



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 Provisions21
Appendix IV
Benefit Illustrations24
Appendix V
Age and Service Characteristics of Employees
Appendix VI
Risk Commentary34





August 16, 2019

Lakeshire Police Department Lakeshire, 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 June 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.



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

Regular Retirement Eligibility

		Percents of Active Member Payroll			ayroll
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	Police	6.30%	4.50%	0.40%	11.20%
L-3	Police	7.90	6.20	0.50	14.60
LT-4(65)	Police	7.10	5.90	0.40	13.40
LT-5(65)	Police	8.50	7.30	0.50	16.30
L-7	Police	9.50	7.90	0.60	18.00
LT-8(65)	Police	9.90	8.60	0.60	19.10
L-12	Police	11.10	9.60	0.70	21.40
LT-14(65)	Police	11.30	9.90	0.70	21.90
L-6	Police	12.70	11.40	0.80	24.90

^{*} 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

		Percents of Active Member Payroll			ayroll
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	Police	6.50%	4.70%	0.40%	11.60%
L-3	Police	8.20	6.50	0.50	15.20
LT-4(65)	Police	7.40	6.20	0.40	14.00
LT-5(65)	Police	8.80	7.60	0.50	16.90
L-7	Police	9.80	8.30	0.60	18.70
LT-8(65)	Police	10.30	9.00	0.60	19.90
L-12	Police	11.50	10.10	0.70	22.30
LT-14(65)	Police	11.70	10.40	0.70	22.80
L-6	Police	13.10	11.90	0.80	25.80

^{*} 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.



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

Regular Retirement Eligibility

		Per	Percents of Active Member Payroll		
		Prior			Total Employer
Benefit	Employee	Service	Current	Disability	Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	Police	6.40%	7.80%	0.40%	14.60%
L-3	Police	8.00	9.50	0.50	18.00
LT-4(65)	Police	7.30	9.20	0.40	16.90
LT-5(65)	Police	8.70	10.60	0.50	19.80
L-7	Police	9.60	11.20	0.60	21.40
LT-8(65)	Police	10.10	11.90	0.60	22.60
L-12	Police	11.20	13.00	0.70	24.90
LT-14(65)	Police	11.50	13.30	0.70	25.50
L-6	Police	12.90	14.70	0.80	28.40

* 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 - 3 Year FAS)</u> (No member contributions)

Regular Retirement Eligibility

		Percents of Active Member Payroll			ayroll
					Total
_	_	Prior			Employer
Benefit	Employee	Service	Current	Disability	Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	Police	6.60%	8.00%	0.40%	15.00%
L-3	Police	8.30	9.80	0.50	18.60
LT-4(65)	Police	7.50	9.50	0.40	17.40
LT-5(65)	Police	9.00	10.90	0.50	20.40
L-7	Police	10.00	11.60	0.60	22.20
LT-8(65)	Police	10.40	12.30	0.60	23.30
L-12	Police	11.60	13.40	0.70	25.70
LT-14(65)	Police	11.80	13.70	0.70	26.20
L-6	Police	13.30	15.20	0.80	29.30

^{*} 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)

		Percents of Active Member Payroll			ayroll
					Total
Benefit	- Francisco	Prior	Current	Dischility	Employer
Program	Employee Groups	Service Cost *	Current Cost	Disability Cost	Contribution Rate
Program	Groups	Cost	Cost	Cost	Nate
L-1	Police	6.30%	4.50%	0.40%	11.20%
L-3	Police	7.90	6.20	0.50	14.60
LT-4(65)	Police	7.10	5.90	0.40	13.40
LT-5(65)	Police	8.50	7.30	0.50	16.30
L-7	Police	9.50	7.90	0.60	18.00
LT-8(65)	Police	9.90	8.60	0.60	19.10
L-12	Police	11.10	9.60	0.70	21.40
LT-14(65)	Police	11.30	10.00	0.70	22.00
L-6	Police	12.70	11.40	0.80	24.90

- # The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.
- * Assumes that credit is granted for 100% of service rendered prior to the membership date 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			ayroll
Benefit	Employee	Prior Service	Current	Disability	Total Employer Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	Police	6.50%	4.70%	0.40%	11.60%
L-3	Police	8.20	6.50	0.50	15.20
LT-4(65)	Police	7.40	6.20	0.40	14.00
LT-5(65)	Police	8.80	7.60	0.50	16.90
L-7	Police	9.80	8.30	0.60	18.70
LT-8(65)	Police	10.30	9.00	0.60	19.90
L-12	Police	11.50	10.10	0.70	22.30
LT-14(65)	Police	11.70	10.40	0.70	22.80
L-6	Police	13.10	11.90	0.80	25.80

- # The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.
- * Assumes that credit is granted for 100% of service rendered prior to the membership date 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	cents of Activ	e Member Pa	ayroll
					Total
		Prior			Employer
Benefit	Employee	Service	Current	Disability	Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	Police	6.40%	7.80%	0.40%	14.60%
L-3	Police	8.00	9.50	0.50	18.00
LT-4(65)	Police	7.30	9.20	0.40	16.90
LT-5(65)	Police	8.70	10.60	0.50	19.80
L-7	Police	9.60	11.20	0.60	21.40
LT-8(65)	Police	10.10	11.90	0.60	22.60
L-12	Police	11.20	13.00	0.70	24.90
LT-14(65)	Police	11.50	13.30	0.70	25.50
L-6	Police	12.90	14.70	0.80	28.40

- # 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.



