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September 17, 2019

City of Gallatin Gallatin, 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 July 31, 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 Drazilos



Alternate Plan Provisions Affecting Employer Contribution Rates

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

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

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

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

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

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



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

Regular Retirement Eligibility

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.70%	3.60%	0.20%	5.50%
	Police	7.40	3.60	0.40	11.40
L-3	General	2.20	5.10	0.30	7.60
	Police	9.30	5.10	0.50	14.90
LT-4(65)	General	1.90	4.40	0.20	6.50
	Police	9.80	5.10	0.40	15.30
LT-5(65)	General	2.30	5.70	0.30	8.30
	Police	11.10	6.20	0.50	17.80
L-7	General	2.60	6.60	0.30	9.50
	Police	11.20	6.60	0.60	18.40
LT-8(65)	General	2.80	7.00	0.30	10.10
	Police	12.40	7.40	0.60	20.40
L-12	General	3.10	8.10	0.40	11.60
	Police	13.20	8.20	0.70	22.10
LT-14(65)	General	3.20	8.30	0.40	11.90
	Police	13.70	8.50	0.70	22.90
L-6	General	3.60	9.70	0.50	13.80
	Police	15.10	9.70	0.80	25.60



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

Regular Retirement Eligibility

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.80%	3.80%	0.20%	5.80%
	Police	7.70	3.80	0.40	11.90
L-3	General	2.30	5.40	0.30	8.00
	Police	9.70	5.40	0.50	15.60
LT-4(65)	General	2.00	4.60	0.20	6.80
	Police	10.10	5.40	0.40	15.90
LT-5(65)	General	2.40	6.00	0.30	8.70
	Police	11.50	6.60	0.50	18.60
L-7	General	2.70	6.90	0.30	9.90
	Police	11.60	7.00	0.60	19.20
LT-8(65)	General	2.90	7.30	0.30	10.50
	Police	12.90	7.80	0.60	21.30
L-12	General	3.20	8.50	0.40	12.10
	Police	13.60	8.50	0.70	22.80
LT-14(65)	General	3.30	8.70	0.40	12.40
	Police	14.20	8.90	0.70	23.80
L-6	General	3.70	10.10	0.50	14.30
	Police	15.60	10.10	0.80	26.50



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

Regular Retirement Eligibility

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.90%	7.10%	0.20%	9.20%
	Police	7.60	7.10	0.40	15.10
L-3	General	2.40	8.60	0.30	11.30
	Police	9.50	8.70	0.50	18.70
LT-4(65)	General	2.10	7.80	0.20	10.10
	Police	9.90	8.60	0.40	18.90
LT-5(65)	General	2.60	9.20	0.30	12.10
	Police	11.20	9.80	0.50	21.50
L-7	General	2.90	10.20	0.30	13.40
	Police	11.40	10.30	0.60	22.30
LT-8(65)	General	3.00	10.50	0.30	13.80
	Police	12.50	11.00	0.60	24.10
L-12	General	3.30	11.70	0.40	15.40
	Police	13.30	11.80	0.70	25.80
LT-14(65)	General	3.40	11.90	0.40	15.70
	Police	13.80	12.20	0.70	26.70
L-6	General	3.80	13.30	0.50	17.60
	Police	15.20	13.40	0.80	29.40



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

Regular Retirement Eligibility

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	2.00%	7.30%	0.20%	9.50%
	Police	7.80	7.40	0.40	15.60
L-3	General	2.50	8.90	0.30	11.70
	Police	9.80	9.00	0.50	19.30
LT-4(65)	General	2.20	8.10	0.20	10.50
	Police	10.30	8.90	0.40	19.60
LT-5(65)	General	2.70	9.50	0.30	12.50
	Police	11.60	10.20	0.50	22.30
L-7	General	3.00	10.50	0.30	13.80
	Police	11.80	10.60	0.60	23.00
LT-8(65)	General	3.10	10.90	0.30	14.30
	Police	13.00	11.40	0.60	25.00
L-12	General	3.50	12.10	0.40	16.00
	Police	13.70	12.20	0.70	26.60
LT-14(65)	General	3.50	12.30	0.40	16.20
	Police	14.30	12.60	0.70	27.60
L-6	General	4.00	13.70	0.50	18.20
	Police	15.70	13.90	0.80	30.40



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

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.80%	3.90%	0.20%	5.90%
	Police	7.40	3.60	0.40	11.40
L-3	General	2.30	5.40	0.30	8.00
	Police	9.30	5.10	0.50	14.90
LT-4(65)	General	2.10	4.90	0.20	7.20
	Police	9.80	5.10	0.40	15.30
LT-5(65)	General	2.60	6.20	0.30	9.10
	Police	11.10	6.20	0.50	17.80
L-7	General	2.80	7.00	0.30	10.10
	Police	11.20	6.60	0.60	18.40
LT-8(65)	General	3.00	7.50	0.30	10.80
	Police	12.40	7.40	0.60	20.40
L-12	General	3.30	8.60	0.40	12.30
	Police	13.20	8.20	0.70	22.10
LT-14(65)	General	3.40	8.80	0.40	12.60
	Police	13.70	8.50	0.70	22.90
L-6	General	3.80	10.10	0.50	14.40
	Police	15.10	9.70	0.80	25.60

- # The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.
- * Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.



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

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.90%	4.10%	0.20%	6.20%
	Police	7.70	3.80	0.40	11.90
L-3	General	2.40	5.70	0.30	8.40
	Police	9.70	5.40	0.50	15.60
LT-4(65)	General	2.20	5.20	0.20	7.60
	Police	10.10	5.40	0.40	15.90
LT-5(65)	General	2.70	6.50	0.30	9.50
	Police	11.50	6.60	0.50	18.60
L-7	General	2.90	7.30	0.30	10.50
	Police	11.60	7.00	0.60	19.20
LT-8(65)	General	3.10	7.90	0.30	11.30
	Police	12.90	7.80	0.60	21.30
L-12	General	3.40	9.00	0.40	12.80
	Police	13.60	8.50	0.70	22.80
LT-14(65)	General	3.50	9.20	0.40	13.10
	Police	14.20	8.90	0.70	23.80
L-6	General	3.90	10.60	0.50	15.00
	Police	15.60	10.10	0.80	26.50

- # 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)

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	2.00%	7.30%	0.20%	9.50%
	Police	7.60	7.10	0.40	15.10
L-3	General	2.50	8.90	0.30	11.70
	Police	9.50	8.70	0.50	18.70
LT-4(65)	General	2.40	8.40	0.20	11.00
	Police	9.90	8.60	0.40	18.90
LT-5(65)	General	2.80	9.70	0.30	12.80
	Police	11.20	9.80	0.50	21.50
L-7	General	3.00	10.60	0.30	13.90
	Police	11.40	10.30	0.60	22.30
LT-8(65)	General	3.20	11.10	0.30	14.60
	Police	12.50	11.00	0.60	24.10
L-12	General	3.50	12.20	0.40	16.10
	Police	13.30	11.80	0.70	25.80
LT-14(65)	General	3.60	12.40	0.40	16.40
	Police	13.80	12.20	0.70	26.70
L-6	General	4.00	13.80	0.50	18.30
	Police	15.20	13.40	0.80	29.40

- # The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.
- * Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.



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

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	2.10%	7.60%	0.20%	9.90%
	Police	7.80	7.40	0.40	15.60
L-3	General	2.60	9.20	0.30	12.10
	Police	9.80	9.00	0.50	19.30
LT-4(65)	General	2.40	8.60	0.20	11.20
	Police	10.30	8.90	0.40	19.60
LT-5(65)	General	2.90	10.00	0.30	13.20
	Police	11.60	10.20	0.50	22.30
L-7	General	3.10	10.90	0.30	14.30
	Police	11.80	10.60	0.60	23.00
LT-8(65)	General	3.30	11.40	0.30	15.00
	Police	13.00	11.40	0.60	25.00
L-12	General	3.60	12.60	0.40	16.60
	Police	13.70	12.20	0.70	26.60
LT-14(65)	General	3.70	12.80	0.40	16.90
	Police	14.30	12.60	0.70	27.60
L-6	General	4.20	14.20	0.50	18.90
	Police	15.70	13.90	0.80	30.40

- # The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.
- * Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.



Employer Contribution 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	General	Police			
L-1	\$ 18,460	\$ 7,706			
L-3	25,508	10,072			
LT-4(65)	21,816	10,343			
LT-5(65)	27,857	12,033			
L-7	31,885	12,438			
LT-8(65)	33,899	13,790			
L-12	38,933	14,940			
LT-14(65)	39,940	15,480			
L-6	46,317	17,306			

	3 Year FAS				
Benefit					
Program	General	Police			
L-1	\$ 19,467	\$ 8,044			
L-3	26,851	10,546			
LT-4(65)	22,823	10,748			
LT-5(65)	29,200	12,574			
L-7	33,228	12,979			
LT-8(65)	35,241	14,399			
L-12	40,611	15,413			
LT-14(65)	41,618	16,089			
L-6	47,995	17,914			

Non-Contributory Plan

	5 Year FAS				
Benefit					
Program	General	Police			
L-1	\$ 30,878	\$ 10,208			
L-3	37,926	12,641			
LT-4(65)	33,899	12,776			
LT-5(65)	40,611	14,534			
L-7	44,975	15,075			
LT-8(65)	46,317	16,292			
L-12	51,687	17,441			
LT-14(65)	52,694	18,049			
L-6	59,071	19,874			

3 Year FAS						
Benefit	Benefit					
Program	General	Police				
L-1	\$ 31,885	\$ 10,546				
L-3	39,269	13,047				
LT-4(65)	35,241	13,250				
LT-5(65)	41,954	15,075				
L-7	46,317	15,548				
LT-8(65)	47,995	16,900				
L-12	53,701	17,982				
LT-14(65)	54,372	18,658				
L-6	61,085	20,550				

