

THE INITIAL ACTUARIAL VALUATION FOR
BENTON COUNTY HEALTH DEPARMENT
AS OF AUGUST 31, 2017

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October 16, 2017

Benton County Health Department Warsaw, 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, 2017.

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 August 31, 2017. 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 opinion herein.

Respectfully submitted,

Mita D. Drazilov, ASA, MAAA

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#### **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			
					Total
		Prior			Employer
Benefit	Employee	Service	Current	Disability	Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	General	7.40%	3.00%	0.20%	10.60%
L-3	General	9.30	4.30	0.30	13.90
LT-4(65)	General	8.20	3.50	0.20	11.90
LT-5(65)	General	9.90	4.70	0.30	14.90
L-7	General	11.30	5.60	0.30	17.20
LT-8(65)	General	11.60	5.90	0.30	17.80
L-12	General	13.20	7.00	0.40	20.60
LT-14(65)	General	13.40	7.10	0.40	20.90
L-6	General	15.10	8.40	0.50	24.00

<sup>\*</sup> 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			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	7.70%	3.20%	0.20%	11.10%
L-3	General	9.70	4.50	0.30	14.50
LT-4(65)	General	8.40	3.70	0.20	12.30
LT-5(65)	General	10.20	4.90	0.30	15.40
L-7	General	11.70	5.90	0.30	17.90
LT-8(65)	General	12.00	6.20	0.30	18.50
L-12	General	13.60	7.30	0.40	21.30
LT-14(65)	General	13.80	7.50	0.40	21.70
L-6	General	15.60	8.80	0.50	24.90

<sup>\*</sup> 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			
					Total
		Prior			Employer
Benefit	Employee	Service	Current	Disability	Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	General	7.70%	6.40%	0.20%	14.30%
L-3	General	9.60	7.80	0.30	17.70
LT-4(65)	General	8.40	7.00	0.20	15.60
LT-5(65)	General	10.20	8.20	0.30	18.70
L-7	General	11.50	9.20	0.30	21.00
LT-8(65)	General	11.90	9.50	0.30	21.70
L-12	General	13.50	10.60	0.40	24.50
LT-14(65)	General	13.70	10.70	0.40	24.80
L-6	General	15.40	12.00	0.50	27.90

<sup>\*</sup> 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			
					Total
Benefit	Employee	Prior Service	Current	Disability	Employer Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	General	8.00%	6.60%	0.20%	14.80%
L-3	General	9.90	8.10	0.30	18.30
LT-4(65)	General	8.70	7.20	0.20	16.10
LT-5(65)	General	10.50	8.50	0.30	19.30
L-7	General	11.90	9.50	0.30	21.70
LT-8(65)	General	12.30	9.80	0.30	22.40
L-12	General	13.90	10.90	0.40	25.20
LT-14(65)	General	14.10	11.10	0.40	25.60
L-6	General	15.90	12.40	0.50	28.80

<sup>\*</sup> 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 - 5 Year FAS) (4% member contributions are additional)

Rule of 80 Retirement Eligibility#

		Percents of Active Member Payroll			
Benefit	Employee	Prior Service	Current	Disability	Total Employer Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	General	8.00%	3.40%	0.20%	11.60%
L-3	General	10.10	4.80	0.30	15.20
LT-4(65)	General	9.50	4.40	0.20	14.10
LT-5(65)	General	11.20	5.50	0.30	17.00
L-7	General	12.20	6.20	0.30	18.70
LT-8(65)	General	12.90	6.70	0.30	19.90
L-12	General	14.30	7.60	0.40	22.30
LT-14(65)	General	14.60	7.90	0.40	22.90
L-6	General	16.30	9.10	0.50	25.90

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

Rule of 80 Retirement Eligibility#

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
	-				
L-1	General	8.30%	3.60%	0.20%	12.10%
L-3	General	10.50	5.00	0.30	15.80
LT-4(65)	General	9.90	4.60	0.20	14.70
LT-5(65)	General	11.60	5.80	0.30	17.70
L-7	General	12.60	6.50	0.30	19.40
LT-8(65)	General	13.40	7.00	0.30	20.70
L-12	General	14.80	7.90	0.40	23.10
LT-14(65)	General	15.10	8.30	0.40	23.80
L-6	General	16.90	9.50	0.50	26.90

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

#### Rule of 80 Retirement Eligibility#

		Percents of Active Member Payroll			
					Total
		Prior			Employer
Benefit	Employee	Service	Current	Disability	Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	General	8.30%	6.80%	0.20%	15.30%
L-3	General	10.40	8.30	0.30	19.00
LT-4(65)	General	9.80	7.80	0.20	17.80
LT-5(65)	General	11.50	9.00	0.30	20.80
L-7	General	12.50	9.70	0.30	22.50
LT-8(65)	General	13.20	10.30	0.30	23.80
L-12	General	14.50	11.20	0.40	26.10
LT-14(65)	General	14.90	11.50	0.40	26.80
L-6	General	16.60	12.70	0.50	29.80

- # 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)

#### Rule of 80 Retirement Eligibility#

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	8.60%	7.00%	0.20%	15.80%
L-3	General	10.70	8.50	0.30	19.50
LT-4(65)	General	10.10	8.10	0.20	18.40
LT-5(65)	General	11.90	9.30	0.30	21.50
L-7	General	12.90	10.10	0.30	23.30
LT-8(65)	General	13.60	10.60	0.30	24.50
L-12	General	15.00	11.60	0.40	27.00
LT-14(65)	General	15.40	11.90	0.40	27.70
L-6	General	17.20	13.10	0.50	30.80

- # 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. <u>If payroll during your first year of LAGERS participation equals the annual payroll reported for this valuation</u>, the approximate employer dollar contribution for the year would be as follows:

#### **Contributory Plan**

5 Year	5 Year FAS				
Benefit					
Program	General				
L-1	\$ 267,374				
L-3	350,613				
LT-4(65)	300,165				
LT-5(65)	375,837				
L-7	433,852				
LT-8(65)	448,987				
L-12	519,614				
LT-14(65)	527,181				
L-6	605,375				

3 Yea	r FAS
Benefit	
Program	General
L-1	\$ 279,986
L-3	365,748
LT-4(65)	310,255
LT-5(65)	388,449
L-7	451,509
LT-8(65)	466,643
L-12	537,271
LT-14(65)	547,360
L-6	628,077

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

5 Year	5 Year FAS				
Benefit					
Program	General				
L-1	\$ 360,703				
L-3	446,464				
LT-4(65)	393,494				
LT-5(65)	471,688				
L-7	529,703				
LT-8(65)	547,360				
L-12	617,987				
LT-14(65)	625,554				
L-6	703,749				

3 Year FAS					
Benefit					
Program	General				
L-1	\$ 373,315				
L-3	461,599				
LT-4(65)	406,106				
LT-5(65)	486,823				
L-7	547,360				
LT-8(65)	565,017				
L-12	635,644				
LT-14(65)	645,734				
L-6	726,450				

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. <u>If payroll during your first year of LAGERS participation equals the annual payroll reported for this valuation</u>, the approximate employer dollar contribution for the year would be as follows:

#### **Contributory Plan**

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 292,598			
L-3	383,404			
LT-4(65)	355,658			
LT-5(65)	428,807			
L-7	471,688			
LT-8(65)	501,957			
L-12	562,495			
LT-14(65)	577,629			
L-6	653,301			

3 Year FAS					
Benefit					
Program	General				
L-1	\$ 305,210				
L-3	398,539				
LT-4(65)	370,792				
LT-5(65)	446,464				
L-7	489,345				
LT-8(65)	522,136				
L-12	582,674				
LT-14(65)	600,330				
L-6	678,525				

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

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 385,927			
L-3	479,255			
LT-4(65)	448,987			
LT-5(65)	524,659			
L-7	567,539			
LT-8(65)	600,330			
L-12	658,346			
LT-14(65)	676,002			
L-6	751,674			

