



Table of Contents

Page
Actuary's Certification Letter
Alternate Plans Available
Employer Contribution Rates
Regular Eligibility: Contributory Plan4
Non-Contributory Plan6
Rule of 80 Eligibility: Contributory Plan8
Non-Contributory Plan10
Employer Contribution Dollars
Appendix I
Unfunded Actuarial Accrued Liability15
Appendix II
Summary of Financial Assumptions
Appendix III
Summary of LAGERS Provisions
Appendix IV
Benefit Illustrations
Appendix V
Age and Service Characteristics of Employees
Appendix VI
Risk Commentary 34





November 26, 2019

Reynolds County 911 Communications Centerville, Missouri

Ladies and Gentlemen:

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

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

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

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

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

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

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of this report. In our opinion, they do produce results which, in the aggregate, are reasonable. Additional miscellaneous and technical assumptions as well as disclosures required by the actuarial standards of practice may be found in the LAGERS Compiled Annual Actuarial Valuation report as of February 28, 2019.

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

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

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

In accordance with LAGERS Board policy, the employer contribution rates established by this valuation report are valid for purposes of joining the System for a two year period from the date of this valuation which was September 30, 2019. The valuation was based on data furnished from your records concerning individual employees (see Appendix V).

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

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

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

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

The signing actuary is independent of the plan sponsor.

Respectfully submitted,

Mita D. Drazilov, ASA, FCA, MAAA

Mita Drazilor



Alternate Plan Provisions Affecting Employer Contribution Rates

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

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

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

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

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

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

The Public Safety department is valued using police benefit provisions (normal retirement and deferred age equal to 55). In addition, the actuarial assumptions for police members were used in accordance with direction from LAGERS staff.



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

Regular Retirement Eligibility

		Pero	Percents of Active Member Payroll		
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
Fiogram	Groups	Cost	COST	COST	Nate
L-1	Public Safety	2.20%	2.80%	0.40%	5.40%
L-3	Public Safety	2.90	4.10	0.50	7.50
LT-4(65)	Public Safety	2.80	3.80	0.40	7.00
LT-5(65)	Public Safety	3.30	4.90	0.50	8.70
L-7	Public Safety	3.50	5.50	0.60	9.60
LT-8(65)	Public Safety	3.80	6.00	0.60	10.40
L-12	Public Safety	4.10	6.90	0.70	11.70
LT-14(65)	Public Safety	4.30	7.10	0.70	12.10
L-6	Public Safety	4.80	8.20	0.80	13.80

^{*} Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. 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)

Regular Retirement Eligibility

		Pero	Percents of Active Member Payroll		
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	Public Safety	2.30%	3.00%	0.40%	5.70%
L-3	Public Safety	3.00	4.50	0.50	8.00
LT-4(65)	Public Safety	2.90	4.00	0.40	7.30
LT-5(65)	Public Safety	3.40	5.20	0.50	9.10
L-7	Public Safety	3.60	5.90	0.60	10.10
LT-8(65)	Public Safety	3.90	6.40	0.60	10.90
L-12	Public Safety	4.30	7.30	0.70	12.30
LT-14(65)	Public Safety	4.50	7.50	0.70	12.70
L-6	Public Safety	5.00	8.60	0.80	14.40

^{*} Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. 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.



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

Regular Retirement Eligibility

		Pero	Percents of Active Member Payroll		
		Prior			Total Employer
Benefit	Employee	Service	Current	Disability	Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	Public Safety	2.80%	6.10%	0.40%	9.30%
L-3	Public Safety	3.50	7.40	0.50	11.40
LT-4(65)	Public Safety	3.40	7.10	0.40	10.90
LT-5(65)	Public Safety	4.00	8.10	0.50	12.60
L-7	Public Safety	4.20	8.70	0.60	13.50
LT-8(65)	Public Safety	4.50	9.20	0.60	14.30
L-12	Public Safety	4.90	10.00	0.70	15.60
LT-14(65)	Public Safety	5.10	10.20	0.70	16.00
L-6	Public Safety	5.60	11.30	0.80	17.70

* Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. 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.



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

Regular Retirement Eligibility

		Per	Percents of Active Member Payroll		
Benefit	Employee	Prior Service	Current	Disability	Total Employer Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	Public Safety	2.90%	6.30%	0.40%	9.60%
L-3	Public Safety	3.70	7.70	0.50	11.90
LT-4(65)	Public Safety	3.50	7.30	0.40	11.20
LT-5(65)	Public Safety	4.10	8.40	0.50	13.00
L-7	Public Safety	4.40	9.00	0.60	14.00
LT-8(65)	Public Safety	4.70	9.50	0.60	14.80
L-12	Public Safety	5.10	10.40	0.70	16.20
LT-14(65)	Public Safety	5.30	10.60	0.70	16.60
L-6	Public Safety	5.80	11.70	0.80	18.30

^{*} Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. 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)

		Pero	Percents of Active Member Payroll		
		Ditai			Total
Benefit	Employee	Prior Service	Current	Disability	Employer Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	Public Safety	2.50%	3.30%	0.40%	6.20%
L-3	Public Safety	3.30	4.70	0.50	8.50
LT-4(65)	Public Safety	3.60	4.90	0.40	8.90
LT-5(65)	Public Safety	4.10	5.90	0.50	10.50
L-7	Public Safety	4.00	6.20	0.60	10.80
LT-8(65)	Public Safety	4.50	7.00	0.60	12.10
L-12	Public Safety	4.70	7.70	0.70	13.10
LT-14(65)	Public Safety	5.00	8.10	0.70	13.80
L-6	Public Safety	5.40	9.20	0.80	15.40

- # The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.
- * Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. 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	Employee	Prior Service	Current	Disability	Total Employer Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	Public Safety	2.70%	3.50%	0.40%	6.60%
L-3	Public Safety	3.40	5.10	0.50	9.00
LT-4(65)	Public Safety	3.80	5.20	0.40	9.40
LT-5(65)	Public Safety	4.20	6.30	0.50	11.00
L-7	Public Safety	4.20	6.50	0.60	11.30
LT-8(65)	Public Safety	4.70	7.50	0.60	12.80
L-12	Public Safety	4.90	8.10	0.70	13.70
LT-14(65)	Public Safety	5.20	8.50	0.70	14.40
L-6	Public Safety	5.60	9.70	0.80	16.10

- # 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 for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. 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.



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

		Per	Percents of Active Member Payroll		
		Duiter			Total
Benefit	Employee	Prior Service	Current	Disability	Employer Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	Public Safety	3.10%	6.60%	0.40%	10.10%
L-3	Public Safety	3.90	8.00	0.50	12.40
LT-4(65)	Public Safety	4.20	8.20	0.40	12.80
LT-5(65)	Public Safety	4.70	9.20	0.50	14.40
L-7	Public Safety	4.70	9.40	0.60	14.70
LT-8(65)	Public Safety	5.20	10.20	0.60	16.00
L-12	Public Safety	5.50	10.80	0.70	17.00
LT-14(65)	Public Safety	5.80	11.20	0.70	17.70
L-6	Public Safety	6.30	12.20	0.80	19.30

- # 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 for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. 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.



