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August 13, 2018

Daniel Boone Regional Library Columbia, Missouri

Ladies and Gentlemen:

Submitted in this report are the results of the actuarial valuation prepared to determine the employer contribution rates required to support, for your employees, the benefits provided by the Missouri Local Government Employees Retirement System (LAGERS). This report contains the information needed to comply with Missouri state disclosure requirements regarding the adoption of LAGERS benefits by a political subdivision (Sections 105.660 - 106.685 RSMo).

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

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

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

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

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

The computed contributions required for LAGERS participation will permit the System to continue to operate in accordance with the actuarial principles of level cost financing and the state law which governs LAGERS. Summary provisions of the law as well as benefit illustrations can be found in Appendices III and IV.

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

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

In accordance with LAGERS Board policy, the employer contribution rates established by this valuation report are valid for purposes of joining the System for a two year period from the date of this valuation which was June 30, 2018. The valuation was based on data furnished from your records concerning individual employees (see Appendix V).

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

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

Respectfully submitted,

Mite Drazilor

Mita D. Drazilov, ASA, FCA, MAAA



# Alternate Plan Provisions Affecting Employer Contribution Rates

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

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

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

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

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

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



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

		Ре	rcents of Activ	e Member Pay	/roll
					Total
		Prior			Employer
Benefit	Employee	Service	Current	Disability	Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	General	8.70%	2.70%	0.20%	11.60%
L-3	General	11.00	3.90	0.30	15.20
LT-4(65)	General	9.40	3.30	0.20	12.90
LT-5(65)	General	11.50	4.30	0.30	16.10
L-7	General	13.20	5.20	0.30	18.70
LT-8(65)	General	13.60	5.40	0.30	19.30
L-12	General	15.50	6.40	0.40	22.30
LT-14(65)	General	15.70	6.60	0.40	22.70
L-6	General	17.70	7.80	0.50	26.00

#### **Regular Retirement Eligibility**



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

		Perc	Percents of Active Member Payroll		
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	9.00%	2.90%	0.20%	12.10%
L-3	General	11.30	4.20	0.30	15.80
LT-4(65)	General	9.80	3.50	0.20	13.50
LT-5(65)	General	11.90	4.60	0.30	16.80
L-7	General	13.70	5.40	0.30	19.40
LT-8(65)	General	14.10	5.70	0.30	20.10
L-12	General	16.00	6.90	0.40	23.30
LT-14(65)	General	16.20	6.90	0.40	23.50
L-6	General	18.30	8.20	0.50	27.00

#### **Regular Retirement Eligibility**



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

		Percents of Active Member Payroll			vroll
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	9.00%	6.10%	0.20%	15.30%
L-3	General	11.30	7.40	0.30	19.00
LT-4(65)	General	9.80	6.70	0.20	16.70
LT-5(65)	General	11.90	7.80	0.30	20.00
L-7	General	13.60	8.70	0.30	22.60
LT-8(65)	General	13.90	9.00	0.30	23.20
L-12	General	15.80	10.00	0.40	26.20
LT-14(65)	General	16.00	10.20	0.40	26.60
L-6	General	18.10	11.30	0.50	29.90

#### **Regular Retirement Eligibility**



### 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	9.30%	6.30%	0.20%	15.80%
L-3	General	11.70	7.70	0.30	19.70
LT-4(65)	General	10.10	6.90	0.20	17.20
LT-5(65)	General	12.30	8.10	0.30	20.70
L-7	General	14.00	9.00	0.30	23.30
LT-8(65)	General	14.40	9.30	0.30	24.00
L-12	General	16.40	10.40	0.40	27.20
LT-14(65)	General	16.50	10.50	0.40	27.40
L-6	General	18.70	11.70	0.50	30.90

#### **Regular Retirement Eligibility**



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

		Percents of Active Member Payroll			vroll
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	9.40%	3.20%	0.20%	12.80%
L-3	General	11.80	4.50	0.30	16.60
LT-4(65)	General	11.00	4.30	0.20	15.50
LT-5(65)	General	13.00	5.30	0.30	18.60
L-7	General	14.20	5.80	0.30	20.30
LT-8(65)	General	15.00	6.40	0.30	21.70
L-12	General	16.70	7.20	0.40	24.30
LT-14(65)	General	17.10	7.50	0.40	25.00
L-6	General	19.10	8.60	0.50	28.20

- # 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.
- \* Assumes that credit is granted for 100% of service rendered prior to the membership date. If the governing body wishes to elect one of the lesser percents allowed by law
  -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.



### 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	9.70%	3.40%	0.20%	13.30%
L-3	General	12.20	4.70	0.30	17.20
LT-4(65)	General	11.30	4.50	0.20	16.00
LT-5(65)	General	13.40	5.60	0.30	19.30
L-7	General	14.70	6.10	0.30	21.10
LT-8(65)	General	15.50	6.70	0.30	22.50
L-12	General	17.20	7.60	0.40	25.20
LT-14(65)	General	17.60	7.90	0.40	25.90
L-6	General	19.70	9.00	0.50	29.20

- # 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.
- \* Assumes that credit is granted for 100% of service rendered prior to the membership date. If the governing body wishes to elect one of the lesser percents allowed by law
  -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.



### 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
U	General	9.70%	6.60%	0.20%	16.50%
L-3	General	12.10	8.00	0.30	20.40
LT-4(65)	General	11.30	7.70	0.20	19.20
LT-5(65)	General	13.30	8.80	0.30	22.40
L-7	General	14.50	9.40	0.30	24.20
LT-8(65)	General	15.30	10.00	0.30	25.60
L-12	General	17.00	10.80	0.40	28.20
LT-14(65)	General	17.40	11.10	0.40	28.90
L-6	General	19.40	12.20	0.50	32.10

- # 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.
- \* Assumes that credit is granted for 100% of service rendered prior to the membership date. If the governing body wishes to elect one of the lesser percents allowed by law
  -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.



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

		Percents of Active Member Payroll			
Benefit	Employee	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
Program	Groups	COSL		COSI	Rate
L-1	General	10.00%	6.80%	0.20%	17.00%
L-3	General	12.50	8.20	0.30	21.00
LT-4(65)	General	11.60	7.90	0.20	19.70
LT-5(65)	General	13.70	9.10	0.30	23.10
L-7	General	15.00	9.70	0.30	25.00
LT-8(65)	General	15.80	10.30	0.30	26.40
L-12	General	17.50	11.20	0.40	29.10
LT-14(65)	General	17.90	11.50	0.40	29.80
L-6	General	20.00	12.60	0.50	33.10

- # 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.
- \* Assumes that credit is granted for 100% of service rendered prior to the membership date. If the governing body wishes to elect one of the lesser percents allowed by law
  -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.