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



Employer Contribution Dollars Rule of 80 Retirement Eligibility

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

Contributory Plan

5 Year FAS						
Benefit						
Program	General	Police				
L-1	\$ 19,802	\$ 7,706				
L-3	26,851	10,072				
LT-4(65)	24,166	10,343				
LT-5(65)	30,543	12,033				
L-7	33,899	12,438				
LT-8(65)	36,248	13,790				
L-12	41,283	14,940				
LT-14(65)	42,290	15,480				
L-6	48,331	17,306				

	3 Year FAS						
Benefit							
Program	General	Police					
L-1	\$ 20,809	\$ 8,044					
L-3	28,193	10,546					
LT-4(65)	25,508	10,748					
LT-5(65)	31,885	12,574					
L-7	35,241	12,979					
LT-8(65)	37,926	14,399					
L-12	42,961	15,413					
LT-14(65)	43,968	16,089					
L-6	50,345	17,914					

Non-Contributory Plan

	5 Year FAS					
Benefit						
Program	General	Police				
L-1	\$ 31,885	\$ 10,208				
L-3	39,269	12,641				
LT-4(65)	36,920	12,776				
LT-5(65)	42,961	14,534				
L-7	46,653	15,075				
LT-8(65)	49,002	16,292				
L-12	54,037	17,441				
LT-14(65)	55,044	18,049				
L-6	61,421	19,874				

	3 Year FAS					
Benefit						
Program	General	Police				
L-1	\$ 33,228	\$ 10,546				
L-3	40,611	13,047				
LT-4(65)	37,591	13,250				
LT-5(65)	44,303	15,075				
L-7	47,995	15,548				
LT-8(65)	50,345	16,900				
L-12	55,715	17,982				
LT-14(65)	56,722	18,658				
L-6	63,434	20,550				

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



Employees and Payroll Included in the Valuation

	General	Police
Number of Employees	8	2
Annual Payroll	\$ 335,632	\$ 67,600

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:

City of Gallatin

Regular Retirement Eligibility

		Contri	butory	Non-Con	tributory
Benefit	Employee	UAAL	UAAL	UAAL	UAAL
Group	Group	(5 Year FAS)	(3 Year FAS)	(5 Year FAS)	(3 Year FAS)
L-1	General	\$ 99,875	\$ 103,855	\$ 112,854	\$ 116,767
	Police	88,438	91,645	90,264	93,403
L-3	General	128,233	133,178	141,065	145,947
	Police	111,202	115,177	112,810	116,750
LT-4(65)	General	114,135	118,613	127,030	131,444
	Police	116,352	120,559	118,042	122,190
LT-5(65)	General	138,925	144,263	151,691	156,954
	Police	132,144	136,866	133,649	138,342
L-7	General	156,344	162,210	169,257	175,170
	Police	133,937	138,663	135,361	140,085
LT-8(65)	General	163,496	169,586	176,337	182,510
	Police	147,895	153,128	149,262	154,488
L-12	General	184,332	191,150	197,463	204,371
	Police	156,635	162,179	157,950	163,430
LT-14(65)	General	187,914	194,842	200,994	208,025
	Police	163,607	169,421	164,895	170,628
L-6	General	212,177	219,900	225,691	233,569
	Police	179,375	185,692	180,501	186,793



Unfunded Actuarial Accrued Liability (UAAL)

		Contri	butory	Non-Con	tributory
Benefit	Employee	UAAL UAAL		UAAL	UAAL
Group	Group	(5 Year FAS)	(3 Year FAS)	(5 Year FAS)	(3 Year FAS)
L-1	General	\$ 105,763	\$ 109,974	\$ 118,548	\$ 122,760
	Police	88,438	91,645	90,264	93,403
L-3	General	135,531	140,727	148,215	153,435
	Police	111,202	115,177	112,810	116,750
LT-4(65)	General	126,838	131,797	139,517	144,449
	Police	116,352	120,559	118,042	122,190
LT-5(65)	General	151,347	157,095	163,937	169,710
	Police	132,144	136,866	133,649	138,342
L-7	General	165,092	171,258	177,860	184,112
	Police	133,937	138,663	135,361	140,085
LT-8(65)	General	175,638	182,190	188,329	194,973
	Police	147,895	153,128	149,262	154,488
L-12	General	194,473	201,695	207,526	214,807
	Police	156,635	162,179	157,950	163,430
LT-14(65)	General	199,738	207,141	212,732	220,210
	Police	163,607	169,421	164,895	170,628
L-6	General	223,734	231,899	237,184	245,496
	Police	179,375	185,692	180,501	186,793





SUMMARY OF FINANCIAL ASSUMPTIONS

Summary of Assumptions Used in Actuarial Valuations

Assumptions Adopted by Board of Trustees After Consulting With Actuary

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



Schedule 1.

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

Percent of Active Members Separating Within Next Year

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

Percent Increase in Individual's Pay

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



Schedule 2.

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

Early Retirement

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

Normal Retirement

Retirement	General	Members	Retirement		
Ages	Men	Women	Ages	Police	Fire
60	10%	10%	55	10%	13%
61	10	10	56	10	13
62	25	15	57	10	13
63	20	15	58	10	13
64	20	15	59	10	13
65 66 67	25 25 20	25 25 25	60 61 62	10 10 25	15 15 20
67 68				25	
69	20 20	25 20	63 64	20	20 20
70	100	100	65	100	100



Schedule 2. (Continued)

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

Retirement	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	15	20
54	15	15	15	20
55	15	15	15	20
56	15	15	15	20
57	15	15	15	25
58	15	15	15	25
59	15	15	15	25
60	15	15	15	35
61	15	15	25	35
62	30	15	30	45
63	30	15	30	45
64	30	20	30	45
65	30	25	100	100
66	30	25		
67	30	25		
68	30	25		
69	30	25		
70	100	100		





SUMMARY OF LAGERS PROVISIONS

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

as of February 28, 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		
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.

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	ed 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 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 Estima			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	Estima	Estimated		
Average	LAGERS	Social	Monthly	/ 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)

Average BENEFIT³ Social Monthly Total of FAS Salary (FAS)¹ To 65 At 65 Security² To 65 At 65 To 65 At 65 35 Years of Service: \$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%	Final	LAG	ERS	Estimated	Estim	nated	Pero	ent
35 Years of Service: \$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%	Average	BENI	EFIT ³	Social	Month	y Total	of F	AS
\$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%	Salary (FAS) ¹	To 65	At 65	Security ²	To 65	At 65	To 65	At 65
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%	35 Years of Service	e:						
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%	\$1,500	\$1,050	\$ 525	\$ 930	\$1,050	\$1,455	70%	97%
3,000 2,100 1,050 1,370 2,100 2,420 70% 81%	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%
3,500 2,450 1,225 1,516 2,450 2,741 70% 78%	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%	4,000	2,800	1,400	1,662	2,800	3,062	70%	77%
25 Years of Service:	25 Years of Service	e:						
\$1,500 \$ 750 \$ 375 \$ 930 \$ 750 \$1,305 50% 87%	\$1,500	\$ 750	\$ 375	\$ 930	\$ 750	\$1,305	50%	87%
2,000 1,000 500 1,076 1,000 1,576 50% 79%	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%	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%	3,000	1,500	750	1,370	1,500	2,120	50%	71%
3,500 1,750 875 1,516 1,750 2,391 50% 68%	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%	4,000	2,000	1,000	1,662	2,000	2,662	50%	67%
15 Years of Service:	15 Years of Service	e:						
\$1,500 \$ 450 \$225 \$ 930 \$ 450 \$1,155 30% 77%	\$1,500	\$ 450	\$225	\$ 930	\$ 450	\$1,155	30%	77%
2,000 600 300 1,076 600 1,376 30% 69%	2,000	600	300	1,076	600	1,376	30%	69%
2,500 750 375 1,223 750 1,598 30% 64%	2,500	750	375	1,223	750	1,598	30%	64%
3,000 900 450 1,370 900 1,820 30% 61%	3,000	900	450	1,370	900	1,820	30%	61%
3,500 1,050 525 1,516 1,050 2,041 30% 58%	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%	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	Monthl	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	e:						
\$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	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	:						
\$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	:						
\$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	:						
\$1,500	\$ 450	\$338	\$ 930	\$ 450	\$1,268	30%	85%
2,000	600	450	1,076	600	1,526	30%	76%
2,500	750	563	1,223	750	1,786	30%	71%
3,000	900	675	1,370	900	2,045	30%	68%
3,500	1,050	788	1,516	1,050	2,304	30%	66%
4,000	1,200	900	1,662	1,200	2,562	30%	64%

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

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



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

Missouri LAGERS

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

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

1.75% of FAS ¹ at age 65)

Final	LAGERS		Estimated	Estimated		Percent		
Average	BENI	EFIT ³	Social	Monthl	y Total	of 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	\$ 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

July 31, 2019

By Attained Age and Years of Service

		Year	s of Ser	vice to		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	2							2	\$ 63,960
35-39		1						1	\$ 57,512
40-44	1							1	\$ 47,840
45-49									
50-54	1							1	\$ 54,000
55-59		2						2	\$ 74,880
60-64	1							1	\$ 37,440
65-69									
70 & Over									
Totals	5	3						8	\$ 335,632

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

Age: 45.5 years.

Benefit Service: 3.4 years. Annual Pay: \$41,954.



July 31, 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	1							1	\$ 26,000				
40-44													
45-49													
50-54				1				1	\$ 41,600				
55-59													
60-64													
65-69													
70 & Over													
Totals	1			1				2	\$ 67,600				

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

Age: 43.8 years.