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

		Per	Percents of Active Member Payroll		
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
i i ogi aili	Огоира	COSC	COSE	COSE	Nate
L-1	Public Safety	3.30%	6.80%	0.40%	10.50%
L-3	Public Safety	4.10	8.30	0.50	12.90
LT-4(65)	Public Safety	4.40	8.50	0.40	13.30
LT-5(65)	Public Safety	4.90	9.50	0.50	14.90
L-7	Public Safety	4.90	9.70	0.60	15.20
LT-8(65)	Public Safety	5.50	10.60	0.60	16.70
L-12	Public Safety	5.70	11.20	0.70	17.60
LT-14(65)	Public Safety	6.00	11.60	0.70	18.30
L-6	Public Safety	6.50	12.70	0.80	20.00

- # The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.
- * Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. 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:

Contributory Plan

5 Yea	5 Year FAS				
Benefit					
Program	Public Safety				
L-1	\$ 8,156				
L-3	11,327				
LT-4(65)	10,572				
LT-5(65)	13,140				
L-7	14,499				
LT-8(65)	15,707				
L-12	17,671				
LT-14(65)	18,275				
L-6	20,842				

3 Year FAS			
Benefit			
Program	Public Safety		
L-1	\$ 8,609		
L-3	12,082		
LT-4(65)	11,025		
LT-5(65)	13,744		
L-7	15,254		
LT-8(65)	16,462		
L-12	18,577		
LT-14(65)	19,181		
L-6	21,748		

Non-Contributory Plan

5 Year FAS				
Benefit				
Program	Public Safety			
L-1	\$ 14,046			
L-3	17,217			
LT-4(65)	16,462			
LT-5(65)	19,030			
L-7	20,389			
LT-8(65)	21,597			
L-12	23,561			
LT-14(65)	24,165			
L-6	26,732			

3 Year FAS				
Benefit				
Program	Public Safety			
L-1	\$ 14,499			
L-3	17,973			
LT-4(65)	16,915			
LT-5(65)	19,634			
L-7	21,144			
LT-8(65)	22,352			
L-12	24,467			
LT-14(65)	25,071			
L-6	27,638			

PLEASE NOTE THAT THE ABOVE INFORMATION IS BASED ON THE PERSONNEL AND PAYROLL DATA SUBMITTED FOR THE ACTUARIAL VALUATION. IN BUDGETING AMOUNTS FOR LAGERS CONTRIBUTIONS YOU SHOULD CONSIDER ANY CHANGES WHICH HAVE BEEN MADE SINCE DATA WAS SUBMITTED FOR THE VALUATION AND ANY CHANGES ANTICIPATED TO BE MADE BEFORE THE END OF THE PERIOD FOR WHICH YOU ARE PREPARING THE BUDGET.



Employer Contribution Dollars Rule of 80 Retirement Eligibility

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

Contributory Plan

5 Year FAS					
Benefit					
Program	Public Safety				
L-1	\$ 9,364				
L-3	12,838				
LT-4(65)	13,442				
LT-5(65)	15,858				
L-7	16,311				
LT-8(65)	18,275				
L-12	19,785				
LT-14(65)	20,842				
L-6	23,259				

3 Year FAS					
Benefit					
Program	Public Safety				
L-1	\$ 9,968				
L-3	13,593				
LT-4(65)	14,197				
LT-5(65)	16,613				
L-7	17,066				
LT-8(65)	19,332				
L-12	20,691				
LT-14(65)	21,748				
L-6	24,316				

Non-Contributory Plan

5 Year FAS				
Benefit				
Program	Public Safety			
L-1	\$ 15,254			
L-3	18,728			
LT-4(65)	19,332			
LT-5(65)	21,748			
L-7	22,201			
LT-8(65)	24,165			
L-12	25,675			
LT-14(65)	26,732			
L-6	29,149			

3 Year FAS				
Benefit				
Program	Public Safety			
L-1	\$ 15,858			
L-3	19,483			
LT-4(65)	20,087			
LT-5(65)	22,503			
L-7	22,957			
LT-8(65)	25,222			
L-12	26,581			
LT-14(65)	27,638			
L-6	30,206			

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

	Public Safety
Number of Employees	5
Annual Payroll	\$ 151,030

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





UNFUNDED ACTUARIAL ACCRUED LIABILITY

Unfunded Actuarial Accrued Liability (UAAL)

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

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

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

Reynolds County 911 Communications

Regular Retirement Eligibility

		Contril	butory	Non-Con	tributory
Benefit Group	Employee Group	UAAL UAAL (5 Year FAS)		UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	Public Safety	\$ 58,895	\$ 61,446	\$ 74,909	\$ 77,722
L-3	Public Safety	76,094	79,281	93,598	97,157
LT-4(65)	Public Safety	74,506	77,639	90,479	93,870
LT-5(65)	Public Safety	87,811	91,435	105,305	109,291
L-7	Public Safety	93,214	96,968	112,345	116,599
LT-8(65)	Public Safety	101,019	105,041	120,128	124,667
L-12	Public Safety	110,191	114,507	131,055	136,025
LT-14(65)	Public Safety	114,080	118,581	134,927	140,081
L-6	Public Safety	127,002	131,867	149,770	155,456



Unfunded Actuarial Accrued Liability (UAAL)

		Contril	butory	Non-Con	tributory
Benefit Group	Employee Group	UAAL (5 Year FAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	Public Safety	\$ 67,746	\$ 70,734	\$ 83,593	\$ 86,876
L-3	Public Safety	86,996	90,700	104,455	108,571
LT-4(65)	Public Safety	96,242	100,299	112,050	116,410
LT-5(65)	Public Safety	108,372	112,891	125,803	130,736
L-7	Public Safety	106,178	110,533	125,408	130,306
LT-8(65)	Public Safety	120,427	125,322	139,614	145,054
L-12	Public Safety	125,209	130,252	146,274	151,993
LT-14(65)	Public Safety	132,336	137,635	153,393	159,362
L-6	Public Safety	144,138	149,808	167,200	173,713





SUMMARY OF FINANCIAL ASSUMPTIONS

Summary of Assumptions Used in Actuarial Valuations

Assumptions Adopted by Board of Trustees After Consulting With Actuary

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



Schedule 1.

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

Percent of Active Members Separating Within Next Year

		General Members							
Sample	Years of	N	⁄len	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		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



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		





SUMMARY OF LAGERS PROVISIONS

Missouri LocAl Government Employees Retirement System Brief Summary of LAGERS Box of the and Conditions Evaluated and Van Considered

Benefits and Conditions Evaluated and/or Considered as of February 28, 2019 (Section references are to RSMo)

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

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

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

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

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

LT-4(65) Benefit Program:

LT-5(65) Benefit Program:

LT-8(65) Benefit Program:

1.00% for life, plus 1.00% to age 65

1.25% for life, plus 0.75% to age 65

LT-14(65) Benefit Program:

1.50% for life, plus 0.50% to age 65

LT-14(65) Benefit Program:

1.75% for life, plus 0.25% to age 65

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

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

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

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



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

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

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

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

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

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

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

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

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



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

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

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

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

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

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





BENEFIT ILLUSTRATIONS

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

Final	Estimated Estimated		ated	
Average	LAGERS	Social	Monthly	/ Total
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service:				
\$1,500	\$ 525	\$ 930	\$1,455	97%
2,000	700	1,076	1,776	89%
2,500	875	1,223	2,098	84%
3,000	1,050	1,370	2,420	81%
3,500	1,225	1,516	2,741	78%
4,000	1,400	1,662	3,062	77%
25 Years of Service:				
\$1,500	\$ 375	\$ 930	\$1,305	87%
2,000	500	1,076	1,576	79%
2,500	625	1,223	1,848	74%
3,000	750	1,370	2,120	71%
3,500	875	1,516	2,391	68%
4,000	1,000	1,662	2,662	67%
15 Years of Service:				
\$1,500	\$225	\$ 930	\$1,155	77%
2,000	300	1,076	1,376	69%
2,500	375	1,223	1,598	64%
3,000	450	1,370	1,820	61%
3,500	525	1,516	2,041	58%
4,000	600	1,662	2,262	57%
•		•	•	

[&]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.