### 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:

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 434,360			
L-3	569,162			
LT-4(65)	483,039			
LT-5(65)	602,862			
L-7	700,219			
LT-8(65)	722,686			
L-12	835,020			
LT-14(65)	849,998			
L-6	973,566			

#### **Contributory Plan**

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 453,083			
L-3	591,629			
LT-4(65)	505,506			
LT-5(65)	629,074			
L-7	726,430			
LT-8(65)	752,642			
L-12	872,465			
LT-14(65)	879,954			
L-6	1,011,011			

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

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 572,906			
L-3	711,452			
LT-4(65)	625,329			
LT-5(65)	748,897			
L-7	846,254			
LT-8(65)	868,721			
L-12	981,055			
LT-14(65)	996,033			
L-6	1,119,601			

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 591,629			
L-3	737,664			
LT-4(65)	644,052			
LT-5(65)	775,109			
L-7	872,465			
LT-8(65)	898,677			
L-12	1,018,500			
LT-14(65)	1,025,989			
L-6	1,157,046			

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:

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 479,294			
L-3	621,585			
LT-4(65)	580,395			
LT-5(65)	696,474			
L-7	760,131			
LT-8(65)	812,553			
L-12	909,910			
LT-14(65)	936,122			
L-6	1,055,945			

#### **Contributory Plan**

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 498,017			
L-3	644,052			
LT-4(65)	599,118			
LT-5(65)	722,686			
L-7	790,087			
LT-8(65)	842,509			
L-12	943,610			
LT-14(65)	969,822			
L-6	1,093,390			

#### Non-Contributory Plan

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 617,840			
L-3	763,875			
LT-4(65)	718,941			
LT-5(65)	838,765			
L-7	906,166			
LT-8(65)	958,588			
L-12	1,055,945			
LT-14(65)	1,082,156			
L-6	1,201,980			

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 636,563			
L-3	786,342			
LT-4(65)	737,664			
LT-5(65)	864,976			
L-7	936,122			
LT-8(65)	988,544			
L-12	1,089,645			
LT-14(65)	1,115,857			
L-6	1,239,425			

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	88
Annual Payroll	\$ 3,744,486

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



**APPENDIX** I

UNFUNDED ACTUARIAL ACCRUED LIABILITY

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

If the decision is made to join LAGERS the governing body also must decide how much credit to grant employees for their service before the membership date. The options are to cover 25%, 50%, 75% or 100% of prior service. The granting of prior service credit results in the establishment of an actuarial accrued liability. Because your political subdivision will not have established an asset balance with the System as of the membership date, the value established for prior service is an unfunded actuarial accrued liability.

The policy of the LAGERS Board of Trustees provides that unfunded liabilities are to be paid for by level percent of payroll contributions over a period of 30 years. The contribution rates shown on pages 4 through 11 as the "Prior Service Cost" are designed to pay for the applicable unfunded actuarial accrued liability. This procedure will allow your political subdivision to retire the unfunded actuarial accrued liability in an orderly fashion over a period of years without the need for an immediate large payment upon joining the System.

Should the governing body elect to grant credit for 100% of the employees' prior service, the unfunded actuarial accrued liability as of the date of this valuation would be as follows:

## **Daniel Boone Regional Library**

		Contri	butory	Non-Con	tributory
Benefit Group	Employee Group	UAAL UAAL (5 Year FAS) (3 Year FAS)		UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 5,739,572	\$ 5,940,153	\$ 5,962,792	\$ 6,162,953
L-3	General	7,230,465	7,480,924	7,453,494	7,703,712
LT-4(65)	General	6,231,134	6,448,785	6,451,103	6,668,322
LT-5(65)	General	7,599,113	7,862,553	7,819,806	8,082,668
L-7	General	8,720,586	9,020,838	8,944,130	9,244,275
LT-8(65)	General	8,966,357	9,275,255	9,188,352	9,497,025
L-12	General	10,209,357	10,559,028	10,434,811	10,785,084
LT-14(65)	General	10,332,268	10,686,319	10,556,950	10,911,456
L-6	General	11,683,108	12,081,558	11,912,584	12,312,306

#### **Regular Retirement Eligibility**



#### 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	\$ 6,196,391	\$ 6,414,907	\$ 6,395,548	\$ 6,613,689
L-3	General	7,795,512	8,068,502	7,994,399	8,267,184
LT-4(65)	General	7,227,467	7,482,910	7,422,327	7,677,213
LT-5(65)	General	8,568,891	8,869,535	8,764,480	9,064,808
L-7	General	9,393,981	9,721,382	9,593,191	9,920,529
LT-8(65)	General	9,909,582	10,255,414	10,106,547	10,452,331
L-12	General	10,991,280	11,372,624	11,192,160	11,574,009
LT-14(65)	General	11,249,042	11,639,685	11,448,897	11,839,917
L-6	General	12,574,371	13,009,084	12,778,469	13,214,445



**APPENDIX II** 

SUMMARY OF FINANCIAL ASSUMPTIONS

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

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

- 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 I			cai			
Sample	Years of	Ν	/len	W	omen	Police		Fire	
Ages	Service	Disability	Withdrawal	Disability	Withdrawal	Disability	Withdrawal	Disability	Withdrawal
All	0		19.00%		22.00%		18.00%		10.00%
AII	0 1		19.00% 17.00		22.00%		18.00%		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** Pay

|--|

		- /			
Sample	During Next Year				
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

<b>Early Retirement</b>	t
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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 67 68	25 25 20 20	25 25 25 25	60 61 62 63	10 10 25 20	15 15 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	General	Members		
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		



**APPENDIX III** 

SUMMARY OF LAGERS PROVISIONS

# Missouri LocAl Government Employees Retirement System Brief Summary of LAGERS Benefits and Conditions Evaluated and/or Considered as of February 28, 2018 (Section references are to RSMo)

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

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

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

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

L-1 Benefit Program:	1.00% for life
L-3 Benefit Program:	1.25% for life
L-7 Benefit Program:	1.50% for life
L-12 Benefit Program:	1.75% for life
L-6 Benefit Program:	2.00% for life
LT-4(65) Benefit Program	n: 1.00% for life, plus 1.00% to age 65
LT-5(65) Benefit Program	n: 1.25% for life, plus 0.75% to age 65
LT-8(65) Benefit Program	n: 1.50% for life, plus 0.50% to age 65
LT-14(65) Benefit Progra	im: 1.75% for life, plus 0.25% to age 65

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

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

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

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



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

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

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

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

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

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

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

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

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



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

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

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

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

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

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



**APPENDIX IV** 

**BENEFIT ILLUSTRATIONS** 

## Missouri LAGERS Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary (L-1 Benefit Program is Years of Credited Service

times: 1.00% of FAS<sup>1</sup>)

Final		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	\$ 525	\$ 889	\$1,414	94%	
2,000	700	1,032	1,732	87%	
2,500	875	1,175	2,050	82%	
3,000	1,050	1,318	2,368	79%	
3,500	1,225	1,462	2,687	77%	
4,000	1,400	1,604	3,004	75%	
25 Years of Service:					
\$1,500	\$ 375	\$ 889	\$1,264	84%	
2,000	500	1,032	1,532	77%	
2,500	625	1,175	1,800	72%	
3,000	750	1,318	2,068	69%	
3,500	875	1,462	2,337	67%	
4,000	1,000	1,604	2,604	65%	
15 Years of Service:					
\$1,500	\$225	\$ 889	\$1,114	74%	
2,000	300	1,032	1,332	67%	
2,500	375	1,175	1,550	62%	
3,000	450	1,318	1,768	59%	
3,500	525	1,462	1,987	57%	
4,000	600	1,604	2,204	55%	

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

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



## Missouri LAGERS Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary (L-3 Benefit Program is Years of Credited Service

times: 1.25% of FAS<sup>1</sup>)

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

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

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



## Missouri LAGERS Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary (L-7 Benefit Program is Years of Credited Service

times: 1.50% of FAS<sup>1</sup>)