Benefit Service: 10.2 years.

Annual Pay: \$33,800.





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.





September 17, 2019 E-mail

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

Dear Bob:

Enclosed is the report of the July 31, 2019 Initial Actuarial Valuation of LAGERS benefits for the employees of

City of Gallatin

Sincerely,

Mita D. Drazilov, ASA, FCA, MAAA

Mita Drajilor

MDD:wp



September 17, 2019

City of Gallatin Gallatin, Missouri

Ladies and Gentlemen:

This report contains projections needed to comply with Missouri state disclosure requirements (Section 105.660 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision. This report is intended to be a supplement to the July 31, 2019 Initial Valuation for the City of Gallatin dated September 17, 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 Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	bution	Actuarial	Contribution		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	\$ 335,632	5.5%	\$18,460	\$ 99,875	7.6%	\$25,508	\$ 128,233	6.5%	\$21,816	\$ 114,135
2020	346,540	5.5	19,060	101,243	7.6	26,337	129,990	6.5	22,525	115,699
2021	357,803	5.5	19,679	102,520	7.6	27,193	131,629	6.5	23,257	117,158
2022	369,432	5.5	20,319	103,692	7.6	28,077	133,134	6.5	24,013	118,497
2023	381,439	5.5	20,979	104,746	7.6	28,989	134,487	6.5	24,794	119,701
2024	393,836	5.5	21,661	105,666	7.6	29,932	135,668	6.5	25,599	120,752
2025	406,636	5.5	22,365	106,436	7.6	30,904	136,656	6.5	26,431	121,632
2026	419,852	5.5	23,092	107,038	7.6	31,909	137,428	6.5	27,290	122,319
2027	433,497	5.5	23,842	107,452	7.6	32,946	137,959	6.5	28,177	122,792
2028	447,586	5.5	24,617	107,657	7.6	34,017	138,222	6.5	29,093	123,026

		LT-5(65) Benefit Program			L-	7 Benefit Pro	gram	LT-8(65) Benefit Program		
	Estimated		Estimated Employer Contribution			Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 335,632	8.3%	\$27,857	\$ 138,925	9.5%	\$31,885	\$ 156,344	10.1%	\$33,899	\$ 163,496
2020	346,540	8.3	28,763	140,828	9.5	32,921	158,486	10.1	35,001	165,736
2021	357,803	8.3	29,698	142,604	9.5	33,991	160,484	10.1	36,138	167,826
2022	369,432	8.3	30,663	144,234	9.5	35,096	162,319	10.1	37,313	169,745
2023	381,439	8.3	31,659	145,700	9.5	36,237	163,968	10.1	38,525	171,470
2024	393,836	8.3	32,688	146,980	9.5	37,414	165,408	10.1	39,777	172,976
2025	406,636	8.3	33,751	148,051	9.5	38,630	166,613	10.1	41,070	174,236
2026	419,852	8.3	34,848	148,888	9.5	39,886	167,555	10.1	42,405	175,221
2027	433,497	8.3	35,980	149,464	9.5	41,182	168,203	10.1	43,783	175,899
2028	447.586	8.3	37.150	149.749	9.5	42.521	168.524	10.1	45.206	176.235

		L-12 Benefit Program			LT-14	1(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		l Employer ibution	Unfunded Actuarial		Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 335,632	11.6%	\$38,933	\$ 184,332	11.9%	\$39,940	\$ 187,914	13.8%	\$46,317	\$ 212,177
2020	346,540	11.6	40,199	186,857	11.9	41,238	190,488	13.8	47,823	215,084
2021	357,803	11.6	41,505	189,213	11.9	42,579	192,890	13.8	49,377	217,796
2022	369,432	11.6	42,854	191,376	11.9	43,962	195,095	13.8	50,982	220,286
2023	381,439	11.6	44,247	193,321	11.9	45,391	197,077	13.8	52,639	222,524
2024	393,836	11.6	45,685	195,019	11.9	46,866	198,808	13.8	54,349	224,478
2025	406,636	11.6	47,170	196,440	11.9	48,390	200,256	13.8	56,116	226,113
2026	419,852	11.6	48,703	197,550	11.9	49,962	201,388	13.8	57,940	227,391
2027	433,497	11.6	50,286	198,314	11.9	51,586	202,167	13.8	59,823	228,270
2028	447,586	11.6	51,920	198,693	11.9	53,263	202,553	13.8	61,767	228,706

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



Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

			L-1 Benefit Program			3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contribution		Actuarial	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	\$ 335,632	5.8%	\$19,467	\$ 103,855	8.0%	\$26,851	\$ 133,178	6.8%	\$22,823	\$ 118,613
2020	346,540	5.8	20,099	105,278	8.0	27,723	135,003	6.8	23,565	120,238
2021	357,803	5.8	20,753	106,605	8.0	28,624	136,705	6.8	24,331	121,754
2022	369,432	5.8	21,427	107,824	8.0	29,555	138,268	6.8	25,121	123,146
2023	381,439	5.8	22,123	108,920	8.0	30,515	139,673	6.8	25,938	124,397
2024	393,836	5.8	22,842	109,877	8.0	31,507	140,900	6.8	26,781	125,489
2025	406,636	5.8	23,585	110,677	8.0	32,531	141,926	6.8	27,651	126,403
2026	419,852	5.8	24,351	111,303	8.0	33,588	142,728	6.8	28,550	127,117
2027	433,497	5.8	25,143	111,733	8.0	34,680	143,280	6.8	29,478	127,609
2028	447,586	5.8	25,960	111,946	8.0	35,807	143,554	6.8	30,436	127,853

			LT-5(65) Benefit Program			7 Benefit Pro	gram	LT-8(65) Benefit Program		
	Estimated	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 335,632	8.7%	\$29,200	\$ 144,263	9.9%	\$33,228	\$ 162,210	10.5%	\$35,241	\$ 169,586
2020	346,540	8.7	30,149	146,239	9.9	34,307	164,432	10.5	36,387	171,909
2021	357,803	8.7	31,129	148,083	9.9	35,422	166,505	10.5	37,569	174,077
2022	369,432	8.7	32,141	149,776	9.9	36,574	168,409	10.5	38,790	176,067
2023	381,439	8.7	33,185	151,298	9.9	37,762	170,120	10.5	40,051	177,856
2024	393,836	8.7	34,264	152,627	9.9	38,990	171,614	10.5	41,353	179,418
2025	406,636	8.7	35,377	153,739	9.9	40,257	172,864	10.5	42,697	180,725
2026	419,852	8.7	36,527	154,608	9.9	41,565	173,841	10.5	44,084	181,746
2027	433,497	8.7	37,714	155,206	9.9	42,916	174,513	10.5	45,517	182,449
2028	447.586	8.7	38.940	155.502	9.9	44.311	174.846	10.5	46.997	182.797

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 335,632	12.1%	\$40,611	\$ 191,150	12.4%	\$41,618	\$ 194,842	14.3%	\$47,995	\$ 219,900
2020	346,540	12.1	41,931	193,769	12.4	42,971	197,511	14.3	49,555	222,913
2021	357,803	12.1	43,294	196,212	12.4	44,368	200,001	14.3	51,166	225,724
2022	369,432	12.1	44,701	198,455	12.4	45,810	202,288	14.3	52,829	228,305
2023	381,439	12.1	46,154	200,471	12.4	47,298	204,343	14.3	54,546	230,625
2024	393,836	12.1	47,654	202,232	12.4	48,836	206,138	14.3	56,319	232,650
2025	406,636	12.1	49,203	203,705	12.4	50,423	207,640	14.3	58,149	234,345
2026	419,852	12.1	50,802	204,856	12.4	52,062	208,814	14.3	60,039	235,669
2027	433,497	12.1	52,453	205,648	12.4	53,754	209,621	14.3	61,990	236,580
2028	447,586	12.1	54,158	206,041	12.4	55,501	210,021	14.3	64,005	237,032

- 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 Pro	gram	L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	Estimated Employer		Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contribution		Actuarial	Contr	Contribution	
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	\$ 335,632	9.2%	\$30,878	\$ 112,854	11.3%	\$37,926	\$ 141,065	10.1%	\$33,899	\$ 127,030
2020	346,540	9.2	31,882	114,400	11.3	39,159	142,998	10.1	35,001	128,770
2021	357,803	9.2	32,918	115,843	11.3	40,432	144,801	10.1	36,138	130,394
2022	369,432	9.2	33,988	117,167	11.3	41,746	146,457	10.1	37,313	131,885
2023	381,439	9.2	35,092	118,358	11.3	43,103	147,945	10.1	38,525	133,225
2024	393,836	9.2	36,233	119,397	11.3	44,503	149,244	10.1	39,777	134,395
2025	406,636	9.2	37,411	120,267	11.3	45,950	150,331	10.1	41,070	135,374
2026	419,852	9.2	38,626	120,947	11.3	47,443	151,181	10.1	42,405	136,139
2027	433,497	9.2	39,882	121,415	11.3	48,985	151,766	10.1	43,783	136,665
2028	447,586	9.2	41,178	121,647	11.3	50,577	152,056	10.1	45,206	136,926