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



[&]quot;Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2019 - it does not include any amounts which might be payable to an eligible spouse or children.

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

Final		Estimated	Estimated	
Average	LAGERS	Social	Monthly	/ Total
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service:				
\$1,500	\$ 656	\$ 930	\$1,586	106%
2,000	875	1,076	1,951	98%
2,500	1,094	1,223	2,317	93%
3,000	1,313	1,370	2,683	89%
3,500	1,531	1,516	3,047	87%
4,000	1,750	1,662	3,412	85%
25 Years of Service:				
\$1,500	\$ 469	\$ 930	\$1,399	93%
2,000	625	1,076	1,701	85%
2,500	781	1,223	2,004	80%
3,000	938	1,370	2,308	77%
3,500	1,094	1,516	2,610	75%
4,000	1,250	1,662	2,912	73%
15 Years of Service:				
\$1,500	\$281	\$ 930	\$1,211	81%
2,000	375	1,076	1,451	73%
2,500	469	1,223	1,692	68%
3,000	563	1,370	1,933	64%
3,500	656	1,516	2,172	62%
4,000	750	1,662	2,412	60%

¹ "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.

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2019 - it does not include any amounts which might be payable to an eligible spouse or children.

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

Final	Estimated Estimated		ated	
Average	LAGERS	Social	Monthly	y Total
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service:				
\$1,500	\$ 788	\$ 930	\$1,718	115%
2,000	1,050	1,076	2,126	106%
2,500	1,313	1,223	2,536	101%
3,000	1,575	1,370	2,945	98%
3,500	1,838	1,516	3,354	96%
4,000	2,100	1,662	3,762	94%
25 Years of Service:				
\$1,500	\$ 563	\$ 930	\$1,493	100%
2,000	750	1,076	1,826	91%
2,500	938	1,223	2,161	86%
3,000	1,125	1,370	2,495	83%
3,500	1,313	1,516	2,829	81%
4,000	1,500	1,662	3,162	79%
15 Years of Service:				
\$1,500	\$338	\$ 930	\$1,268	85%
2,000	450	1,076	1,526	76%
2,500	563	1,223	1,786	71%
3,000	675	1,370	2,045	68%
3,500	788	1,516	2,304	66%
4,000	900	1,662	2,562	64%

[&]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.

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2019 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

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

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2019 - it does not include any amounts which might be payable to an eligible spouse or children.

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

Final	Estimated Estimated		ated	
Average	LAGERS	Social	Monthly	y Total
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service:				
\$1,500	\$1,050	\$ 930	\$1,980	132%
2,000	1,400	1,076	2,476	124%
2,500	1,750	1,223	2,973	119%
3,000	2,100	1,370	3,470	116%
3,500	2,450	1,516	3,966	113%
4,000	2,800	1,662	4,462	112%
25 Years of Service:				
\$1,500	\$ 750	\$ 930	\$1,680	112%
2,000	1,000	1,076	2,076	104%
2,500	1,250	1,223	2,473	99%
3,000	1,500	1,370	2,870	96%
3,500	1,750	1,516	3,266	93%
4,000	2,000	1,662	3,662	92%
15 Years of Service:				
\$1,500	\$ 450	\$ 930	\$1,380	92%
2,000	600	1,076	1,676	84%
2,500	750	1,223	1,973	79%
3,000	900	1,370	2,270	76%
3,500	1,050	1,516	2,566	73%
4,000	1,200	1,662	2,862	72%

¹ "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.

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2019 - it does not include any amounts which might be payable to an eligible spouse or children.

Missouri LAGERS

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

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

1.00% of FAS ¹ at age 65)

Final	LAG	ERS	Estimated	Estin	nated	Pero	ent
Average	BENI	EFIT ³	Social	Month	ly Total	of F	AS
Salary (FAS) ¹	To 65	At 65	Security ²	To 65	At 65	To 65	At 65
35 Years of Service	9:						
\$1,500	\$1,050	\$ 525	\$ 930	\$1,050	\$1,455	70%	97%
2,000	1,400	700	1,076	1,400	1,776	70%	89%
2,500	1,750	875	1,223	1,750	2,098	70%	84%
3,000	2,100	1,050	1,370	2,100	2,420	70%	81%
3,500	2,450	1,225	1,516	2,450	2,741	70%	78%
4,000	2,800	1,400	1,662	2,800	3,062	70%	77%
25 Years of Service	e:						
\$1,500	\$ 750	\$ 375	\$ 930	\$ 750	\$1,305	50%	87%
2,000	1,000	500	1,076	1,000	1,576	50%	79%
2,500	1,250	625	1,223	1,250	1,848	50%	74%
3,000	1,500	750	1,370	1,500	2,120	50%	71%
3,500	1,750	875	1,516	1,750	2,391	50%	68%
4,000	2,000	1,000	1,662	2,000	2,662	50%	67%
15 Years of Service	e:						
\$1,500	\$ 450	\$225	\$ 930	\$ 450	\$1,155	30%	77%
2,000	600	300	1,076	600	1,376	30%	69%
2,500	750	375	1,223	750	1,598	30%	64%
3,000	900	450	1,370	900	1,820	30%	61%
3,500	1,050	525	1,516	1,050	2,041	30%	58%
4,000	1,200	600	1,662	1,200	2,262	30%	57%

¹ "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.

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2019 - it does not include any amounts which might be payable to an eligible spouse or children.

Missouri LAGERS

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

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

1.25% of FAS ¹ at age 65)

Final	LAG	ERS	Estimated	Estim	ated	Perc	ent
Average	BENI	EFIT ³	Social	Month	y Total	of F	AS
Salary (FAS) ¹	To 65	At 65	Security ²	To 65	At 65	To 65	At 65
35 Years of Service	2:						
\$1,500	\$1,050	\$ 656	\$ 930	\$1,050	\$1,586	70%	106%
2,000	1,400	875	1,076	1,400	1,951	70%	98%
2,500	1,750	1,094	1,223	1,750	2,317	70%	93%
3,000	2,100	1,313	1,370	2,100	2,683	70%	89%
3,500	2,450	1,531	1,516	2,450	3,047	70%	87%
4,000	2,800	1,750	1,662	2,800	3,412	70%	85%
25 Years of Service	2:						
\$1,500	\$ 750	\$ 469	\$ 930	\$ 750	\$1,399	50%	93%
2,000	1,000	625	1,076	1,000	1,701	50%	85%
2,500	1,250	781	1,223	1,250	2,004	50%	80%
3,000	1,500	938	1,370	1,500	2,308	50%	77%
3,500	1,750	1,094	1,516	1,750	2,610	50%	75%
4,000	2,000	1,250	1,662	2,000	2,912	50%	73%
15 Years of Service	e:						
\$1,500	\$ 450	\$281	\$ 930	\$ 450	\$1,211	30%	81%
2,000	600	375	1,076	600	1,451	30%	73%
2,500	750	469	1,223	750	1,692	30%	68%
3,000	900	563	1,370	900	1,933	30%	64%
3,500	1,050	656	1,516	1,050	2,172	30%	62%
4,000	1,200	750	1,662	1,200	2,412	30%	60%

¹ "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.

