

as of July 31, 2018



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April 25, 2019

Pike County Soil and Water Conservation District Bowling Green, Missouri

#### Ladies and Gentlemen:

Submitted in this report are the results of the actuarial valuation prepared to determine the employer contribution rates required to support, for your employees, the benefits provided by the Missouri Local Government Employees Retirement System (LAGERS). This report contains the information needed to comply with Missouri State disclosure requirements regarding the adoption of LAGERS benefits by a political subdivision (Sections 105.660 - 106.685 RSMo). This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

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

The contribution requirement for benefits likely to accrue as a result of the future service of your employees is described on pages 4 thru 11 as the current cost plus the disability cost. This contribution rate, expressed as a percent of active employee payroll, will depend on the benefit program adopted.

The contribution requirement to pay for benefits likely to result from service rendered by your employees before you join LAGERS is described on pages 4 thru 11 as the prior service cost. The value established for prior service is called the unfunded actuarial accrued liability (these amounts are further described in Appendix I). The prior service cost is the rate of contribution designed to pay for the unfunded actuarial accrued liability over a period of not more than 30 years.

Section 70.730 of the Revised Statutes of Missouri requires participating employers to contribute the current cost, disability cost, and prior service cost (the total employer cost as shown on pages 4 thru 11). These contributions are mandatory after official action has been taken to join the System.

The total annual dollar costs shown on pages 12 and 13 represent the dollar cost of each benefit program for a one year period based on the payroll reported for this actuarial valuation. In budgeting amounts for LAGERS contributions you should consider any changes in payroll which have been made since data was submitted for the valuation and any changes anticipated to be made before the end of the period for which you are preparing the budget.

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of this report. In our opinion, they do produce results which, in the aggregate, are reasonable. Additional miscellaneous and technical assumptions as well as disclosures required by the actuarial standards of practice may be found in the LAGERS Compiled Annual Actuarial Valuation report as of February 28, 2018.

The computed contributions required for LAGERS participation will permit the System to continue to operate in accordance with the actuarial principles of level cost financing and the State law which governs LAGERS. This valuation assumed the ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our expertise and not performed. Summary provisions of the law as well as benefit illustrations can be found in Appendices III and IV.

Projections needed to comply with Missouri State disclosure requirements (Section 105.665 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision are available upon request from LAGERS.

Please note that this entire report must be available as public information for at least 45 calendar days prior to the date final official action is taken by your governing body to join the System. You may wish to make notice of this report in the official minutes of the next meeting of your governing body. This action would not be binding on your subdivision, yet would establish the beginning date of the 45 day waiting period.

In accordance with LAGERS Board policy, the employer contribution rates established by this valuation report are valid for purposes of joining the System for a two year period from the date of this valuation which was July 31, 2018. The valuation was based on data furnished from your records concerning individual employees (see Appendix V).

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

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

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

Mita D. Drazilov is a member of the American Academy of Actuaries and meets the Qualification Standards of the Academy of Actuaries to render the actuarial opinions contained herein.

The signing actuary is independent of the plan sponsor.

Respectfully submitted,

Mita D. Drazilov, ASA, FCA, MAAA

Mita Drazilos



## Alternate Plan Provisions Affecting Employer Contribution Rates

The law governing LAGERS provides for either a contributory plan or a non-contributory plan, with benefits based on either a 5 year or 3 year Final Average Salary (FAS).

**Contributory Plan.** Under the contributory plan, each covered member contributes 4% of compensation to LAGERS. If an employee terminates before being eligible for an immediate benefit, the member's contributions, plus any interest credited to the member's individual account, are refunded upon request.

**Non-Contributory Plan.** Under the non-contributory plan, there is no individual employee contribution to the plan, no individual account maintained for each employee, and no refund paid to employees who terminate before being eligible for a benefit.

The law further provides for nine different benefit programs (benefit formula factors) and allows an employer to elect "rule of 80" eligibility for benefits. Under the rule of 80, employees are eligible for unreduced benefits at the earlier of (i) attainment of their minimum service retirement age or (ii) such time as their years of age plus years of LAGERS credited service equals 80.

In total this allows for 72 different combinations of benefit plans, giving employers considerable latitude in designing the retirement program which they feel best suits their particular situation.

The applicable combinations of these items may be changed from time to time, however, there are limitations on the frequency of changes. A more detailed description of plan provisions may be found in Appendix III of this report.



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

		Percents of Active Member Payroll			
Benefit	Employee	Prior Service	Current	Disability	Total Employer Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	General	0.40%	2.90%	0.20%	3.50%
L-3	General	0.60	4.10	0.30	5.00
LT-4(65)	General	0.50	3.50	0.20	4.20
LT-5(65)	General	0.60	4.60	0.30	5.50
L-7	General	0.70	5.40	0.30	6.40
LT-8(65)	General	0.80	5.70	0.30	6.80
L-12	General	0.90	6.60	0.40	7.90
LT-14(65)	General	0.90	6.80	0.40	8.10
L-6	General	1.00	8.00	0.50	9.50

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



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

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.40%	3.10%	0.20%	3.70%
L-3	General	0.60	4.30	0.30	5.20
LT-4(65)	General	0.50	3.70	0.20	4.40
LT-5(65)	General	0.60	4.80	0.30	5.70
L-7	General	0.80	5.60	0.30	6.70
LT-8(65)	General	0.80	5.90	0.30	7.00
L-12	General	0.90	7.00	0.40	8.30
LT-14(65)	General	0.90	7.10	0.40	8.40
L-6	General	1.10	8.30	0.50	9.90

<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			
		Prior			Total Employer
Benefit	Employee	Service	Current	Disability	Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	General	0.60%	6.30%	0.20%	7.10%
L-3	General	0.80	7.60	0.30	8.70
LT-4(65)	General	0.70	6.90	0.20	7.80
LT-5(65)	General	0.80	8.10	0.30	9.20
L-7	General	0.90	9.00	0.30	10.20
LT-8(65)	General	0.90	9.30	0.30	10.50
L-12	General	1.10	10.30	0.40	11.80
LT-14(65)	General	1.10	10.50	0.40	12.00
L-6	General	1.20	11.70	0.50	13.40