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

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

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



## Missouri LAGERS Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary (L-12 Benefit Program is Years of Credited Service

times: 1.75% of FAS  $^1$  )

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

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

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



## Missouri LAGERS Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary (L-6 Benefit Program is Years of Credited Service

times: 2.00% of FAS  $^1$  )

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

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



### **Missouri LAGERS**

Illustrations of Age and Service Allowance Amounts

For Sample Combinations of Service & Salary

(LT-4(65) Benefit Program is Years of Credited Service

times: 2.00% of FAS<sup>1</sup> to age 65)

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

Final Average	LAG BENI	ERS EFIT <sup>3</sup>	Estimated Social	Estim Monthl		Perc of F	
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%

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

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



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

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

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



## **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	Estim	ated	Percent		
Average	BENI	EFIT <sup>3</sup>	Social	Month	y Total	of F	AS	
Salary (FAS) <sup>1</sup>	To 65	At 65	Security <sup>2</sup>	To 65	At 65	To 65	At 65	
35 Years of Services	:							
\$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 Services	:							
\$1,500	\$ 750	\$ 563	\$ 889	\$ 750	\$1,452	50%	97%	
2,000	1,000	750	1,032	1,000	1,782	50%	89%	
2,500	1,250	938	1,175	1,250	2,113	50%	85%	
3,000	1,500	1,125	1,318	1,500	2,443	50%	81%	
3,500	1,750	1,313	1,462	1,750	2,775	50%	79%	
4,000	2,000	1,500	1,604	2,000	3,104	50%	78%	
15 Years of Service:	:							
\$1,500	\$ 450	\$338	\$ 889	\$ 450	\$1,227	30%	82%	
2,000	600	450	1,032	600	1,482	30%	74%	
2,500	750	563	1,175	750	1,738	30%	70%	
3,000	900	675	1,318	900	1,993	30%	66%	
3,500	1,050	788	1,462	1,050	2,250	30%	64%	
4,000	1,200	900	1,604	1,200	2,504	30%	63%	

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

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

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



## **Missouri LAGERS**

**Illustrations of Age and Service Allowance Amounts** 

For Sample Combinations of Service & Salary

(LT-14(65) Benefit Program is Years of Credited Service

times: 2.00% of FAS<sup>1</sup> to age 65)

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

Final	LAGERS		Estimated	Estim	ated	Percent		
Average	BENI	FIT <sup>3</sup>	Social	Month	y Total	of F	AS	
Salary (FAS) <sup>1</sup>	To 65	At 65	Security <sup>2</sup>	To 65	At 65	To 65	At 65	
35 Years of Services	:							
\$1,500	\$1,050	\$ 919	\$ 889	\$1,050	\$1,808	70%	121%	
2,000	1,400	1,225	1,032	1,400	2,257	70%	113%	
2,500	1,750	1,531	1,175	1,750	2,706	70%	108%	
3,000	2,100	1,838	1,318	2,100	3,156	70%	105%	
3,500	2,450	2,144	1,462	2,450	3,606	70%	103%	
4,000	2,800	2,450	1,604	2,800	4,054	70%	101%	
25 Years of Service	:							
\$1,500	\$ 750	\$ 656	\$ 889	\$ 750	\$1,545	50%	103%	
2,000	1,000	875	1,032	1,000	1,907	50%	95%	
2,500	1,250	1,094	1,175	1,250	2,269	50%	91%	
3,000	1,500	1,313	1,318	1,500	2,631	50%	88%	
3,500	1,750	1,531	1,462	1,750	2,993	50%	86%	
4,000	2,000	1,750	1,604	2,000	3,354	50%	84%	
15 Years of Service:	:							
\$1,500	\$ 450	\$ 394	\$ 889	\$ 450	\$1,283	30%	86%	
2,000	600	525	1,032	600	1,557	30%	78%	
2,500	750	656	1,175	750	1,831	30%	73%	
3,000	900	788	1,318	900	2,106	30%	70%	
3,500	1,050	919	1,462	1,050	2,381	30%	68%	
4,000	1,200	1,050	1,604	1,200	2,654	30%	66%	

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

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

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



**APPENDIX V** 

AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

# **Daniel Boone Regional Library**

### June 30, 2018

### By Attained Age and Years of Service

		Yea	ars of Se	rvice to <b>\</b>	/aluatio	ו 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	\$ 34,694
25-29	8	2						10	\$ 316,560
30-34	5	3	1					9	\$ 294,093
35-39	4	3	3	1				11	\$ 425,881
40-44	1	1	1	4	1			8	\$ 363,359
45-49		2	2	1	1	1		7	\$ 298,132
50-54	2		5		3		2	12	\$ 481,104
55-59	2		1	2	1	2	1	9	\$ 559,880
60-64	1	1	2	3	1	1	3	12	\$ 532,611
65-69	1	1	1	1	1	1	2	8	\$ 394,381
70 & Over							1	1	\$ 43,791
Totals	25	13	16	12	8	5	9	88 \$ 3,744,486	

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

Age: 47.1 years. Benefit Service: 13.9 years. Annual Pay: \$42,551.





August 13, 2018 E-mail

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

Dear Bob:

Enclosed is the report of the June 30, 2018 Initial Actuarial Valuation of LAGERS benefits for the employees of

Daniel Boone Regional Library

Sincerely,

Mite Drazilor

Mita D. Drazilov, ASA, FCA, MAAA

MDD:wp



August 13, 2018

Daniel Boone Regional Library Columbia, Missouri

Ladies and Gentlemen:

This report contains projections needed to comply with Missouri state disclosure requirements (Section 105.660 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision. This report is intended to be a supplement to the June 30, 2018 Initial Valuation for the Daniel Boone Regional Library dated August 13, 2018.

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

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

Respectfully submitted,

Mita Drajilov 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	Contr	ibution	Actuarial	Contr	ibution	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	\$ 3,744,486	11.6%	\$434,360	\$ 5,739,572	15.2%	\$569,162	\$ 7,230,465	12.9%	\$483,039	\$ 6,231,134	
2019	3,866,182	11.6	448,477	5,818,203	15.2	587,660	7,329,521	12.9	498,737	6,316,500	
2020	3,991,833	11.6	463,053	5,891,567	15.2	606,759	7,421,942	12.9	514,946	6,396,147	
2021	4,121,568	11.6	478,102	5,958,925	15.2	626,478	7,506,797	12.9	531,682	6,469,274	
2022	4,255,519	11.6	493,640	6,019,473	15.2	646,839	7,583,073	12.9	548 <i>,</i> 962	6,535,008	
2023	4,393,823	11.6	509 <i>,</i> 683	6,072,338	15.2	667,861	7,649,670	12.9	566 <i>,</i> 803	6,592,401	
2024	4,536,622	11.6	526,248	6,116,571	15.2	689,567	7,705,393	12.9	585,224	6,640,422	
2025	4,684,062	11.6	543,351	6,151,140	15.2	711,977	7,748,941	12.9	604,244	6,677,952	
2026	4,836,294	11.6	561,010	6,174,927	15.2	735,117	7,778,906	12.9	623,882	6,703,776	
2027	4,993,474	11.6	579,243	6,186,718	15.2	759,008	7,793,760	12.9	644,158	6,716,577	