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2019 - it does not include any amounts which might be payable to an eligible spouse or children.

Missouri LAGERS

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

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

1.50% of FAS ¹ at age 65)

Final	LAGERS		Estimated	Estimated		Percent		
Average	BENI	EFIT ³	Social	Monthl	y Total	of FAS		
Salary (FAS) ¹	To 65	At 65	Security ²	To 65	At 65	To 65	At 65	
35 Years of Service	2:							
\$1,500	\$1,050	\$ 788	\$ 930	\$1,050	\$1,718	70%	115%	
2,000	1,400	1,050	1,076	1,400	2,126	70%	106%	
2,500	1,750	1,313	1,223	1,750	2,536	70%	101%	
3,000	2,100	1,575	1,370	2,100	2,945	70%	98%	
3,500	2,450	1,838	1,516	2,450	3,354	70%	96%	
4,000	2,800	2,100	1,662	2,800	3,762	70%	94%	
25 Years of Service	2:							
\$1,500	\$ 750	\$ 563	\$ 930	\$ 750	\$1,493	50%	100%	
2,000	1,000	750	1,076	1,000	1,826	50%	91%	
2,500	1,250	938	1,223	1,250	2,161	50%	86%	
3,000	1,500	1,125	1,370	1,500	2,495	50%	83%	
3,500	1,750	1,313	1,516	1,750	2,829	50%	81%	
4,000	2,000	1,500	1,662	2,000	3,162	50%	79%	
15 Years of Service	2:							
\$1,500	\$ 450	\$338	\$ 930	\$ 450	\$1,268	30%	85%	
2,000	600	450	1,076	600	1,526	30%	76%	
2,500	750	563	1,223	750	1,786	30%	71%	
3,000	900	675	1,370	900	2,045	30%	68%	
3,500	1,050	788	1,516	1,050	2,304	30%	66%	
4,000	1,200	900	1,662	1,200	2,562	30%	64%	

¹ "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.

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2019 - it does not include any amounts which might be payable to an eligible spouse or children.

Missouri LAGERS

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

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

1.75% of FAS ¹ at age 65)

Final	LAGERS		Estimated	Estimated		Percent		
Average	BENI	EFIT ³	Social	Monthl	y Total	of FAS		
Salary (FAS) ¹	To 65	At 65	Security ²	To 65	At 65	To 65	At 65	
35 Years of Service	e:							
\$1,500	\$1,050	\$ 919	\$ 930	\$1,050	\$1,849	70%	123%	
2,000	1,400	1,225	1,076	1,400	2,301	70%	115%	
2,500	1,750	1,531	1,223	1,750	2,754	70%	110%	
3,000	2,100	1,838	1,370	2,100	3,208	70%	107%	
3,500	2,450	2,144	1,516	2,450	3,660	70%	105%	
4,000	2,800	2,450	1,662	2,800	4,112	70%	103%	
25 Years of Service	e:							
\$1,500	\$ 750	\$ 656	\$ 930	\$ 750	\$1,586	50%	106%	
2,000	1,000	875	1,076	1,000	1,951	50%	98%	
2,500	1,250	1,094	1,223	1,250	2,317	50%	93%	
3,000	1,500	1,313	1,370	1,500	2,683	50%	89%	
3,500	1,750	1,531	1,516	1,750	3,047	50%	87%	
4,000	2,000	1,750	1,662	2,000	3,412	50%	85%	
15 Years of Service	e:							
\$1,500	\$ 450	\$ 394	\$ 930	\$ 450	\$1,324	30%	88%	
2,000	600	525	1,076	600	1,601	30%	80%	
2,500	750	656	1,223	750	1,879	30%	75%	
3,000	900	788	1,370	900	2,158	30%	72%	
3,500	1,050	919	1,516	1,050	2,435	30%	70%	
4,000	1,200	1,050	1,662	1,200	2,712	30%	68%	

¹ "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.

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2019 - it does not include any amounts which might be payable to an eligible spouse or children.



AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

Reynolds County 911 Communications

September 30, 2019

By Attained Age and Years of Service

		Years of Service to Valuation Date Totals													
Attained									Valuation						
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll						
Under 20															
20-24	2							2	\$ 59,099						
25-29															
30-34			2					2	\$ 59,931						
35-39	1							1	\$ 32,000						
40-44															
45-49															
50-54															
55-59															
60-64															
65-69															
70 & Over															
Totals	3		2			5	\$ 151,030								

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

Age: 28.5 years.

Benefit Service: 5.6 years. Annual Pay: \$30,206.



RISK COMMENTARY

Risk Commentary

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

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

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

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

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

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



Risk Commentary (Concluded)

PLAN MATURITY MEASURES

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

RATIO OF MARKET VALUE OF ASSETS TO PAYROLL

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

RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL

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

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

RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS

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

DURATION OF ACTUARIAL ACCRUED LIABILITY

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

ADDITIONAL RISK ASSESSMENT

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





November 26, 2019 E-mail

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

Dear Bob:

Enclosed is the report of the September 30, 2019 Initial Actuarial Valuation of LAGERS benefits for the employees of

Reynolds County 911 Communications

Sincerely,

Mita D. Drazilov, ASA, FCA, MAAA

Mita Drazilor

MDD:wp



November 26, 2019

Reynolds County 911 Communications Centerville, 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 September 30, 2019 Initial Valuation for the Reynolds County 911 Communications dated November 26, 2019.

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of the Initial Valuation Report. In our opinion, they do produce results which, in the aggregate, are reasonable. Additional miscellaneous and technical assumptions as well as disclosures required by the actuarial standards of practice may be found in the LAGERS Compiled Annual Actuarial Valuation report as of February 28, 2019.

The Public Safety department is valued using police benefit provisions (normal retirement and deferred age equal to 55). In addition, the actuarial assumptions for police members were used in accordance with direction from LAGERS staff.