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

		Percents of Active Member Payroll			ayroll
Donofit	Franklassa	Prior	6	Dischille	Total Employer
Benefit Program	Employee Groups	Service Cost *	Current Cost	Disability Cost	Contribution Rate
L-1	Police	6.60%	8.00%	0.40%	15.00%
L-3	Police	8.30	9.80	0.50	18.60
LT-4(65)	Police	7.50	9.50	0.40	17.40
LT-5(65)	Police	9.00	10.90	0.50	20.40
L-7	Police	10.00	11.60	0.60	22.20
LT-8(65)	Police	10.40	12.30	0.60	23.30
L-12	Police	11.60	13.40	0.70	25.70
LT-14(65)	Police	11.80	13.70	0.70	26.20
L-6	Police	13.30	15.20	0.80	29.30

- # 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.



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 Year FAS				
Benefit				
Program	Police			
L-1	\$ 19,488			
L-3	25,404			
LT-4(65)	23,316			
LT-5(65)	28,362			
L-7	31,320			
LT-8(65)	33,234			
L-12	37,236			
LT-14(65)	38,106			
L-6	43,326			

3 Yea	r FAS
Benefit	
Program	Police
L-1	\$ 20,184
L-3	26,448
LT-4(65)	24,360
LT-5(65)	29,406
L-7	32,538
LT-8(65)	34,626
L-12	38,802
LT-14(65)	39,672
L-6	44,892

Non-Contributory Plan

5 Year FAS				
Benefit				
Program	Police			
L-1	\$ 25,404			
L-3	31,320			
LT-4(65)	29,406			
LT-5(65)	34,452			
L-7	37,236			
LT-8(65)	39,324			
L-12	43,326			
LT-14(65)	44,370			
L-6	49,416			

3 Year FAS				
Benefit				
Program	Police			
L-1	\$ 26,100			
L-3	32,364			
LT-4(65)	30,276			
LT-5(65)	35,496			
L-7	38,628			
LT-8(65)	40,542			
L-12	44,718			
LT-14(65)	45,588			
L-6	50,982			

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	Police			
L-1	\$ 19,488			
L-3	25,404			
LT-4(65)	23,316			
LT-5(65)	28,362			
L-7	31,320			
LT-8(65)	33,234			
L-12	37,236			
LT-14(65)	38,280			
L-6	43,326			

3 Year FAS					
Benefit					
Program	Police				
L-1	\$ 20,184				
L-3	26,448				
LT-4(65)	24,360				
LT-5(65)	29,406				
L-7	32,538				
LT-8(65)	34,626				
L-12	38,802				
LT-14(65)	39,672				
L-6	44,892				

Non-Contributory Plan

5 Year FAS				
Benefit				
Program	Police			
L-1	\$ 25,404			
L-3	31,320			
LT-4(65)	29,406			
LT-5(65)	34,452			
L-7	37,236			
LT-8(65)	39,324			
L-12	43,326			
LT-14(65)	44,370			
L-6	49,416			

3 Year FAS				
Benefit				
Program	Police			
L-1	\$ 26,100			
L-3	32,364			
LT-4(65)	30,276			
LT-5(65)	35,496			
L-7	38,628			
LT-8(65)	40,542			
L-12	44,718			
LT-14(65)	45,588			
L-6	50,982			

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

	Police
Number of Employees	3
Annual Payroll	\$ 174,000

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:

Lakeshire Police Department

Regular Retirement Eligibility

		Contril	outory	Non-Con	tributory
Benefit Group	Employee Group	UAAL UAAL (5 Year FAS)		UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	Police	\$ 192,239	\$ 198,822	\$ 197,006	\$ 203,590
L-3	Police	241,614	249,856	246,247	254,476
LT-4(65)	Police	218,812	226,351	223,437	230,957
LT-5(65)	Police	261,551	270,502	266,077	275,004
L-7	Police	291,002	300,897	295,494	305,379
LT-8(65)	Police	304,284	314,652	308,712	319,059
L-12	Police	340,376	351,936	344,745	356,283
LT-14(65)	Police	347,026	358,820	351,362	363,127
L-6	Police	389,770	402,957	394,010	407,178



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	Police	\$ 192,239	\$ 198,822	\$ 197,006	\$ 203,590
L-3	Police	241,614	249,856	246,247	254,476
LT-4(65)	Police	218,812	226,351	223,437	230,957
LT-5(65)	Police	261,551	270,502	266,077	275,004
L-7	Police	291,002	300,897	295,494	305,379
LT-8(65)	Police	304,284	314,652	308,712	319,059
L-12	Police	340,376	351,936	344,745	356,283
LT-14(65)	Police	347,026	358,820	351,362	363,127
L-6	Police	389,770	402,957	394,010	407,178





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	P	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

Brief Summary of LAGERS Bonefits and Conditions Evaluated and for 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	e :						
\$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	e:							
\$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	Estim	ated	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

Lakeshire Police Department

June 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														
25-29														
30-34														
35-39														
40-44														
45-49			1					1	\$ 56,000					
50-54														
55-59	1							1	\$ 54,000					
60-64														
65-69			1					1	\$ 64,000					
70 & Over														
Totals	1	1 2 3 \$ 174,000												

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

Age: 57.0 years.