<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	0.60%	6.50%	0.20%	7.30%
L-3	General	0.80	7.90	0.30	9.00
LT-4(65)	General	0.70	7.10	0.20	8.00
LT-5(65)	General	0.80	8.30	0.30	9.40
L-7	General	0.90	9.30	0.30	10.50
LT-8(65)	General	1.00	9.60	0.30	10.90
L-12	General	1.10	10.70	0.40	12.20
LT-14(65)	General	1.10	10.80	0.40	12.30
L-6	General	1.30	12.00	0.50	13.80

<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	0.50%	3.40%	0.20%	4.10%
L-3	General	0.60	4.80	0.30	5.70
LT-4(65)	General	0.60	4.70	0.20	5.50
LT-5(65)	General	0.70	5.70	0.30	6.70
L-7	General	0.80	6.20	0.30	7.30
LT-8(65)	General	0.90	6.80	0.30	8.00
L-12	General	1.00	7.50	0.40	8.90
LT-14(65)	General	1.00	7.90	0.40	9.30
L-6	General	1.10	9.00	0.50	10.60

- # The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.
- \* 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	0.50%	3.60%	0.20%	4.30%
L-3	General	0.70	5.00	0.30	6.00
LT-4(65)	General	0.60	4.90	0.20	5.70
LT-5(65)	General	0.70	6.00	0.30	7.00
L-7	General	0.80	6.50	0.30	7.60
LT-8(65)	General	0.90	7.10	0.30	8.30
L-12	General	1.00	7.90	0.40	9.30
LT-14(65)	General	1.00	8.20	0.40	9.60
L-6	General	1.20	9.40	0.50	11.10

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



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

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

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.70%	6.80%	0.20%	7.70%
L-3	General	0.80	8.30	0.30	9.40
LT-4(65)	General	0.80	8.00	0.20	9.00
LT-5(65)	General	0.90	9.20	0.30	10.40
L-7	General	1.00	9.70	0.30	11.00
LT-8(65)	General	1.00	10.30	0.30	11.60
L-12	General	1.10	11.20	0.40	12.70
LT-14(65)	General	1.20	11.50	0.40	13.10
L-6	General	1.30	12.70	0.50	14.50

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



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

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

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.70%	7.00%	0.20%	7.90%
L-3	General	0.80	8.50	0.30	9.60
LT-4(65)	General	0.80	8.30	0.20	9.30
LT-5(65)	General	0.90	9.50	0.30	10.70
L-7	General	1.00	10.10	0.30	11.40
LT-8(65)	General	1.10	10.70	0.30	12.10
L-12	General	1.20	11.60	0.40	13.20
LT-14(65)	General	1.20	11.90	0.40	13.50
L-6	General	1.40	13.10	0.50	15.00

- # 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 Dollars Regular Retirement Eligibility**

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

#### **Contributory Plan**

5 Yea	5 Year FAS				
Benefit					
Program	General				
L-1	\$ 3,524				
L-3	5,035				
LT-4(65)	4,229				
LT-5(65)	5,538				
L-7	6,445				
LT-8(65)	6,847				
L-12	7,955				
LT-14(65)	8,156				
L-6	9,566				

3 Year FAS					
Benefit					
Program	General				
L-1	\$ 3,726				
L-3	5,236				
LT-4(65)	4,431				
LT-5(65)	5,740				
L-7	6,747				
LT-8(65)	7,049				
L-12	8,358				
LT-14(65)	8,458				
L-6	9,969				

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

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 7,149			
L-3	8,761			
LT-4(65)	7,854			
LT-5(65)	9,264			
L-7	10,271			
LT-8(65)	10,573			
L-12	11,882			
LT-14(65)	12,084			
L-6	13,493			

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 7,351			
L-3	9,063			
LT-4(65)	8,056			
LT-5(65)	9,465			
L-7	10,573			
LT-8(65)	10,976			
L-12	12,285			
LT-14(65)	12,386			
L-6	13,896			

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	\$ 4,129				
L-3	5,740				
LT-4(65)	5,538				
LT-5(65)	6,747				
L-7	7,351				
LT-8(65)	8,056				
L-12	8,962				
LT-14(65)	9,365				
L-6	10,674				

3 Year FAS						
Benefit						
Program	General					
L-1	\$ 4,330					
L-3	6,042					
LT-4(65)	5,740					
LT-5(65)	7,049					
L-7	7,653					
LT-8(65)	8,358					
L-12	9,365					
LT-14(65)	9,667					
L-6	11,177					

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

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 7,754			
L-3	9,465			
LT-4(65)	9,063			
LT-5(65)	10,472			
L-7	11,077			
LT-8(65)	11,681			
L-12	12,788			
LT-14(65)	13,191			
L-6	14,601			

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 7,955			
L-3	9,667			
LT-4(65)	9,365			
LT-5(65)	10,774			
L-7	11,479			
LT-8(65)	12,184			
L-12	13,292			
LT-14(65)	13,594			
L-6	15,104			

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	3
Annual Payroll	\$ 100,696

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:

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

		Contri	butory	Non-Con	tributory
Benefit Group	Employee Group	UAAL UAAL (5 Year FAS)		UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 7,225	\$ 7,607	\$ 10,800	\$ 11,187
L-3	General	10,012	10,508	13,482	13,976
LT-4(65)	General	8,318	8,725	11,859	12,278
LT-5(65)	General	10,803	11,330	14,295	14,799
L-7	General	12,790	13,360	16,187	16,762
LT-8(65)	General	13,333	13,913	16,718	17,302
L-12	General	15,541	16,175	18,904	19,525
LT-14(65)	General	15,816	16,439	19,188	19,806
L-6	General	18,209	18,954	21,607	22,322



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

		Contril	butory	Non-Con	tributory
Benefit	Employee	UAAL	UAAL	UAAL	UAAL
Group	Group	(5 Year FAS)	(3 Year FAS)	(5 Year FAS)	(3 Year FAS)
L-1	General	\$ 8,062	\$ 8,474	\$ 11,580	\$ 11,999
L-3	General	11,029	11,562	14,473	14,976
LT-4(65)	General	10,304	10,783	13,798	14,300
LT-5(65)	General	12,689	13,279	16,147	16,717
L-7	General	14,006	14,629	17,373	17,962
LT-8(65)	General	15,136	15,779	18,484	19,113
L-12	General	16,956	17,643	20,265	20,973
LT-14(65)	General	17,515	18,202	20,820	21,555
L-6	General	19,824	20,631	23,173	23,966