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 Drazilov, ASA, FCA, MAAA

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

		L-1 Benefit Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contribution		Actuarial	Contr	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 151,030	5.4%	\$8,156	\$ 58,895	7.5%	\$11,327	\$ 76,094	7.0%	\$10,572	\$ 74,506
2020	155,938	5.4	8,421	59,702	7.5	11,695	77,136	7.0	10,916	75,527
2021	161,006	5.4	8,694	60,455	7.5	12,075	78,109	7.0	11,270	76,479
2022	166,239	5.4	8,977	61,146	7.5	12,468	79,002	7.0	11,637	77,353
2023	171,642	5.4	9,269	61,767	7.5	12,873	79,805	7.0	12,015	78,139
2024	177,220	5.4	9,570	62,309	7.5	13,292	80,506	7.0	12,405	78,825
2025	182,980	5.4	9,881	62,763	7.5	13,724	81,092	7.0	12,809	79,399
2026	188,927	5.4	10,202	63,118	7.5	14,170	81,550	7.0	13,225	79,848
2027	195,067	5.4	10,534	63,362	7.5	14,630	81,865	7.0	13,655	80,157
2028	201,407	5.4	10,876	63,483	7.5	15,106	82,021	7.0	14,098	80,310

	LT-5(65) Benefit I			rogram 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 Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 151,030	8.7%	\$13,140	\$ 87,811	9.6%	\$14,499	\$ 93,214	10.4%	\$15,707	\$ 101,019
2020	155,938	8.7	13,567	89,014	9.6	14,970	94,491	10.4	16,218	102,403
2021	161,006	8.7	14,008	90,136	9.6	15,457	95,682	10.4	16,745	103,694
2022	166,239	8.7	14,463	91,167	9.6	15,959	96,776	10.4	17,289	104,880
2023	171,642	8.7	14,933	92,093	9.6	16,478	97,759	10.4	17,851	105,946
2024	177,220	8.7	15,418	92,902	9.6	17,013	98,618	10.4	18,431	106,876
2025	182,980	8.7	15,919	93,579	9.6	17,566	99,336	10.4	19,030	107,655
2026	188,927	8.7	16,437	94,108	9.6	18,137	99,897	10.4	19,648	108,263
2027	195,067	8.7	16,971	94,472	9.6	18,726	100,283	10.4	20,287	108,682
2028	201,407	8.7	17,522	94,652	9.6	19,335	100,474	10.4	20,946	108,890

L-12 Bene			12 Benefit Pro	gram	LT-14	1(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		Estimated Employer Contribution			l Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 151,030	11.7%	\$17,671	\$ 110,191	12.1%	\$18,275	\$ 114,080	13.8%	\$20,842	\$ 127,002
2020	155,938	11.7	18,245	111,701	12.1	18,868	115,643	13.8	21,519	128,742
2021	161,006	11.7	18,838	113,109	12.1	19,482	117,101	13.8	22,219	130,365
2022	166,239	11.7	19,450	114,402	12.1	20,115	118,440	13.8	22,941	131,855
2023	171,642	11.7	20,082	115,564	12.1	20,769	119,643	13.8	23,687	133,195
2024	177,220	11.7	20,735	116,579	12.1	21,444	120,694	13.8	24,456	134,365
2025	182,980	11.7	21,409	117,428	12.1	22,141	121,573	13.8	25,251	135,344
2026	188,927	11.7	22,104	118,092	12.1	22,860	122,260	13.8	26,072	136,109
2027	195,067	11.7	22,823	118,549	12.1	23,603	122,733	13.8	26,919	136,635
2028	201,407	11.7	23,565	118,775	12.1	24,370	122,967	13.8	27,794	136,896

- 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 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

		L-1 Benefit Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	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
2019	\$ 151,030	5.7%	\$8,609	\$ 61,446	8.0%	\$12,082	\$ 79,281	7.3%	\$11,025	\$ 77,639
2020	155,938	5.7	8,888	62,288	8.0	12,475	80,367	7.3	11,383	78,703
2021	161,006	5.7	9,177	63,073	8.0	12,880	81,380	7.3	11,753	79,695
2022	166,239	5.7	9,476	63,794	8.0	13,299	82,310	7.3	12,135	80,606
2023	171,642	5.7	9,784	64,442	8.0	13,731	83,146	7.3	12,530	81,425
2024	177,220	5.7	10,102	65,008	8.0	14,178	83,876	7.3	12,937	82,140
2025	182,980	5.7	10,430	65,482	8.0	14,638	84,487	7.3	13,358	82,738
2026	188,927	5.7	10,769	65,852	8.0	15,114	84,964	7.3	13,792	83,206
2027	195,067	5.7	11,119	66,107	8.0	15,605	85,293	7.3	14,240	83,528
2028	201,407	5.7	11,480	66,233	8.0	16,113	85,456	7.3	14,703	83,687

		LT-5(65) Benefit P			ogram L-7 Benefit Progra			LT-8	LT-8(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated Contribution		ibution	Actuarial	Contribution		Actuarial	Contribution		Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2019	\$ 151,030	9.1%	\$13,744	\$ 91,435	10.1%	\$15,254	\$ 96,968	10.9%	\$16,462	\$ 105,041	
2020	155,938	9.1	14,190	92,688	10.1	15,750	98,296	10.9	16,997	106,480	
2021	161,006	9.1	14,652	93,857	10.1	16,262	99,535	10.9	17,550	107,823	
2022	166,239	9.1	15,128	94,930	10.1	16,790	100,673	10.9	18,120	109,056	
2023	171,642	9.1	15,619	95,895	10.1	17,336	101,696	10.9	18,709	110,164	
2024	177,220	9.1	16,127	96,737	10.1	17,899	102,589	10.9	19,317	111,131	
2025	182,980	9.1	16,651	97,442	10.1	18,481	103,336	10.9	19,945	111,941	
2026	188,927	9.1	17,192	97,993	10.1	19,082	103,920	10.9	20,593	112,574	
2027	195,067	9.1	17,751	98,372	10.1	19,702	104,322	10.9	21,262	113,009	
2028	201,407	9.1	18,328	98,560	10.1	20,342	104,521	10.9	21,953	113,225	

		L-12 Benefit Program			LT-14	1(65) Benefit I	Program	L-6 Benefit Program		
			l Employer	Unfunded		l Employer	Unfunded		l Employer	Unfunded Actuarial
	Estimated	Contri	ibution	Actuarial	Contribution		Actuarial	Contr	Contribution	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 151,030	12.3%	\$18,577	\$ 114,507	12.7%	\$19,181	\$ 118,581	14.4%	\$21,748	\$ 131,867
2020	155,938	12.3	19,180	116,076	12.7	19,804	120,206	14.4	22,455	133,674
2021	161,006	12.3	19,804	117,540	12.7	20,448	121,722	14.4	23,185	135,360
2022	166,239	12.3	20,447	118,884	12.7	21,112	123,114	14.4	23,938	136,908
2023	171,642	12.3	21,112	120,092	12.7	21,799	124,365	14.4	24,716	138,299
2024	177,220	12.3	21,798	121,147	12.7	22,507	125,457	14.4	25,520	139,514
2025	182,980	12.3	22,507	122,029	12.7	23,238	126,371	14.4	26,349	140,530
2026	188,927	12.3	23,238	122,719	12.7	23,994	127,085	14.4	27,205	141,324
2027	195,067	12.3	23,993	123,194	12.7	24,774	127,576	14.4	28,090	141,871
2028	201,407	12.3	24,773	123,429	12.7	25,579	127,820	14.4	29,003	142,142