		LT-5(65) Benefit Program			L	-7 Benefit Pro	gram	LT-8(65) Benefit Program			
	Estimated		d 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	
2018	\$ 3,744,486	16.1%	\$602 <i>,</i> 862	\$ 7,599,113	18.7%	\$700,219	\$ 8,720,586	19.3%	\$722 <i>,</i> 686	\$ 8,966,357	
2019	3,866,182	16.1	622,455	7,703,220	18.7	722,976	8,840,057	19.3	746,173	9,089,195	
2020	3,991,833	16.1	642,685	7,800,353	18.7	746,473	8,951,525	19.3	770,424	9,203,804	
2021	4,121,568	16.1	663,572	7,889,534	18.7	770,733	9,053,867	19.3	795,463	9,309,030	
2022	4,255,519	16.1	685,139	7,969,699	18.7	795,782	9,145,863	19.3	821,315	9,403,618	
2023	4,393,823	16.1	707,406	8,039,692	18.7	821,645	9,226,185	19.3	848,008	9,486,204	
2024	4,536,622	16.1	730,396	8,098,256	18.7	848,348	9,293,392	19.3	875,568	9,555,305	
2025	4,684,062	16.1	754,134	8,144,025	18.7	875,920	9,345,915	19.3	904,024	9,609,308	
2026	4,836,294	16.1	778,643	8,175,518	18.7	904,387	9,382,056	19.3	933,405	9,646,468	
2027	4,993,474	16.1	803,949	8,191,129	18.7	933,780	9,399,971	19.3	963,740	9,664,888	

		L-12 Benefit Program			LT-14	4(65) Benefit	Program	L-6 Benefit Program		
	Estimated		d 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
2018	\$ 3,744,486	22.3%	\$835 <i>,</i> 020	\$ 10,209,357	22.7%	\$849 <i>,</i> 998	\$ 10,332,268	26.0%	\$973 <i>,</i> 566	\$ 11,683,108
2019	3,866,182	22.3	862,159	10,349,224	22.7	877,623	10,473,819	26.0	1,005,207	11,843,165
2020	3,991,833	22.3	890,179	10,479,721	22.7	906,146	10,605,887	26.0	1,037,877	11,992,500
2021	4,121,568	22.3	919,110	10,599,535	22.7	935 <i>,</i> 596	10,727,143	26.0	1,071,608	12,129,609
2022	4,255,519	22.3	948,981	10,707,236	22.7	966,003	10,836,141	26.0	1,106,435	12,252,857
2023	4,393,823	22.3	979 <i>,</i> 823	10,801,271	22.7	997 <i>,</i> 398	10,931,308	26.0	1,142,394	12,360,466
2024	4,536,622	22.3	1,011,667	10,879,951	22.7	1,029,813	11,010,935	26.0	1,179,522	12,450,504
2025	4,684,062	22.3	1,044,546	10,941,441	22.7	1,063,282	11,073,165	26.0	1,217,856	12,520,870
2026	4,836,294	22.3	1,078,494	10,983,752	22.7	1,097,839	11,115,985	26.0	1,257,436	12,569,289
2027	4,993,474	22.3	1,113,545	11,004,725	22.7	1,133,519	11,137,211	26.0	1,298,303	12,593,290

- 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)

	L-1 Benefit Pro			gram	L-	3 Benefit Pro	gram	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	\$ 3,744,486	12.1%	\$453,083	\$ 5,940,153	15.8%	\$591,629	\$ 7,480,924	13.5%	\$505 <i>,</i> 506	\$ 6,448,785
2019	3,866,182	12.1	467,808	6,021,532	15.8	610,857	7,583,412	13.5	521,935	6,537,132
2020	3,991,833	12.1	483,012	6,097,460	15.8	630,710	7,679,034	13.5	538,897	6,619,561
2021	4,121,568	12.1	498,710	6,167,172	15.8	651,208	7,766,828	13.5	556,412	6,695,242
2022	4,255,519	12.1	514,918	6,229,836	15.8	672,372	7,845,746	13.5	574,495	6,763,272
2023	4,393,823	12.1	531,653	6,284,549	15.8	694,224	7,914,650	13.5	593,166	6,822,669
2024	4,536,622	12.1	548,931	6,330,328	15.8	716,786	7,972,303	13.5	612,444	6,872,368
2025	4,684,062	12.1	566,772	6,366,105	15.8	740,082	8,017,360	13.5	632,348	6,911,208
2026	4,836,294	12.1	585,192	6,390,723	15.8	764,134	8,048,363	13.5	652,900	6,937,934
2027	4,993,474	12.1	604,210	6,402,926	15.8	788,969	8,063,731	13.5	674,119	6,951,182

### **Regular Retirement Eligibility**

		LT-5(65) Benefit Program			Ŀ	7 Benefit Pro	gram	LT-8(65) Benefit Program			
	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	
2018	\$ 3,744,486	16.8%	\$629,074	\$ 7,862,553	19.4%	\$726,430	\$ 9,020,838	20.1%	\$752,642	\$ 9,275,255	
2019	3,866,182	16.8	649,519	7,970,269	19.4	750,039	9,144,422	20.1	777,103	9,402,325	
2020	3,991,833	16.8	670,628	8,070,769	19.4	774,416	9,259,727	20.1	802,358	9,520,882	
2021	4,121,568	16.8	692,423	8,163,042	19.4	799,584	9,365,593	20.1	828,435	9,629,734	
2022	4,255,519	16.8	714,927	8,245,986	19.4	825,571	9,460,756	20.1	855,359	9,727,581	
2023	4,393,823	16.8	738,162	8,318,405	19.4	852,402	9,543,844	20.1	883,158	9,813,012	
2024	4,536,622	16.8	762,152	8,378,999	19.4	880,105	9,613,365	20.1	911,861	9,884,493	
2025	4,684,062	16.8	786,922	8,426,354	19.4	908,708	9,667,697	20.1	941,496	9,940,357	
2026	4,836,294	16.8	812,497	8,458,939	19.4	938,241	9,705,082	20.1	972,095	9,978,797	
2027	4,993,474	16.8	838,904	8,475,091	19.4	968,734	9,723,614	20.1	1,003,688	9,997,851	

		L-12 Benefit Program			LT-14	4(65) Benefit	Program	L-6 Benefit Program			
	Estimated		Estimated Employer Contribution			l Employer ibution	Unfunded Actuarial		d Employer ribution	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	\$ 3,744,486	23.3%	\$872,465	\$ 10,559,028	23.5%	\$879,954	\$ 10,686,319	27.0%	\$1,011,011	\$ 12,081,558	
2019	3,866,182	23.3	900,820	10,703,685	23.5	908,553	10,832,720	27.0	1,043,869	12,247,074	
2020	3,991,833	23.3	930,097	10,838,652	23.5	938,081	10,969,314	27.0	1,077,795	12,401,502	
2021	4,121,568	23.3	960,325	10,962,570	23.5	968,568	11,094,725	27.0	1,112,823	12,543,288	
2022	4,255,519	23.3	991,536	11,073,960	23.5	1,000,047	11,207,458	27.0	1,148,990	12,670,739	
2023	4,393,823	23.3	1,023,761	11,171,215	23.5	1,032,548	11,305,886	27.0	1,186,332	12,782,018	
2024	4,536,622	23.3	1,057,033	11,252,590	23.5	1,066,106	11,388,242	27.0	1,224,888	12,875,127	
2025	4,684,062	23.3	1,091,386	11,316,186	23.5	1,100,755	11,452,605	27.0	1,264,697	12,947,893	
2026	4,836,294	23.3	1,126,857	11,359,946	23.5	1,136,529	11,496,893	27.0	1,305,799	12,997,963	
2027	4,993,474	23.3	1,163,479	11,381,638	23.5	1,173,466	11,518,846	27.0	1,348,238	13,022,782	
oc rogord	ing the show	o proioctio									