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 398,539			
L-3	491,867			
LT-4(65)	464,121			
LT-5(65)	542,315			
L-7	587,719			
LT-8(65)	617,987			
L-12	681,047			
LT-14(65)	698,704			
L-6	776,898			

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	50
Annual Payroll	\$ 2,522,397

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:

#### Benton County Health Department

		Contri	butory	Non-Cor	atributory
Benefit Group	Employee Group	UAAL UAAL (5 Year FAS) (3 Year FAS)		UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 3,295,861	\$ 3,411,876	\$ 3,419,540	\$ 3,534,892
L-3	General	4,152,066	4,296,556	4,274,409	4,418,660
LT-4(65)	General	3,625,783	3,753,295	3,747,631	3,874,442
LT-5(65)	General	4,399,416	4,552,596	4,520,475	4,673,358
L-7	General	5,006,494	5,179,499	5,129,176	5,302,363
LT-8(65)	General	5,171,437	5,350,160	5,293,257	5,472,179
L-12	General	5,859,906	6,061,473	5,984,099	6,186,065
LT-14(65)	General	5,942,403	6,146,824	6,066,157	6,270,965
L-6	General	6,712,567	6,942,701	6,838,863	7,069,814

#### UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)

#### Rule of 80 Retirement Eligibility

		Contri	butory	Non-Cor	ntributory
Benefit Group	Employee Group	UAAL UAAL (5 Year FAS) (3 Year FAS)		UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 3,575,051	\$ 3,701,905	\$ 3,688,572	\$ 3,815,046
L-3	General	4,497,257	4,655,352	4,610,611	4,768,856
LT-4(65)	General	4,236,901	4,387,199	4,347,898	4,497,779
LT-5(65)	General	4,993,632	5,169,367	5,105,070	5,280,903
L-7	General	5,417,928	5,607,494	5,532,692	5,722,651
LT-8(65)	General	5,748,879	5,950,144	5,862,376	6,064,013
L-12	General	6,337,795	6,558,599	6,454,884	6,676,362
LT-14(65)	General	6,503,254	6,729,918	6,619,678	6,847,103
L-6	General	7,256,970	7,509,145	7,376,964	7,630,091

#### **APPENDIX II**

#### SUMMARY OF FINANCIAL ASSUMPTIONS

## Summary of Assumptions Used in Actuarial Valuations Assumptions Adopted by Board of Trustees After Consulting With Actuary

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

Schedule 1.

Separations From Active Employment (Not Including Death-In-Service)

Before Age & Service Retirement and Individual Pay Increase Assumptions

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

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

## Percent Increase in Individual's Pay

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

Schedule 2.

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

#### **Early Retirement**

Retirement _	General Members		rement 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	25	25	60	10	15
66	25	25	61	10	15
67	20	25	62	25	20
68	20	25	63	20	20
69	20	20	64	20	20
70	100	100	65	100	100

Percent of Eligible Active Members Retiring Within Next Year
With Rule of 80 Eligibility

**Schedule 2. (Continued)** 

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, 2017

(Section references are to RSMo)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

#### APPENDIX IV

## BENEFIT ILLUSTRATIONS

(L-1 Benefit Program is Years of Credited Service times: 1.00% of FAS  $^{I}$  )

Final		Estimated	Estin	nated
Average	LAGERS	Social	Month	ly Total
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% of FAS
35 Years of Service	ce:			
\$1,500	\$ 525	\$ 875	\$1,400	93%
2,000	700	1,016	1,716	86%
2,500	875	1,157	2,032	81%
3,000	1,050	1,297	2,347	78%
3,500	1,225	1,438	2,663	76%
4,000	1,400	1,579	2,979	74%
25 Years of Service	ce:			
\$1,500	\$ 375	\$ 875	\$1,250	83%
2,000	500	1,016	1,516	76%
2,500	625	1,157	1,782	71%
3,000	750	1,297	2,047	68%
3,500	875	1,438	2,313	66%
4,000	1,000	1,579	2,579	64%
15 Years of Service	ce:			
\$1,500	\$225	\$ 875	\$1,100	73%
2,000	300	1,016	1,316	66%
2,500	375	1,157	1,532	61%
3,000	450	1,297	1,747	58%
3,500	525	1,438	1,963	56%
4,000	600	1,579	2,179	54%

<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>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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.

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

(L-3 Benefit Program is Years of Credited Service times: 1.25% of FAS  $^{I}$  )

Final		Estimated	Estin	nated
Average	LAGERS	Social	Month	ly Total
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% of FAS
35 Years of Service	ce:			
\$1,500	\$ 656	\$ 875	\$1,531	102%
2,000	875	1,016	1,891	95%
2,500	1,094	1,157	2,251	90%
3,000	1,313	1,297	2,610	87%
3,500	1,531	1,438	2,969	85%
4,000	1,750	1,579	3,329	83%
25 Years of Service	ce:			
\$1,500	\$ 469	\$ 875	\$1,344	90%
2,000	625	1,016	1,641	82%
2,500	781	1,157	1,938	78%
3,000	938	1,297	2,235	75%
3,500	1,094	1,438	2,532	72%
4,000	1,250	1,579	2,829	71%
15 Years of Service	ce:			
\$1,500	\$281	\$ 875	\$1,156	77%
2,000	375	1,016	1,391	70%
2,500	469	1,157	1,626	65%
3,000	563	1,297	1,860	62%
3,500	656	1,438	2,094	60%
4,000	750	1,579	2,329	58%

<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>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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.

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

(L-7 Benefit Program is Years of Credited Service times: 1.50% of FAS  $^{I}$  )

Final		Estimated	Estin	nated
Average	<b>LAGERS</b>	Social	Month	ly Total
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% of FAS
35 Years of Service	ce:			
\$1,500	\$ 788	\$ 875	\$1,663	111%
2,000	1,050	1,016	2,066	103%
2,500	1,313	1,157	2,470	99%
3,000	1,575	1,297	2,872	96%
3,500	1,838	1,438	3,276	94%
4,000	2,100	1,579	3,679	92%
25 Years of Service	ce:			
\$1,500	\$ 563	\$ 875	\$1,438	96%
2,000	750	1,016	1,766	88%
2,500	938	1,157	2,095	84%
3,000	1,125	1,297	2,422	81%
3,500	1,313	1,438	2,751	79%
4,000	1,500	1,579	3,079	77%
15 Years of Service	ce:			
\$1,500	\$338	\$ 875	\$1,213	81%
2,000	450	1,016	1,466	73%
2,500	563	1,157	1,720	69%
3,000	675	1,297	1,972	66%
3,500	788	1,438	2,226	64%
4,000	900	1,579	2,479	62%

<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>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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.

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

(L-12 Benefit Program is Years of Credited Service times: 1.75% of FAS  $^{I}$  )

Final		Estimated	Estin	nated
Average	LAGERS	Social	Month	ly Total
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% of FAS
35 Years of Servi	ce:			
\$1,500	\$ 919	\$ 875	\$1,794	120%
2,000	1,225	1,016	2,241	112%
2,500	1,531	1,157	2,688	108%
3,000	1,838	1,297	3,135	105%
3,500	2,144	1,438	3,582	102%
4,000	2,450	1,579	4,029	101%
25 Years of Servi	ce:			
\$1,500	\$ 656	\$ 875	\$1,531	102%
2,000	875	1,016	1,891	95%
2,500	1,094	1,157	2,251	90%
3,000	1,313	1,297	2,610	87%
3,500	1,531	1,438	2,969	85%
4,000	1,750	1,579	3,329	83%
15 Years of Servi	ce:			
\$1,500	\$ 394	\$ 875	\$1,269	85%
2,000	525	1,016	1,541	77%
2,500	656	1,157	1,813	73%
3,000	788	1,297	2,085	70%
3,500	919	1,438	2,357	67%
4,000	1,050	1,579	2,629	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.