- 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 28th 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	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contribution		Actuarial	Contri	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 151,030	9.3%	\$14,046	\$ 74,909	11.4%	\$17,217	\$ 93,598	10.9%	\$16,462	\$ 90,479
2020	155,938	9.3	14,502	75,935	11.4	17,777	94,880	10.9	16,997	91,719
2021	161,006	9.3	14,974	76,892	11.4	18,355	96,076	10.9	17,550	92,876
2022	166,239	9.3	15,460	77,771	11.4	18,951	97,174	10.9	18,120	93,938
2023	171,642	9.3	15,963	78,561	11.4	19,567	98,161	10.9	18,709	94,892
2024	177,220	9.3	16,481	79,251	11.4	20,203	99,023	10.9	19,317	95,725
2025	182,980	9.3	17,017	79,828	11.4	20,860	99,744	10.9	19,945	96,422
2026	188,927	9.3	17,570	80,279	11.4	21,538	100,308	10.9	20,593	96,967
2027	195,067	9.3	18,141	80,589	11.4	22,238	100,696	10.9	21,262	97,342
2028	201,407	9.3	18,731	80,743	11.4	22,960	100,888	10.9	21,953	97,528

		LT-5(65) Benefit Program			L-	7 Benefit Pro	gram	LT-8(65) Benefit Program		
		Estimated	d Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated Employer		Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 151,030	12.6%	\$19,030	\$ 105,305	13.5%	\$20,389	\$ 112,345	14.3%	\$21,597	\$ 120,128
2020	155,938	12.6	19,648	106,748	13.5	21,052	113,884	14.3	22,299	121,774
2021	161,006	12.6	20,287	108,094	13.5	21,736	115,320	14.3	23,024	123,309
2022	166,239	12.6	20,946	109,330	13.5	22,442	116,638	14.3	23,772	124,719
2023	171,642	12.6	21,627	110,441	13.5	23,172	117,823	14.3	24,545	125,986
2024	177,220	12.6	22,330	111,411	13.5	23,925	118,858	14.3	25,342	127,092
2025	182,980	12.6	23,055	112,223	13.5	24,702	119,724	14.3	26,166	128,018
2026	188,927	12.6	23,805	112,857	13.5	25,505	120,401	14.3	27,017	128,742
2027	195,067	12.6	24,578	113,293	13.5	26,334	120,867	14.3	27,895	129,240
2028	201.407	12.6	25.377	113.509	13.5	27.190	121.098	14.3	28.801	129.487

		L-12 Benefit Program				4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 151,030	15.6%	\$23,561	\$ 131,055	16.0%	\$24,165	\$ 134,927	17.7%	\$26,732	\$ 149,770
2020	155,938	15.6	24,326	132,850	16.0	24,950	136,775	17.7	27,601	151,822
2021	161,006	15.6	25,117	134,525	16.0	25,761	138,500	17.7	28,498	153,736
2022	166,239	15.6	25,933	136,063	16.0	26,598	140,083	17.7	29,424	155,494
2023	171,642	15.6	26,776	137,446	16.0	27,463	141,506	17.7	30,381	157,074
2024	177,220	15.6	27,646	138,653	16.0	28,355	142,749	17.7	31,368	158,453
2025	182,980	15.6	28,545	139,663	16.0	29,277	143,789	17.7	32,387	159,607
2026	188,927	15.6	29,473	140,452	16.0	30,228	144,602	17.7	33,440	160,509
2027	195,067	15.6	30,430	140,995	16.0	31,211	145,161	17.7	34,527	161,130
2028	201,407	15.6	31,419	141,264	16.0	32,225	145,438	17.7	35,649	161,438

- 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.
- Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

(0% member contributions are additional)

Regular Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
	Estimated		Estimated Employer Contribution			l Employer bution	Unfunded Actuarial		l Employer bution	Unfunded Actuarial
Valuation	Projected	As a %	Annual	Actuarial Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 151,030	9.6%	\$14,499	\$ 77,722	11.9%	\$17,973	\$ 97,157	11.2%	\$16,915	\$ 93,870
2020	155,938	9.6	14,970	78,787	11.9	18,557	98,488	11.2	17,465	95,156
2021	161,006	9.6	15,457	79,780	11.9	19,160	99,730	11.2	18,033	96,356
2022	166,239	9.6	15,959	80,692	11.9	19,782	100,870	11.2	18,619	97,458
2023	171,642	9.6	16,478	81,512	11.9	20,425	101,895	11.2	19,224	98,448
2024	177,220	9.6	17,013	82,228	11.9	21,089	102,790	11.2	19,849	99,313
2025	182,980	9.6	17,566	82,827	11.9	21,775	103,539	11.2	20,494	100,036
2026	188,927	9.6	18,137	83,295	11.9	22,482	104,124	11.2	21,160	100,601
2027	195,067	9.6	18,726	83,617	11.9	23,213	104,527	11.2	21,848	100,990
2028	201,407	9.6	19,335	83,777	11.9	23,967	104,727	11.2	22,558	101,183

		LT-5	(65) Benefit P	rogram	<u> </u>			LT-8	rogram	
	Estimated		d Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 151,030	13.0%	\$19,634	\$ 109,291	14.0%	\$21,144	\$ 116,599	14.8%	\$22,352	\$ 124,667
2020	155,938	13.0	20,272	110,788	14.0	21,831	118,196	14.8	23,079	126,375
2021	161,006	13.0	20,931	112,185	14.0	22,541	119,686	14.8	23,829	127,969
2022	166,239	13.0	21,611	113,468	14.0	23,273	121,054	14.8	24,603	129,432
2023	171,642	13.0	22,313	114,621	14.0	24,030	122,284	14.8	25,403	130,747
2024	177,220	13.0	23,039	115,628	14.0	24,811	123,358	14.8	26,229	131,895
2025	182,980	13.0	23,787	116,470	14.0	25,617	124,257	14.8	27,081	132,856
2026	188,927	13.0	24,561	117,128	14.0	26,450	124,959	14.8	27,961	133,607
2027	195,067	13.0	25,359	117,581	14.0	27,309	125,442	14.8	28,870	134,124
2028	201 407	13.0	26 183	117 806	14 0	28 197	125 682	148	29.808	134 380

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
			l Employer	Unfunded		l Employer	Unfunded	Estimated Employer Contribution		Unfunded
	Estimated		ibution	Actuarial		ibution	Actuarial			Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 151,030	16.2%	\$24,467	\$ 136,025	16.6%	\$25,071	\$ 140,081	18.3%	\$27,638	\$ 155,456
2020	155,938	16.2	25,262	137,889	16.6	25,886	142,000	18.3	28,537	157,586
2021	161,006	16.2	26,083	139,628	16.6	26,727	143,791	18.3	29,464	159,573
2022	166,239	16.2	26,931	141,224	16.6	27,596	145,435	18.3	30,422	161,397
2023	171,642	16.2	27,806	142,659	16.6	28,493	146,913	18.3	31,410	163,037
2024	177,220	16.2	28,710	143,912	16.6	29,419	148,203	18.3	32,431	164,469
2025	182,980	16.2	29,643	144,960	16.6	30,375	149,283	18.3	33,485	165,667
2026	188,927	16.2	30,606	145,779	16.6	31,362	150,127	18.3	34,574	166,603
2027	195,067	16.2	31,601	146,343	16.6	32,381	150,708	18.3	35,697	167,247
2028	201,407	16.2	32,628	146,622	16.6	33,434	150,996	18.3	36,857	167,566