- 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)

		L-	L-1 Benefit Program			3 Benefit Pro	gram	LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contribution		Actuarial	Contribution		Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2018	\$ 3,744,486	15.3%	\$572,906	\$ 5,962,792	19.0%	\$711,452	\$ 7,453,494	16.7%	\$625,329	\$ 6,451,103	
2019	3,866,182	15.3	591,526	6,044,481	19.0	734,575	7,555,606	16.7	645,652	6,539,482	
2020	3,991,833	15.3	610,750	6,120,698	19.0	758,448	7,650,877	16.7	666,636	6,621,941	
2021	4,121,568	15.3	630,600	6,190,676	19.0	783,098	7,738,349	16.7	688,302	6,697,649	
2022	4,255,519	15.3	651,094	6,253,579	19.0	808,549	7,816,978	16.7	710,672	6,765,703	
2023	4,393,823	15.3	672,255	6,308,500	19.0	834,826	7,885,629	16.7	733,768	6,825,122	
2024	4,536,622	15.3	694,103	6,354,453	19.0	861,958	7,943,071	16.7	757,616	6,874,839	
2025	4,684,062	15.3	716,661	6,390,366	19.0	889,972	7,987,963	16.7	782,238	6,913,693	
2026	4,836,294	15.3	739,953	6,415,078	19.0	918,896	8,018,853	16.7	807,661	6,940,429	
2027	4,993,474	15.3	764,002	6,427,327	19.0	948,760	8,034,165	16.7	833,910	6,953,682	

### **Regular Retirement Eligibility**

		LT-5(65) Benefit Program			L	-7 Benefit Pro	gram	LT-8(65) Benefit Program			
	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	
2018	\$ 3,744,486	20.0%	\$748,897	\$ 7,819,806	22.6%	\$846,254	\$ 8,944,130	23.2%	\$868,721	\$ 9,188,352	
2019	3,866,182	20.0	773,236	7,926,936	22.6	873,757	9,066,663	23.2	896,954	9,314,231	
2020	3,991,833	20.0	798,367	8,026,890	22.6	902,154	9,180,988	23.2	926,105	9,431,678	
2021	4,121,568	20.0	824,314	8,118,661	22.6	931,474	9,285,954	23.2	956,204	9,539,510	
2022	4,255,519	20.0	851,104	8,201,154	22.6	961,747	9,380,308	23.2	987,280	9,636,440	
2023	4,393,823	20.0	878,765	8,273,179	22.6	993,004	9,462,689	23.2	1,019,367	9,721,071	
2024	4,536,622	20.0	907,324	8,333,444	22.6	1,025,277	9,531,618	23.2	1,052,496	9,791,883	
2025	4,684,062	20.0	936,812	8,380,542	22.6	1,058,598	9,585,488	23.2	1,086,702	9,847,224	
2026	4,836,294	20.0	967,259	8,412,950	22.6	1,093,002	9,622,555	23.2	1,122,020	9,885,304	
2027	4,993,474	20.0	998,695	8,429,014	22.6	1,128,525	9,640,929	23.2	1,158,486	9,904,180	

			L-12 Benefit Program			4(65) Benefit	Program	L-6 Benefit Program			
	Estimated	Estimated Employer Contribution		Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		d Employer ribution	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	\$ 3,744,486	26.2%	\$981,055	\$ 10,434,811	26.6%	\$996,033	\$ 10,556,950	29.9%	\$1,119,601	\$ 11,912,584	
2019	3,866,182	26.2	1,012,940	10,577,766	26.6	1,028,404	10,701,579	29.9	1,155,988	12,075,785	
2020	3,991,833	26.2	1,045,860	10,711,145	26.6	1,061,828	10,836,519	29.9	1,193,558	12,228,053	
2021	4,121,568	26.2	1,079,851	10,833,605	26.6	1,096,337	10,960,412	29.9	1,232,349	12,367,856	
2022	4,255,519	26.2	1,114,946	10,943,684	26.6	1,131,968	11,071,780	29.9	1,272,400	12,493,525	
2023	4,393,823	26.2	1,151,182	11,039,795	26.6	1,168,757	11,169,016	29.9	1,313,753	12,603,248	
2024	4,536,622	26.2	1,188,595	11,120,213	26.6	1,206,741	11,250,375	29.9	1,356,450	12,695,054	
2025	4,684,062	26.2	1,227,224	11,183,061	26.6	1,245,960	11,313,958	29.9	1,400,535	12,766,802	
2026	4,836,294	26.2	1,267,109	11,226,306	26.6	1,286,454	11,357,710	29.9	1,446,052	12,816,172	
2027	4,993,474	26.2	1,308,290	11,247,742	26.6	1,328,264	11,379,397	29.9	1,493,049	12,840,644	
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- 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)

		L-	1 Benefit Pro	gram	Ŀ	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	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	\$ 3,744,486	15.8%	\$591,629	\$ 6,162,953	19.7%	\$737,664	\$ 7,703,712	17.2%	\$644,052	\$ 6,668,322
2019	3,866,182	15.8	610,857	6,247,385	19.7	761,638	7,809,252	17.2	664,983	6,759,677
2020	3,991,833	15.8	630,710	6,326,161	19.7	786,391	7,907,722	17.2	686,595	6,844,912
2021	4,121,568	15.8	651,208	6,398,488	19.7	811,949	7,998,130	17.2	708,910	6,923,169
2022	4,255,519	15.8	672,372	6,463,502	19.7	838,337	8,079,398	17.2	731,949	6,993,515
2023	4,393,823	15.8	694,224	6,520,267	19.7	865,583	8,150,354	17.2	755,738	7,054,935
2024	4,536,622	15.8	716,786	6,567,763	19.7	893,715	8,209,724	17.2	780,299	7,106,326
2025	4,684,062	15.8	740,082	6,604,882	19.7	922,760	8,256,123	17.2	805,659	7,146,489
2026	4,836,294	15.8	764,134	6,630,423	19.7	952,750	8,288,050	17.2	831,843	7,174,125
2027	4,993,474	15.8	788,969	6,643,084	19.7	983,714	8,303,876	17.2	858,878	7,187,824