**SUMMARY OF FINANCIAL ASSUMPTIONS** 

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

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

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



#### Schedule 1.

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

#### Percent of Active Members Separating Within Next Year

		General Members							
Sample	Years of	N	⁄len	Women		Police		Fire	
Ages	Service	Disability	Withdrawal	Disability	Withdrawal	Disability	Withdrawal	Disability	Withdrawal
All	0		19.00%		22.00%		18.00%		10.00%
	1		17.00		20.00		17.00		8.00
	2		15.00		17.00		16.00		7.00
	3		13.00		14.00		13.00		6.00
	4		11.00		13.00		12.00		6.00
25	5 & Over	0.09%	7.30	0.02%	10.80	0.10%	9.80	0.06%	5.00
30		0.12	6.50	0.03	8.90	0.11	7.80	0.10	4.00
35		0.15	5.00	0.06	7.40	0.16	6.10	0.23	2.80
40		0.21	3.70	0.10	5.70	0.22	4.40	0.35	2.20
45		0.30	3.00	0.16	4.20	0.34	3.20	0.56	1.80
50		0.44	2.40	0.24	3.30	0.53	1.80	0.85	1.00
55		0.68	1.80	0.34	2.50	0.88	1.00	1.31	0.50
60		1.02	1.00	0.48	1.20		0.00		0.00
65			0.00		0.00		0.00		0.00

### Percent Increase in Individual's Pay

Sample	During Next Year				
Ages	<b>General &amp; Police</b>	Fire			
25	6.55%	7.15%			
30	5.75	6.05			
35	5.25	5.15			
40	4.75	4.45			
45	4.25	4.15			
50	3.85	3.85			
55	3.65	3.65			
60	3.55	3.25			
65	3.25	3.25			



#### Schedule 2.

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

#### **Early Retirement**

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

#### **Normal Retirement**

Retirement	<b>General Members</b>		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 67	25 25 20	25 25 25	60 61 62	10 10 25	15 15 20
67 68				25	
69	20 20	25 20	63 64	20	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	Conoral	<b>General Members</b>			
Ages	Men	Women	Police	Fire	
Ages	IVICII	Women	1 Once	1110	
50	15%	15%	25%	25%	
51	15	15	25	20	
52	15	15	15	20	
53	15	15	15	20	
54	15	15	15	20	
55	15	15	15	20	
56	15	15	15	20	
57	15	15	15	25	
58	15	15	15	25	
59	15	15	15	25	
60	15	15	15	35	
61	15	15	25	35	
62	30	15	30	45	
63	30	15	30	45	
64	30	20	30	45	
65	30	25	100	100	
66	30	25			
67	30	25			
68	30	25			
69	30	25			
70	100	100			





**SUMMARY OF LAGERS PROVISIONS** 

# Missouri LocAl Government Employees Retirement System Brief Summary of LAGERS Benefits and Conditions Evaluated and/or Considered

## as of February 28, 2018 (Section references are to RSMo)

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

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

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

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

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

LT-4(65) Benefit Program:

LT-5(65) Benefit Program:

LT-8(65) Benefit Program:

1.00% for life, plus 1.00% to age 65

1.25% for life, plus 0.75% to age 65

LT-14(65) Benefit Program:

1.50% for life, plus 0.50% to age 65

LT-14(65) Benefit Program:

1.75% for life, plus 0.25% to age 65

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

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

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

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



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

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

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

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

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

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

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

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

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



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

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

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

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

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

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





**BENEFIT ILLUSTRATIONS** 

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

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

<sup>&</sup>quot;Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

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



<sup>&</sup>quot;Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

<sup>&</sup>lt;sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

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



<sup>&</sup>lt;sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

<sup>&</sup>quot;Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

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



<sup>&</sup>lt;sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

<sup>&</sup>quot;Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

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



<sup>&</sup>lt;sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

<sup>&</sup>lt;sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

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



<sup>&</sup>lt;sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

#### **Missouri LAGERS**

## Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary

(LT-4(65) Benefit Program is Years of Credited Service times: 2.00% of FAS <sup>1</sup> to age 65)

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

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

<sup>&</sup>lt;sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

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



<sup>&</sup>lt;sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

#### **Missouri LAGERS**

## Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary

(LT-5(65) Benefit Program is Years of Credited Service times: 2.00% of FAS <sup>1</sup> to age 65)

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

Final	LAG	ERS	Estimated	Estim	nated	Perc	ent
Average	BENI	EFIT <sup>3</sup>	Social	Monthl	ly Total	of F	AS
Salary (FAS) <sup>1</sup>	To 65	At 65	Security <sup>2</sup>	To 65	At 65	To 65	At 65
35 Years of Service	e:						
\$1,500	\$1,050	\$ 656	\$ 889	\$1,050	\$1,545	70%	103%
2,000	1,400	875	1,032	1,400	1,907	70%	95%
2,500	1,750	1,094	1,175	1,750	2,269	70%	91%
3,000	2,100	1,313	1,318	2,100	2,631	70%	88%
3,500	2,450	1,531	1,462	2,450	2,993	70%	86%
4,000	2,800	1,750	1,604	2,800	3,354	70%	84%
25 Years of Service	e:						
\$1,500	\$ 750	\$ 469	\$ 889	\$ 750	\$1,358	50%	91%
2,000	1,000	625	1,032	1,000	1,657	50%	83%
2,500	1,250	781	1,175	1,250	1,956	50%	78%
3,000	1,500	938	1,318	1,500	2,256	50%	75%
3,500	1,750	1,094	1,462	1,750	2,556	50%	73%
4,000	2,000	1,250	1,604	2,000	2,854	50%	71%
15 Years of Service	e:						
\$1,500	\$ 450	\$281	\$ 889	\$ 450	\$1,170	30%	78%
2,000	600	375	1,032	600	1,407	30%	70%
2,500	750	469	1,175	750	1,644	30%	66%
3,000	900	563	1,318	900	1,881	30%	63%
3,500	1,050	656	1,462	1,050	2,118	30%	61%
4,000	1,200	750	1,604	1,200	2,354	30%	59%

<sup>&</sup>lt;sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

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



<sup>&</sup>lt;sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

# **Missouri LAGERS**

# Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary

(LT-8(65) Benefit Program is Years of Credited Service times: 2.00% of FAS <sup>1</sup> to age 65)

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

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

<sup>&</sup>lt;sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

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



<sup>&</sup>lt;sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

#### **Missouri LAGERS**

# Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary

(LT-14(65) Benefit Program is Years of Credited Service times: 2.00% of FAS <sup>1</sup> to age 65)

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

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

<sup>&</sup>lt;sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

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



<sup>&</sup>lt;sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.



AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

#### July 31, 2018

# By Attained Age and Years of Service

		Years of Service to Valuation Date Totals												
Attained									Valuation					
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll					
Under 20														
20-24	1							1	\$ 32,136					
25-29														
30-34	1							1	\$ 34,280					
35-39														
40-44														
45-49														
50-54	1							1	\$ 34,280					
55-59														
60-64														
65-69														
70 & Over														
Totals	3	\$ 100,696												

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

Age: 35.6 years.

Benefit Service: 0.0 years. Annual Pay: \$33,565.





**RISK COMMENTARY** 

# **Risk Commentary**

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

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

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

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

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

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



# **Risk Commentary (Concluded)**

#### PLAN MATURITY MEASURES

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

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

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

#### RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL

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

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

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

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

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

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

#### ADDITIONAL RISK ASSESSMENT

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





April 25, 2019 E-mail

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

Dear Bob:

Enclosed is the report of the July 31, 2018 Initial Actuarial Valuation of LAGERS benefits for the employees of

Pike County Soil and Water Conservation District

Sincerely,

Mita D. Drazilov, ASA, FCA, MAAA

Mita Drazilor

MDD:wp



April 25, 2019

Pike County Soil and Water Conservation District Bowling Green, Missouri

Ladies and Gentlemen:

This report contains projections needed to comply with Missouri state disclosure requirements (Section 105.660 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision. This report is intended to be a supplement to the July 31, 2018 Initial Valuation for the Pike County Soil and Water Conservation District dated April 25, 2019.

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of the Initial Valuation Report. In our opinion, they do produce results which, in the aggregate, are reasonable. Additional miscellaneous and technical assumptions as well as disclosures required by the actuarial standards of practice may be found in the LAGERS Compiled Annual Actuarial Valuation report as of February 28, 2018.

Mita Drazilov is a member of the American Academy of Actuaries and meets the Qualification Standards of the Academy of Actuaries to render the actuarial opinions herein.

Respectfully submitted,

Mita Draylov Mita D. Drazilov, ASA, FCA, MAAA

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

#### Regular Retirement Eligibility

		L-1 Benefit Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated Employer		Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contribution		ibution Actuarial		Contribution A		Contribution		Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 100,696	3.5%	\$3,524	\$ 7,225	5.0%	\$5,035	\$ 10,012	4.2%	\$4,229	\$ 8,318
2019	103,969	3.5	3,639	7,324	5.0	5,198	10,149	4.2	4,367	8,432
2020	107,348	3.5	3,757	7,416	5.0	5,367	10,277	4.2	4,509	8,538
2021	110,837	3.5	3,879	7,501	5.0	5,542	10,394	4.2	4,655	8,636
2022	114,439	3.5	4,005	7,577	5.0	5,722	10,500	4.2	4,806	8,724
2023	118,158	3.5	4,136	7,644	5.0	5,908	10,592	4.2	4,963	8,801
2024	121,998	3.5	4,270	7,700	5.0	6,100	10,669	4.2	5,124	8,865
2025	125,963	3.5	4,409	7,744	5.0	6,298	10,729	4.2	5,290	8,915
2026	130,057	3.5	4,552	7,774	5.0	6,503	10,770	4.2	5,462	8,949
2027	134,284	3.5	4,700	7,789	5.0	6,714	10,791	4.2	5,640	8,966

			LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
Estimated		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	
2018	\$ 100,696	5.5%	\$5,538	\$ 10,803	6.4%	\$6,445	\$ 12,790	6.8%	\$6,847	\$ 13,333	
2019	103,969	5.5	5,718	10,951	6.4	6,654	12,965	6.8	7,070	13,516	
2020	107,348	5.5	5,904	11,089	6.4	6,870	13,128	6.8	7,300	13,686	
2021	110,837	5.5	6,096	11,216	6.4	7,094	13,278	6.8	7,537	13,842	
2022	114,439	5.5	6,294	11,330	6.4	7,324	13,413	6.8	7,782	13,983	
2023	118,158	5.5	6,499	11,430	6.4	7,562	13,531	6.8	8,035	14,106	
2024	121,998	5.5	6,710	11,513	6.4	7,808	13,630	6.8	8,296	14,209	
2025	125,963	5.5	6,928	11,578	6.4	8,062	13,707	6.8	8,565	14,289	
2026	130,057	5.5	7,153	11,623	6.4	8,324	13,760	6.8	8,844	14,344	
2027	134.284	5.5	7.386	11.645	6.4	8.594	13.786	6.8	9.131	14.371	

		L-12 Benefit Program			LT-14	1(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		l Employer ibution	Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 100,696	7.9%	\$7,955	\$ 15,541	8.1%	\$8,156	\$ 15,816	9.5%	\$9,566	\$ 18,209
2019	103,969	7.9	8,214	15,754	8.1	8,421	16,033	9.5	9,877	18,458
2020	107,348	7.9	8,480	15,953	8.1	8,695	16,235	9.5	10,198	18,691
2021	110,837	7.9	8,756	16,135	8.1	8,978	16,421	9.5	10,530	18,905
2022	114,439	7.9	9,041	16,299	8.1	9,270	16,588	9.5	10,872	19,097
2023	118,158	7.9	9,334	16,442	8.1	9,571	16,734	9.5	11,225	19,265
2024	121,998	7.9	9,638	16,562	8.1	9,882	16,856	9.5	11,590	19,405
2025	125,963	7.9	9,951	16,656	8.1	10,203	16,951	9.5	11,966	19,515
2026	130,057	7.9	10,275	16,720	8.1	10,535	17,017	9.5	12,355	19,590
2027	134,284	7.9	10,608	16,752	8.1	10,877	17,049	9.5	12,757	19,627

