



The Initial Valuation For
Village of Freeburg
as of March 31, 2019



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May 10, 2019

Village of Freeburg
Freeburg, 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, 2018.

The computed contributions required for LAGERS participation will permit the System to continue to operate in accordance with the actuarial principles of level cost financing and the State law which governs LAGERS. 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 March 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.

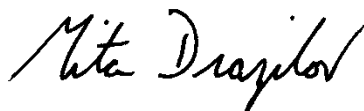
If you have any questions concerning this report or LAGERS in general, please contact the LAGERS office in Jefferson City.

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



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.

Village of Freeburg

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

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.40%	1.90%	0.20%	3.50%
L-3	General	1.90	3.10	0.30	5.30
LT-4(65)	General	1.60	2.50	0.20	4.30
LT-5(65)	General	2.00	3.50	0.30	5.80
L-7	General	2.30	4.30	0.30	6.90
LT-8(65)	General	2.40	4.50	0.30	7.20
L-12	General	2.80	5.40	0.40	8.60
LT-14(65)	General	2.90	5.40	0.40	8.70
L-6	General	3.30	6.50	0.50	10.30

* Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.

Village of Freeburg

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

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.50%	2.10%	0.20%	3.80%
L-3	General	2.00	3.30	0.30	5.60
LT-4(65)	General	1.70	2.60	0.20	4.50
LT-5(65)	General	2.10	3.70	0.30	6.10
L-7	General	2.40	4.50	0.30	7.20
LT-8(65)	General	2.60	4.70	0.30	7.60
L-12	General	2.90	5.70	0.40	9.00
LT-14(65)	General	3.00	5.80	0.40	9.20
L-6	General	3.40	6.80	0.50	10.70

* Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.

Village of Freeburg

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

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.90%	5.30%	0.20%	7.40%
L-3	General	2.40	6.50	0.30	9.20
LT-4(65)	General	2.20	5.80	0.20	8.20
LT-5(65)	General	2.60	6.80	0.30	9.70
L-7	General	2.90	7.60	0.30	10.80
LT-8(65)	General	3.00	7.80	0.30	11.10
L-12	General	3.40	8.70	0.40	12.50
LT-14(65)	General	3.40	8.80	0.40	12.60
L-6	General	3.90	9.80	0.50	14.20

* 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.

Village of Freeburg

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

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	2.00%	5.50%	0.20%	7.70%
L-3	General	2.50	6.70	0.30	9.50
LT-4(65)	General	2.20	6.00	0.20	8.40
LT-5(65)	General	2.70	7.00	0.30	10.00
L-7	General	3.00	7.80	0.30	11.10
LT-8(65)	General	3.10	8.10	0.30	11.50
L-12	General	3.50	9.00	0.40	12.90
LT-14(65)	General	3.60	9.10	0.40	13.10
L-6	General	4.00	10.10	0.50	14.60

* 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.

Village of Freeburg

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

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.90%	2.90%	0.20%	5.00%
L-3	General	2.50	4.30	0.30	7.10
LT-4(65)	General	2.70	4.70	0.20	7.60
LT-5(65)	General	3.00	5.70	0.30	9.00
L-7	General	3.00	5.80	0.30	9.10
LT-8(65)	General	3.40	6.70	0.30	10.40
L-12	General	3.60	7.10	0.40	11.10
LT-14(65)	General	3.80	7.60	0.40	11.80
L-6	General	4.20	8.50	0.50	13.20

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

* Assumes that credit is granted for 100% of service rendered prior to the membership date 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.

Village of Freeburg

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

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	2.00%	3.20%	0.20%	5.40%
L-3	General	2.60	4.60	0.30	7.50
LT-4(65)	General	2.80	5.00	0.20	8.00
LT-5(65)	General	3.20	5.90	0.30	9.40
L-7	General	3.20	6.00	0.30	9.50
LT-8(65)	General	3.60	6.90	0.30	10.80
L-12	General	3.80	7.40	0.40	11.60
LT-14(65)	General	4.00	7.90	0.40	12.30
L-6	General	4.40	8.90	0.50	13.80

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

* Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.

Village of Freeburg

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

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	2.40%	6.30%	0.20%	8.90%
L-3	General	3.00	7.70	0.30	11.00
LT-4(65)	General	3.20	8.10	0.20	11.50
LT-5(65)	General	3.60	9.00	0.30	12.90
L-7	General	3.60	9.10	0.30	13.00
LT-8(65)	General	4.00	10.00	0.30	14.30
L-12	General	4.20	10.40	0.40	15.00
LT-14(65)	General	4.40	10.90	0.40	15.70
L-6	General	4.80	11.80	0.50	17.10

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

* Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.