Benefit Service: 10.2 years.

Annual Pay: \$58,000.



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.





August 16, 2019 E-mail

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

Dear Bob:

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

Lakeshire Police Department

Sincerely,

Mita D. Drazilov, ASA, FCA, MAAA

Mita Drazilor

MDD:wp



August 16, 2019

Lakeshire Police Department Lakeshire, Missouri

Ladies and Gentlemen:

This report contains projections needed to comply with Missouri state disclosure requirements (Section 105.660 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision. This report is intended to be a supplement to the June 30, 2019 Initial Valuation for the Lakeshire Police Department dated August 16, 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.

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

Respectfully submitted,

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

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

		L-	1 Benefit Prog	gram	L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
			l Employer	Unfunded	Estimated Employer		Unfunded		Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contri	bution	Actuarial	Contri	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 174,000	11.2%	\$19,488	\$ 192,239	14.6%	\$25,404	\$ 241,614	13.4%	\$23,316	\$ 218,812
2020	179,655	11.2	20,121	194,873	14.6	26,230	244,924	13.4	24,074	221,810
2021	185,494	11.2	20,775	197,330	14.6	27,082	248,012	13.4	24,856	224,607
2022	191,523	11.2	21,451	199,586	14.6	27,962	250,848	13.4	25,664	227,175
2023	197,747	11.2	22,148	201,614	14.6	28,871	253,397	13.4	26,498	229,483
2024	204,174	11.2	22,867	203,385	14.6	29,809	255,622	13.4	27,359	231,498
2025	210,810	11.2	23,611	204,867	14.6	30,778	257,484	13.4	28,249	233,184
2026	217,661	11.2	24,378	206,025	14.6	31,779	258,939	13.4	29,167	234,502
2027	224,735	11.2	25,170	206,822	14.6	32,811	259,940	13.4	30,114	235,409
2028	232,039	11.2	25,988	207,217	14.6	33,878	260,436	13.4	31,093	235,859

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated	d Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contr	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	\$ 174,000	16.2%	\$28,188	\$ 261,551	18.0%	\$31,320	\$ 291,002	19.1%	\$33,234	\$ 304,284
2020	179,655	16.2	29,104	265,134	18.0	32,338	294,989	19.1	34,314	308,453
2021	185,494	16.2	30,050	268,477	18.0	33,389	298,709	19.1	35,429	312,342
2022	191,523	16.2	31,027	271,546	18.0	34,474	302,124	19.1	36,581	315,913
2023	197,747	16.2	32,035	274,305	18.0	35,594	305,194	19.1	37,770	319,123
2024	204,174	16.2	33,076	276,714	18.0	36,751	307,874	19.1	38,997	321,926
2025	210,810	16.2	34,151	278,730	18.0	37,946	310,117	19.1	40,265	324,271
2026	217,661	16.2	35,261	280,305	18.0	39,179	311,870	19.1	41,573	326,104
2027	224,735	16.2	36,407	281,389	18.0	40,452	313,076	19.1	42,924	327,365
2028	232.039	16.2	37.590	281.926	18.0	41.767	313.674	19.1	44.319	327.990

L-12 Benefit Pro			gram LT-14(65) Benefit P			Program	L-6 Benefit Program			
			l Employer	Unfunded		l Employer	Unfunded		d Employer	Unfunded
	Estimated	Contri	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	\$ 174,000	21.4%	\$37,236	\$ 340,376	22.0%	\$38,280	\$ 347,026	24.9%	\$43,326	\$ 389,770
2020	179,655	21.4	38,446	345,039	22.0	39,524	351,780	24.9	44,734	395,110
2021	185,494	21.4	39,696	349,390	22.0	40,809	356,216	24.9	46,188	400,092
2022	191,523	21.4	40,986	353,385	22.0	42,135	360,289	24.9	47,689	404,666
2023	197,747	21.4	42,318	356,976	22.0	43,504	363,950	24.9	49,239	408,778
2024	204,174	21.4	43,693	360,111	22.0	44,918	367,146	24.9	50,839	412,368
2025	210,810	21.4	45,113	362,734	22.0	46,378	369,820	24.9	52,492	415,372
2026	217,661	21.4	46,579	364,784	22.0	47,885	371,910	24.9	54,198	417,720
2027	224,735	21.4	48,093	366,195	22.0	49,442	373,348	24.9	55,959	419,335
2028	232,039	21.4	49,656	366,894	22.0	51,049	374,061	24.9	57,778	420,136