<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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.

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

(L-6 Benefit Program is Years of Credited Service times: 2.00% of FAS  $^{I}$  )

Final		Estimated	Estin	nated
Average	<b>LAGERS</b>	Social	Month	ly Total
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% of FAS
35 Years of Service	ce:			
\$1,500	\$1,050	\$ 875	\$1,925	128%
2,000	1,400	1,016	2,416	121%
2,500	1,750	1,157	2,907	116%
3,000	2,100	1,297	3,397	113%
3,500	2,450	1,438	3,888	111%
4,000	2,800	1,579	4,379	109%
25 Years of Service	ce:			
\$1,500	\$ 750	\$ 875	\$1,625	108%
2,000	1,000	1,016	2,016	101%
2,500	1,250	1,157	2,407	96%
3,000	1,500	1,297	2,797	93%
3,500	1,750	1,438	3,188	91%
4,000	2,000	1,579	3,579	89%
15 Years of Service	ce:			
\$1,500	\$ 450	\$ 875	\$1,325	88%
2,000	600	1,016	1,616	81%
2,500	750	1,157	1,907	76%
3,000	900	1,297	2,197	73%
3,500	1,050	1,438	2,488	71%
4,000	1,200	1,579	2,779	69%

<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>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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.

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

(LT-4(65) Benefit Program is Years of Credited Service times: 2.00% of FAS  $^I$  to age 65) 1.00% of FAS  $^I$  at age 65)

Final	LAC	GERS	Estimated	Esti	mated	Pen	cent
Average	BEN	EFIT <sup>3</sup>	Social	Month	ıly Total	of I	FAS
Salary (FAS) <sup>1</sup>	To 65	At 65	Security <sup>2</sup>	To 65	At 65	To 65	At 65
35 Years of Serv	rice:						
\$1,500	\$1,050	\$ 525	\$ 875	\$1,050	\$1,400	70%	93%
2,000	1,400	700	1,016	1,400	1,716	70%	86%
2,500	1,750	875	1,157	1,750	2,032	70%	81%
3,000	2,100	1,050	1,297	2,100	2,347	70%	78%
3,500	2,450	1,225	1,438	2,450	2,663	70%	76%
4,000	2,800	1,400	1,579	2,800	2,979	70%	74%
25 Years of Serv	rice:						
\$1,500	\$ 750	\$ 375	\$ 875	\$ 750	\$1,250	50%	83%
2,000	1,000	500	1,016	1,000	1,516	50%	76%
2,500	1,250	625	1,157	1,250	1,782	50%	71%
3,000	1,500	750	1,297	1,500	2,047	50%	68%
3,500	1,750	875	1,438	1,750	2,313	50%	66%
4,000	2,000	1,000	1,579	2,000	2,579	50%	64%
15 Years of Serv	rice:						
\$1,500	\$ 450	\$225	\$ 875	\$ 450	\$1,100	30%	73%
2,000	600	300	1,016	600	1,316	30%	66%
2,500	750	375	1,157	750	1,532	30%	61%
3,000	900	450	1,297	900	1,747	30%	58%
3,500	1,050	525	1,438	1,050	1,963	30%	56%
4,000	1,200	600	1,579	1,200	2,179	30%	54%

<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>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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.

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

(LT-5(65) Benefit Program is Years of Credited Service times: 2.00% of FAS  $^I$  to age 65) 1.25% of FAS  $^I$  at age 65)

Final	LAC	GERS	Estimated	Esti	mated	Per	cent
Average	BEN	EFIT <sup>3</sup>	Social	Montl	aly Total	of l	FAS
Salary (FAS) <sup>1</sup>	To 65	At 65	Security <sup>2</sup>	To 65	At 65	To 65	At 65
35 Years of Serv	ice:						
\$1,500	\$1,050	\$ 656	\$ 875	\$1,050	\$1,531	70%	102%
2,000	1,400	875	1,016	1,400	1,891	70%	95%
2,500	1,750	1,094	1,157	1,750	2,251	70%	90%
3,000	2,100	1,313	1,297	2,100	2,610	70%	87%
3,500	2,450	1,531	1,438	2,450	2,969	70%	85%
4,000	2,800	1,750	1,579	2,800	3,329	70%	83%
25 Years of Serv	ice:						
\$1,500	\$ 750	\$ 469	\$ 875	\$ 750	\$1,344	50%	90%
2,000	1,000	625	1,016	1,000	1,641	50%	82%
2,500	1,250	781	1,157	1,250	1,938	50%	78%
3,000	1,500	938	1,297	1,500	2,235	50%	75%
3,500	1,750	1,094	1,438	1,750	2,532	50%	72%
4,000	2,000	1,250	1,579	2,000	2,829	50%	71%
15 Years of Serv	ice:						
\$1,500	\$ 450	\$281	\$ 875	\$ 450	\$1,156	30%	77%
2,000	600	375	1,016	600	1,391	30%	70%
2,500	750	469	1,157	750	1,626	30%	65%
3,000	900	563	1,297	900	1,860	30%	62%
3,500	1,050	656	1,438	1,050	2,094	30%	60%
4,000	1,200	750	1,579	1,200	2,329	30%	58%

<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>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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.

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-8(65) Benefit Program is Years of Credited Service times: 2.00% of FAS  $^I$  to age 65) 1.50% of FAS  $^I$  at age 65)

Final LAGERS		GERS	Estimated	Esti	mated	Percent		
Average	BEN	EFIT <sup>3</sup>	Social	Montl	aly Total	of l	FAS	
Salary (FAS) <sup>1</sup>	To 65	At 65	Security <sup>2</sup>	To 65	At 65	To 65	At 65	
35 Years of Serv	ice:							
\$1,500	\$1,050	\$ 788	\$ 875	\$1,050	\$1,663	70%	111%	
2,000	1,400	1,050	1,016	1,400	2,066	70%	103%	
2,500	1,750	1,313	1,157	1,750	2,470	70%	99%	
3,000	2,100	1,575	1,297	2,100	2,872	70%	96%	
3,500	2,450	1,838	1,438	2,450	3,276	70%	94%	
4,000	2,800	2,100	1,579	2,800	3,679	70%	92%	
25 Years of Serv	ice:							
\$1,500	\$ 750	\$ 563	\$ 875	\$ 750	\$1,438	50%	96%	
2,000	1,000	750	1,016	1,000	1,766	50%	88%	
2,500	1,250	938	1,157	1,250	2,095	50%	84%	
3,000	1,500	1,125	1,297	1,500	2,422	50%	81%	
3,500	1,750	1,313	1,438	1,750	2,751	50%	79%	
4,000	2,000	1,500	1,579	2,000	3,079	50%	77%	
15 Years of Serv	ice:							
\$1,500	\$ 450	\$338	\$ 875	\$ 450	\$1,213	30%	81%	
2,000	600	450	1,016	600	1,466	30%	73%	
2,500	750	563	1,157	750	1,720	30%	69%	
3,000	900	675	1,297	900	1,972	30%	66%	
3,500	1,050	788	1,438	1,050	2,226	30%	64%	
4,000	1,200	900	1,579	1,200	2,479	30%	62%	

<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>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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.