### **Regular Retirement Eligibility**

		LT-5	(65) Benefit F	rogram	L	-7 Benefit Pro	gram	LT-8(65) Benefit Program			
			d Employer	Unfunded		d Employer	Unfunded		d Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ribution	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	\$ 3,744,486	20.7%	\$775,109	\$ 8,082,668	23.3%	\$872,465	\$ 9,244,275	24.0%	\$898 <i>,</i> 677	\$ 9,497,025	
2019	3,866,182	20.7	800,300	8,193,399	23.3	900,820	9,370,920	24.0	927 <i>,</i> 884	9,627,133	
2020	3,991,833	20.7	826,309	8,296,713	23.3	930,097	9,489,081	24.0	958 <i>,</i> 040	9,748,525	
2021	4,121,568	20.7	853,165	8,391,569	23.3	960,325	9,597,569	24.0	989,176	9,859,979	
2022	4,255,519	20.7	880,892	8,476,835	23.3	991,536	9,695,089	24.0	1,021,325	9,960,165	
2023	4,393,823	20.7	909,521	8,551,282	23.3	1,023,761	9,780,235	24.0	1,054,518	10,047,639	
2024	4,536,622	20.7	939,081	8,613,572	23.3	1,057,033	9,851,478	24.0	1,088,789	10,120,829	
2025	4,684,062	20.7	969,601	8,662,253	23.3	1,091,386	9,907,155	24.0	1,124,175	10,178,029	
2026	4,836,294	20.7	1,001,113	8,695,750	23.3	1,126,857	9,945,466	24.0	1,160,711	10,217,388	
2027	4,993,474	20.7	1,033,649	8,712,354	23.3	1,163,479	9,964,457	24.0	1,198,434	10,236,898	

		L	-12 Benefit Pr	ogram	LT-1	4(65) Benefit	Program		6 Benefit Pro	ogram
	Estimated		d Employer ribution	Unfunded Actuarial		ed Employer ribution	Unfunded Actuarial		d Employer ribution	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	\$ 3,744,486	27.2%	\$1,018,500	\$ 10,785,084	27.4%	\$1,025,989	\$ 10,911,456	30.9%	\$1,157,046	\$ 12,312,306
2019	3,866,182	27.2	1,051,602	10,932,838	27.4	1,059,334	11,060,941	30.9	1,194,650	12,480,983
2020	3,991,833	27.2	1,085,779	11,070,694	27.4	1,093,762	11,200,412	30.9	1,233,476	12,638,360
2021	4,121,568	27.2	1,121,066	11,197,265	27.4	1,129,310	11,328,466	30.9	1,273,565	12,782,854
2022	4,255,519	27.2	1,157,501	11,311,039	27.4	1,166,012	11,443,574	30.9	1,314,955	12,912,739
2023	4,393,823	27.2	1,195,120	11,410,377	27.4	1,203,908	11,544,075	30.9	1,357,691	13,026,143
2024	4,536,622	27.2	1,233,961	11,493,494	27.4	1,243,034	11,628,166	30.9	1,401,816	13,121,030
2025	4,684,062	27.2	1,274,065	11,558,451	27.4	1,283,433	11,693,885	30.9	1,447,375	13,195,186
2026	4,836,294	27.2	1,315,472	11,603,148	27.4	1,325,145	11,739,106	30.9	1,494,415	13,246,212
2027	4,993,474	27.2	1,358,225	11,625,304	27.4	1,368,212	11,761,522	30.9	1,542,983	13,271,505
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- 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)

		L-	1 Benefit Pro	gram	Ŀ	3 Benefit Pro	gram	LT-4	(65) Benefit F	t Program	
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	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	\$ 3,744,486	12.8%	\$479,294	\$ 6,196,391	16.6%	\$621,585	\$ 7,795,512	15.5%	\$580,395	\$ 7,227,467	
2019	3,866,182	12.8	494,871	6,281,281	16.6	641,786	7,902,309	15.5	599,258	7,326,482	
2020	3,991,833	12.8	510,955	6,360,484	16.6	662,644	8,001,952	15.5	618,734	7,418,864	
2021	4,121,568	12.8	527,561	6,433,203	16.6	684,180	8,093,438	15.5	638,843	7,503,683	
2022	4,255,519	12.8	544,706	6,498,570	16.6	706,416	8,175,675	15.5	659,605	7,579,927	
2023	4,393,823	12.8	562,409	6,555,643	16.6	729,375	8,247,477	15.5	681,043	7,646,497	
2024	4,536,622	12.8	580,688	6,603,397	16.6	753,079	8,307,554	15.5	703,176	7,702,197	
2025	4,684,062	12.8	599,560	6,640,717	16.6	777,554	8,354,506	15.5	726,030	7,745,727	
2026	4,836,294	12.8	619,046	6,666,397	16.6	802,825	8,386,813	15.5	749,626	7,775,680	
2027	4,993,474	12.8	639,165	6,679,126	16.6	828,917	8,402,827	15.5	773,988	7,790,527	

### Rule of 80 Retirement Eligibility

		LT-5	(65) Benefit P	Program	L-7 Benefit Program			LT-8(65) Benefit Program			
		Estimated	d Employer	Unfunded	Estimate	d Employer	Unfunded	Estimate	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	
2018	\$ 3,744,486	18.6%	\$696,474	\$ 8,568,891	20.3%	\$760,131	\$ 9,393,981	21.7%	\$812,553	\$ 9,909,582	
2019	3,866,182	18.6	719,110	8,686,284	20.3	784,835	9,522,677	21.7	838,961	10,045,342	
2020	3,991,833	18.6	742,481	8,795,813	20.3	810,342	9,642,752	21.7	866,228	10,172,007	
2021	4,121,568	18.6	766,612	8,896,375	20.3	836,678	9,752,997	21.7	894,380	10,288,303	
2022	4,255,519	18.6	791,527	8,986,770	20.3	863,870	9,852,096	21.7	923,448	10,392,842	
2023	4,393,823	18.6	817,251	9,065,695	20.3	891,946	9,938,621	21.7	953,460	10,484,116	
2024	4,536,622	18.6	843,812	9,131,733	20.3	920,934	10,011,017	21.7	984,447	10,560,486	
2025	4,684,062	18.6	871,236	9,183,343	20.3	950,865	10,067,596	21.7	1,016,441	10,620,170	
2026	4,836,294	18.6	899 <i>,</i> 551	9,218,855	20.3	981,768	10,106,528	21.7	1,049,476	10,661,239	
2027	4,993,474	18.6	928,786	9,236,458	20.3	1,013,675	10,125,826	21.7	1,083,584	10,681,596	

		L-1	12 Benefit Pr	ogram	LT-14	4(65) Benefit	Program	L-6 Benefit P Estimated Employer	6 Benefit Pro	ogram
	Estimated		d Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ribution	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	\$ 3,744,486	24.3%	\$909,910	\$ 10,991,280	25.0%	\$936,122	\$ 11,249,042	28.2%	\$1,055,945	\$ 12,574,371
2019	3,866,182	24.3	939 <i>,</i> 482	11,141,859	25.0	966,546	11,403,152	28.2	1,090,263	12,746,638
2020	3,991,833	24.3	970,015	11,282,351	25.0	997,958	11,546,939	28.2	1,125,697	12,907,365
2021	4,121,568	24.3	1,001,541	11,411,341	25.0	1,030,392	11,678,954	28.2	1,162,282	13,054,934
2022	4,255,519	24.3	1,034,091	11,527,291	25.0	1,063,880	11,797,623	28.2	1,200,056	13,187,584
2023	4,393,823	24.3	1,067,699	11,628,528	25.0	1,098,456	11,901,234	28.2	1,239,058	13,303,402
2024	4,536,622	24.3	1,102,399	11,713,234	25.0	1,134,156	11,987,927	28.2	1,279,327	13,400,309
2025	4,684,062	24.3	1,138,227	11,779,433	25.0	1,171,016	12,055,679	28.2	1,320,905	13,476,043
2026	4,836,294	24.3	1,175,219	11,824,985	25.0	1,209,074	12,102,299	28.2	1,363,835	13,528,155
2027	4,993,474	24.3	1,213,414	11,847,565	25.0	1,248,369	12,125,408	28.2	1,408,160	13,553,987
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- 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)