Village of Freeburg

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

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	2.50%	6.60%	0.20%	9.30%
L-3	General	3.10	8.00	0.30	11.40
LT-4(65)	General	3.30	8.40	0.20	11.90
LT-5(65)	General	3.70	9.30	0.30	13.30
L-7	General	3.70	9.40	0.30	13.40
LT-8(65)	General	4.10	10.30	0.30	14.70
L-12	General	4.30	10.80	0.40	15.50
LT-14(65)	General	4.50	11.30	0.40	16.20
L-6	General	5.00	12.20	0.50	17.70

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.

Village of Freeburg

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
L-1	\$ 1,309
L-3	1,982
LT-4(65)	1,608
LT-5(65)	2,169
L-7	2,581
LT-8(65)	2,693
L-12	3,216
LT-14(65)	3,254
L-6	3,852

3 Year FAS	
Benefit Program	General
L-1	\$ 1,421
L-3	2,094
LT-4(65)	1,683
LT-5(65)	2,281
L-7	2,693
LT-8(65)	2,842
L-12	3,366
LT-14(65)	3,441
L-6	4,002

Non-Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 2,768
L-3	3,441
LT-4(65)	3,067
LT-5(65)	3,628
L-7	4,039
LT-8(65)	4,151
L-12	4,675
LT-14(65)	4,712
L-6	5,311

3 Year FAS	
Benefit Program	General
L-1	\$ 2,880
L-3	3,553
LT-4(65)	3,142
LT-5(65)	3,740
L-7	4,151
LT-8(65)	4,301
L-12	4,825
LT-14(65)	4,899
L-6	5,460

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.

Village of Freeburg

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
L-1	\$ 1,870
L-3	2,655
LT-4(65)	2,842
LT-5(65)	3,366
L-7	3,403
LT-8(65)	3,890
L-12	4,151
LT-14(65)	4,413
L-6	4,937

3 Year FAS	
Benefit Program	General
L-1	\$ 2,020
L-3	2,805
LT-4(65)	2,992
LT-5(65)	3,516
L-7	3,553
LT-8(65)	4,039
L-12	4,338
LT-14(65)	4,600
L-6	5,161

Non-Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 3,329
L-3	4,114
LT-4(65)	4,301
LT-5(65)	4,825
L-7	4,862
LT-8(65)	5,348
L-12	5,610
LT-14(65)	5,872
L-6	6,395

3 Year FAS	
Benefit Program	General
L-1	\$ 3,478
L-3	4,264
LT-4(65)	4,451
LT-5(65)	4,974
L-7	5,012
LT-8(65)	5,498
L-12	5,797
LT-14(65)	6,059
L-6	6,620

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.

Village of Freeburg

Employees and Payroll Included in the Valuation

	General
Number of Employees	1
Annual Payroll	\$ 37,400

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

APPENDIX I

UNFUNDED ACTUARIAL ACCRUED LIABILITY

Unfunded Actuarial Accrued Liability (UAAL)

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

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

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

Village of Freeburg

Regular Retirement Eligibility

Benefit Group	Employee Group	Contributory		Non-Contributory	
		UAAL (5 Year FAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 9,192	\$ 9,656	\$ 12,770	\$ 13,236
L-3	General	12,268	12,865	15,954	16,541
LT-4(65)	General	10,669	11,184	14,236	14,762
LT-5(65)	General	13,375	14,012	17,057	17,694
L-7	General	15,373	16,064	19,157	19,867
LT-8(65)	General	16,098	16,821	19,885	20,624
L-12	General	18,457	19,234	22,334	23,186
LT-14(65)	General	18,827	19,624	22,697	23,570
L-6	General	21,478	22,365	25,525	26,473

Village of Freeburg

Unfunded Actuarial Accrued Liability (UAAL)

Rule of 80 Retirement Eligibility

Benefit Group	Employee Group	Contributory		Non-Contributory	
		UAAL (5 Year FAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 12,308	\$ 12,907	\$ 15,731	\$ 16,335
L-3	General	16,148	16,885	19,661	20,413
LT-4(65)	General	17,521	18,308	20,942	21,721
LT-5(65)	General	20,052	20,939	23,560	24,449
L-7	General	19,981	20,866	23,582	24,502
LT-8(65)	General	22,587	23,572	26,181	27,201
L-12	General	23,820	24,842	27,533	28,578
LT-14(65)	General	25,130	26,188	28,833	29,926
L-6	General	27,593	28,727	31,458	32,668

APPENDIX II

SUMMARY OF FINANCIAL ASSUMPTIONS

Summary of Assumptions Used in Actuarial Valuations

Assumptions Adopted by Board of Trustees After Consulting With Actuary

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

Schedule 1.