			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	\$ 335,632	12.1%	\$40,611	\$ 151,691	13.4%	\$44,975	\$ 169,257	13.8%	\$46,317	\$ 176,337	
2020	346,540	12.1	41,931	153,769	13.4	46,436	171,576	13.8	47,823	178,753	
2021	357,803	12.1	43,294	155,708	13.4	47,946	173,739	13.8	49,377	181,007	
2022	369,432	12.1	44,701	157,488	13.4	49,504	175,725	13.8	50,982	183,076	
2023	381,439	12.1	46,154	159,088	13.4	51,113	177,511	13.8	52,639	184,936	
2024	393,836	12.1	47,654	160,485	13.4	52,774	179,070	13.8	54,349	186,560	
2025	406,636	12.1	49,203	161,654	13.4	54,489	180,374	13.8	56,116	187,919	
2026	419,852	12.1	50,802	162,568	13.4	56,260	181,393	13.8	57,940	188,981	
2027	433,497	12.1	52,453	163,197	13.4	58,089	182,094	13.8	59,823	189,712	
2028	447,586	12.1	54,158	163,509	13.4	59,977	182,442	13.8	61,767	190,074	

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
	Estimated	Estimated Employer Contribution		Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 335,632	15.4%	\$51,687	\$ 197,463	15.7%	\$52,694	\$ 200,994	17.6%	\$59,071	\$ 225,691
2020	346,540	15.4	53,367	200,168	15.7	54,407	203,748	17.6	60,991	228,783
2021	357,803	15.4	55,102	202,692	15.7	56,175	206,317	17.6	62,973	231,668
2022	369,432	15.4	56,893	205,009	15.7	58,001	208,676	17.6	65,020	234,317
2023	381,439	15.4	58,742	207,092	15.7	59,886	210,796	17.6	67,133	236,698
2024	393,836	15.4	60,651	208,911	15.7	61,832	212,647	17.6	69,315	238,777
2025	406,636	15.4	62,622	210,433	15.7	63,842	214,196	17.6	71,568	240,516
2026	419,852	15.4	64,657	211,622	15.7	65,917	215,407	17.6	73,894	241,875
2027	433,497	15.4	66,759	212,440	15.7	68,059	216,240	17.6	76,295	242,810
2028	447,586	15.4	68,928	212,846	15.7	70,271	216,653	17.6	78,775	243,274

- 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	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contri	bution	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	\$ 335,632	9.5%	\$31,885	\$ 116,767	11.7%	\$39,269	\$ 145,947	10.5%	\$35,241	\$ 131,444
2020	346,540	9.5	32,921	118,367	11.7	40,545	147,946	10.5	36,387	133,245
2021	357,803	9.5	33,991	119,860	11.7	41,863	149,812	10.5	37,569	134,925
2022	369,432	9.5	35,096	121,230	11.7	43,224	151,525	10.5	38,790	136,468
2023	381,439	9.5	36,237	122,462	11.7	44,628	153,065	10.5	40,051	137,855
2024	393,836	9.5	37,414	123,538	11.7	46,079	154,409	10.5	41,353	139,066
2025	406,636	9.5	38,630	124,438	11.7	47,576	155,534	10.5	42,697	140,079
2026	419,852	9.5	39,886	125,141	11.7	49,123	156,413	10.5	44,084	140,871
2027	433,497	9.5	41,182	125,625	11.7	50,719	157,018	10.5	45,517	141,416
2028	447,586	9.5	42,521	125,865	11.7	52,368	157,318	10.5	46,997	141,686

		LT-5	(65) Benefit P	rogram	ogram L-7 Benefit Progra			LT-8(65) Benefit Program			
			l Employer	Unfunded		l Employer	Unfunded		d Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2019	\$ 335,632	12.5%	\$41,954	\$ 156,954	13.8%	\$46,317	\$ 175,170	14.3%	\$47,995	\$ 182,510	
2020	346,540	12.5	43,318	159,104	13.8	47,823	177,570	14.3	49,555	185,010	
2021	357,803	12.5	44,725	161,110	13.8	49,377	179,809	14.3	51,166	187,343	
2022	369,432	12.5	46,179	162,952	13.8	50,982	181,865	14.3	52,829	189,485	
2023	381,439	12.5	47,680	164,608	13.8	52,639	183,713	14.3	54,546	191,410	
2024	393,836	12.5	49,230	166,054	13.8	54,349	185,326	14.3	56,319	193,091	
2025	406,636	12.5	50,830	167,264	13.8	56,116	186,676	14.3	58,149	194,498	
2026	419,852	12.5	52,482	168,209	13.8	57,940	187,731	14.3	60,039	195,597	
2027	433,497	12.5	54,187	168,859	13.8	59,823	188,457	14.3	61,990	196,353	
2028	447 586	12 5	55 948	169 181	13.8	61 767	188 817	143	64 005	196 728	

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
			l Employer	Unfunded		d Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 335,632	16.0%	\$53,701	\$ 204,371	16.2%	\$54,372	\$ 208,025	18.2%	\$61,085	\$ 233,569
2020	346,540	16.0	55,446	207,171	16.2	56,139	210,875	18.2	63,070	236,769
2021	357,803	16.0	57,248	209,783	16.2	57,964	213,534	18.2	65,120	239,755
2022	369,432	16.0	59,109	212,181	16.2	59,848	215,975	18.2	67,237	242,496
2023	381,439	16.0	61,030	214,337	16.2	61,793	218,170	18.2	69,422	244,960
2024	393,836	16.0	63,014	216,219	16.2	63,801	220,086	18.2	71,678	247,111
2025	406,636	16.0	65,062	217,794	16.2	65,875	221,689	18.2	74,008	248,911
2026	419,852	16.0	67,176	219,025	16.2	68,016	222,942	18.2	76,413	250,318
2027	433,497	16.0	69,360	219,872	16.2	70,227	223,804	18.2	78,896	251,286
2028	447,586	16.0	71,614	220,292	16.2	72,509	224,231	18.2	81,461	251,766

- 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 Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contri	ibution	Actuarial	Contri	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 335,632	5.9%	\$19,802	\$ 105,763	8.0%	\$26,851	\$ 135,531	7.2%	\$24,166	\$ 126,838
2020	346,540	5.9	20,446	107,212	8.0	27,723	137,388	7.2	24,951	128,576
2021	357,803	5.9	21,110	108,564	8.0	28,624	139,120	7.2	25,762	130,197
2022	369,432	5.9	21,796	109,805	8.0	29,555	140,711	7.2	26,599	131,686
2023	381,439	5.9	22,505	110,921	8.0	30,515	142,141	7.2	27,464	133,024
2024	393,836	5.9	23,236	111,895	8.0	31,507	143,389	7.2	28,356	134,192
2025	406,636	5.9	23,992	112,710	8.0	32,531	144,433	7.2	29,278	135,170
2026	419,852	5.9	24,771	113,347	8.0	33,588	145,249	7.2	30,229	135,934
2027	433,497	5.9	25,576	113,785	8.0	34,680	145,811	7.2	31,212	136,460
2028	447,586	5.9	26,408	114,002	8.0	35,807	146,089	7.2	32,226	136,721

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial	
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	
2019	\$ 335,632	9.1%	\$30,543	\$ 151,347	10.1%	\$33,899	\$ 165,092	10.8%	\$36,248	\$ 175,638	
2020	346,540	9.1	31,535	153,420	10.1	35,001	167,354	10.8	37,426	178,044	
2021	357,803	9.1	32,560	155,355	10.1	36,138	169,464	10.8	38,643	180,289	
2022	369,432	9.1	33,618	157,131	10.1	37,313	171,401	10.8	39,899	182,350	
2023	381,439	9.1	34,711	158,728	10.1	38,525	173,143	10.8	41,195	184,203	
2024	393,836	9.1	35,839	160,122	10.1	39,777	174,664	10.8	42,534	185,821	
2025	406,636	9.1	37,004	161,288	10.1	41,070	175,936	10.8	43,917	187,175	
2026	419,852	9.1	38,207	162,200	10.1	42,405	176,930	10.8	45,344	188,233	
2027	433,497	9.1	39,448	162,827	10.1	43,783	177,614	10.8	46,818	188,961	
2028	447.586	9.1	40.730	163.138	10.1	45.206	177.953	10.8	48.339	189.322	

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		l Employer	Unfunded		d Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 335,632	12.3%	\$41,283	\$ 194,473	12.6%	\$42,290	\$ 199,738	14.4%	\$48,331	\$ 223,734
2020	346,540	12.3	42,624	197,137	12.6	43,664	202,474	14.4	49,902	226,799
2021	357,803	12.3	44,010	199,623	12.6	45,083	205,027	14.4	51,524	229,659
2022	369,432	12.3	45,440	201,905	12.6	46,548	207,371	14.4	53,198	232,285
2023	381,439	12.3	46,917	203,957	12.6	48,061	209,478	14.4	54,927	234,645
2024	393,836	12.3	48,442	205,748	12.6	49,623	211,318	14.4	56,712	236,706
2025	406,636	12.3	50,016	207,247	12.6	51,236	212,857	14.4	58,556	238,430
2026	419,852	12.3	51,642	208,418	12.6	52,901	214,060	14.4	60,459	239,778
2027	433,497	12.3	53,320	209,224	12.6	54,621	214,888	14.4	62,424	240,705
2028	447,586	12.3	55,053	209,624	12.6	56,396	215,298	14.4	64,452	241,165

- 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 Program		
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contri	bution	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	\$ 335,632	6.2%	\$20,809	\$ 109,974	8.4%	\$28,193	\$ 140,727	7.6%	\$25,508	\$ 131,797
2020	346,540	6.2	21,485	111,481	8.4	29,109	142,655	7.6	26,337	133,603
2021	357,803	6.2	22,184	112,887	8.4	30,055	144,454	7.6	27,193	135,288
2022	369,432	6.2	22,905	114,178	8.4	31,032	146,106	7.6	28,077	136,835
2023	381,439	6.2	23,649	115,338	8.4	32,041	147,591	7.6	28,989	138,225
2024	393,836	6.2	24,418	116,351	8.4	33,082	148,887	7.6	29,932	139,439
2025	406,636	6.2	25,211	117,199	8.4	34,157	149,972	7.6	30,904	140,455
2026	419,852	6.2	26,031	117,861	8.4	35,268	150,820	7.6	31,909	141,249
2027	433,497	6.2	26,877	118,317	8.4	36,414	151,403	7.6	32,946	141,795
2028	447,586	6.2	27,750	118,543	8.4	37,597	151,692	7.6	34,017	142,066