- 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 Pro	gram	L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contri	bution	Actuarial	Contri	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 174,000	11.6%	\$20,184	\$ 198,822	15.2%	\$26,448	\$ 249,856	14.0%	\$24,360	\$ 226,351
2020	179,655	11.6	20,840	201,546	15.2	27,308	253,279	14.0	25,152	229,452
2021	185,494	11.6	21,517	204,087	15.2	28,195	256,473	14.0	25,969	232,345
2022	191,523	11.6	22,217	206,420	15.2	29,111	259,405	14.0	26,813	235,001
2023	197,747	11.6	22,939	208,517	15.2	30,058	262,041	14.0	27,685	237,389
2024	204,174	11.6	23,684	210,348	15.2	31,034	264,342	14.0	28,584	239,474
2025	210,810	11.6	24,454	211,880	15.2	32,043	266,268	14.0	29,513	241,218
2026	217,661	11.6	25,249	213,077	15.2	33,084	267,773	14.0	30,473	242,581
2027	224,735	11.6	26,069	213,901	15.2	34,160	268,808	14.0	31,463	243,519
2028	232,039	11.6	26,917	214,309	15.2	35,270	269,321	14.0	32,485	243,984

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
	Estimated	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 174,000	16.9%	\$29,406	\$ 270,502	18.7%	\$32,538	\$ 300,897	19.9%	\$34,626	\$ 314,652
2020	179,655	16.9	30,362	274,208	18.7	33,595	305,019	19.9	35,751	318,963
2021	185,494	16.9	31,348	277,666	18.7	34,687	308,865	19.9	36,913	322,985
2022	191,523	16.9	32,367	280,841	18.7	35,815	312,396	19.9	38,113	326,678
2023	197,747	16.9	33,419	283,695	18.7	36,979	315,570	19.9	39,352	329,997
2024	204,174	16.9	34,505	286,187	18.7	38,181	318,341	19.9	40,631	332,895
2025	210,810	16.9	35,627	288,272	18.7	39,421	320,660	19.9	41,951	335,320
2026	217,661	16.9	36,785	289,901	18.7	40,703	322,472	19.9	43,315	337,215
2027	224,735	16.9	37,980	291,022	18.7	42,025	323,719	19.9	44,722	338,519
2028	232.039	16.9	39.215	291.578	18.7	43.391	324.337	19.9	46.176	339.165

		L-12 Benefit Program			LT-14	1(65) Benefit I	Program	L-6 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	\$ 174,000	22.3%	\$38,802	\$ 351,936	22.8%	\$39,672	\$ 358,820	25.8%	\$44,892	\$ 402,957
2020	179,655	22.3	40,063	356,757	22.8	40,961	363,736	25.8	46,351	408,477
2021	185,494	22.3	41,365	361,255	22.8	42,293	368,322	25.8	47,857	413,628
2022	191,523	22.3	42,710	365,385	22.8	43,667	372,533	25.8	49,413	418,357
2023	197,747	22.3	44,098	369,098	22.8	45,086	376,318	25.8	51,019	422,608
2024	204,174	22.3	45,531	372,340	22.8	46,552	379,623	25.8	52,677	426,319
2025	210,810	22.3	47,011	375,052	22.8	48,065	382,388	25.8	54,389	429,424
2026	217,661	22.3	48,538	377,172	22.8	49,627	384,549	25.8	56,157	431,851
2027	224,735	22.3	50,116	378,631	22.8	51,240	386,036	25.8	57,982	433,521
2028	232,039	22.3	51,745	379,354	22.8	52,905	386,773	25.8	59,866	434,349

- 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 Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contribution		Actuarial	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	\$ 174,000	14.6%	\$25,404	\$ 197,006	18.0%	\$31,320	\$ 246,247	16.9%	\$29,406	\$ 223,437
2020	179,655	14.6	26,230	199,705	18.0	32,338	249,621	16.9	30,362	226,498
2021	185,494	14.6	27,082	202,223	18.0	33,389	252,769	16.9	31,348	229,354
2022	191,523	14.6	27,962	204,535	18.0	34,474	255,659	16.9	32,367	231,976
2023	197,747	14.6	28,871	206,613	18.0	35,594	258,257	16.9	33,419	234,333
2024	204,174	14.6	29,809	208,428	18.0	36,751	260,525	16.9	34,505	236,391
2025	210,810	14.6	30,778	209,946	18.0	37,946	262,423	16.9	35,627	238,113
2026	217,661	14.6	31,779	211,133	18.0	39,179	263,906	16.9	36,785	239,459
2027	224,735	14.6	32,811	211,949	18.0	40,452	264,927	16.9	37,980	240,385
2028	232,039	14.6	33,878	212,354	18.0	41,767	265,433	16.9	39,215	240,844