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

		Percent of Active Members Separating Within Next Year							
Sample Ages	Years of Service	General Members				Police		Fire	
		Men		Women		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

Sample Ages	Percent Increase in Individual's Pay During Next Year	
	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 Ages	General Members		Retirement Ages	Police	Fire
	Men	Women			
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 Ages	General Members		Retirement Ages	Police	Fire
	Men	Women			
60	10%	10%	55	10%	13%
61	10	10	56	10	13
62	25	15	57	10	13
63	20	15	58	10	13
64	20	15	59	10	13
65	25	25	60	10	15
66	25	25	61	10	15
67	20	25	62	25	20
68	20	25	63	20	20
69	20	20	64	20	20
70	100	100	65	100	100

Schedule 2. (Continued)

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

Retirement Ages	General Members		Police	Fire
	Men	Women		
50	15%	15%	25%	25%
51	15	15	25	20
52	15	15	15	20
53	15	15	15	20
54	15	15	15	20
55	15	15	15	20
56	15	15	15	20
57	15	15	15	25
58	15	15	15	25
59	15	15	15	25
60	15	15	15	35
61	15	15	25	35
62	30	15	30	45
63	30	15	30	45
64	30	20	30	45
65	30	25	100	100
66	30	25		
67	30	25		
68	30	25		
69	30	25		
70	100	100		

APPENDIX III

SUMMARY OF LAGERS PROVISIONS

Missouri Local Government Employees Retirement System

Brief Summary of LAGERS

Benefits and Conditions Evaluated and/or Considered as of February 28, 2018

(Section references are to RSMo)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

APPENDIX IV

BENEFIT ILLUSTRATIONS

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-1 Benefit Program is Years of Credited Service
times: 1.00% of FAS ¹)

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

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.

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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-3 Benefit Program is Years of Credited Service
times: 1.25% of FAS ¹)

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

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.

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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-7 Benefit Program is Years of Credited Service
times: 1.50% of FAS ¹)

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

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.

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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-12 Benefit Program is Years of Credited Service
times: 1.75% of FAS ¹)

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

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.

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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-6 Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$1,050	\$ 889	\$1,939	129%
2,000	1,400	1,032	2,432	122%
2,500	1,750	1,175	2,925	117%
3,000	2,100	1,318	3,418	114%
3,500	2,450	1,462	3,912	112%
4,000	2,800	1,604	4,404	110%
25 Years of Service:				
\$1,500	\$ 750	\$ 889	\$1,639	109%
2,000	1,000	1,032	2,032	102%
2,500	1,250	1,175	2,425	97%
3,000	1,500	1,318	2,818	94%
3,500	1,750	1,462	3,212	92%
4,000	2,000	1,604	3,604	90%
15 Years of Service:				
\$1,500	\$ 450	\$ 889	\$1,339	89%
2,000	600	1,032	1,632	82%
2,500	750	1,175	1,925	77%
3,000	900	1,318	2,218	74%
3,500	1,050	1,462	2,512	72%
4,000	1,200	1,604	2,804	70%

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.

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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-4(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹ to age 65)
1.00% of FAS ¹ at age 65)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 525	\$ 889	\$1,050	\$1,414	70%	94%
2,000	1,400	700	1,032	1,400	1,732	70%	87%
2,500	1,750	875	1,175	1,750	2,050	70%	82%
3,000	2,100	1,050	1,318	2,100	2,368	70%	79%
3,500	2,450	1,225	1,462	2,450	2,687	70%	77%
4,000	2,800	1,400	1,604	2,800	3,004	70%	75%
25 Years of Service:							
\$1,500	\$ 750	\$ 375	\$ 889	\$ 750	\$1,264	50%	84%
2,000	1,000	500	1,032	1,000	1,532	50%	77%
2,500	1,250	625	1,175	1,250	1,800	50%	72%
3,000	1,500	750	1,318	1,500	2,068	50%	69%
3,500	1,750	875	1,462	1,750	2,337	50%	67%
4,000	2,000	1,000	1,604	2,000	2,604	50%	65%
15 Years of Service:							
\$1,500	\$ 450	\$225	\$ 889	\$ 450	\$1,114	30%	74%
2,000	600	300	1,032	600	1,332	30%	67%
2,500	750	375	1,175	750	1,550	30%	62%
3,000	900	450	1,318	900	1,768	30%	59%
3,500	1,050	525	1,462	1,050	1,987	30%	57%
4,000	1,200	600	1,604	1,200	2,204	30%	55%

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.