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
	Estimated		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 335,632	9.5%	\$31,885	\$ 157,095	10.5%	\$35,241	\$ 171,258	11.3%	\$37,926	\$ 182,190
2020	346,540	9.5	32,921	159,247	10.5	36,387	173,604	11.3	39,159	184,686
2021	357,803	9.5	33,991	161,255	10.5	37,569	175,793	11.3	40,432	187,015
2022	369,432	9.5	35,096	163,099	10.5	38,790	177,803	11.3	41,746	189,153
2023	381,439	9.5	36,237	164,756	10.5	40,051	179,610	11.3	43,103	191,075
2024	393,836	9.5	37,414	166,203	10.5	41,353	181,187	11.3	44,503	192,753
2025	406,636	9.5	38,630	167,414	10.5	42,697	182,507	11.3	45,950	194,157
2026	419,852	9.5	39,886	168,360	10.5	44,084	183,538	11.3	47,443	195,254
2027	433,497	9.5	41,182	169,011	10.5	45,517	184,248	11.3	48,985	196,009
2028	447.586	9.5	42.521	169.334	10.5	46.997	184.600	11.3	50.577	196.383

		L-12 Benefit Program Estimated Employer Unfunded			LT-14(65) Benefit Program			L-6 Benefit Program		
	Estimated		Estimated Employer Contribution			d Employer ibution	Unfunded Actuarial		ed Employer L tribution Annual Dollars \$50,345 51,981 53,670 55,415	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll		Accrued Liability
2019	\$ 335,632	12.8%	\$42,961	\$ 201,695	13.1%	\$43,968	\$ 207,141	15.0%	\$50,345	\$ 231,899
2020	346,540	12.8	44,357	204,458	13.1	45,397	209,979	15.0	51,981	235,076
2021	357,803	12.8	45,799	207,036	13.1	46,872	212,627	15.0	53,670	238,040
2022	369,432	12.8	47,287	209,403	13.1	48,396	215,058	15.0	55,415	240,761
2023	381,439	12.8	48,824	211,531	13.1	49,969	217,243	15.0	57,216	243,207
2024	393,836	12.8	50,411	213,389	13.1	51,593	219,151	15.0	59,075	245,343
2025	406,636	12.8	52,049	214,943	13.1	53,269	220,747	15.0	60,995	247,130
2026	419,852	12.8	53,741	216,158	13.1	55,001	221,995	15.0	62,978	248,527
2027	433,497	12.8	55,488	216,994	13.1	56,788	222,853	15.0	65,025	249,488
2028	447,586	12.8	57,291	217,408	13.1	58,634	223,279	15.0	67,138	249,964

- 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 Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	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	\$ 335,632	9.5%	\$31,885	\$ 118,548	11.7%	\$39,269	\$ 148,215	11.0%	\$36,920	\$ 139,517
2020	346,540	9.5	32,921	120,172	11.7	40,545	150,246	11.0	38,119	141,428
2021	357,803	9.5	33,991	121,687	11.7	41,863	152,141	11.0	39,358	143,211
2022	369,432	9.5	35,096	123,078	11.7	43,224	153,880	11.0	40,638	144,848
2023	381,439	9.5	36,237	124,329	11.7	44,628	155,444	11.0	41,958	146,320
2024	393,836	9.5	37,414	125,421	11.7	46,079	156,809	11.0	43,322	147,605
2025	406,636	9.5	38,630	126,335	11.7	47,576	157,951	11.0	44,730	148,680
2026	419,852	9.5	39,886	127,049	11.7	49,123	158,844	11.0	46,184	149,520
2027	433,497	9.5	41,182	127,540	11.7	50,719	159,458	11.0	47,685	150,098
2028	447,586	9.5	42,521	127,784	11.7	52,368	159,762	11.0	49,234	150,385

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial	
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	
2019	\$ 335,632	12.8%	\$42,961	\$ 163,937	13.9%	\$46,653	\$ 177,860	14.6%	\$49,002	\$ 188,329	
2020	346,540	12.8	44,357	166,183	13.9	48,169	180,297	14.6	50,595	190,909	
2021	357,803	12.8	45,799	168,278	13.9	49,735	182,570	14.6	52,239	193,316	
2022	369,432	12.8	47,287	170,202	13.9	51,351	184,657	14.6	53,937	195,526	
2023	381,439	12.8	48,824	171,931	13.9	53,020	186,533	14.6	55,690	197,513	
2024	393,836	12.8	50,411	173,441	13.9	54,743	188,171	14.6	57,500	199,248	
2025	406,636	12.8	52,049	174,704	13.9	56,522	189,542	14.6	59,369	200,699	
2026	419,852	12.8	53,741	175,691	13.9	58,359	190,613	14.6	61,298	201,833	
2027	433,497	12.8	55,488	176,370	13.9	60,256	191,350	14.6	63,291	202,613	
2028	447.586	12.8	57.291	176.707	13.9	62.214	191.715	14.6	65.348	203.000	

		L-:	12 Benefit Pro	gram	LT-14(65) Benefit Program			L-6 Benefit Program		
			Employer	Unfunded		l Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 335,632	16.1%	\$54,037	\$ 207,526	16.4%	\$55,044	\$ 212,732	18.3%	\$61,421	\$ 237,184
2020	346,540	16.1	55,793	210,369	16.4	56,833	215,646	18.3	63,417	240,433
2021	357,803	16.1	57,606	213,022	16.4	58,680	218,365	18.3	65,478	243,465
2022	369,432	16.1	59,479	215,457	16.4	60,587	220,862	18.3	67,606	246,249
2023	381,439	16.1	61,412	217,646	16.4	62,556	223,106	18.3	69,803	248,751
2024	393,836	16.1	63,408	219,557	16.4	64,589	225,065	18.3	72,072	250,936
2025	406,636	16.1	65,468	221,156	16.4	66,688	226,704	18.3	74,414	252,764
2026	419,852	16.1	67,596	222,406	16.4	68,856	227,985	18.3	76,833	254,193
2027	433,497	16.1	69,793	223,266	16.4	71,094	228,867	18.3	79,330	255,176
2028	447,586	16.1	72,061	223,692	16.4	73,404	229,304	18.3	81,908	255,663

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



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

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

	L-1 Benefit Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contr	ibution	Actuarial	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	\$ 335,632	9.9%	\$33,228	\$ 122,760	12.1%	\$40,611	\$ 153,435	11.2%	\$37,591	\$ 144,449
2020	346,540	9.9	34,307	124,442	12.1	41,931	155,537	11.2	38,812	146,428
2021	357,803	9.9	35,422	126,011	12.1	43,294	157,498	11.2	40,074	148,274
2022	369,432	9.9	36,574	127,452	12.1	44,701	159,299	11.2	41,376	149,969
2023	381,439	9.9	37,762	128,747	12.1	46,154	160,918	11.2	42,721	151,493
2024	393,836	9.9	38,990	129,878	12.1	47,654	162,331	11.2	44,110	152,823
2025	406,636	9.9	40,257	130,824	12.1	49,203	163,513	11.2	45,543	153,936
2026	419,852	9.9	41,565	131,563	12.1	50,802	164,437	11.2	47,023	154,806
2027	433,497	9.9	42,916	132,072	12.1	52,453	165,073	11.2	48,552	155,405
2028	447,586	9.9	44,311	132,324	12.1	54,158	165,388	11.2	50,130	155,702

			LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
			l Employer	Unfunded		l Employer	Unfunded		l Employer	Unfunded Actuarial	
	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	\$ 335,632	13.2%	\$44,303	\$ 169,710	14.3%	\$47,995	\$ 184,112	15.0%	\$50,345	\$ 194,973	
2020	346,540	13.2	45,743	172,035	14.3	49,555	186,634	15.0	51,981	197,644	
2021	357,803	13.2	47,230	174,204	14.3	51,166	188,987	15.0	53,670	200,136	
2022	369,432	13.2	48,765	176,196	14.3	52,829	191,148	15.0	55,415	202,424	
2023	381,439	13.2	50,350	177,986	14.3	54,546	193,090	15.0	57,216	204,481	
2024	393,836	13.2	51,986	179,549	14.3	56,319	194,786	15.0	59,075	206,277	
2025	406,636	13.2	53,676	180,857	14.3	58,149	196,205	15.0	60,995	207,780	
2026	419,852	13.2	55,420	181,879	14.3	60,039	197,314	15.0	62,978	208,954	
2027	433,497	13.2	57,222	182,582	14.3	61,990	198,077	15.0	65,025	209,762	
2028	447 586	13.2	59 081	182 931	143	64 005	198 455	15.0	67 138	210 163	

		L-:	L-12 Benefit Program			4(65) Benefit I	Program	L-6 Benefit Program		
			d Employer	Unfunded		l Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 335,632	16.6%	\$55,715	\$ 214,807	16.9%	\$56,722	\$ 220,210	18.9%	\$63,434	\$ 245,496
2020	346,540	16.6	57,526	217,750	16.9	58,565	223,227	18.9	65,496	248,859
2021	357,803	16.6	59,395	220,496	16.9	60,469	226,042	18.9	67,625	251,997
2022	369,432	16.6	61,326	223,017	16.9	62,434	228,626	18.9	69,823	254,878
2023	381,439	16.6	63,319	225,283	16.9	64,463	230,949	18.9	72,092	257,468
2024	393,836	16.6	65,377	227,262	16.9	66,558	232,977	18.9	74,435	259,729
2025	406,636	16.6	67,502	228,917	16.9	68,721	234,674	18.9	76,854	261,621
2026	419,852	16.6	69,695	230,211	16.9	70,955	236,000	18.9	79,352	263,100
2027	433,497	16.6	71,961	231,101	16.9	73,261	236,913	18.9	81,931	264,117
2028	447,586	16.6	74,299	231,542	16.9	75,642	237,365	18.9	84,594	264,621