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)

* *	To 65	EFIT <sup>3</sup> At 65	Social Security 2	Month	ıly Total	of I	TAS
35 Years of Service \$1,500		At 65	Security 2				
\$1,500	·•			To 65	At 65	To 65	At 65
ŕ	•						
	\$1,050	\$ 919	\$ 875	\$1,050	\$1,794	70%	120%
2,000	1,400	1,225	1,016	1,400	2,241	70%	112%
2,500	1,750	1,531	1,157	1,750	2,688	70%	108%
3,000	2,100	1,838	1,297	2,100	3,135	70%	105%
3,500	2,450	2,144	1,438	2,450	3,582	70%	102%
4,000	2,800	2,450	1,579	2,800	4,029	70%	101%
25 Years of Service	<b>:</b> :						
\$1,500	\$ 750	\$ 656	\$ 875	\$ 750	\$1,531	50%	102%
2,000	1,000	875	1,016	1,000	1,891	50%	95%
2,500	1,250	1,094	1,157	1,250	2,251	50%	90%
3,000	1,500	1,313	1,297	1,500	2,610	50%	87%
3,500	1,750	1,531	1,438	1,750	2,969	50%	85%
4,000	2,000	1,750	1,579	2,000	3,329	50%	83%
15 Years of Service	<b>)</b> :						
\$1,500	\$ 450	\$ 394	\$ 875	\$ 450	\$1,269	30%	85%
2,000	600	525	1,016	600	1,541	30%	77%
2,500	750	656	1,157	750	1,813	30%	73%
3,000	900	788	1,297	900	2,085	30%	70%
3,500	1,050	919	1,438	1,050	2,357	30%	67%
4,000	1,200	1,050	1,579	1,200	2,629	30%	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.

<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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.

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

## APPENDIX V

## AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

### Benton County Health Department

August 31, 2017

### By Attained Age and Years of Service

		Year	s of Sei	vice to	Valuatio	n Date			Totals			
Attained									Valuation			
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll			
Under 20												
20-24												
25-29	1	1						2	\$ 79,944			
30-34	5							5	\$ 266,220			
35-39	5		1					6	\$ 248,088			
40-44	3	2	1					6	\$ 415,752			
45-49	2			1	1			4	\$ 165,199			
50-54	1				7			8	\$ 359,134			
55-59	3		1	1	4	1		10	\$ 557,376			
60-64	2		1		1	2	1	7	\$ 374,724			
65-69												
70 & Over	1						1	2 \$ 55,960				
Totals	23	3	4	2	13	3	2	2 50 \$ 2,522,397				

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

Age: 48.3 years.

Benefit Service: 11.7 years.

Annual Pay: \$50,448.



October 16, 2017 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 August 31, 2017 Initial Actuarial Valuation of LAGERS benefits for the employees of

Benton County Health Department

Sincerely,

Mita D. Drazilov

MDD:adh



October 16, 2017

Benton County Health Department Warsaw, 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 August 31, 2017 Initial Valuation for the Benton County Health Department dated October 16, 2017.

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, 2017.

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 opinion herein.

Respectfully submitted,

Mita D. Drazilov, ASA, MAAA

#### Employer Contribution Rates (Contributory Plan - 5 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		Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contr	Contribution		Contribution		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
2017	\$ 2,522,397	10.6%	\$267,374	\$ 3,295,861	13.9%	\$350,613	\$ 4,152,066	11.9%	\$300,165	\$ 3,625,783
2018	2,604,375	10.6	276,064	3,341,014	13.9	362,008	4,208,949	11.9	309,921	3,675,456
2019	2,689,017	10.6	285,036	3,383,142	13.9	373,773	4,262,021	11.9	319,993	3,721,801
2020	2,776,410	10.6	294,299	3,421,821	13.9	385,921	4,310,748	11.9	330,393	3,764,352
2021	2,866,643	10.6	303,864	3,456,590	13.9	398,463	4,354,549	11.9	341,131	3,802,601
2022	2,959,809	10.6	313,740	3,486,947	13.9	411,413	4,392,792	11.9	352,217	3,835,997
2023	3,056,003	10.6	323,936	3,512,347	13.9	424,784	4,424,791	11.9	363,664	3,863,940
2024	3,155,323	10.6	334,464	3,532,198	13.9	438,590	4,449,798	11.9	375,483	3,885,778
2025	3,257,871	10.6	345,334	3,545,857	13.9	452,844	4,467,006	11.9	387,687	3,900,804
2026	3,363,752	10.6	356,558	3,552,628	13.9	467,562	4.475.536	11.9	400,286	3,908,252

		LT-5(65) Benefit Program			L-7	Benefit Prog	gram	LT-8(65) Benefit Program		
	E-44-1	Estimated Employer Contribution		Unfunded	Estimated	1 - 3	Unfunded		Employer	Unfunded
***	Estimated			Actuarial	Contri		Actuarial	Contri		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
2017	\$ 2,522,397	14.9%	\$375,837	\$ 4,399,416	17.2%	\$433,852	\$ 5,006,494	17.8%	\$448,987	\$ 5,171,437
2018	2,604,375	14.9	388,052	4,459,687	17.2	447,953	5,075,082	17.8	463,579	5,242,285
2019	2,689,017	14.9	400,664	4,515,921	17.2	462,511	5,139,076	17.8	478,645	5,308,387
2020	2,776,410	14.9	413,685	4,567,551	17.2	477,543	5,197,831	17.8	494,201	5,369,077
2021	2,866,643	14.9	427,130	4,613,961	17.2	493,063	5,250,646	17.8	510,262	5,423,632
2022	2,959,809	14.9	441,012	4,654,482	17.2	509,087	5,296,759	17.8	526,846	5,471,264
2023	3,056,003	14.9	455,344	4,688,387	17.2	525,633	5,335,342	17.8	543,969	5,511,119
2024	3,155,323	14.9	470,143	4,714,884	17.2	542,716	5,365,496	17.8	561,647	5,542,266
2025	3,257,871	14.9	485,423	4,733,117	17.2	560,354	5,386,245	17.8	579,901	5,563,698
2026	3,363,752	14.9	501,199	4,742,155	17.2	578,565	5,396,530	17.8	598,748	5,574,322

		L-12 Benefit Program			LT-14(	65) Benefit F	Program	L-6 Benefit Program		
		Estimated	Estimated Employer		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded
	Estimated	Contri	Contribution		Contri	bution	Actuarial	Contri	bution	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
2017	\$ 2,522,397	20.6%	\$519,614	\$ 5,859,906	20.9%	\$527,181	\$ 5,942,403	24.0%	\$605,375	\$ 6,712,567
2018	2,604,375	20.6	536,501	5,940,186	20.9	544,314	6,023,813	24.0	625,050	6,804,528
2019	2,689,017	20.6	553,938	6,015,088	20.9	562,005	6,099,769	24.0	645,364	6,890,329
2020	2,776,410	20.6	571,940	6,083,858	20.9	580,270	6,169,507	24.0	666,338	6,969,106
2021	2,866,643	20.6	590,528	6,145,676	20.9	599,128	6,232,195	24.0	687,994	7,039,918
2022	2,959,809	20.6	609,721	6,199,649	20.9	618,600	6,286,928	24.0	710,354	7,101,745
2023	3,056,003	20.6	629,537	6,244,809	20.9	638,705	6,332,724	24.0	733,441	7,153,477
2024	3,155,323	20.6	649,997	6,280,103	20.9	659,463	6,368,514	24.0	757,278	7,193,906
2025	3,257,871	20.6	671,121	6,304,388	20.9	680,895	6,393,141	24.0	781,889	7,221,725
2026	3,363,752	20.6	692,933	6,316,426	20.9	703,024	6,405,349	24.0	807,300	7,235,515

- 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		Unfunded Estimate		l Employer	Unfunded	
	Estimated	Contr	Contribution		Contr	ibution	Actuarial	Contri	ibution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2017	\$ 2,522,397	11.1%	\$279,986	\$ 3,411,876	14.5%	\$365,748	\$ 4,296,556	12.3%	\$310,255	\$ 3,753,295	
2018	2,604,375	11.1	289,086	3,458,618	14.5	377,634	4,355,418	12.3	320,338	3,804,715	
2019	2,689,017	11.1	298,481	3,502,229	14.5	389,907	4,410,337	12.3	330,749	3,852,690	
2020	2,776,410	11.1	308,182	3,542,270	14.5	402,579	4,460,760	12.3	341,498	3,896,738	
2021	2,866,643	11.1	318,197	3,578,263	14.5	415,663	4,506,085	12.3	352,597	3,936,332	
2022	2,959,809	11.1	328,539	3,609,689	14.5	429,172	4,545,659	12.3	364,057	3,970,902	
2023	3,056,003	11.1	339,216	3,635,983	14.5	443,120	4,578,771	12.3	375,888	3,999,827	
2024	3,155,323	11.1	350,241	3,656,532	14.5	457,522	4,604,649	12.3	388,105	4,022,433	
2025	3,257,871	11.1	361,624	3,670,672	14.5	472,391	4,622,455	12.3	400,718	4,037,988	
2026	3,363,752	11.1	373,376	3,677,681	14.5	487,744	4,631,281	12.3	413,741	4,045,698	