- 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 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
	Estimated		Estimated Employer Contribution			Employer	Unfunded Actuarial		Employer	Unfunded Actuarial
Valuation	Projected	As a %	Annual	Actuarial Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 151,030	6.2%	\$9,364	\$ 67,746	8.5%	\$12,838	\$ 86,996	8.9%	\$13,442	\$ 96,242
2020	155,938	6.2	9,668	68,674	8.5	13,255	88,188	8.9	13,878	97,561
2021	161,006	6.2	9,982	69,540	8.5	13,686	89,300	8.9	14,330	98,791
2022	166,239	6.2	10,307	70,335	8.5	14,130	90,321	8.9	14,795	99,920
2023	171,642	6.2	10,642	71,050	8.5	14,590	91,239	8.9	15,276	100,935
2024	177,220	6.2	10,988	71,674	8.5	15,064	92,040	8.9	15,773	101,821
2025	182,980	6.2	11,345	72,196	8.5	15,553	92,710	8.9	16,285	102,563
2026	188,927	6.2	11,713	72,604	8.5	16,059	93,234	8.9	16,815	103,143
2027	195,067	6.2	12,094	72,885	8.5	16,581	93,595	8.9	17,361	103,542
2028	201,407	6.2	12,487	73,024	8.5	17,120	93,774	8.9	17,925	103,740

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 151,030	10.5%	\$15,858	\$ 108,372	10.8%	\$16,311	\$ 106,178	12.1%	\$18,275	\$ 120,427
2020	155,938	10.5	16,373	109,857	10.8	16,841	107,633	12.1	18,868	122,077
2021	161,006	10.5	16,906	111,242	10.8	17,389	108,990	12.1	19,482	123,616
2022	166,239	10.5	17,455	112,514	10.8	17,954	110,236	12.1	20,115	125,029
2023	171,642	10.5	18,022	113,657	10.8	18,537	111,356	12.1	20,769	126,299
2024	177,220	10.5	18,608	114,655	10.8	19,140	112,334	12.1	21,444	127,408
2025	182,980	10.5	19,213	115,490	10.8	19,762	113,152	12.1	22,141	128,336
2026	188,927	10.5	19,837	116,143	10.8	20,404	113,791	12.1	22,860	129,061
2027	195,067	10.5	20,482	116,592	10.8	21,067	114,231	12.1	23,603	129,560
2028	201,407	10.5	21,148	116,815	10.8	21,752	114,449	12.1	24,370	129,807

			L-12 Benefit Program			4(65) Benefit I	Program	L-6 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
2019	\$ 151,030	13.1%	\$19,785	\$ 125,209	13.8%	\$20,842	\$ 132,336	15.4%	\$23,259	\$ 144,138
2020	155,938	13.1	20,428	126,924	13.8	21,519	134,149	15.4	24,014	146,113
2021	161,006	13.1	21,092	128,524	13.8	22,219	135,841	15.4	24,795	147,955
2022	166,239	13.1	21,777	129,993	13.8	22,941	137,394	15.4	25,601	149,647
2023	171,642	13.1	22,485	131,314	13.8	23,687	138,790	15.4	26,433	151,168
2024	177,220	13.1	23,216	132,467	13.8	24,456	140,009	15.4	27,292	152,496
2025	182,980	13.1	23,970	133,432	13.8	25,251	141,029	15.4	28,179	153,607
2026	188,927	13.1	24,749	134,186	13.8	26,072	141,826	15.4	29,095	154,475
2027	195,067	13.1	25,554	134,705	13.8	26,919	142,374	15.4	30,040	155,072
2028	201,407	13.1	26,384	134,962	13.8	27,794	142,646	15.4	31,017	155,368

- 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 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
			l Employer	Unfunded		l Employer	Unfunded			Unfunded
	Estimated		ibution	Actuarial	Contri	bution	Actuarial	Contri	d Employer l	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 151,030	6.6%	\$9,968	\$ 70,734	9.0%	\$13,593	\$ 90,700	9.4%	\$14,197	\$ 100,299
2020	155,938	6.6	10,292	71,703	9.0	14,034	91,943	9.4	14,658	101,673
2021	161,006	6.6	10,626	72,607	9.0	14,491	93,102	9.4	15,135	102,955
2022	166,239	6.6	10,972	73,437	9.0	14,962	94,166	9.4	15,626	104,132
2023	171,642	6.6	11,328	74,183	9.0	15,448	95,123	9.4	16,134	105,190
2024	177,220	6.6	11,697	74,835	9.0	15,950	95,958	9.4	16,659	106,114
2025	182,980	6.6	12,077	75,380	9.0	16,468	96,657	9.4	17,200	106,887
2026	188,927	6.6	12,469	75,806	9.0	17,003	97,203	9.4	17,759	107,491
2027	195,067	6.6	12,874	76,099	9.0	17,556	97,579	9.4	18,336	107,907
2028	201,407	6.6	13,293	76,244	9.0	18,127	97,765	9.4	18,932	108,113

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 151,030	11.0%	\$16,613	\$ 112,891	11.3%	\$17,066	\$ 110,533	12.8%	\$19,332	\$ 125,322
2020	155,938	11.0	17,153	114,438	11.3	17,621	112,047	12.8	19,960	127,039
2021	161,006	11.0	17,711	115,881	11.3	18,194	113,460	12.8	20,609	128,641
2022	166,239	11.0	18,286	117,206	11.3	18,785	114,757	12.8	21,279	130,112
2023	171,642	11.0	18,881	118,397	11.3	19,396	115,923	12.8	21,970	131,434
2024	177,220	11.0	19,494	119,437	11.3	20,026	116,941	12.8	22,684	132,588
2025	182,980	11.0	20,128	120,307	11.3	20,677	117,793	12.8	23,421	133,554
2026	188,927	11.0	20,782	120,987	11.3	21,349	118,459	12.8	24,183	134,309
2027	195,067	11.0	21,457	121,455	11.3	22,043	118,917	12.8	24,969	134,828
2028	201,407	11.0	22,155	121,687	11.3	22,759	119,144	12.8	25,780	135,085

			L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
	Estimated		l Employer	Unfunded		d Employer	Unfunded		l Employer	Unfunded Actuarial	
Valuation	Projected	As a % of	ibution Annual	Actuarial Accrued	As a % of	ibution Annual	Actuarial Accrued	As a % of	ibution Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2019	\$ 151,030	13.7%	\$20,691	\$ 130,252	14.4%	\$21,748	\$ 137,635	16.1%	\$24,316	\$ 149,808	
2020	155,938	13.7	21,364	132,036	14.4	22,455	139,521	16.1	25,106	151,860	
2021	161,006	13.7	22,058	133,701	14.4	23,185	141,280	16.1	25,922	153,775	
2022	166,239	13.7	22,775	135,230	14.4	23,938	142,895	16.1	26,764	155,533	
2023	171,642	13.7	23,515	136,604	14.4	24,716	144,347	16.1	27,634	157,113	
2024	177,220	13.7	24,279	137,804	14.4	25,520	145,615	16.1	28,532	158,493	
2025	182,980	13.7	25,068	138,808	14.4	26,349	146,676	16.1	29,460	159,648	
2026	188,927	13.7	25,883	139,592	14.4	27,205	147,505	16.1	30,417	160,550	
2027	195,067	13.7	26,724	140,132	14.4	28,090	148,075	16.1	31,406	161,171	
2028	201,407	13.7	27,593	140,400	14.4	29,003	148,358	16.1	32,427	161,479	