		LT-5(65) Benefit Program			L	7 Benefit Pro	gram	LT-8(65) Benefit Program		
	Estimated		Employer Unfunded Bution Actuarial		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Year 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	\$ 174,000	19.8%	\$34,452	\$ 266,077	21.4%	\$37,236	\$ 295,494	22.6%	\$39,324	\$ 308,712
2020	179,655	19.8	35,572	269,722	21.4	38,446	299,542	22.6	40,602	312,941
2021	185,494	19.8	36,728	273,123	21.4	39,696	303,319	22.6	41,922	316,887
2022	191,523	19.8	37,922	276,246	21.4	40,986	306,787	22.6	43,284	320,510
2023	197,747	19.8	39,154	279,053	21.4	42,318	309,904	22.6	44,691	323,767
2024	204,174	19.8	40,426	281,504	21.4	43,693	312,626	22.6	46,143	326,610
2025	210,810	19.8	41,740	283,555	21.4	45,113	314,903	22.6	47,643	328,989
2026	217,661	19.8	43,097	285,158	21.4	46,579	316,683	22.6	49,191	330,848
2027	224,735	19.8	44,498	286,261	21.4	48,093	317,908	22.6	50,790	332,127
2028	232.039	19.8	45.944	286.808	21.4	49.656	318.515	22.6	52.441	332.761

			L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
	Estimated	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	
Valuation 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	\$ 174,000	24.9%	\$43,326	\$ 344,745	25.5%	\$44,370	\$ 351,362	28.4%	\$49,416	\$ 394,010	
2020	179,655	24.9	44,734	349,468	25.5	45,812	356,176	28.4	51,022	399,408	
2021	185,494	24.9	46,188	353,875	25.5	47,301	360,667	28.4	52,680	404,444	
2022	191,523	24.9	47,689	357,921	25.5	48,838	364,790	28.4	54,393	409,068	
2023	197,747	24.9	49,239	361,558	25.5	50,425	368,497	28.4	56,160	413,225	
2024	204,174	24.9	50,839	364,733	25.5	52,064	371,733	28.4	57,985	416,854	
2025	210,810	24.9	52,492	367,390	25.5	53,757	374,441	28.4	59,870	419,891	
2026	217,661	24.9	54,198	369,466	25.5	55,504	376,557	28.4	61,816	422,264	
2027	224,735	24.9	55,959	370,895	25.5	57,307	378,013	28.4	63,825	423,897	
2028	232,039	24.9	57,778	371,603	25.5	59,170	378,735	28.4	65,899	424,706	

- 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)

Regular Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
	Estimated	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial		bution Actuaria Annual Accrued Dollars Liability \$30,276 \$ 230,9 31,260 234,1 32,276 237,0 33,325 239,7 34,408 242,2 35,526 244,3 36,681 246,1 37,873 247,5 39,104 248,4	Unfunded 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	\$ 174,000	15.0%	\$26,100	\$ 203,590	18.6%	\$32,364	\$ 254,476	17.4%	\$30,276	\$ 230,957
2020	179,655	15.0	26,948	206,379	18.6	33,416	257,962	17.4	31,260	234,121
2021	185,494	15.0	27,824	208,981	18.6	34,502	261,215	17.4	32,276	237,073
2022	191,523	15.0	28,728	211,370	18.6	35,623	264,201	17.4	33,325	239,783
2023	197,747	15.0	29,662	213,518	18.6	36,781	266,886	17.4	34,408	242,219
2024	204,174	15.0	30,626	215,393	18.6	37,976	269,230	17.4	35,526	244,346
2025	210,810	15.0	31,622	216,962	18.6	39,211	271,191	17.4	36,681	246,126
2026	217,661	15.0	32,649	218,188	18.6	40,485	272,724	17.4	37,873	247,517
2027	224,735	15.0	33,710	219,032	18.6	41,801	273,779	17.4	39,104	248,474
2028	232,039	15.0	34,806	219,450	18.6	43,159	274,302	17.4	40,375	248,948

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		d Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial	
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	
2019	\$ 174,000	20.4%	\$35,496	\$ 275,004	22.2%	\$38,628	\$ 305,379	23.3%	\$40,542	\$ 319,059	
2020	179,655	20.4	36,650	278,772	22.2	39,883	309,563	23.3	41,860	323,430	
2021	185,494	20.4	37,841	282,287	22.2	41,180	313,466	23.3	43,220	327,508	
2022	191,523	20.4	39,071	285,514	22.2	42,518	317,050	23.3	44,625	331,252	
2023	197,747	20.4	40,340	288,415	22.2	43,900	320,272	23.3	46,075	334,618	
2024	204,174	20.4	41,651	290,948	22.2	45,327	323,085	23.3	47,573	337,557	
2025	210,810	20.4	43,005	293,067	22.2	46,800	325,438	23.3	49,119	340,016	
2026	217,661	20.4	44,403	294,723	22.2	48,321	327,277	23.3	50,715	341,938	
2027	224,735	20.4	45,846	295,863	22.2	49,891	328,543	23.3	52,363	343,260	
2028	232 039	20.4	47 336	296 428	22.2	51 513	329 170	23.3	54 065	343 915	

