		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		d Employer ibution	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
2019	\$ 58,742	8.7%	\$5,111	\$ 14,733	9.2%	\$5,404	\$ 15,509	10.5%	\$6,168	\$ 17,196
2020	60,651	8.7	5,277	14,935	9.2	5,580	15,721	10.5	6,368	17,432
2021	62,622	8.7	5,448	15,123	9.2	5,761	15,919	10.5	6,575	17,652
2022	64,657	8.7	5,625	15,296	9.2	5,948	16,101	10.5	6,789	17,854
2023	66,758	8.7	5,808	15,451	9.2	6,142	16,265	10.5	7,010	18,035
2024	68,928	8.7	5,997	15,587	9.2	6,341	16,408	10.5	7,237	18,193
2025	71,168	8.7	6,192	15,701	9.2	6,547	16,528	10.5	7,473	18,326
2026	73,481	8.7	6,393	15,790	9.2	6,760	16,621	10.5	7,716	18,430
2027	75,869	8.7	6,601	15,851	9.2	6,980	16,685	10.5	7,966	18,501
2028	78,335	8.7	6,815	15,881	9.2	7,207	16,717	10.5	8,225	18,536

- 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
			l Employer	Unfunded		l Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contri	ibution	Actuarial	Contr	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
2019	\$ 58,742	7.4%	\$4,347	\$ 8,865	9.0%	\$5,287	\$ 11,063	9.0%	\$5,287	\$ 11,845
2020	60,651	7.4	4,488	8,986	9.0	5,459	11,215	9.0	5,459	12,007
2021	62,622	7.4	4,634	9,099	9.0	5,636	11,356	9.0	5,636	12,158
2022	64,657	7.4	4,785	9,203	9.0	5,819	11,486	9.0	5,819	12,297
2023	66,758	7.4	4,940	9,297	9.0	6,008	11,603	9.0	6,008	12,422
2024	68,928	7.4	5,101	9,379	9.0	6,204	11,705	9.0	6,204	12,531
2025	71,168	7.4	5,266	9,447	9.0	6,405	11,790	9.0	6,405	12,622
2026	73,481	7.4	5,438	9,500	9.0	6,613	11,857	9.0	6,613	12,693
2027	75 <i>,</i> 869	7.4	5,614	9,537	9.0	6,828	11,903	9.0	6,828	12,742
2028	78,335	7.4	5,797	9,555	9.0	7,050	11,926	9.0	7,050	12,766

		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	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	
2019	\$ 58,742	10.3%	\$6,050	\$ 13,307	10.6%	\$6,227	\$ 13,280	11.4%	\$6,697	\$ 14,769	
2020	60,651	10.3	6,247	13,489	10.6	6,429	13,462	11.4	6,914	14,971	
2021	62,622	10.3	6,450	13,659	10.6	6,638	13,632	11.4	7,139	15,160	
2022	64,657	10.3	6,660	13,815	10.6	6,854	13,788	11.4	7,371	15,333	
2023	66,758	10.3	6,876	13,955	10.6	7,076	13,928	11.4	7,610	15,489	
2024	68,928	10.3	7,100	14,078	10.6	7,306	14,050	11.4	7,858	15,625	
2025	71,168	10.3	7,330	14,181	10.6	7,544	14,152	11.4	8,113	15,739	
2026	73,481	10.3	7,569	14,261	10.6	7,789	14,232	11.4	8,377	15,828	
2027	75,869	10.3	7,815	14,316	10.6	8,042	14,287	11.4	8,649	15,889	
2028	78.335	10.3	8.069	14.343	10.6	8.304	14.314	11.4	8.930	15.919	