- 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 Program			LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated Employer  Contribution		Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial			Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 100,696	3.7%	\$3,726	\$ 7,607	5.2%	\$5,236	\$ 10,508	4.4%	\$4,431	\$ 8,725
2019	103,969	3.7	3,847	7,711	5.2	5,406	10,652	4.4	4,575	8,845
2020	107,348	3.7	3,972	7,808	5.2	5,582	10,786	4.4	4,723	8,957
2021	110,837	3.7	4,101	7,897	5.2	5,764	10,909	4.4	4,877	9,059
2022	114,439	3.7	4,234	7,977	5.2	5,951	11,020	4.4	5,035	9,151
2023	118,158	3.7	4,372	8,047	5.2	6,144	11,117	4.4	5,199	9,231
2024	121,998	3.7	4,514	8,106	5.2	6,344	11,198	4.4	5,368	9,298
2025	125,963	3.7	4,661	8,152	5.2	6,550	11,261	4.4	5,542	9,351
2026	130,057	3.7	4,812	8,184	5.2	6,763	11,305	4.4	5,723	9,387
2027	134,284	3.7	4,969	8,200	5.2	6,983	11,327	4.4	5,908	9,405

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
	Estimated		Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 100,696	5.7%	\$5,740	\$ 11,330	6.7%	\$6,747	\$ 13,360	7.0%	\$7,049	\$ 13,913
2019	103,969	5.7	5,926	11,485	6.7	6,966	13,543	7.0	7,278	14,104
2020	107,348	5.7	6,119	11,630	6.7	7,192	13,714	7.0	7,514	14,282
2021	110,837	5.7	6,318	11,763	6.7	7,426	13,871	7.0	7,759	14,445
2022	114,439	5.7	6,523	11,883	6.7	7,667	14,012	7.0	8,011	14,592
2023	118,158	5.7	6,735	11,987	6.7	7,917	14,135	7.0	8,271	14,720
2024	121,998	5.7	6,954	12,074	6.7	8,174	14,238	7.0	8,540	14,827
2025	125,963	5.7	7,180	12,142	6.7	8,440	14,318	7.0	8,817	14,911
2026	130,057	5.7	7,413	12,189	6.7	8,714	14,373	7.0	9,104	14,969
2027	134.284	5.7	7.654	12.212	6.7	8.997	14.400	7.0	9.400	14.998

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 100,696	8.3%	\$8,358	\$ 16,175	8.4%	\$8,458	\$ 16,439	9.9%	\$9,969	\$ 18,954
2019	103,969	8.3	8,629	16,397	8.4	8,733	16,664	9.9	10,293	19,214
2020	107,348	8.3	8,910	16,604	8.4	9,017	16,874	9.9	10,627	19,456
2021	110,837	8.3	9,199	16,794	8.4	9,310	17,067	9.9	10,973	19,678
2022	114,439	8.3	9,498	16,965	8.4	9,613	17,240	9.9	11,329	19,878
2023	118,158	8.3	9,807	17,114	8.4	9,925	17,391	9.9	11,698	20,053
2024	121,998	8.3	10,126	17,239	8.4	10,248	17,518	9.9	12,078	20,199
2025	125,963	8.3	10,455	17,336	8.4	10,581	17,617	9.9	12,470	20,313
2026	130,057	8.3	10,795	17,403	8.4	10,925	17,685	9.9	12,876	20,392
2027	134,284	8.3	11,146	17,436	8.4	11,280	17,719	9.9	13,294	20,431

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



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

(0% member contributions are additional)

#### Regular Retirement Eligibility

		L-1 Benefit Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	Estimated Employer		Estimated	l Employer	Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 100,696	7.1%	\$7,149	\$ 10,800	8.7%	\$8,761	\$ 13,482	7.8%	\$7,854	\$ 11,859
2019	103,969	7.1	7,382	10,948	8.7	9,045	13,667	7.8	8,110	12,021
2020	107,348	7.1	7,622	11,086	8.7	9,339	13,839	7.8	8,373	12,173
2021	110,837	7.1	7,869	11,213	8.7	9,643	13,997	7.8	8,645	12,312
2022	114,439	7.1	8,125	11,327	8.7	9,956	14,139	7.8	8,926	12,437
2023	118,158	7.1	8,389	11,426	8.7	10,280	14,263	7.8	9,216	12,546
2024	121,998	7.1	8,662	11,509	8.7	10,614	14,367	7.8	9,516	12,637
2025	125,963	7.1	8,943	11,574	8.7	10,959	14,448	7.8	9,825	12,708
2026	130,057	7.1	9,234	11,619	8.7	11,315	14,504	7.8	10,144	12,757
2027	134,284	7.1	9,534	11,641	8.7	11,683	14,532	7.8	10,474	12,781

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
	Estimated		Estimated Employer mated Contribution		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 100,696	9.2%	\$9,264	\$ 14,295	10.2%	\$10,271	\$ 16,187	10.5%	\$10,573	\$ 16,718
2019	103,969	9.2	9,565	14,491	10.2	10,605	16,409	10.5	10,917	16,947
2020	107,348	9.2	9,876	14,674	10.2	10,949	16,616	10.5	11,272	17,161
2021	110,837	9.2	10,197	14,842	10.2	11,305	16,806	10.5	11,638	17,357
2022	114,439	9.2	10,528	14,993	10.2	11,673	16,977	10.5	12,016	17,533
2023	118,158	9.2	10,871	15,125	10.2	12,052	17,126	10.5	12,407	17,687
2024	121,998	9.2	11,224	15,235	10.2	12,444	17,251	10.5	12,810	17,816
2025	125,963	9.2	11,589	15,321	10.2	12,848	17,348	10.5	13,226	17,917
2026	130,057	9.2	11,965	15,380	10.2	13,266	17,415	10.5	13,656	17,986
2027	134.284	9.2	12.354	15.409	10.2	13.697	17.448	10.5	14.100	18.020