- 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)

Regular Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
	Estimated		Employer bution	Unfunded Actuarial		Employer bution	Unfunded Actuarial		Employer bution	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	\$ 67,600	11.4%	\$7,706	\$ 88,438	14.9%	\$10,072	\$ 111,202	15.3%	\$10,343	\$ 116,352
2020	69,797	11.4	7,957	89,650	14.9	10,400	112,725	15.3	10,679	117,946
2021	72,065	11.4	8,215	90,780	14.9	10,738	114,146	15.3	11,026	119,433
2022	74,407	11.4	8,482	91,818	14.9	11,087	115,451	15.3	11,384	120,798
2023	76,825	11.4	8,758	92,751	14.9	11,447	116,624	15.3	11,754	122,025
2024	79,322	11.4	9,043	93,566	14.9	11,819	117,648	15.3	12,136	123,097
2025	81,900	11.4	9,337	94,248	14.9	12,203	118,505	15.3	12,531	123,994
2026	84,562	11.4	9,640	94,781	14.9	12,600	119,175	15.3	12,938	124,695
2027	87,310	11.4	9,953	95,148	14.9	13,009	119,636	15.3	13,358	125,177
2028	90,148	11.4	10,277	95,330	14.9	13,432	119,864	15.3	13,793	125,416

			LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
			d Employer	Unfunded		d Employer	Unfunded		d Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2019	\$ 67,600	17.8%	\$12,033	\$ 132,144	18.4%	\$12,438	\$ 133,937	20.4%	\$13,790	\$ 147,895	
2020	69,797	17.8	12,424	133,954	18.4	12,843	135,772	20.4	14,239	149,921	
2021	72,065	17.8	12,828	135,643	18.4	13,260	137,484	20.4	14,701	151,811	
2022	74,407	17.8	13,244	137,194	18.4	13,691	139,056	20.4	15,179	153,547	
2023	76,825	17.8	13,675	138,588	18.4	14,136	140,469	20.4	15,672	155,107	
2024	79,322	17.8	14,119	139,805	18.4	14,595	141,703	20.4	16,182	156,469	
2025	81,900	17.8	14,578	140,823	18.4	15,070	142,735	20.4	16,708	157,609	
2026	84,562	17.8	15,052	141,619	18.4	15,559	143,542	20.4	17,251	158,500	
2027	87,310	17.8	15,541	142,167	18.4	16,065	144,097	20.4	17,811	159,113	
2028	90.148	17.8	16.046	142.438	18.4	16.587	144.372	20.4	18.390	159.417	

	Estimated	L-:	L-12 Benefit Program			1(65) Benefit I	Program	L-6 Benefit Program		
			l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 67,600	22.1%	\$14,940	\$ 156,635	22.9%	\$15,480	\$ 163,607	25.6%	\$17,306	\$ 179,375
2020	69,797	22.1	15,425	158,781	22.9	15,984	165,848	25.6	17,868	181,832
2021	72,065	22.1	15,926	160,783	22.9	16,503	167,939	25.6	18,449	184,125
2022	74,407	22.1	16,444	162,621	22.9	17,039	169,859	25.6	19,048	186,230
2023	76,825	22.1	16,978	164,273	22.9	17,593	171,585	25.6	19,667	188,122
2024	79,322	22.1	17,530	165,716	22.9	18,165	173,092	25.6	20,306	189,774
2025	81,900	22.1	18,100	166,923	22.9	18,755	174,353	25.6	20,966	191,156
2026	84,562	22.1	18,688	167,866	22.9	19,365	175,338	25.6	21,648	192,236
2027	87,310	22.1	19,296	168,515	22.9	19,994	176,016	25.6	22,351	192,979
2028	90,148	22.1	19,923	168,837	22.9	20,644	176,352	25.6	23,078	193,347

- 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 P	rogram
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contri	bution	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	\$ 67,600	11.9%	\$8,044	\$ 91,645	15.6%	\$10,546	\$ 115,177	15.9%	\$10,748	\$ 120,559
2020	69,797	11.9	8,306	92,901	15.6	10,888	116,755	15.9	11,098	122,211
2021	72,065	11.9	8,576	94,072	15.6	11,242	118,227	15.9	11,458	123,752
2022	74,407	11.9	8,854	95,148	15.6	11,607	119,579	15.9	11,831	125,167
2023	76,825	11.9	9,142	96,115	15.6	11,985	120,794	15.9	12,215	126,439
2024	79,322	11.9	9,439	96,959	15.6	12,374	121,855	15.9	12,612	127,549
2025	81,900	11.9	9,746	97,665	15.6	12,776	122,743	15.9	13,022	128,478
2026	84,562	11.9	10,063	98,217	15.6	13,192	123,437	15.9	13,445	129,204
2027	87,310	11.9	10,390	98,597	15.6	13,620	123,914	15.9	13,882	129,704
2028	90,148	11.9	10,728	98,785	15.6	14,063	124,151	15.9	14,334	129,952

	Estimated		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
			ed Employer Unfunded cribution Actuarial			d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial	
Valuation Projected 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	\$ 67,600	18.6%	\$12,574	\$ 136,866	19.2%	\$12,979	\$ 138,663	21.3%	\$14,399	\$ 153,128	
2020	69,797	18.6	12,982	138,741	19.2	13,401	140,563	21.3	14,867	155,226	
2021	72,065	18.6	13,404	140,490	19.2	13,836	142,335	21.3	15,350	157,183	
2022	74,407	18.6	13,840	142,096	19.2	14,286	143,962	21.3	15,849	158,980	
2023	76,825	18.6	14,289	143,540	19.2	14,750	145,425	21.3	16,364	160,595	
2024	79,322	18.6	14,754	144,801	19.2	15,230	146,702	21.3	16,896	162,005	
2025	81,900	18.6	15,233	145,856	19.2	15,725	147,771	21.3	17,445	163,185	
2026	84,562	18.6	15,729	146,680	19.2	16,236	148,606	21.3	18,012	164,107	
2027	87,310	18.6	16,240	147,247	19.2	16,764	149,181	21.3	18,597	164,742	
2028	90.148	18.6	16.768	147.528	19.2	17.308	149.466	21.3	19.202	165.057	

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % 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	\$ 67,600	22.8%	\$15,413	\$ 162,179	23.8%	\$16,089	\$ 169,421	26.5%	\$17,914	\$ 185,692
2020	69,797	22.8	15,914	164,401	23.8	16,612	171,742	26.5	18,496	188,236
2021	72,065	22.8	16,431	166,474	23.8	17,151	173,908	26.5	19,097	190,610
2022	74,407	22.8	16,965	168,377	23.8	17,709	175,896	26.5	19,718	192,789
2023	76,825	22.8	17,516	170,088	23.8	18,284	177,683	26.5	20,359	194,748
2024	79,322	22.8	18,085	171,582	23.8	18,879	179,243	26.5	21,020	196,458
2025	81,900	22.8	18,673	172,832	23.8	19,492	180,549	26.5	21,704	197,889
2026	84,562	22.8	19,280	173,809	23.8	20,126	181,569	26.5	22,409	199,007
2027	87,310	22.8	19,907	174,481	23.8	20,780	182,271	26.5	23,137	199,777
2028	90,148	22.8	20,554	174,814	23.8	21,455	182,619	26.5	23,889	200,158

- 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 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	Contr	ibution	Actuarial	Contri	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 67,600	15.1%	\$10,208	\$ 90,264	18.7%	\$12,641	\$ 112,810	18.9%	\$12,776	\$ 118,042
2020	69,797	15.1	10,539	91,501	18.7	13,052	114,355	18.9	13,192	119,659
2021	72,065	15.1	10,882	92,655	18.7	13,476	115,797	18.9	13,620	121,168
2022	74,407	15.1	11,235	93,714	18.7	13,914	117,121	18.9	14,063	122,553
2023	76,825	15.1	11,601	94,666	18.7	14,366	118,311	18.9	14,520	123,798
2024	79,322	15.1	11,978	95,497	18.7	14,833	119,350	18.9	14,992	124,885
2025	81,900	15.1	12,367	96,193	18.7	15,315	120,219	18.9	15,479	125,795
2026	84,562	15.1	12,769	96,737	18.7	15,813	120,898	18.9	15,982	126,506
2027	87,310	15.1	13,184	97,111	18.7	16,327	121,366	18.9	16,502	126,995
2028	90,148	15.1	13,612	97,296	18.7	16,858	121,598	18.9	17,038	127,237

		LT-5	(65) Benefit P	rogram	L.	-7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		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	\$ 67,600	21.5%	\$14,534	\$ 133,649	22.3%	\$15,075	\$ 135,361	24.1%	\$16,292	\$ 149,262
2020	69,797	21.5	15,006	135,480	22.3	15,565	137,215	24.1	16,821	151,307
2021	72,065	21.5	15,494	137,188	22.3	16,070	138,945	24.1	17,368	153,215
2022	74,407	21.5	15,998	138,756	22.3	16,593	140,534	24.1	17,932	154,967
2023	76,825	21.5	16,517	140,166	22.3	17,132	141,962	24.1	18,515	156,542
2024	79,322	21.5	17,054	141,397	22.3	17,689	143,209	24.1	19,117	157,917
2025	81,900	21.5	17,609	142,427	22.3	18,264	144,252	24.1	19,738	159,067
2026	84,562	21.5	18,181	143,232	22.3	18,857	145,067	24.1	20,379	159,966
2027	87,310	21.5	18,772	143,786	22.3	19,470	145,628	24.1	21,042	160,585
2028	90.148	21.5	19.382	144.061	22.3	20.103	145.906	24.1	21.726	160.892