		LT-5(65) Benefit Program			L-7	Benefit Prog	gram	LT-8(65) Benefit Program			
	Estimated	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2017	\$ 2,522,397	15.4%	\$388,449	\$ 4,552,596	17.9%	\$451,509	\$ 5,179,499	18.5%	\$466,643	\$ 5,350,160	
2018	2,604,375	15.4	401,074	4,614,966	17.9	466,183	5,250,457	18.5	481,809	5,423,456	
2019	2,689,017	15.4	414,109	4,673,158	17.9	481,334	5,316,662	18.5	497,468	5,491,842	
2020	2,776,410	15.4	427,567	4,726,586	17.9	496,977	5,377,447	18.5	513,636	5,554,630	
2021	2,866,643	15.4	441,463	4,774,612	17.9	513,129	5,432,087	18.5	530,329	5,611,070	
2022	2,959,809	15.4	455,811	4,816,544	17.9	529,806	5,479,793	18.5	547,565	5,660,348	
2023	3,056,003	15.4	470,624	4,851,629	17.9	547,025	5,519,710	18.5	565,361	5,701,580	
2024	3,155,323	15.4	485,920	4,879,049	17.9	564,803	5,550,906	18.5	583,735	5,733,803	
2025	3,257,871	15.4	501,712	4,897,916	17.9	583,159	5,572,372	18.5	602,706	5,755,976	
2026	3,363,752	15.4	518,018	4,907,268	17.9	602,112	5,583,012	18.5	622,294	5,766,967	

		L-12 Benefit Program			LT-14(	65) Benefit F	Program	L-6 Benefit Program		
			Estimated Employer		Estimated		Unfunded		Employer	Unfunded
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	bution	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
2017	\$ 2,522,397	21.3%	\$537,271	\$ 6,061,473	21.7%	\$547,360	\$ 6,146,824	24.9%	\$628,077	\$ 6,942,701
2018	2,604,375	21.3	554,732	6,144,514	21.7	565,149	6,231,035	24.9	648,489	7,037,815
2019	2,689,017	21.3	572,761	6,221,992	21.7	583,517	6,309,604	24.9	669,565	7,126,557
2020	2,776,410	21.3	591,375	6,293,128	21.7	602,481	6,381,741	24.9	691,326	7,208,034
2021	2,866,643	21.3	610,595	6,357,072	21.7	622,062	6,446,585	24.9	713,794	7,281,274
2022	2,959,809	21.3	630,439	6,412,902	21.7	642,279	6,503,201	24.9	736,992	7,345,221
2023	3,056,003	21.3	650,929	6,459,616	21.7	663,153	6,550,573	24.9	760,945	7,398,726
2024	3,155,323	21.3	672,084	6,496,124	21.7	684,705	6,587,595	24.9	785,675	7,440,541
2025	3,257,871	21.3	693,927	6,521,245	21.7	706,958	6,613,070	24.9	811,210	7,469,314
2026	3,363,752	21.3	716,479	6,533,697	21.7	729,934	6,625,697	24.9	837,574	7,483,576

- 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 Program			LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated Employer		Unfunded	Estimated Employer		Unfunded
	Estimated	Contr	Contribution		Contribution		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
2017	\$ 2,522,397	14.3%	\$360,703	\$ 3,419,540	17.7%	\$446,464	\$ 4,274,409	15.6%	\$393,494	\$ 3,747,631
2018	2,604,375	14.3	372,426	3,466,387	17.7	460,974	4,332,968	15.6	406,283	3,798,973
2019	2,689,017	14.3	384,529	3,510,096	17.7	475,956	4,387,604	15.6	419,487	3,846,876
2020	2,776,410	14.3	397,027	3,550,227	17.7	491,425	4,437,767	15.6	433,120	3,890,857
2021	2,866,643	14.3	409,930	3,586,301	17.7	507,396	4,482,859	15.6	447,196	3,930,392
2022	2,959,809	14.3	423,253	3,617,797	17.7	523,886	4,522,229	15.6	461,730	3,964,910
2023	3,056,003	14.3	437,008	3,644,150	17.7	540,913	4,555,170	15.6	476,736	3,993,792
2024	3,155,323	14.3	451,211	3,664,746	17.7	558,492	4,580,914	15.6	492,230	4,016,364
2025	3,257,871	14.3	465,876	3,678,918	17.7	576,643	4,598,629	15.6	508,228	4,031,895
2026	3,363,752	14.3	481,017	3,685,943	17.7	595,384	4,607,410	15.6	524,745	4,039,594

		LT-5(65) Benefit Program			L-7	Benefit Prog	gram	LT-8(65) Benefit Program		
			Estimated Employer Contribution		Estimated		Unfunded	Estimated		Unfunded
	Estimated	Contri	bution	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
2017	\$ 2,522,397	18.7%	\$471,688	\$ 4,520,475	21.0%	\$529,703	\$ 5,129,176	21.7%	\$547,360	\$ 5,293,257
2018	2,604,375	18.7	487,018	4,582,405	21.0	546,919	5,199,445	21.7	565,149	5,365,774
2019	2,689,017	18.7	502,846	4,640,186	21.0	564,694	5,265,007	21.7	583,517	5,433,433
2020	2,776,410	18.7	519,189	4,693,237	21.0	583,046	5,325,201	21.7	602,481	5,495,553
2021	2,866,643	18.7	536,062	4,740,925	21.0	601,995	5,379,310	21.7	622,062	5,551,393
2022	2,959,809	18.7	553,484	4,782,561	21.0	621,560	5,426,553	21.7	642,279	5,600,147
2023	3,056,003	18.7	571,473	4,817,399	21.0	641,761	5,466,082	21.7	663,153	5,640,940
2024	3,155,323	18.7	590,045	4,844,625	21.0	662,618	5,496,975	21.7	684,705	5,672,821
2025	3,257,871	18.7	609,222	4,863,359	21.0	684,153	5,518,232	21.7	706,958	5,694,758
2026	3,363,752	18.7	629,022	4,872,645	21.0	706,388	5,528,769	21.7	729,934	5,705,632

		L-12 Benefit Program			LT-14(	65) Benefit F	Program	L-6 Benefit Program		
			Estimated Employer		Estimated		Unfunded		Employer	Unfunded
	Estimated	Contri	bution	Actuarial	Contri	bution	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
2017	\$ 2,522,397	24.5%	\$617,987	\$ 5,984,099	24.8%	\$625,554	\$ 6,066,157	27.9%	\$703,749	\$ 6,838,863
2018	2,604,375	24.5	638,072	6,066,080	24.8	645,885	6,149,262	27.9	726,621	6,932,554
2019	2,689,017	24.5	658,809	6,142,569	24.8	666,876	6,226,800	27.9	750,236	7,019,969
2020	2,776,410	24.5	680,220	6,212,797	24.8	688,550	6,297,991	27.9	774,618	7,100,228
2021	2,866,643	24.5	702,328	6,275,925	24.8	710,927	6,361,984	27.9	799,793	7,172,373
2022	2,959,809	24.5	725,153	6,331,042	24.8	734,033	6,417,857	27.9	825,787	7,235,363
2023	3,056,003	24.5	748,721	6,377,159	24.8	757,889	6,464,607	27.9	852,625	7,288,068
2024	3,155,323	24.5	773,054	6,413,201	24.8	782,520	6,501,143	27.9	880,335	7,329,258
2025	3,257,871	24.5	798,178	6,438,001	24.8	807,952	6,526,283	27.9	908,946	7,357,601
2026	3,363,752	24.5	824,119	6,450,294	24.8	834,210	6,538,745	27.9	938,487	7,371,650