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		Estimated Employer Contribution			Estimated Employer Contribution			l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 100,696	11.8%	\$11,882	\$ 18,904	12.0%	\$12,084	\$ 19,188	13.4%	\$13,493	\$ 21,607
2019	103,969	11.8	12,268	19,163	12.0	12,476	19,451	13.4	13,932	21,903
2020	107,348	11.8	12,667	19,405	12.0	12,882	19,696	13.4	14,385	22,179
2021	110,837	11.8	13,079	19,627	12.0	13,300	19,921	13.4	14,852	22,433
2022	114,439	11.8	13,504	19,826	12.0	13,733	20,123	13.4	15,335	22,661
2023	118,158	11.8	13,943	20,000	12.0	14,179	20,300	13.4	15,833	22,860
2024	121,998	11.8	14,396	20,146	12.0	14,640	20,448	13.4	16,348	23,027
2025	125,963	11.8	14,864	20,260	12.0	15,116	20,564	13.4	16,879	23,157
2026	130,057	11.8	15,347	20,338	12.0	15,607	20,644	13.4	17,428	23,247
2027	134,284	11.8	15,846	20,377	12.0	16,114	20,683	13.4	17,994	23,291

- 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 Program			L-3 Benefit Program			LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	Employer bution Actuaria Annual Accruer Dollars Liability \$8,056 \$12, 8,318 12, 8,588 12, 8,867 12, 9,155 12, 9,453 12, 9,760 13, 10,077 13,	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2018	\$ 100,696	7.3%	\$7,351	\$ 11,187	9.0%	\$9,063	\$ 13,976	8.0%	\$8,056	\$ 12,278	
2019	103,969	7.3	7,590	11,340	9.0	9,357	14,167	8.0	8,318	12,446	
2020	107,348	7.3	7,836	11,483	9.0	9,661	14,346	8.0	8,588	12,603	
2021	110,837	7.3	8,091	11,614	9.0	9,975	14,510	8.0	8,867	12,747	
2022	114,439	7.3	8,354	11,732	9.0	10,300	14,657	8.0	9,155	12,877	
2023	118,158	7.3	8,626	11,835	9.0	10,634	14,786	8.0	9,453	12,990	
2024	121,998	7.3	8,906	11,921	9.0	10,980	14,894	8.0	9,760	13,085	
2025	125,963	7.3	9,195	11,988	9.0	11,337	14,978	8.0	10,077	13,159	
2026	130,057	7.3	9,494	12,034	9.0	11,705	15,036	8.0	10,405	13,210	
2027	134,284	7.3	9,803	12,057	9.0	12,086	15,065	8.0	10,743	13,235	

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		l Employer Unfunded ibution Actuarial			d Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	
2018	\$ 100,696	9.4%	\$9,465	\$ 14,799	10.5%	\$10,573	\$ 16,762	10.9%	\$10,976	\$ 17,302	
2019	103,969	9.4	9,773	15,002	10.5	10,917	16,992	10.9	11,333	17,539	
2020	107,348	9.4	10,091	15,191	10.5	11,272	17,206	10.9	11,701	17,760	
2021	110,837	9.4	10,419	15,365	10.5	11,638	17,403	10.9	12,081	17,963	
2022	114,439	9.4	10,757	15,521	10.5	12,016	17,580	10.9	12,474	18,146	
2023	118,158	9.4	11,107	15,657	10.5	12,407	17,734	10.9	12,879	18,305	
2024	121,998	9.4	11,468	15,771	10.5	12,810	17,863	10.9	13,298	18,438	
2025	125,963	9.4	11,841	15,860	10.5	13,226	17,964	10.9	13,730	18,542	
2026	130,057	9.4	12,225	15,921	10.5	13,656	18,033	10.9	14,176	18,614	
2027	134.284	9.4	12.623	15.951	10.5	14.100	18.067	10.9	14.637	18.650	

		L-12 Benefit Program  Estimated Employer Unfunded			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		Estimated Employer Contribution			d Employer ibution	Unfunded Actuarial		d Employer ribution Annual Dollars \$13,896 14,348 14,814	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll		Accrued Liability
2018	\$ 100,696	12.2%	\$12,285	\$ 19,525	12.3%	\$12,386	\$ 19,806	13.8%	\$13,896	\$ 22,322
2019	103,969	12.2	12,684	19,792	12.3	12,788	20,077	13.8	14,348	22,628
2020	107,348	12.2	13,096	20,042	12.3	13,204	20,330	13.8	14,814	22,913
2021	110,837	12.2	13,522	20,271	12.3	13,633	20,562	13.8	15,296	23,175
2022	114,439	12.2	13,962	20,477	12.3	14,076	20,771	13.8	15,793	23,410
2023	118,158	12.2	14,415	20,657	12.3	14,533	20,953	13.8	16,306	23,616
2024	121,998	12.2	14,884	20,807	12.3	15,006	21,106	13.8	16,836	23,788
2025	125,963	12.2	15,367	20,925	12.3	15,493	21,225	13.8	17,383	23,922
2026	130,057	12.2	15,867	21,006	12.3	15,997	21,307	13.8	17,948	24,015
2027	134,284	12.2	16,383	21,046	12.3	16,517	21,348	13.8	18,531	24,061

- 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 Proខ្	gram	LT-4	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	Sibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 100,696	4.1%	\$4,129	\$ 8,062	5.7%	\$5,740	\$ 11,029	5.5%	\$5,538	\$ 10,304
2019	103,969	4.1	4,263	8,172	5.7	5,926	11,180	5.5	5,718	10,445
2020	107,348	4.1	4,401	8,275	5.7	6,119	11,321	5.5	5,904	10,577
2021	110,837	4.1	4,544	8,370	5.7	6,318	11,450	5.5	6,096	10,698
2022	114,439	4.1	4,692	8,455	5.7	6,523	11,566	5.5	6,294	10,807
2023	118,158	4.1	4,844	8,529	5.7	6,735	11,668	5.5	6,499	10,902
2024	121,998	4.1	5,002	8,591	5.7	6,954	11,753	5.5	6,710	10,981
2025	125,963	4.1	5,164	8,640	5.7	7,180	11,819	5.5	6,928	11,043
2026	130,057	4.1	5,332	8,673	5.7	7,413	11,865	5.5	7,153	11,086
2027	134,284	4.1	5,506	8,690	5.7	7,654	11,888	5.5	7,386	11,107