		L-:	12 Benefit Pro	gram	LT-14	1(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated		Estimated Employer Contribution			d Employer ibution	Unfunded Actuarial		ibution Annual Dollars \$8,165	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
2019	\$ 58,742	12.2%	\$7,167	\$ 15,496	12.7%	\$7,460	\$ 16,241	13.9%	\$8,165	\$ 17,725
2020	60,651	12.2	7,399	15,708	12.7	7,703	16,463	13.9	8,430	17,968
2021	62,622	12.2	7,640	15,906	12.7	7,953	16,671	13.9	8,704	18,195
2022	64,657	12.2	7,888	16,088	12.7	8,211	16,862	13.9	8,987	18,403
2023	66,758	12.2	8,144	16,251	12.7	8,478	17,033	13.9	9,279	18,590
2024	68,928	12.2	8,409	16,394	12.7	8,754	17,183	13.9	9,581	18,753
2025	71,168	12.2	8,682	16,513	12.7	9,038	17,308	13.9	9,892	18,890
2026	73,481	12.2	8,965	16,606	12.7	9,332	17,406	13.9	10,214	18,997
2027	75,869	12.2	9,256	16,670	12.7	9,635	17,473	13.9	10,546	19,070
2028	78,335	12.2	9,557	16,702	12.7	9,949	17,506	13.9	10,889	19,106

- 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		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
2019	\$ 58,742	7.6%	\$4,464	\$ 9,180	9.3%	\$5,463	\$ 11,467	9.4%	\$5,522	\$ 12,272
	. ,		. ,			. ,	. ,			. ,
2020	60,651	7.6	4,609	9,306	9.3	5,641	11,624	9.4	5,701	12,440
2021	62,622	7.6	4,759	9,423	9.3	5,824	11,771	9.4	5,886	12,597
2022	64,657	7.6	4,914	9,531	9.3	6,013	11,906	9.4	6,078	12,741
2023	66,758	7.6	5,074	9,628	9.3	6,208	12,027	9.4	6,275	12,870
2024	68,928	7.6	5,239	9,713	9.3	6,410	12,133	9.4	6,479	12,983
2025	71,168	7.6	5,409	9,784	9.3	6,619	12,221	9.4	6,690	13,078
2026	73,481	7.6	5,585	9,839	9.3	6,834	12,290	9.4	6,907	13,152
2027	75,869	7.6	5,766	9,877	9.3	7,056	12,338	9.4	7,132	13,203
2028	78,335	7.6	5,953	9,896	9.3	7,285	12,362	9.4	7,363	13,228

	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
2019	\$ 58,742	10.6%	\$6,227	\$ 13,789	10.9%	\$6,403	\$ 13,739	11.8%	\$6,932	\$ 15,286
2020	60,651	10.6	6,429	13,978	10.9	6,611	13,927	11.8	7,157	15,495
2021	62,622	10.6	6,638	14,154	10.9	6,826	14,103	11.8	7,389	15,690
2022	64,657	10.6	6,854	14,316	10.9	7,048	14,264	11.8	7,630	15,869
2023	66,758	10.6	7,076	14,461	10.9	7,277	14,409	11.8	7,877	16,030
2024	68,928	10.6	7,306	14,588	10.9	7,513	14,536	11.8	8,134	16,171
2025	71,168	10.6	7,544	14,694	10.9	7,757	14,642	11.8	8,398	16,289
2026	73,481	10.6	7,789	14,777	10.9	8,009	14,725	11.8	8,671	16,381
2027	75,869	10.6	8,042	14,834	10.9	8,270	14,782	11.8	8,953	16,444
2028	78 335	10.6	8 304	14 862	10.9	8 539	14 810	11.8	9 244	16 475

		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
2019	\$ 58,742	12.6%	\$7,401	\$ 16,032	13.1%	\$7,695	\$ 16,809	14.4%	\$8,459	\$ 18,320
2020	60,651	12.6	7,642	16,252	13.1	7,945	17,039	14.4	8,734	18,571
2021	62,622	12.6	7,890	16,457	13.1	8,203	17,254	14.4	9,018	18,805
2022	64,657	12.6	8,147	16,645	13.1	8,470	17,451	14.4	9,311	19,020
2023	66,758	12.6	8,412	16,814	13.1	8,745	17,628	14.4	9,613	19,213
2024	68,928	12.6	8,685	16,962	13.1	9,030	17,783	14.4	9,926	19,382
2025	71,168	12.6	8,967	17,086	13.1	9,323	17,913	14.4	10,248	19,523
2026	73,481	12.6	9,259	17,183	13.1	9,626	18,014	14.4	10,581	19,633
2027	75,869	12.6	9,559	17,249	13.1	9,939	18,084	14.4	10,925	19,709
2028	78,335	12.6	9,870	17,282	13.1	10,262	18,119	14.4	11,280	19,747

- 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.