- 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 Prog	gram	L-3	Benefit Prog	gram	LT-4(	LT-4(65) Benefit Pr		
		Estimated Employer		Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contr	Contribution		Contri	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	
2017	\$ 2,522,397	14.8%	\$373,315	\$ 3,534,892	18.3%	\$461,599	\$ 4,418,660	16.1%	\$406,106	\$ 3,874,442	
2018	2,604,375	14.8	385,448	3,583,319	18.3	476,601	4,479,195	16.1	419,304	3,927,521	
2019	2,689,017	14.8	397,975	3,628,502	18.3	492,090	4,535,675	16.1	432,932	3,977,045	
2020	2,776,410	14.8	410,909	3,669,986	18.3	508,083	4,587,531	16.1	447,002	4,022,514	
2021	2,866,643	14.8	424,263	3,707,276	18.3	524,596	4,634,144	16.1	461,530	4,063,386	
2022	2,959,809	14.8	438,052	3,739,835	18.3	541,645	4,674,843	16.1	476,529	4,099,072	
2023	3,056,003	14.8	452,288	3,767,077	18.3	559,249	4,708,896	16.1	492,016	4,128,931	
2024	3,155,323	14.8	466,988	3,788,367	18.3	577,424	4,735,509	16.1	508,007	4,152,266	
2025	3,257,871	14.8	482,165	3,803,017	18.3	596,190	4,753,821	16.1	524,517	4,168,323	
2026	3,363,752	14.8	497,835	3,810,279	18.3	615,567	4,762,898	16.1	541,564	4,176,282	

		LT-5(	65) Benefit P	rogram	L-7	Benefit Prog	gram	LT-8(	efit Program	
	Estimated			Unfunded Actuarial		Estimated Employer Contribution			Employer bution	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
2017	\$ 2,522,397	19.3%	\$486,823	\$ 4,673,358	21.7%	\$547,360	\$ 5,302,363	22.4%	\$565,017	\$ 5,472,179
2018	2,604,375	19.3	502,644	4,737,382	21.7	565,149	5,375,005	22.4	583,380	5,547,147
2019	2,689,017	19.3	518,980	4,797,117	21.7	583,517	5,442,780	22.4	602,340	5,617,093
2020	2,776,410	19.3	535,847	4,851,962	21.7	602,481	5,505,007	22.4	621,916	5,681,313
2021	2,866,643	19.3	553,262	4,901,262	21.7	622,062	5,560,943	22.4	642,128	5,739,040
2022	2,959,809	19.3	571,243	4,944,307	21.7	642,279	5,609,781	22.4	662,997	5,789,442
2023	3,056,003	19.3	589,809	4,980,323	21.7	663,153	5,650,645	22.4	684,545	5,831,614
2024	3,155,323	19.3	608,977	5,008,470	21.7	684,705	5,682,581	22.4	706,792	5,864,572
2025	3,257,871	19.3	628,769	5,027,838	21.7	706,958	5,704,556	22.4	729,763	5,887,251
2026	3,363,752	19.3	649,204	5,037,439	21.7	729,934	5,715,449	22.4	753,480	5,898,493

		L-12 Benefit Program Estimated Employer Unfunded			LT-14(	(65) Benefit F	Program	L-6 Benefit Program			
	E-44-1		Estimated Employer Contribution			Employer	Unfunded	Estimated Employer Contribution		Unfunded	
Valuation	Estimated Projected	As a % of	Annual	Actuarial Accrued	Contri As a % of	Annual	Actuarial Accrued	As a % of	Annual	Actuarial Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2017	\$ 2,522,397	25.2%	\$635,644	\$ 6,186,065	25.6%	\$645,734	\$ 6,270,965	28.8%	\$726,450	\$ 7,069,814	
2018	2,604,375	25.2	656,303	6,270,813	25.6	666,720	6,356,876	28.8	750,060	7,166,669	
2019	2,689,017	25.2	677,632	6,349,884	25.6	688,388	6,437,032	28.8	774,437	7,257,036	
2020	2,776,410	25.2	699,655	6,422,482	25.6	710,761	6,510,626	28.8	799,606	7,340,005	
2021	2,866,643	25.2	722,394	6,487,740	25.6	733,861	6,576,780	28.8	825,593	7,414,586	
2022	2,959,809	25.2	745,872	6,544,718	25.6	757,711	6,634,540	28.8	852,425	7,479,704	
2023	3,056,003	25.2	770,113	6,592,392	25.6	782,337	6,682,868	28.8	880,129	7,534,189	
2024	3,155,323	25.2	795,141	6,629,650	25.6	807,763	6,720,637	28.8	908,733	7,576,770	
2025	3,257,871	25.2	820,983	6,655,287	25.6	834,015	6,746,626	28.8	938,267	7,606,070	
2026	3,363,752	25.2	847,666	6,667,995	25.6	861,121	6,759,509	28.8	968,761	7,620,594	

- 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 Prog	gram	L-3	Benefit Prog	gram	LT-4(	LT-4(65) Benefit Pr		
		Estimated Employer		Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contribution		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	
2017	\$ 2,522,397	11.6%	\$292,598	\$ 3,575,051	15.2%	\$383,404	\$ 4,497,257	14.1%	\$355,658	\$ 4,236,901	
2018	2,604,375	11.6	302,108	3,624,029	15.2	395,865	4,558,869	14.1	367,217	4,294,946	
2019	2,689,017	11.6	311,926	3,669,726	15.2	408,731	4,616,353	14.1	379,151	4,349,103	
2020	2,776,410	11.6	322,064	3,711,682	15.2	422,014	4,669,131	14.1	391,474	4,398,826	
2021	2,866,643	11.6	332,531	3,749,396	15.2	435,730	4,716,574	14.1	404,197	4,443,522	
2022	2,959,809	11.6	343,338	3,782,325	15.2	449,891	4,757,997	14.1	417,333	4,482,547	
2023	3,056,003	11.6	354,496	3,809,877	15.2	464,512	4,792,656	14.1	430,896	4,515,199	
2024	3,155,323	11.6	366,017	3,831,409	15.2	479,609	4,819,743	14.1	444,901	4,540,717	
2025	3,257,871	11.6	377,913	3,846,225	15.2	495,196	4,838,381	14.1	459,360	4,558,276	
2026	3,363,752	11.6	390,195	3,853,569	15.2	511.290	4.847.620	14.1	474.289	4,566,980	

		LT-5(	65) Benefit P	rogram	L-7	Benefit Prog	gram	LT-8(	rogram	
	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
2017	\$ 2,522,397	17.0%	\$428,807	\$ 4,993,632	18.7%	\$471,688	\$ 5,417,928	19.9%	\$501,957	\$ 5,748,879
2018	2,604,375	17.0	442,744	5,062,044	18.7	487,018	5,492,153	19.9	518,271	5,827,638
2019	2,689,017	17.0	457,133	5,125,873	18.7	502,846	5,561,406	19.9	535,114	5,901,121
2020	2,776,410	17.0	471,990	5,184,477	18.7	519,189	5,624,989	19.9	552,506	5,968,588
2021	2,866,643	17.0	487,329	5,237,156	18.7	536,062	5,682,144	19.9	570,462	6,029,234
2022	2,959,809	17.0	503,168	5,283,151	18.7	553,484	5,732,047	19.9	589,002	6,082,185
2023	3,056,003	17.0	519,521	5,321,635	18.7	571,473	5,773,801	19.9	608,145	6,126,490
2024	3,155,323	17.0	536,405	5,351,711	18.7	590,045	5,806,433	19.9	627,909	6,161,115
2025	3,257,871	17.0	553,838	5,372,406	18.7	609,222	5,828,887	19.9	648,316	6,184,940
2026	3,363,752	17.0	571,838	5,382,664	18.7	629,022	5,840,017	19.9	669,387	6,196,750