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
	Estimated		Estimated Employer Contribution			l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Actuarial Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 174,000	25.7%	\$44,718	\$ 356,283	26.2%	\$45,588	\$ 363,127	29.3%	\$50,982	\$ 407,178
2020	179,655	25.7	46,171	361,164	26.2	47,070	368,102	29.3	52,639	412,756
2021	185,494	25.7	47,672	365,718	26.2	48,599	372,744	29.3	54,350	417,961
2022	191,523	25.7	49,221	369,899	26.2	50,179	377,006	29.3	56,116	422,740
2023	197,747	25.7	50,821	373,658	26.2	51,810	380,837	29.3	57,940	427,035
2024	204,174	25.7	52,473	376,940	26.2	53,494	384,182	29.3	59,823	430,785
2025	210,810	25.7	54,178	379,686	26.2	55,232	386,981	29.3	61,767	433,923
2026	217,661	25.7	55,939	381,832	26.2	57,027	389,168	29.3	63,775	436,375
2027	224,735	25.7	57,757	383,309	26.2	58,881	390,673	29.3	65,847	438,062
2028	232,039	25.7	59,634	384,041	26.2	60,794	391,419	29.3	67,987	438,898

- 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	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	ctuarial Contr		Actuarial	Contri	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 174,000	11.2%	\$19,488	\$ 192,239	14.6%	\$25,404	\$ 241,614	13.4%	\$23,316	\$ 218,812
2020	179,655	11.2	20,121	194,873	14.6	26,230	244,924	13.4	24,074	221,810
2021	185,494	11.2	20,775	197,330	14.6	27,082	248,012	13.4	24,856	224,607
2022	191,523	11.2	21,451	199,586	14.6	27,962	250,848	13.4	25,664	227,175
2023	197,747	11.2	22,148	201,614	14.6	28,871	253,397	13.4	26,498	229,483
2024	204,174	11.2	22,867	203,385	14.6	29,809	255,622	13.4	27,359	231,498
2025	210,810	11.2	23,611	204,867	14.6	30,778	257,484	13.4	28,249	233,184
2026	217,661	11.2	24,378	206,025	14.6	31,779	258,939	13.4	29,167	234,502
2027	224,735	11.2	25,170	206,822	14.6	32,811	259,940	13.4	30,114	235,409
2028	232,039	11.2	25,988	207,217	14.6	33,878	260,436	13.4	31,093	235,859

		LT-5(65) Benefit Program			L	7 Benefit Pro	gram	LT-8(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 174,000	16.3%	\$28,362	\$ 261,551	18.0%	\$31,320	\$ 291,002	19.1%	\$33,234	\$ 304,284
2020	179,655	16.3	29,284	265,134	18.0	32,338	294,989	19.1	34,314	308,453
2021	185,494	16.3	30,236	268,477	18.0	33,389	298,709	19.1	35,429	312,342
2022	191,523	16.3	31,218	271,546	18.0	34,474	302,124	19.1	36,581	315,913
2023	197,747	16.3	32,233	274,305	18.0	35,594	305,194	19.1	37,770	319,123
2024	204,174	16.3	33,280	276,714	18.0	36,751	307,874	19.1	38,997	321,926
2025	210,810	16.3	34,362	278,730	18.0	37,946	310,117	19.1	40,265	324,271
2026	217,661	16.3	35,479	280,305	18.0	39,179	311,870	19.1	41,573	326,104
2027	224,735	16.3	36,632	281,389	18.0	40,452	313,076	19.1	42,924	327,365
2028	232,039	16.3	37,822	281,926	18.0	41,767	313,674	19.1	44,319	327,990

	L-12 Benefit Program			LT-1	4(65) Benefit I	Program	L-6 Benefit Program			
	Estimated		Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 174,000	21.4%	\$37,236	\$ 340,376	22.0%	\$38,280	\$ 347,026	24.9%	\$43,326	\$ 389,770
2020	179,655	21.4	38,446	345,039	22.0	39,524	351,780	24.9	44,734	395,110
2021	185,494	21.4	39,696	349,390	22.0	40,809	356,216	24.9	46,188	400,092
2022	191,523	21.4	40,986	353,385	22.0	42,135	360,289	24.9	47,689	404,666
2023	197,747	21.4	42,318	356,976	22.0	43,504	363,950	24.9	49,239	408,778
2024	204,174	21.4	43,693	360,111	22.0	44,918	367,146	24.9	50,839	412,368
2025	210,810	21.4	45,113	362,734	22.0	46,378	369,820	24.9	52,492	415,372
2026	217,661	21.4	46,579	364,784	22.0	47,885	371,910	24.9	54,198	417,720
2027	224,735	21.4	48,093	366,195	22.0	49,442	373,348	24.9	55,959	419,335
2028	232,039	21.4	49,656	366,894	22.0	51,049	374,061	24.9	57,778	420,136

- 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
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contri	bution	Actuarial	Contri	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 174,000	11.6%	\$20,184	\$ 198,822	15.2%	\$26,448	\$ 249,856	14.0%	\$24,360	\$ 226,351
2020	179,655	11.6	20,840	201,546	15.2	27,308	253,279	14.0	25,152	229,452
2021	185,494	11.6	21,517	204,087	15.2	28,195	256,473	14.0	25,969	232,345
2022	191,523	11.6	22,217	206,420	15.2	29,111	259,405	14.0	26,813	235,001
2023	197,747	11.6	22,939	208,517	15.2	30,058	262,041	14.0	27,685	237,389
2024	204,174	11.6	23,684	210,348	15.2	31,034	264,342	14.0	28,584	239,474
2025	210,810	11.6	24,454	211,880	15.2	32,043	266,268	14.0	29,513	241,218
2026	217,661	11.6	25,249	213,077	15.2	33,084	267,773	14.0	30,473	242,581
2027	224,735	11.6	26,069	213,901	15.2	34,160	268,808	14.0	31,463	243,519
2028	232,039	11.6	26,917	214,309	15.2	35,270	269,321	14.0	32,485	243,984