		L-	1 Benefit Pro	gram	Ŀ	3 Benefit Pro	gram	LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contri	ibution	Actuarial	Contr	ibution	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	\$ 3,744,486	13.3%	\$498,017	\$ 6,414,907	17.2%	\$644,052	\$ 8,068,502	16.0%	\$599,118	\$ 7,482,910	
2019	3,866,182	13.3	514,202	6,502,790	17.2	664,983	8,179,039	16.0	618,589	7,585,425	
2020	3,991,833	13.3	530,914	6,584,786	17.2	686,595	8,282,172	16.0	638,693	7,681,072	
2021	4,121,568	13.3	548,169	6,660,069	17.2	708,910	8,376,862	16.0	659,451	7,768,889	
2022	4,255,519	13.3	565,984	6,727,741	17.2	731,949	8,461,979	16.0	680,883	7,847,828	
2023	4,393,823	13.3	584,378	6,786,826	17.2	755,738	8,536,295	16.0	703,012	7,916,750	
2024	4,536,622	13.3	603,371	6,836,264	17.2	780,299	8,598,476	16.0	725,860	7,974,418	
2025	4,684,062	13.3	622,980	6,874,900	17.2	805,659	8,647,072	16.0	749,450	8,019,487	
2026	4,836,294	13.3	643,227	6,901,486	17.2	831,843	8,680,511	16.0	773,807	8,050,499	
2027	4,993,474	13.3	664,132	6,914,664	17.2	858,878	8,697,086	16.0	798,956	8,065,871	

### Rule of 80 Retirement Eligibility

		LT-5	(65) Benefit F	Program	L	-7 Benefit Pro	gram	LT-8	(65) Benefit	Program
			l Employer	Unfunded		d Employer	Unfunded		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
2018	\$ 3,744,486	19.3%	\$722,686	\$ 8,869,535	21.1%	\$790,087	\$ 9,721,382	22.5%	\$842,509	\$ 10,255,414
2019	3,866,182	19.3	746,173	8,991,046	21.1	815,764	9,854,563	22.5	869,891	10,395,912
2020	3,991,833	19.3	770,424	9,104,417	21.1	842,277	9,978,823	22.5	898,162	10,526,998
2021	4,121,568	19.3	795,463	9,208,507	21.1	869,651	10,092,910	22.5	927,353	10,647,352
2022	4,255,519	19.3	821,315	9,302,074	21.1	897,915	10,195,463	22.5	957,492	10,755,539
2023	4,393,823	19.3	848,008	9,383,768	21.1	927,097	10,285,003	22.5	988,610	10,849,998
2024	4,536,622	19.3	875,568	9,452,123	21.1	957,227	10,359,922	22.5	1,020,740	10,929,033
2025	4,684,062	19.3	904,024	9,505,543	21.1	988,337	10,418,473	22.5	1,053,914	10,990,800
2026	4,836,294	19.3	933 <i>,</i> 405	9,542,301	21.1	1,020,458	10,458,762	22.5	1,088,166	11,033,302
2027	4,993,474	19.3	963,740	9,560,522	21.1	1,053,623	10,478,733	22.5	1,123,532	11,054,370

		L-1	12 Benefit Pr	ogram	LT-14	4(65) Benefit	Program	1	6 Benefit Pro	ogram
	Estimated		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		d Employer ribution	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	\$ 3,744,486	25.2%	\$943,610	\$ 11,372,624	25.9%	\$969,822	\$ 11,639,685	29.2%	\$1,093,390	\$ 13,009,084
2019	3,866,182	25.2	974,278	11,528,427	25.9	1,001,341	11,799,147	29.2	1,128,925	13,187,306
2020	3,991,833	25.2	1,005,942	11,673,793	25.9	1,033,885	11,947,927	29.2	1,165,615	13,353,590
2021	4,121,568	25.2	1,038,635	11,807,259	25.9	1,067,486	12,084,527	29.2	1,203,498	13,506,261
2022	4,255,519	25.2	1,072,391	11,927,232	25.9	1,102,179	12,207,317	29.2	1,242,612	13,643,497
2023	4,393,823	25.2	1,107,243	12,031,981	25.9	1,138,000	12,314,526	29.2	1,282,996	13,763,319
2024	4,536,622	25.2	1,143,229	12,119,626	25.9	1,174,985	12,404,229	29.2	1,324,694	13,863,576
2025	4,684,062	25.2	1,180,384	12,188,122	25.9	1,213,172	12,474,334	29.2	1,367,746	13,941,928
2026	4,836,294	25.2	1,218,746	12,235,254	25.9	1,252,600	12,522,573	29.2	1,412,198	13,995,842
2027	4,993,474	25.2	1,258,355	12,258,617	25.9	1,293,310	12,546,485	29.2	1,458,094	14,022,567
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- 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)

		L-	1 Benefit Pro	gram	Ŀ	L-3 Benefit Program			LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded	Estimated	l Employer	Unfunded		
	Estimated	Contr	ibution	Actuarial	Contr	ibution	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	\$ 3,744,486	16.5%	\$617,840	\$ 6,395,548	20.4%	\$763,875	\$ 7,994,399	19.2%	\$718,941	\$ 7,422,327		
2019	3,866,182	16.5	637,920	6,483,166	20.4	788,701	8,103,921	19.2	742,307	7,524,012		
2020	3,991,833	16.5	658,652	6,564,915	20.4	814,334	8,206,106	19.2	766,432	7,618,885		
2021	4,121,568	16.5	680,059	6,639,971	20.4	840,800	8,299,926	19.2	791,341	7,705,991		
2022	4,255,519	16.5	702,161	6,707,439	20.4	868,126	8,384,261	19.2	817,060	7,784,291		
2023	4,393,823	16.5	724,981	6,766,346	20.4	896,340	8,457,895	19.2	843,614	7,852,655		
2024	4,536,622	16.5	748,543	6,815,634	20.4	925,471	8,519,505	19.2	871,031	7,909,856		
2025	4,684,062	16.5	772,870	6,854,154	20.4	955,549	8,567,654	19.2	899,340	7,954,560		
2026	4,836,294	16.5	797,989	6,880,659	20.4	986,604	8,600,785	19.2	928,568	7,985,321		
2027	4,993,474	16.5	823,923	6,893,797	20.4	1,018,669	8,617,208	19.2	958,747	8,000,569		