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
	Estimated		d Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 100,696	6.7%	\$6,747	\$ 12,689	7.3%	\$7,351	\$ 14,006	8.0%	\$8,056	\$ 15,136
2019	103,969	6.7	6,966	12,863	7.3	7,590	14,198	8.0	8,318	15,343
2020	107,348	6.7	7,192	13,025	7.3	7,836	14,377	8.0	8,588	15,536
2021	110,837	6.7	7,426	13,174	7.3	8,091	14,541	8.0	8,867	15,714
2022	114,439	6.7	7,667	13,308	7.3	8,354	14,689	8.0	9,155	15,874
2023	118,158	6.7	7,917	13,425	7.3	8,626	14,818	8.0	9,453	16,013
2024	121,998	6.7	8,174	13,523	7.3	8,906	14,926	8.0	9,760	16,130
2025	125,963	6.7	8,440	13,599	7.3	9,195	15,010	8.0	10,077	16,221
2026	130,057	6.7	8,714	13,652	7.3	9,494	15,068	8.0	10,405	16,284
2027	134.284	6.7	8.997	13.678	7.3	9.803	15.097	8.0	10.743	16.315

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		Employer	Unfunded		l Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 100,696	8.9%	\$8,962	\$ 16,956	9.3%	\$9,365	\$ 17,515	10.6%	\$10,674	\$ 19,824
2019	103,969	8.9	9,253	17,188	9.3	9,669	17,755	10.6	11,021	20,096
2020	107,348	8.9	9,554	17,405	9.3	9,983	17,979	10.6	11,379	20,349
2021	110,837	8.9	9,864	17,604	9.3	10,308	18,185	10.6	11,749	20,582
2022	114,439	8.9	10,185	17,783	9.3	10,643	18,370	10.6	12,131	20,791
2023	118,158	8.9	10,516	17,939	9.3	10,989	18,531	10.6	12,525	20,974
2024	121,998	8.9	10,858	18,070	9.3	11,346	18,666	10.6	12,932	21,127
2025	125,963	8.9	11,211	18,172	9.3	11,715	18,771	10.6	13,352	21,246
2026	130,057	8.9	11,575	18,242	9.3	12,095	18,844	10.6	13,786	21,328
2027	134,284	8.9	11,951	18,277	9.3	12,488	18,880	10.6	14,234	21,369

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



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

#### Rule of 80 Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Prog	gram	LT-4	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	ribution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 100,696	4.3%	\$4,330	\$ 8,474	6.0%	\$6,042	\$ 11,562	5.7%	\$5,740	\$ 10,783
2019	103,969	4.3	4,471	8,590	6.0	6,238	11,720	5.7	5,926	10,931
2020	107,348	4.3	4,616	8,698	6.0	6,441	11,868	5.7	6,119	11,069
2021	110,837	4.3	4,766	8,797	6.0	6,650	12,004	5.7	6,318	11,196
2022	114,439	4.3	4,921	8,886	6.0	6,866	12,126	5.7	6,523	11,310
2023	118,158	4.3	5,081	8,964	6.0	7,089	12,232	5.7	6,735	11,409
2024	121,998	4.3	5,246	9,029	6.0	7,320	12,321	5.7	6,954	11,492
2025	125,963	4.3	5,416	9,080	6.0	7,558	12,391	5.7	7,180	11,557
2026	130,057	4.3	5,592	9,115	6.0	7,803	12,439	5.7	7,413	11,602
2027	134,284	4.3	5,774	9,132	6.0	8,057	12,463	5.7	7,654	11,624

		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	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 100,696	7.0%	\$7,049	\$ 13,279	7.6%	\$7,653	\$ 14,629	8.3%	\$8,358	\$ 15,779
2019	103,969	7.0	7,278	13,461	7.6	7,902	14,829	8.3	8,629	15,995
2020	107,348	7.0	7,514	13,631	7.6	8,158	15,016	8.3	8,910	16,197
2021	110,837	7.0	7,759	13,787	7.6	8,424	15,188	8.3	9,199	16,382
2022	114,439	7.0	8,011	13,927	7.6	8,697	15,342	8.3	9,498	16,548
2023	118,158	7.0	8,271	14,049	7.6	8,980	15,477	8.3	9,807	16,693
2024	121,998	7.0	8,540	14,151	7.6	9,272	15,590	8.3	10,126	16,815
2025	125,963	7.0	8,817	14,231	7.6	9,573	15,678	8.3	10,455	16,910
2026	130,057	7.0	9,104	14,286	7.6	9,884	15,739	8.3	10,795	16,975
2027	134.284	7.0	9.400	14.313	7.6	10.206	15.769	8.3	11.146	17.007

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		Employer	Unfunded		l Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 100,696	9.3%	\$9,365	\$ 17,643	9.6%	\$9,667	\$ 18,202	11.1%	\$11,177	\$ 20,631
2019	103,969	9.3	9,669	17,885	9.6	9,981	18,451	11.1	11,541	20,914
2020	107,348	9.3	9,983	18,111	9.6	10,305	18,684	11.1	11,916	21,178
2021	110,837	9.3	10,308	18,318	9.6	10,640	18,898	11.1	12,303	21,420
2022	114,439	9.3	10,643	18,504	9.6	10,986	19,090	11.1	12,703	21,638
2023	118,158	9.3	10,989	18,667	9.6	11,343	19,258	11.1	13,116	21,828
2024	121,998	9.3	11,346	18,803	9.6	11,712	19,398	11.1	13,542	21,987
2025	125,963	9.3	11,715	18,909	9.6	12,092	19,508	11.1	13,982	22,111
2026	130,057	9.3	12,095	18,982	9.6	12,485	19,583	11.1	14,436	22,197
2027	134,284	9.3	12,488	19,018	9.6	12,891	19,620	11.1	14,906	22,239

- 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 Program			LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	d Employer ribution Annual Dollars \$9,063 9,357 9,661 9,975 10,300 10,634	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 100,696	7.7%	\$7,754	\$ 11,580	9.4%	\$9,465	\$ 14,473	9.0%	\$9,063	\$ 13,798
2019	103,969	7.7	8,006	11,739	9.4	9,773	14,671	9.0	9,357	13,987
2020	107,348	7.7	8,266	11,887	9.4	10,091	14,856	9.0	9,661	14,163
2021	110,837	7.7	8,534	12,023	9.4	10,419	15,026	9.0	9,975	14,325
2022	114,439	7.7	8,812	12,145	9.4	10,757	15,179	9.0	10,300	14,471
2023	118,158	7.7	9,098	12,252	9.4	11,107	15,312	9.0	10,634	14,598
2024	121,998	7.7	9,394	12,341	9.4	11,468	15,424	9.0	10,980	14,704
2025	125,963	7.7	9,699	12,411	9.4	11,841	15,511	9.0	11,337	14,787
2026	130,057	7.7	10,014	12,459	9.4	12,225	15,571	9.0	11,705	14,844
2027	134,284	7.7	10,340	12,483	9.4	12,623	15,601	9.0	12,086	14,872