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
	Estimated		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		Estimated Employer Contribution	
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	\$ 67,600	25.8%	\$17,441	\$ 157,950	26.7%	\$18,049	\$ 164,895	29.4%	\$19,874	\$ 180,501
2020	69,797	25.8	18,008	160,114	26.7	18,636	167,154	29.4	20,520	182,974
2021	72,065	25.8	18,593	162,133	26.7	19,241	169,262	29.4	21,187	185,281
2022	74,407	25.8	19,197	163,987	26.7	19,867	171,197	29.4	21,876	187,399
2023	76,825	25.8	19,821	165,653	26.7	20,512	172,937	29.4	22,587	189,303
2024	79,322	25.8	20,465	167,108	26.7	21,179	174,456	29.4	23,321	190,966
2025	81,900	25.8	21,130	168,325	26.7	21,867	175,727	29.4	24,079	192,357
2026	84,562	25.8	21,817	169,276	26.7	22,578	176,720	29.4	24,861	193,444
2027	87,310	25.8	22,526	169,931	26.7	23,312	177,403	29.4	25,669	194,192
2028	90,148	25.8	23,258	170,255	26.7	24,070	177,742	29.4	26,504	194,563

- 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 Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	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	\$ 67,600	15.6%	\$10,546	\$ 93,403	19.3%	\$13,047	\$ 116,750	19.6%	\$13,250	\$ 122,190	
2020	69,797	15.6	10,888	94,683	19.3	13,471	118,349	19.6	13,680	123,864	
2021	72,065	15.6	11,242	95,877	19.3	13,909	119,841	19.6	14,125	125,426	
2022	74,407	15.6	11,607	96,973	19.3	14,361	121,211	19.6	14,584	126,860	
2023	76,825	15.6	11,985	97,958	19.3	14,827	122,443	19.6	15,058	128,149	
2024	79,322	15.6	12,374	98,818	19.3	15,309	123,518	19.6	15,547	129,274	
2025	81,900	15.6	12,776	99,538	19.3	15,807	124,418	19.6	16,052	130,216	
2026	84,562	15.6	13,192	100,101	19.3	16,320	125,121	19.6	16,574	130,952	
2027	87,310	15.6	13,620	100,488	19.3	16,851	125,605	19.6	17,113	131,458	
2028	90,148	15.6	14,063	100,680	19.3	17,399	125,845	19.6	17,669	131,709	

		LT-5	(65) Benefit P	rogram	L.	-7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 67,600	22.3%	\$15,075	\$ 138,342	23.0%	\$15,548	\$ 140,085	25.0%	\$16,900	\$ 154,488
2020	69,797	22.3	15,565	140,237	23.0	16,053	142,004	25.0	17,449	156,604
2021	72,065	22.3	16,070	142,005	23.0	16,575	143,795	25.0	18,016	158,579
2022	74,407	22.3	16,593	143,629	23.0	17,114	145,439	25.0	18,602	160,392
2023	76,825	22.3	17,132	145,088	23.0	17,670	146,917	25.0	19,206	162,022
2024	79,322	22.3	17,689	146,362	23.0	18,244	148,207	25.0	19,831	163,445
2025	81,900	22.3	18,264	147,428	23.0	18,837	149,287	25.0	20,475	164,636
2026	84,562	22.3	18,857	148,261	23.0	19,449	150,131	25.0	21,141	165,566
2027	87,310	22.3	19,470	148,834	23.0	20,081	150,712	25.0	21,828	166,206
2028	90,148	22.3	20,103	149,118	23.0	20,734	151,000	25.0	22,537	166,523

			L-12 Benefit Program			LT-14(65) Benefit Program			L-6 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	\$ 67,600	26.6%	\$17,982	\$ 163,430	27.6%	\$18,658	\$ 170,628	30.4%	\$20,550	\$ 186,793	
2020	69,797	26.6	18,566	165,669	27.6	19,264	172,966	30.4	21,218	189,352	
2021	72,065	26.6	19,169	167,758	27.6	19,890	175,147	30.4	21,908	191,740	
2022	74,407	26.6	19,792	169,676	27.6	20,536	177,149	30.4	22,620	193,932	
2023	76,825	26.6	20,435	171,400	27.6	21,204	178,949	30.4	23,355	195,903	
2024	79,322	26.6	21,100	172,905	27.6	21,893	180,521	30.4	24,114	197,623	
2025	81,900	26.6	21,785	174,164	27.6	22,604	181,836	30.4	24,898	199,063	
2026	84,562	26.6	22,493	175,148	27.6	23,339	182,864	30.4	25,707	200,188	
2027	87,310	26.6	23,224	175,825	27.6	24,098	183,571	30.4	26,542	200,962	
2028	90,148	26.6	23,979	176,161	27.6	24,881	183,922	30.4	27,405	201,346	

- 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	l Employer	Unfunded
	Estimated	Contri	bution	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	\$ 67,600	11.4%	\$7,706	\$ 88,438	14.9%	\$10,072	\$ 111,202	15.3%	\$10,343	\$ 116,352
2020	69,797	11.4	7,957	89,650	14.9	10,400	112,725	15.3	10,679	117,946
2021	72,065	11.4	8,215	90,780	14.9	10,738	114,146	15.3	11,026	119,433
2022	74,407	11.4	8,482	91,818	14.9	11,087	115,451	15.3	11,384	120,798
2023	76,825	11.4	8,758	92,751	14.9	11,447	116,624	15.3	11,754	122,025
2024	79,322	11.4	9,043	93,566	14.9	11,819	117,648	15.3	12,136	123,097
2025	81,900	11.4	9,337	94,248	14.9	12,203	118,505	15.3	12,531	123,994
2026	84,562	11.4	9,640	94,781	14.9	12,600	119,175	15.3	12,938	124,695
2027	87,310	11.4	9,953	95,148	14.9	13,009	119,636	15.3	13,358	125,177
2028	90,148	11.4	10,277	95,330	14.9	13,432	119,864	15.3	13,793	125,416

			LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated	d 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	\$ 67,600	17.8%	\$12,033	\$ 132,144	18.4%	\$12,438	\$ 133,937	20.4%	\$13,790	\$ 147,895	
2020	69,797	17.8	12,424	133,954	18.4	12,843	135,772	20.4	14,239	149,921	
2021	72,065	17.8	12,828	135,643	18.4	13,260	137,484	20.4	14,701	151,811	
2022	74,407	17.8	13,244	137,194	18.4	13,691	139,056	20.4	15,179	153,547	
2023	76,825	17.8	13,675	138,588	18.4	14,136	140,469	20.4	15,672	155,107	
2024	79,322	17.8	14,119	139,805	18.4	14,595	141,703	20.4	16,182	156,469	
2025	81,900	17.8	14,578	140,823	18.4	15,070	142,735	20.4	16,708	157,609	
2026	84,562	17.8	15,052	141,619	18.4	15,559	143,542	20.4	17,251	158,500	
2027	87,310	17.8	15,541	142,167	18.4	16,065	144,097	20.4	17,811	159,113	
2028	90,148	17.8	16,046	142,438	18.4	16,587	144,372	20.4	18,390	159,417	

		L-12 Benefit Program			LT-14	4(65) Benefit	Program	L-6 Benefit Program			
	Estimated		Estimated Employer Ur Contribution A			d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2019	\$ 67,600	22.1%	\$14,940	\$ 156,635	22.9%	\$15,480	\$ 163,607	25.6%	\$17,306	\$ 179,375	
2020	69,797	22.1	15,425	158,781	22.9	15,984	165,848	25.6	17,868	181,832	
2021	72,065	22.1	15,926	160,783	22.9	16,503	167,939	25.6	18,449	184,125	
2022	74,407	22.1	16,444	162,621	22.9	17,039	169,859	25.6	19,048	186,230	
2023	76,825	22.1	16,978	164,273	22.9	17,593	171,585	25.6	19,667	188,122	
2024	79,322	22.1	17,530	165,716	22.9	18,165	173,092	25.6	20,306	189,774	
2025	81,900	22.1	18,100	166,923	22.9	18,755	174,353	25.6	20,966	191,156	
2026	84,562	22.1	18,688	167,866	22.9	19,365	175,338	25.6	21,648	192,236	
2027	87,310	22.1	19,296	168,515	22.9	19,994	176,016	25.6	22,351	192,979	
2028	90,148	22.1	19,923	168,837	22.9	20,644	176,352	25.6	23,078	193,347	

- 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 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	\$ 67,600	11.9%	\$8,044	\$ 91,645	15.6%	\$10,546	\$ 115,177	15.9%	\$10,748	\$ 120,559
2020	69,797	11.9	8,306	92,901	15.6	10,888	116,755	15.9	11,098	122,211
2021	72,065	11.9	8,576	94,072	15.6	11,242	118,227	15.9	11,458	123,752
2022	74,407	11.9	8,854	95,148	15.6	11,607	119,579	15.9	11,831	125,167
2023	76,825	11.9	9,142	96,115	15.6	11,985	120,794	15.9	12,215	126,439
2024	79,322	11.9	9,439	96,959	15.6	12,374	121,855	15.9	12,612	127,549
2025	81,900	11.9	9,746	97,665	15.6	12,776	122,743	15.9	13,022	128,478
2026	84,562	11.9	10,063	98,217	15.6	13,192	123,437	15.9	13,445	129,204
2027	87,310	11.9	10,390	98,597	15.6	13,620	123,914	15.9	13,882	129,704
2028	90,148	11.9	10,728	98,785	15.6	14,063	124,151	15.9	14,334	129,952