- 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 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
	Estimated		Estimated Employer Contribution			l Employer bution	Unfunded Actuarial		l Employer bution	Unfunded Actuarial
Valuation	Projected	As a %	Annual	Actuarial Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 151,030	10.1%	\$15,254	\$ 83,593	12.4%	\$18,728	\$ 104,455	12.8%	\$19,332	\$ 112,050
2020	155,938	10.1	15,750	84,738	12.4	19,336	105,886	12.8	19,960	113,585
2021	161,006	10.1	16,262	85,806	12.4	19,965	107,221	12.8	20,609	115,017
2022	166,239	10.1	16,790	86,787	12.4	20,614	108,447	12.8	21,279	116,332
2023	171,642	10.1	17,336	87,669	12.4	21,284	109,549	12.8	21,970	117,514
2024	177,220	10.1	17,899	88,439	12.4	21,975	110,511	12.8	22,684	118,546
2025	182,980	10.1	18,481	89,083	12.4	22,690	111,316	12.8	23,421	119,410
2026	188,927	10.1	19,082	89,586	12.4	23,427	111,945	12.8	24,183	120,085
2027	195,067	10.1	19,702	89,932	12.4	24,188	112,378	12.8	24,969	120,549
2028	201,407	10.1	20,342	90,104	12.4	24,974	112,593	12.8	25,780	120,779

		LT-5	(65) Benefit P	rogram	L.	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		d Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 151,030	14.4%	\$21,748	\$ 125,803	14.7%	\$22,201	\$ 124,586	16.0%	\$24,165	\$ 139,614
2020	155,938	14.4	22,455	127,526	14.7	22,923	126,293	16.0	24,950	141,527
2021	161,006	14.4	23,185	129,134	14.7	23,668	127,885	16.0	25,761	143,312
2022	166,239	14.4	23,938	130,610	14.7	24,437	129,347	16.0	26,598	144,950
2023	171,642	14.4	24,716	131,937	14.7	25,231	130,661	16.0	27,463	146,423
2024	177,220	14.4	25,520	133,096	14.7	26,051	131,809	16.0	28,355	147,709
2025	182,980	14.4	26,349	134,066	14.7	26,898	132,769	16.0	29,277	148,785
2026	188,927	14.4	27,205	134,824	14.7	27,772	133,519	16.0	30,228	149,626
2027	195,067	14.4	28,090	135,345	14.7	28,675	134,035	16.0	31,211	150,205
2028	201,407	14.4	29,003	135,603	14.7	29,607	134,291	16.0	32,225	150,492

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 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 % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 151,030	17.0%	\$25,675	\$ 146,274	17.7%	\$26,732	\$ 153,393	19.3%	\$29,149	\$ 167,200
2020	155,938	17.0	26,509	148,278	17.7	27,601	155,494	19.3	30,096	169,491
2021	161,006	17.0	27,371	150,148	17.7	28,498	157,455	19.3	31,074	171,628
2022	166,239	17.0	28,261	151,865	17.7	29,424	159,255	19.3	32,084	173,590
2023	171,642	17.0	29,179	153,408	17.7	30,381	160,873	19.3	33,127	175,354
2024	177,220	17.0	30,127	154,755	17.7	31,368	162,286	19.3	34,203	176,894
2025	182,980	17.0	31,107	155,882	17.7	32,387	163,468	19.3	35,315	178,183
2026	188,927	17.0	32,118	156,763	17.7	33,440	164,392	19.3	36,463	179,190
2027	195,067	17.0	33,161	157,369	17.7	34,527	165,028	19.3	37,648	179,883
2028	201,407	17.0	34,239	157,669	17.7	35,649	165,343	19.3	38,872	180,226

- 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 28th 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	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 151,030	10.5%	\$15,858	\$ 86,876	12.9%	\$19,483	\$ 108,571	13.3%	\$20,087	\$ 116,410
2020	155,938	10.5	16,373	88,066	12.9	20,116	110,058	13.3	20,740	118,005
2021	161,006	10.5	16,906	89,176	12.9	20,770	111,446	13.3	21,414	119,493
2022	166,239	10.5	17,455	90,196	12.9	21,445	112,720	13.3	22,110	120,859
2023	171,642	10.5	18,022	91,112	12.9	22,142	113,865	13.3	22,828	122,087
2024	177,220	10.5	18,608	91,912	12.9	22,861	114,865	13.3	23,570	123,159
2025	182,980	10.5	19,213	92,582	12.9	23,604	115,702	13.3	24,336	124,056
2026	188,927	10.5	19,837	93,105	12.9	24,372	116,356	13.3	25,127	124,757
2027	195,067	10.5	20,482	93,465	12.9	25,164	116,806	13.3	25,944	125,239
2028	201,407	10.5	21,148	93,643	12.9	25,982	117,029	13.3	26,787	125,478

	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 151,030	14.9%	\$22,503	\$ 130,736	15.2%	\$22,957	\$ 130,306	16.7%	\$25,222	\$ 145,054
2020	155,938	14.9	23,235	132,527	15.2	23,703	132,091	16.7	26,042	147,041
2021	161,006	14.9	23,990	134,198	15.2	24,473	133,757	16.7	26,888	148,895
2022	166,239	14.9	24,770	135,732	15.2	25,268	135,286	16.7	27,762	150,597
2023	171,642	14.9	25,575	137,111	15.2	26,090	136,661	16.7	28,664	152,127
2024	177,220	14.9	26,406	138,315	15.2	26,937	137,861	16.7	29,596	153,463
2025	182,980	14.9	27,264	139,323	15.2	27,813	138,865	16.7	30,558	154,581
2026	188,927	14.9	28,150	140,110	15.2	28,717	139,650	16.7	31,551	155,455
2027	195,067	14.9	29,065	140,652	15.2	29,650	140,190	16.7	32,576	156,056
2028	201.407	14.9	30.010	140.921	15.2	30.614	140.458	16.7	33.635	156.354

	Estimated	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 151,030	17.6%	\$26,581	\$ 151,993	18.3%	\$27,638	\$ 159,362	20.0%	\$30,206	\$ 173,713
2020	155,938	17.6	27,445	154,075	18.3	28,537	161,545	20.0	31,188	176,093
2021	161,006	17.6	28,337	156,018	18.3	29,464	163,582	20.0	32,201	178,313
2022	166,239	17.6	29,258	157,802	18.3	30,422	165,452	20.0	33,248	180,352
2023	171,642	17.6	30,209	159,405	18.3	31,410	167,133	20.0	34,328	182,185
2024	177,220	17.6	31,191	160,805	18.3	32,431	168,601	20.0	35,444	183,785
2025	182,980	17.6	32,204	161,976	18.3	33,485	169,829	20.0	36,596	185,124
2026	188,927	17.6	33,251	162,891	18.3	34,574	170,789	20.0	37,785	186,170
2027	195,067	17.6	34,332	163,521	18.3	35,697	171,449	20.0	39,013	186,890
2028	201,407	17.6	35,448	163,833	18.3	36,857	171,776	20.0	40,281	187,247

- 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 28th 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.