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 174,000	16.9%	\$29,406	\$ 270,502	18.7%	\$32,538	\$ 300,897	19.9%	\$34,626	\$ 314,652
2020	179,655	16.9	30,362	274,208	18.7	33,595	305,019	19.9	35,751	318,963
2021	185,494	16.9	31,348	277,666	18.7	34,687	308,865	19.9	36,913	322,985
2022	191,523	16.9	32,367	280,841	18.7	35,815	312,396	19.9	38,113	326,678
2023	197,747	16.9	33,419	283,695	18.7	36,979	315,570	19.9	39,352	329,997
2024	204,174	16.9	34,505	286,187	18.7	38,181	318,341	19.9	40,631	332,895
2025	210,810	16.9	35,627	288,272	18.7	39,421	320,660	19.9	41,951	335,320
2026	217,661	16.9	36,785	289,901	18.7	40,703	322,472	19.9	43,315	337,215
2027	224,735	16.9	37,980	291,022	18.7	42,025	323,719	19.9	44,722	338,519
2028	232,039	16.9	39,215	291,578	18.7	43,391	324,337	19.9	46,176	339,165

	L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program			
	Estimated		Estimated Employer Contribution			d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation 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	\$ 174,000	22.3%	\$38,802	\$ 351,936	22.8%	\$39,672	\$ 358,820	25.8%	\$44,892	\$ 402,957
2020	179,655	22.3	40,063	356,757	22.8	40,961	363,736	25.8	46,351	408,477
2021	185,494	22.3	41,365	361,255	22.8	42,293	368,322	25.8	47,857	413,628
2022	191,523	22.3	42,710	365,385	22.8	43,667	372,533	25.8	49,413	418,357
2023	197,747	22.3	44,098	369,098	22.8	45,086	376,318	25.8	51,019	422,608
2024	204,174	22.3	45,531	372,340	22.8	46,552	379,623	25.8	52,677	426,319
2025	210,810	22.3	47,011	375,052	22.8	48,065	382,388	25.8	54,389	429,424
2026	217,661	22.3	48,538	377,172	22.8	49,627	384,549	25.8	56,157	431,851
2027	224,735	22.3	50,116	378,631	22.8	51,240	386,036	25.8	57,982	433,521
2028	232,039	22.3	51,745	379,354	22.8	52,905	386,773	25.8	59,866	434,349

- 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	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contr	ibution	Actuarial	Contr	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 174,000	14.6%	\$25,404	\$ 197,006	18.0%	\$31,320	\$ 246,247	16.9%	\$29,406	\$ 223,437
2020	179,655	14.6	26,230	199,705	18.0	32,338	249,621	16.9	30,362	226,498
2021	185,494	14.6	27,082	202,223	18.0	33,389	252,769	16.9	31,348	229,354
2022	191,523	14.6	27,962	204,535	18.0	34,474	255,659	16.9	32,367	231,976
2023	197,747	14.6	28,871	206,613	18.0	35,594	258,257	16.9	33,419	234,333
2024	204,174	14.6	29,809	208,428	18.0	36,751	260,525	16.9	34,505	236,391
2025	210,810	14.6	30,778	209,946	18.0	37,946	262,423	16.9	35,627	238,113
2026	217,661	14.6	31,779	211,133	18.0	39,179	263,906	16.9	36,785	239,459
2027	224,735	14.6	32,811	211,949	18.0	40,452	264,927	16.9	37,980	240,385
2028	232,039	14.6	33,878	212,354	18.0	41,767	265,433	16.9	39,215	240,844

	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		Estimated Employer Contribution			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	<u>Payroll</u>	Dollars	Liability
2019	\$ 174,000	19.8%	\$34,452	\$ 266,077	21.4%	\$37,236	\$ 294,916	22.6%	\$39,324	\$ 308,712
2020	179,655	19.8	35,572	269,722	21.4	38,446	298,956	22.6	40,602	312,941
2021	185,494	19.8	36,728	273,123	21.4	39,696	302,726	22.6	41,922	316,887
2022	191,523	19.8	37,922	276,246	21.4	40,986	306,187	22.6	43,284	320,510
2023	197,747	19.8	39,154	279,053	21.4	42,318	309,298	22.6	44,691	323,767
2024	204,174	19.8	40,426	281,504	21.4	43,693	312,014	22.6	46,143	326,610
2025	210,810	19.8	41,740	283,555	21.4	45,113	314,287	22.6	47,643	328,989
2026	217,661	19.8	43,097	285,158	21.4	46,579	316,063	22.6	49,191	330,848
2027	224,735	19.8	44,498	286,261	21.4	48,093	317,285	22.6	50,790	332,127
2028	232 039	19.8	45 944	286 808	21 4	49 656	317 891	22.6	52 441	332 761