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated	d Employer	Unfunded	Estimated	d Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 67,600	18.6%	\$12,574	\$ 136,866	19.2%	\$12,979	\$ 138,663	21.3%	\$14,399	\$ 153,128
2020	69,797	18.6	12,982	138,741	19.2	13,401	140,563	21.3	14,867	155,226
2021	72,065	18.6	13,404	140,490	19.2	13,836	142,335	21.3	15,350	157,183
2022	74,407	18.6	13,840	142,096	19.2	14,286	143,962	21.3	15,849	158,980
2023	76,825	18.6	14,289	143,540	19.2	14,750	145,425	21.3	16,364	160,595
2024	79,322	18.6	14,754	144,801	19.2	15,230	146,702	21.3	16,896	162,005
2025	81,900	18.6	15,233	145,856	19.2	15,725	147,771	21.3	17,445	163,185
2026	84,562	18.6	15,729	146,680	19.2	16,236	148,606	21.3	18,012	164,107
2027	87,310	18.6	16,240	147,247	19.2	16,764	149,181	21.3	18,597	164,742
2028	90,148	18.6	16,768	147,528	19.2	17,308	149,466	21.3	19,202	165,057

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
	Estimated		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 67,600	22.8%	\$15,413	\$ 162,179	23.8%	\$16,089	\$ 169,421	26.5%	\$17,914	\$ 185,692
2020	69,797	22.8	15,914	164,401	23.8	16,612	171,742	26.5	18,496	188,236
2021	72,065	22.8	16,431	166,474	23.8	17,151	173,908	26.5	19,097	190,610
2022	74,407	22.8	16,965	168,377	23.8	17,709	175,896	26.5	19,718	192,789
2023	76,825	22.8	17,516	170,088	23.8	18,284	177,683	26.5	20,359	194,748
2024	79,322	22.8	18,085	171,582	23.8	18,879	179,243	26.5	21,020	196,458
2025	81,900	22.8	18,673	172,832	23.8	19,492	180,549	26.5	21,704	197,889
2026	84,562	22.8	19,280	173,809	23.8	20,126	181,569	26.5	22,409	199,007
2027	87,310	22.8	19,907	174,481	23.8	20,780	182,271	26.5	23,137	199,777
2028	90,148	22.8	20,554	174,814	23.8	21,455	182,619	26.5	23,889	200,158

- 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 Program			LT-4(65) Benefit Program		
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer bution	Unfunded Actuarial		l Employer ibution	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	\$ 67,600	15.1%	\$10,208	\$ 90,264	18.7%	\$12,641	\$ 112,810	18.9%	\$12,776	\$ 118,042
2020	69,797	15.1	10,539	91,501	18.7	13,052	114,355	18.9	13,192	119,659
2021	72,065	15.1	10,882	92,655	18.7	13,476	115,797	18.9	13,620	121,168
2022	74,407	15.1	11,235	93,714	18.7	13,914	117,121	18.9	14,063	122,553
2023	76,825	15.1	11,601	94,666	18.7	14,366	118,311	18.9	14,520	123,798
2024	79,322	15.1	11,978	95,497	18.7	14,833	119,350	18.9	14,992	124,885
2025	81,900	15.1	12,367	96,193	18.7	15,315	120,219	18.9	15,479	125,795
2026	84,562	15.1	12,769	96,737	18.7	15,813	120,898	18.9	15,982	126,506
2027	87,310	15.1	13,184	97,111	18.7	16,327	121,366	18.9	16,502	126,995
2028	90,148	15.1	13,612	97,296	18.7	16,858	121,598	18.9	17,038	127,237

		LT-5	(65) Benefit P	rogram	L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		Estimated Employer Unfund Contribution Actuar				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	\$ 67,600	21.5%	\$14,534	\$ 133,649	22.2%	\$15,007	\$ 134,875	24.1%	\$16,292	\$ 149,262	
2020	69,797	21.5	15,006	135,480	22.2	15,495	136,723	24.1	16,821	151,307	
2021	72,065	21.5	15,494	137,188	22.2	15,998	138,447	24.1	17,368	153,215	
2022	74,407	21.5	15,998	138,756	22.2	16,518	140,030	24.1	17,932	154,967	
2023	76,825	21.5	16,517	140,166	22.2	17,055	141,453	24.1	18,515	156,542	
2024	79,322	21.5	17,054	141,397	22.2	17,609	142,695	24.1	19,117	157,917	
2025	81,900	21.5	17,609	142,427	22.2	18,182	143,734	24.1	19,738	159,067	
2026	84,562	21.5	18,181	143,232	22.2	18,773	144,546	24.1	20,379	159,966	
2027	87,310	21.5	18,772	143,786	22.2	19,383	145,105	24.1	21,042	160,585	
2028	90 148	21 5	19 382	144 061	22.2	20.013	145 382	24.1	21 726	160 892	

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer		Unfunded	Estimated Employer		Unfunded	Estimated Employer		Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 67,600	25.8%	\$17,441	\$ 157,950	26.7%	\$18,049	\$ 164,895	29.4%	\$19,874	\$ 180,501
2020	69,797	25.8	18,008	160,114	26.7	18,636	167,154	29.4	20,520	182,974
2021	72,065	25.8	18,593	162,133	26.7	19,241	169,262	29.4	21,187	185,281
2022	74,407	25.8	19,197	163,987	26.7	19,867	171,197	29.4	21,876	187,399
2023	76,825	25.8	19,821	165,653	26.7	20,512	172,937	29.4	22,587	189,303
2024	79,322	25.8	20,465	167,108	26.7	21,179	174,456	29.4	23,321	190,966
2025	81,900	25.8	21,130	168,325	26.7	21,867	175,727	29.4	24,079	192,357
2026	84,562	25.8	21,817	169,276	26.7	22,578	176,720	29.4	24,861	193,444
2027	87,310	25.8	22,526	169,931	26.7	23,312	177,403	29.4	25,669	194,192
2028	90,148	25.8	23,258	170,255	26.7	24,070	177,742	29.4	26,504	194,563

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



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

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated Employer ted Contribution		Unfunded	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
	Estimated			Actuarial						
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 67,600	15.6%	\$10,546	\$ 93,403	19.3%	\$13,047	\$ 116,750	19.6%	\$13,250	\$ 122,190
2020	69,797	15.6	10,888	94,683	19.3	13,471	118,349	19.6	13,680	123,864
2021	72,065	15.6	11,242	95,877	19.3	13,909	119,841	19.6	14,125	125,426
2022	74,407	15.6	11,607	96,973	19.3	14,361	121,211	19.6	14,584	126,860
2023	76,825	15.6	11,985	97,958	19.3	14,827	122,443	19.6	15,058	128,149
2024	79,322	15.6	12,374	98,818	19.3	15,309	123,518	19.6	15,547	129,274
2025	81,900	15.6	12,776	99,538	19.3	15,807	124,418	19.6	16,052	130,216
2026	84,562	15.6	13,192	100,101	19.3	16,320	125,121	19.6	16,574	130,952
2027	87,310	15.6	13,620	100,488	19.3	16,851	125,605	19.6	17,113	131,458
2028	90,148	15.6	14,063	100,680	19.3	17,399	125,845	19.6	17,669	131,709

	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
	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	\$ 67,600	22.3%	\$15,075	\$ 138,342	23.0%	\$15,548	\$ 140,085	25.0%	\$16,900	\$ 154,488
2020	69,797	22.3	15,565	140,237	23.0	16,053	142,004	25.0	17,449	156,604
2021	72,065	22.3	16,070	142,005	23.0	16,575	143,795	25.0	18,016	158,579
2022	74,407	22.3	16,593	143,629	23.0	17,114	145,439	25.0	18,602	160,392
2023	76,825	22.3	17,132	145,088	23.0	17,670	146,917	25.0	19,206	162,022
2024	79,322	22.3	17,689	146,362	23.0	18,244	148,207	25.0	19,831	163,445
2025	81,900	22.3	18,264	147,428	23.0	18,837	149,287	25.0	20,475	164,636
2026	84,562	22.3	18,857	148,261	23.0	19,449	150,131	25.0	21,141	165,566
2027	87,310	22.3	19,470	148,834	23.0	20,081	150,712	25.0	21,828	166,206
2028	90.148	22.3	20.103	149.118	23.0	20.734	151.000	25.0	22.537	166.523

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
	Estimated	Estimated Contri		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	\$ 67,600	26.6%	\$17,982	\$ 163,430	27.6%	\$18,658	\$ 170,628	30.4%	\$20,550	\$ 186,793
2020	69,797	26.6	18,566	165,669	27.6	19,264	172,966	30.4	21,218	189,352
2021	72,065	26.6	19,169	167,758	27.6	19,890	175,147	30.4	21,908	191,740
2022	74,407	26.6	19,792	169,676	27.6	20,536	177,149	30.4	22,620	193,932
2023	76,825	26.6	20,435	171,400	27.6	21,204	178,949	30.4	23,355	195,903
2024	79,322	26.6	21,100	172,905	27.6	21,893	180,521	30.4	24,114	197,623
2025	81,900	26.6	21,785	174,164	27.6	22,604	181,836	30.4	24,898	199,063
2026	84,562	26.6	22,493	175,148	27.6	23,339	182,864	30.4	25,707	200,188
2027	87,310	26.6	23,224	175,825	27.6	24,098	183,571	30.4	26,542	200,962
2028	90,148	26.6	23,979	176,161	27.6	24,881	183,922	30.4	27,405	201,346

- 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.