		L-12	2 Benefit Pro	gram	LT-14(	65) Benefit F	Program	L-6	gram	
		Estimated Employer		Unfunded	Estimated		Unfunded		Employer	Unfunded
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	bution	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
2017	\$ 2,522,397	22.3%	\$562,495	\$ 6,337,795	22.9%	\$577,629	\$ 6,503,254	25.9%	\$653,301	\$ 7,256,970
2018	2,604,375	22.3	580,776	6,424,622	22.9	596,402	6,592,348	25.9	674,533	7,356,389
2019	2,689,017	22.3	599,651	6,505,632	22.9	615,785	6,675,473	25.9	696,455	7,449,148
2020	2,776,410	22.3	619,139	6,580,010	22.9	635,798	6,751,793	25.9	719,090	7,534,314
2021	2,866,643	22.3	639,261	6,646,869	22.9	656,461	6,820,397	25.9	742,461	7,610,870
2022	2,959,809	22.3	660,037	6,705,244	22.9	677,796	6,880,296	25.9	766,591	7,677,711
2023	3,056,003	22.3	681,489	6,754,087	22.9	699,825	6,930,414	25.9	791,505	7,733,638
2024	3,155,323	22.3	703,637	6,792,259	22.9	722,569	6,969,582	25.9	817,229	7,777,346
2025	3,257,871	22.3	726,505	6,818,525	22.9	746,052	6,996,534	25.9	843,789	7,807,421
2026	3,363,752	22.3	750,117	6,831,545	22.9	770,299	7,009,894	25.9	871,212	7,822,329

- 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 Prog	gram	L-3	Benefit Prog	gram	LT-4(	65) Benefit P	rogram
		Estimated	Estimated Employer		Estimated	l Employer	Unfunded	Estimated Employer		Unfunded
	Estimated	Contri	Contribution		Contr	ibution	Actuarial	Contri	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 2,522,397	12.1%	\$305,210	\$ 3,701,905	15.8%	\$398,539	\$ 4,655,352	14.7%	\$370,792	\$ 4,387,199
2018	2,604,375	12.1	315,129	3,752,621	15.8	411,491	4,719,130	14.7	382,843	4,447,303
2019	2,689,017	12.1	325,371	3,799,939	15.8	424,865	4,778,635	14.7	395,285	4,503,381
2020	2,776,410	12.1	335,946	3,843,383	15.8	438,673	4,833,269	14.7	408,132	4,554,868
2021	2,866,643	12.1	346,864	3,882,435	15.8	452,930	4,882,379	14.7	421,397	4,601,150
2022	2,959,809	12.1	358,137	3,916,532	15.8	467,650	4,925,258	14.7	435,092	4,641,559
2023	3,056,003	12.1	369,776	3,945,061	15.8	482,848	4,961,135	14.7	449,232	4,675,370
2024	3,155,323	12.1	381,794	3,967,357	15.8	498,541	4,989,174	14.7	463,832	4,701,794
2025	3,257,871	12.1	394,202	3,982,699	15.8	514,744	5,008,467	14.7	478,907	4,719,976
2026	3,363,752	12.1	407,014	3,990,304	15.8	531,473	5,018,031	14.7	494,472	4,728,989

		LT-5(	65) Benefit P	rogram	L-7 Benefit Program			LT-8(65) Benefit Program		
	T 4 4 1	Estimated Employer Contribution		Unfunded		Employer	Unfunded		Employer	Unfunded
	Estimated			Actuarial		bution	Actuarial	Contri		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
2017	\$ 2,522,397	17.7%	\$446,464	\$ 5,169,367	19.4%	\$489,345	\$ 5,607,494	20.7%	\$522,136	\$ 5,950,144
2018	2,604,375	17.7	460,974	5,240,187	19.4	505,249	5,684,316	20.7	539,106	6,031,660
2019	2,689,017	17.7	475,956	5,306,262	19.4	521,669	5,755,992	20.7	556,627	6,107,715
2020	2,776,410	17.7	491,425	5,366,928	19.4	538,624	5,821,800	20.7	574,717	6,177,544
2021	2,866,643	17.7	507,396	5,421,461	19.4	556,129	5,880,955	20.7	593,395	6,240,313
2022	2,959,809	17.7	523,886	5,469,074	19.4	574,203	5,932,604	20.7	612,680	6,295,118
2023	3,056,003	17.7	540,913	5,508,913	19.4	592,865	5,975,819	20.7	632,593	6,340,974
2024	3,155,323	17.7	558,492	5,540,048	19.4	612,133	6,009,592	20.7	653,152	6,376,811
2025	3,257,871	17.7	576,643	5,561,472	19.4	632,027	6,032,831	20.7	674,379	6,401,470
2026	3,363,752	17.7	595,384	5,572,091	19.4	652,568	6,044,351	20.7	696,297	6,413,693

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program			
	<b></b>	Estimated Employer		Unfunded Actuarial	Estimated		Unfunded	Estimated		Unfunded	
	Estimated	Contri	Contribution			bution	Actuarial	Contri	bution	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	
2017	\$ 2,522,397	23.1%	\$582,674	\$ 6,558,599	23.8%	\$600,330	\$ 6,729,918	26.9%	\$678,525	\$ 7,509,145	
2018	2,604,375	23.1	601,611	6,648,451	23.8	619,841	6,822,117	26.9	700,577	7,612,019	
2019	2,689,017	23.1	621,163	6,732,284	23.8	639,986	6,908,140	26.9	723,346	7,708,002	
2020	2,776,410	23.1	641,351	6,809,254	23.8	660,786	6,987,120	26.9	746,854	7,796,127	
2021	2,866,643	23.1	662,195	6,878,442	23.8	682,261	7,058,116	26.9	771,127	7,875,343	
2022	2,959,809	23.1	683,716	6,938,851	23.8	704,435	7,120,103	26.9	796,189	7,944,507	
2023	3,056,003	23.1	705,937	6,989,396	23.8	727,329	7,171,968	26.9	822,065	8,002,378	
2024	3,155,323	23.1	728,880	7,028,898	23.8	750,967	7,212,502	26.9	848,782	8,047,605	
2025	3,257,871	23.1	752,568	7,056,079	23.8	775,373	7,240,393	26.9	876,367	8,078,725	
2026	3,363,752	23.1	777,027	7,069,552	23.8	800,573	7,254,218	26.9	904,849	8,094,151	

- 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 Prog	gram	L-3	Benefit Prog	gram	LT-4(	LT-4(65) Benefit Pr		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	
	Estimated	Contribution		Actuarial	Contri	ibution	Actuarial	Contri	bution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2017	\$ 2,522,397	15.3%	\$385,927	\$ 3,688,572	19.0%	\$479,255	\$ 4,610,611	17.8%	\$448,987	\$ 4,347,898	
2018	2,604,375	15.3	398,469	3,739,105	19.0	494,831	4,673,776	17.8	463,579	4,407,464	
2019	2,689,017	15.3	411,420	3,786,253	19.0	510,913	4,732,709	17.8	478,645	4,463,039	
2020	2,776,410	15.3	424,791	3,829,541	19.0	527,518	4,786,818	17.8	494,201	4,514,065	
2021	2,866,643	15.3	438,596	3,868,453	19.0	544,662	4,835,456	17.8	510,262	4,559,932	
2022	2,959,809	15.3	452,851	3,902,427	19.0	562,364	4,877,923	17.8	526,846	4,599,979	
2023	3,056,003	15.3	467,568	3,930,854	19.0	580,641	4,913,455	17.8	543,969	4,633,487	
2024	3,155,323	15.3	482,764	3,953,070	19.0	599,511	4,941,224	17.8	561,647	4,659,674	
2025	3,257,871	15.3	498,454	3,968,357	19.0	618,995	4,960,332	17.8	579,901	4,677,693	
2026	3,363,752	15.3	514,654	3,975,934	19.0	639,113	4,969,804	17.8	598,748	4,686,625	