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
	Estimated		Estimated Employer Contribution			d Employer ibution	Unfunded Actuarial		l 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	\$ 174,000	24.9%	\$43,326	\$ 344,745	25.5%	\$44,370	\$ 351,362	28.4%	\$49,416	\$ 394,010
2020	179,655	24.9	44,734	349,468	25.5	45,812	356,176	28.4	51,022	399,408
2021	185,494	24.9	46,188	353,875	25.5	47,301	360,667	28.4	52,680	404,444
2022	191,523	24.9	47,689	357,921	25.5	48,838	364,790	28.4	54,393	409,068
2023	197,747	24.9	49,239	361,558	25.5	50,425	368,497	28.4	56,160	413,225
2024	204,174	24.9	50,839	364,733	25.5	52,064	371,733	28.4	57,985	416,854
2025	210,810	24.9	52,492	367,390	25.5	53,757	374,441	28.4	59,870	419,891
2026	217,661	24.9	54,198	369,466	25.5	55,504	376,557	28.4	61,816	422,264
2027	224,735	24.9	55,959	370,895	25.5	57,307	378,013	28.4	63,825	423,897
2028	232,039	24.9	57,778	371,603	25.5	59,170	378,735	28.4	65,899	424,706

- 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

	Estimated	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated	Estimated Employer Unfunde		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded 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	\$ 174,000	15.0%	\$26,100	\$ 203,590	18.6%	\$32,364	\$ 254,476	17.4%	\$30,276	\$ 230,957
2020	179,655	15.0	26,948	206,379	18.6	33,416	257,962	17.4	31,260	234,121
2021	185,494	15.0	27,824	208,981	18.6	34,502	261,215	17.4	32,276	237,073
2022	191,523	15.0	28,728	211,370	18.6	35,623	264,201	17.4	33,325	239,783
2023	197,747	15.0	29,662	213,518	18.6	36,781	266,886	17.4	34,408	242,219
2024	204,174	15.0	30,626	215,393	18.6	37,976	269,230	17.4	35,526	244,346
2025	210,810	15.0	31,622	216,962	18.6	39,211	271,191	17.4	36,681	246,126
2026	217,661	15.0	32,649	218,188	18.6	40,485	272,724	17.4	37,873	247,517
2027	224,735	15.0	33,710	219,032	18.6	41,801	273,779	17.4	39,104	248,474
2028	232,039	15.0	34,806	219,450	18.6	43,159	274,302	17.4	40,375	248,948

	Estimated	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation 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	\$ 174,000	20.4%	\$35,496	\$ 275,004	22.2%	\$38,628	\$ 305,379	23.3%	\$40,542	\$ 319,059
2020	179,655	20.4	36,650	278,772	22.2	39,883	309,563	23.3	41,860	323,430
2021	185,494	20.4	37,841	282,287	22.2	41,180	313,466	23.3	43,220	327,508
2022	191,523	20.4	39,071	285,514	22.2	42,518	317,050	23.3	44,625	331,252
2023	197,747	20.4	40,340	288,415	22.2	43,900	320,272	23.3	46,075	334,618
2024	204,174	20.4	41,651	290,948	22.2	45,327	323,085	23.3	47,573	337,557
2025	210,810	20.4	43,005	293,067	22.2	46,800	325,438	23.3	49,119	340,016
2026	217,661	20.4	44,403	294,723	22.2	48,321	327,277	23.3	50,715	341,938
2027	224,735	20.4	45,846	295,863	22.2	49,891	328,543	23.3	52,363	343,260
2028	232.039	20.4	47.336	296.428	22.2	51.513	329.170	23.3	54.065	343.915

	Fatimata d	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded
Estimated Valuation Projected		As a % of	Annual		As a % of	Annual	Accrued	As a % of	Annual	Actuarial Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 174,000	25.7%	\$44,718	\$ 356,283	26.2%	\$45,588	\$ 363,127	29.3%	\$50,982	\$ 407,178
2020	179,655	25.7	46,171	361,164	26.2	47,070	368,102	29.3	52,639	412,756
2021	185,494	25.7	47,672	365,718	26.2	48,599	372,744	29.3	54,350	417,961
2022	191,523	25.7	49,221	369,899	26.2	50,179	377,006	29.3	56,116	422,740
2023	197,747	25.7	50,821	373,658	26.2	51,810	380,837	29.3	57,940	427,035
2024	204,174	25.7	52,473	376,940	26.2	53,494	384,182	29.3	59,823	430,785
2025	210,810	25.7	54,178	379,686	26.2	55,232	386,981	29.3	61,767	433,923
2026	217,661	25.7	55,939	381,832	26.2	57,027	389,168	29.3	63,775	436,375
2027	224,735	25.7	57,757	383,309	26.2	58,881	390,673	29.3	65,847	438,062
2028	232,039	25.7	59,634	384,041	26.2	60,794	391,419	29.3	67,987	438,898

- 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.