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial	
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	
2018	\$ 100,696	10.4%	\$10,472	\$ 16,147	11.0%	\$11,077	\$ 17,373	11.6%	\$11,681	\$ 18,484	
2019	103,969	10.4	10,813	16,368	11.0	11,437	17,611	11.6	12,060	18,737	
2020	107,348	10.4	11,164	16,574	11.0	11,808	17,833	11.6	12,452	18,973	
2021	110,837	10.4	11,527	16,763	11.0	12,192	18,037	11.6	12,857	19,190	
2022	114,439	10.4	11,902	16,933	11.0	12,588	18,220	11.6	13,275	19,385	
2023	118,158	10.4	12,288	17,082	11.0	12,997	18,380	11.6	13,706	19,555	
2024	121,998	10.4	12,688	17,206	11.0	13,420	18,514	11.6	14,152	19,697	
2025	125,963	10.4	13,100	17,303	11.0	13,856	18,619	11.6	14,612	19,808	
2026	130,057	10.4	13,526	17,370	11.0	14,306	18,691	11.6	15,087	19,885	
2027	134.284	10.4	13.966	17.403	11.0	14.771	18.727	11.6	15.577	19.923	

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		l Employer	Unfunded		d Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 100,696	12.7%	\$12,788	\$ 20,265	13.1%	\$13,191	\$ 20,820	14.5%	\$14,601	\$ 23,173
2019	103,969	12.7	13,204	20,543	13.1	13,620	21,105	14.5	15,076	23,490
2020	107,348	12.7	13,633	20,802	13.1	14,063	21,371	14.5	15,565	23,786
2021	110,837	12.7	14,076	21,040	13.1	14,520	21,615	14.5	16,071	24,058
2022	114,439	12.7	14,534	21,254	13.1	14,992	21,835	14.5	16,594	24,302
2023	118,158	12.7	15,006	21,441	13.1	15,479	22,027	14.5	17,133	24,515
2024	121,998	12.7	15,494	21,597	13.1	15,982	22,187	14.5	17,690	24,694
2025	125,963	12.7	15,997	21,719	13.1	16,501	22,312	14.5	18,265	24,834
2026	130,057	12.7	16,517	21,803	13.1	17,037	22,398	14.5	18,858	24,930
2027	134,284	12.7	17,054	21,845	13.1	17,591	22,441	14.5	19,471	24,978

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



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

(0% member contributions are additional)

#### Rule of 80 Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
	Estimated			Actuarial						
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 100,696	7.9%	\$7,955	\$ 11,999	9.6%	\$9,667	\$ 14,976	9.3%	\$9,365	\$ 14,300
2019	103,969	7.9	8,214	12,163	9.6	9,981	15,181	9.3	9,669	14,496
2020	107,348	7.9	8,480	12,316	9.6	10,305	15,372	9.3	9,983	14,679
2021	110,837	7.9	8,756	12,457	9.6	10,640	15,548	9.3	10,308	14,847
2022	114,439	7.9	9,041	12,584	9.6	10,986	15,706	9.3	10,643	14,998
2023	118,158	7.9	9,334	12,695	9.6	11,343	15,844	9.3	10,989	15,130
2024	121,998	7.9	9,638	12,787	9.6	11,712	15,959	9.3	11,346	15,240
2025	125,963	7.9	9,951	12,859	9.6	12,092	16,049	9.3	11,715	15,326
2026	130,057	7.9	10,275	12,909	9.6	12,485	16,111	9.3	12,095	15,385
2027	134,284	7.9	10,608	12,934	9.6	12,891	16,142	9.3	12,488	15,414

	Estimated	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 100,696	10.7%	\$10,774	\$ 16,717	11.4%	\$11,479	\$ 17,962	12.1%	\$12,184	\$ 19,113
2019	103,969	10.7	11,125	16,946	11.4	11,852	18,208	12.1	12,580	19,375
2020	107,348	10.7	11,486	17,160	11.4	12,238	18,438	12.1	12,989	19,619
2021	110,837	10.7	11,860	17,356	11.4	12,635	18,649	12.1	13,411	19,843
2022	114,439	10.7	12,245	17,532	11.4	13,046	18,838	12.1	13,847	20,045
2023	118,158	10.7	12,643	17,686	11.4	13,470	19,003	12.1	14,297	20,221
2024	121,998	10.7	13,054	17,815	11.4	13,908	19,141	12.1	14,762	20,368
2025	125,963	10.7	13,478	17,916	11.4	14,360	19,249	12.1	15,242	20,483
2026	130,057	10.7	13,916	17,985	11.4	14,826	19,323	12.1	15,737	20,562
2027	134.284	10.7	14.368	18.019	11.4	15.308	19.360	12.1	16.248	20.601

	Estimated	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 100,696	13.2%	\$13,292	\$ 20,973	13.5%	\$13,594	\$ 21,555	15.0%	\$15,104	\$ 23,966
2019	103,969	13.2	13,724	21,260	13.5	14,036	21,850	15.0	15,595	24,294
2020	107,348	13.2	14,170	21,528	13.5	14,492	22,126	15.0	16,102	24,600
2021	110,837	13.2	14,630	21,774	13.5	14,963	22,379	15.0	16,626	24,881
2022	114,439	13.2	15,106	21,995	13.5	15,449	22,606	15.0	17,166	25,134
2023	118,158	13.2	15,597	22,188	13.5	15,951	22,805	15.0	17,724	25,355
2024	121,998	13.2	16,104	22,350	13.5	16,470	22,971	15.0	18,300	25,540
2025	125,963	13.2	16,627	22,476	13.5	17,005	23,101	15.0	18,894	25,684
2026	130,057	13.2	17,168	22,563	13.5	17,558	23,190	15.0	19,509	25,783
2027	134,284	13.2	17,725	22,606	13.5	18,128	23,234	15.0	20,143	25,832

- 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.