### Rule of 80 Retirement Eligibility

		LT-5	(65) Benefit P	Program	L-7 Benefit Program			LT-8(65) Benefit Program			
		Estimate	d Employer	Unfunded	Estimate	d Employer	Unfunded	Estimate	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	
2018	\$ 3,744,486	22.4%	\$838,765	\$ 8,764,480	24.2%	\$906,166	\$ 9,593,191	25.6%	\$958,588	\$ 10,106,547	
2019	3,866,182	22.4	866,025	8,884,552	24.2	935,616	9,724,616	25.6	989,743	10,245,005	
2020	3,991,833	22.4	894,171	8,996,581	24.2	966,024	9,847,237	25.6	1,021,909	10,374,188	
2021	4,121,568	22.4	923,231	9,099,438	24.2	997,419	9,959,820	25.6	1,055,121	10,492,795	
2022	4,255,519	22.4	953,236	9,191,897	24.2	1,029,836	10,061,021	25.6	1,089,413	10,599,411	
2023	4,393,823	22.4	984,216	9,272,623	24.2	1,063,305	10,149,380	25.6	1,124,819	10,692,499	
2024	4,536,622	22.4	1,016,203	9,340,168	24.2	1,097,863	10,223,312	25.6	1,161,375	10,770,387	
2025	4,684,062	22.4	1,049,230	9,392,956	24.2	1,133,543	10,281,091	25.6	1,199,120	10,831,258	
2026	4,836,294	22.4	1,083,330	9,429,279	24.2	1,170,383	10,320,848	25.6	1,238,091	10,873,143	
2027	4,993,474	22.4	1,118,538	9,447,284	24.2	1,208,421	10,340,555	25.6	1,278,329	10,893,905	

		Ŀ	-12 Benefit Pr	ogram	LT-1	4(65) Benefit	Program	1	6 Benefit Pro	ogram
	Estimated		d Employer ribution	Unfunded Actuarial		ed Employer ribution	Unfunded Actuarial		d Employer ribution	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	\$ 3,744,486	28.2%	\$1,055,945	\$ 11,192,160	28.9%	\$1,082,156	\$ 11,448,897	32.1%	\$1,201,980	\$ 12,778,469
2019	3,866,182	28.2	1,090,263	11,345,491	28.9	1,117,327	11,605,745	32.1	1,241,044	12,953,532
2020	3,991,833	28.2	1,125,697	11,488,550	28.9	1,153,640	11,752,086	32.1	1,281,378	13,116,868
2021	4,121,568	28.2	1,162,282	11,619,898	28.9	1,191,133	11,886,447	32.1	1,323,023	13,266,832
2022	4,255,519	28.2	1,200,056	11,737,967	28.9	1,229,845	12,007,224	32.1	1,366,022	13,401,635
2023	4,393,823	28.2	1,239,058	11,841,054	28.9	1,269,815	12,112,676	32.1	1,410,417	13,519,333
2024	4,536,622	28.2	1,279,327	11,927,308	28.9	1,311,084	12,200,909	32.1	1,456,256	13,617,812
2025	4,684,062	28.2	1,320,905	11,994,717	28.9	1,353,694	12,269,865	32.1	1,503,584	13,694,775
2026	4,836,294	28.2	1,363,835	12,041,101	28.9	1,397,689	12,317,313	32.1	1,552,450	13,747,733
2027	4,993,474	28.2	1,408,160	12,064,093	28.9	1,443,114	12,340,833	32.1	1,602,905	13,773,984
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- 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)

		L-	1 Benefit Pro	ram L-3 Benefit Prog			gram	LT-4(65) Benefit Program		
			Estimated Employer		Estimated Employer		Unfunded	Estimated Employer		Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 3,744,486	17.0%	\$636,563	\$ 6,613,689	21.0%	\$786,342	\$ 8,267,184	19.7%	\$737,664	\$ 7,677,213
2019	3,866,182	17.0	657,251	6,704,296	21.0	811,898	8,380,443	19.7	761,638	7,782,390
2020	3,991,833	17.0	678,612	6,788,833	21.0	838,285	8,486,115	19.7	786,391	7,880,521
2021	4,121,568	17.0	700,667	6,866,449	21.0	865,529	8,583,136	19.7	811,949	7,970,618
2022	4,255,519	17.0	723,438	6,936,218	21.0	893,659	8,670,348	19.7	838,337	8,051,607
2023	4,393,823	17.0	746,950	6,997,134	21.0	922,703	8,746,494	19.7	865,583	8,122,319
2024	4,536,622	17.0	771,226	7,048,104	21.0	952,691	8,810,206	19.7	893,715	8,181,485
2025	4,684,062	17.0	796,291	7,087,938	21.0	983,653	8,859,998	19.7	922,760	8,227,724
2026	4,836,294	17.0	822,170	7,115,347	21.0	1,015,622	8,894,260	19.7	952,750	8,259,541
2027	4,993,474	17.0	848,891	7,128,934	21.0	1,048,630	8,911,243	19.7	983,714	8,275,312

### Rule of 80 Retirement Eligibility

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer		Unfunded	Estimate	Estimated Employer		Estimated Employer		Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 3,744,486	23.1%	\$864,976	\$ 9,064,808	25.0%	\$936,122	\$ 9,920,529	26.4%	\$988,544	\$ 10,452,331
2019	3,866,182	23.1	893,088	9,188,994	25.0	966,546	10,056,439	26.4	1,020,672	10,595,526
2020	3,991,833	23.1	922,113	9,304,861	25.0	997,958	10,183,244	26.4	1,053,844	10,729,129
2021	4,121,568	23.1	952,082	9,411,243	25.0	1,030,392	10,299,668	26.4	1,088,094	10,851,794
2022	4,255,519	23.1	983,025	9,506,870	25.0	1,063,880	10,404,322	26.4	1,123,457	10,962,058
2023	4,393,823	23.1	1,014,973	9,590,363	25.0	1,098,456	10,495,696	26.4	1,159,969	11,058,331
2024	4,536,622	23.1	1,047,960	9,660,222	25.0	1,134,156	10,572,150	26.4	1,197,668	11,138,884
2025	4,684,062	23.1	1,082,018	9,714,818	25.0	1,171,016	10,631,900	26.4	1,236,592	11,201,837
2026	4,836,294	23.1	1,117,184	9,752,386	25.0	1,209,074	10,673,014	26.4	1,276,782	11,245,155
2027	4,993,474	23.1	1,153,492	9,771,008	25.0	1,248,369	10,693,394	26.4	1,318,277	11,266,627

		Ŀ	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 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	
2018	\$ 3,744,486	29.1%	\$1,089,645	\$ 11,574,009	29.8%	\$1,115,857	\$ 11,839,917	33.1%	\$1,239,425	\$ 13,214,445	
2019	3,866,182	29.1	1,125,059	11,732,571	29.8	1,152,122	12,002,122	33.1	1,279,706	13,395,481	
2020	3,991,833	29.1	1,161,623	11,880,511	29.8	1,189,566	12,153,461	33.1	1,321,297	13,564,390	
2021	4,121,568	29.1	1,199,376	12,016,340	29.8	1,228,227	12,292,411	33.1	1,364,239	13,719,471	
2022	4,255,519	29.1	1,238,356	12,138,437	29.8	1,268,145	12,417,313	33.1	1,408,577	13,858,873	
2023	4,393,823	29.1	1,278,602	12,245,041	29.8	1,309,359	12,526,366	33.1	1,454,355	13,980,586	
2024	4,536,622	29.1	1,320,157	12,334,238	29.8	1,351,913	12,617,612	33.1	1,501,622	14,082,425	
2025	4,684,062	29.1	1,363,062	12,403,947	29.8	1,395,850	12,688,923	33.1	1,550,425	14,162,014	
2026	4,836,294	29.1	1,407,362	12,451,914	29.8	1,441,216	12,737,992	33.1	1,600,813	14,216,779	
2027	4,993,474	29.1	1,453,101	12,475,691	29.8	1,488,055	12,762,315	33.1	1,652,840	14,243,926	
to reporting the choice projections:											

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