		LT-5(	65) Benefit P	rogram	L-7	Benefit Prog	gram	LT-8(	rogram	
	Estimated			Unfunded Actuarial		Estimated Employer Contribution			Employer bution	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
2017	\$ 2,522,397	20.8%	\$524,659	\$ 5,105,070	22.5%	\$567,539	\$ 5,532,692	23.8%	\$600,330	\$ 5,862,376
2018	2,604,375	20.8	541,710	5,175,009	22.5	585,984	5,608,489	23.8	619,841	5,942,690
2019	2,689,017	20.8	559,316	5,240,263	22.5	605,029	5,679,209	23.8	639,986	6,017,624
2020	2,776,410	20.8	577,493	5,300,175	22.5	624,692	5,744,139	23.8	660,786	6,086,423
2021	2,866,643	20.8	596,262	5,354,030	22.5	644,995	5,802,505	23.8	682,261	6,148,267
2022	2,959,809	20.8	615,640	5,401,051	22.5	665,957	5,853,465	23.8	704,435	6,202,263
2023	3,056,003	20.8	635,649	5,440,394	22.5	687,601	5,896,104	23.8	727,329	6,247,442
2024	3,155,323	20.8	656,307	5,471,141	22.5	709,948	5,929,427	23.8	750,967	6,282,751
2025	3,257,871	20.8	677,637	5,492,298	22.5	733,021	5,952,356	23.8	775,373	6,307,047
2026	3,363,752	20.8	699,660	5,502,785	22.5	756,844	5,963,722	23.8	800,573	6,319,090

	L-12 Benefit Program		LT-14(65) Benefit Program			L-6 Benefit Program				
	Estimated Emp Estimated Contribution			Unfunded Actuarial	Estimated Employer Contribution				Employer bution	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
2017	\$ 2,522,397	26.1%	\$658,346	\$ 6,454,884	26.8%	\$676,002	\$ 6,619,678	29.8%	\$751,674	\$ 7,376,964
2018	2,604,375	26.1	679,742	6,543,315	26.8	697,973	6,710,367	29.8	776,104	7,478,027
2019	2,689,017	26.1	701,833	6,625,822	26.8	720,657	6,794,980	29.8	801,327	7,572,320
2020	2,776,410	26.1	724,643	6,701,575	26.8	744,078	6,872,667	29.8	827,370	7,658,894
2021	2,866,643	26.1	748,194	6,769,669	26.8	768,260	6,942,500	29.8	854,260	7,736,715
2022	2,959,809	26.1	772,510	6,829,123	26.8	793,229	7,003,471	29.8	882,023	7,804,662
2023	3,056,003	26.1	797,617	6,878,869	26.8	819,009	7,054,487	29.8	910,689	7,861,514
2024	3,155,323	26.1	823,539	6,917,746	26.8	845,627	7,094,357	29.8	940,286	7,905,945
2025	3,257,871	26.1	850,304	6,944,497	26.8	873,109	7,121,791	29.8	970,846	7,936,518
2026	3,363,752	26.1	877,939	6,957,757	26.8	901,486	7,135,390	29.8	1,002,398	7,951,673

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

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

(0% member contributions are additional)

#### Rule of 80 Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer		Unfunded	Estimated Employer		Unfunded	Estimated Employer		Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 2,522,397	15.8%	\$398,539	\$ 3,815,046	19.5%	\$491,867	\$ 4,768,856	18.4%	\$464,121	\$ 4,497,779
2018	2,604,375	15.8	411,491	3,867,312	19.5	507,853	4,834,189	18.4	479,205	4,559,398
2019	2,689,017	15.8	424,865	3,916,076	19.5	524,358	4,895,145	18.4	494,779	4,616,889
2020	2,776,410	15.8	438,673	3,960,848	19.5	541,400	4,951,111	18.4	510,859	4,669,674
2021	2,866,643	15.8	452,930	4,001,094	19.5	558,995	5,001,419	18.4	527,462	4,717,122
2022	2,959,809	15.8	467,650	4,036,233	19.5	577,163	5,045,343	18.4	544,605	4,758,549
2023	3,056,003	15.8	482,848	4,065,634	19.5	595,921	5,082,095	18.4	562,305	4,793,212
2024	3,155,323	15.8	498,541	4,088,612	19.5	615,288	5,110,817	18.4	580,579	4,820,302
2025	3,257,871	15.8	514,744	4,104,423	19.5	635,285	5,130,581	18.4	599,448	4,838,942
2026	3,363,752	15.8	531,473	4,112,260	19.5	655,932	5,140,378	18.4	618,930	4,848,182

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated	Employer	Unfunded	Estimated Employer		Unfunded	Estimated Employer		Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 2,522,397	21.5%	\$542,315	\$ 5,280,903	23.3%	\$587,719	\$ 5,722,651	24.5%	\$617,987	\$ 6,064,013
2018	2,604,375	21.5	559,941	5,353,251	23.3	606,819	5,801,050	24.5	638,072	6,147,089
2019	2,689,017	21.5	578,139	5,420,752	23.3	626,541	5,874,198	24.5	658,809	6,224,600
2020	2,776,410	21.5	596,928	5,482,727	23.3	646,904	5,941,357	24.5	680,220	6,295,765
2021	2,866,643	21.5	616,328	5,538,437	23.3	667,928	6,001,727	24.5	702,328	6,359,736
2022	2,959,809	21.5	636,359	5,587,078	23.3	689,635	6,054,436	24.5	725,153	6,415,589
2023	3,056,003	21.5	657,041	5,627,776	23.3	712,049	6,098,539	24.5	748,721	6,462,322
2024	3,155,323	21.5	678,394	5,659,582	23.3	735,190	6,133,006	24.5	773,054	6,498,845
2025	3,257,871	21.5	700,442	5,681,468	23.3	759,084	6,156,723	24.5	798,178	6,523,976
2026	3,363,752	21.5	723,207	5,692,317	23.3	783,754	6,168,479	24.5	824,119	6,536,433

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer U		Unfunded	Estimated Employer		Unfunded	Estimated Employer		Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 2,522,397	27.0%	\$681,047	\$ 6,676,362	27.7%	\$698,704	\$ 6,847,103	30.8%	\$776,898	\$ 7,630,091
2018	2,604,375	27.0	703,181	6,767,827	27.7	721,412	6,940,907	30.8	802,148	7,734,622
2019	2,689,017	27.0	726,035	6,853,165	27.7	744,858	7,028,427	30.8	828,217	7,832,151
2020	2,776,410	27.0	749,631	6,931,517	27.7	769,066	7,108,783	30.8	855,134	7,921,695
2021	2,866,643	27.0	773,994	7,001,948	27.7	794,060	7,181,015	30.8	882,926	8,002,187
2022	2,959,809	27.0	799,148	7,063,442	27.7	819,867	7,244,081	30.8	911,621	8,072,465
2023	3,056,003	27.0	825,121	7,114,895	27.7	846,513	7,296,849	30.8	941,249	8,131,268
2024	3,155,323	27.0	851,937	7,155,106	27.7	874,024	7,338,088	30.8	971,839	8,177,223
2025	3,257,871	27.0	879,625	7,182,775	27.7	902,430	7,366,465	30.8	1,003,424	8,208,845
2026	3,363,752	27.0	908,213	7,196,490	27.7	931,759	7,380,531	30.8	1,036,036	8,224,520

- 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.