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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-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 Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 656	\$ 889	\$1,050	\$1,545	70%	103%
2,000	1,400	875	1,032	1,400	1,907	70%	95%
2,500	1,750	1,094	1,175	1,750	2,269	70%	91%
3,000	2,100	1,313	1,318	2,100	2,631	70%	88%
3,500	2,450	1,531	1,462	2,450	2,993	70%	86%
4,000	2,800	1,750	1,604	2,800	3,354	70%	84%
25 Years of Service:							
\$1,500	\$ 750	\$ 469	\$ 889	\$ 750	\$1,358	50%	91%
2,000	1,000	625	1,032	1,000	1,657	50%	83%
2,500	1,250	781	1,175	1,250	1,956	50%	78%
3,000	1,500	938	1,318	1,500	2,256	50%	75%
3,500	1,750	1,094	1,462	1,750	2,556	50%	73%
4,000	2,000	1,250	1,604	2,000	2,854	50%	71%
15 Years of Service:							
\$1,500	\$ 450	\$281	\$ 889	\$ 450	\$1,170	30%	78%
2,000	600	375	1,032	600	1,407	30%	70%
2,500	750	469	1,175	750	1,644	30%	66%
3,000	900	563	1,318	900	1,881	30%	63%
3,500	1,050	656	1,462	1,050	2,118	30%	61%
4,000	1,200	750	1,604	1,200	2,354	30%	59%

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.

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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-8(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹ to age 65)
1.50% of FAS ¹ at age 65)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 788	\$ 889	\$1,050	\$1,677	70%	112%
2,000	1,400	1,050	1,032	1,400	2,082	70%	104%
2,500	1,750	1,313	1,175	1,750	2,488	70%	100%
3,000	2,100	1,575	1,318	2,100	2,893	70%	96%
3,500	2,450	1,838	1,462	2,450	3,300	70%	94%
4,000	2,800	2,100	1,604	2,800	3,704	70%	93%
25 Years of Service:							
\$1,500	\$ 750	\$ 563	\$ 889	\$ 750	\$1,452	50%	97%
2,000	1,000	750	1,032	1,000	1,782	50%	89%
2,500	1,250	938	1,175	1,250	2,113	50%	85%
3,000	1,500	1,125	1,318	1,500	2,443	50%	81%
3,500	1,750	1,313	1,462	1,750	2,775	50%	79%
4,000	2,000	1,500	1,604	2,000	3,104	50%	78%
15 Years of Service:							
\$1,500	\$ 450	\$338	\$ 889	\$ 450	\$1,227	30%	82%
2,000	600	450	1,032	600	1,482	30%	74%
2,500	750	563	1,175	750	1,738	30%	70%
3,000	900	675	1,318	900	1,993	30%	66%
3,500	1,050	788	1,462	1,050	2,250	30%	64%
4,000	1,200	900	1,604	1,200	2,504	30%	63%

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.

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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-14(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹ to age 65)
1.75% of FAS ¹ at age 65)

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

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.

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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

APPENDIX V

AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

Village of Freeburg

March 31, 2019

By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20									
20-24									
25-29									
30-34		1						1	\$ 37,400
35-39									
40-44									
45-49									
50-54									
55-59									
60-64									
65-69									
70 & Over									
Totals		1						1	\$ 37,400

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

Age: 29.9 years.

Benefit Service: 5.3 years.

Annual Pay: \$37,400.

APPENDIX VI

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:

1. **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.



May 10, 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 March 31, 2019 Initial Actuarial Valuation of LAGERS benefits for the employees of

Village of Freeburg

Sincerely,

A handwritten signature in black ink that reads "Mita Drazilov". The signature is written in a cursive, flowing style.

Mita D. Drazilov, ASA, FCA, MAAA

MDD:wp

May 10, 2019

Village of Freeburg
Freeburg, Missouri

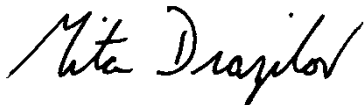
Ladies and Gentlemen:

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 March 31, 2019 Initial Valuation for the Village of Freeburg dated May 10, 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, 2018.

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

Respectfully submitted,



Mita D. Drazilov, ASA, FCA, MAAA

Village of Freeburg - General

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		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	\$ 37,400	3.5%	\$1,309	\$ 9,192	5.3%	\$1,982	\$ 12,268	4.3%	\$1,608	\$ 10,669
2020	38,616	3.5	1,352	9,318	5.3	2,047	12,436	4.3	1,660	10,815
2021	39,871	3.5	1,395	9,435	5.3	2,113	12,593	4.3	1,714	10,951
2022	41,167	3.5	1,441	9,543	5.3	2,182	12,737	4.3	1,770	11,076
2023	42,505	3.5	1,488	9,640	5.3	2,253	12,866	4.3	1,828	11,189
2024	43,886	3.5	1,536	9,725	5.3	2,326	12,979	4.3	1,887	11,287
2025	45,312	3.5	1,586	9,796	5.3	2,402	13,074	4.3	1,948	11,369
2026	46,785	3.5	1,637	9,851	5.3	2,480	13,148	4.3	2,012	11,433
2027	48,306	3.5	1,691	9,889	5.3	2,560	13,199	4.3	2,077	11,477
2028	49,876	3.5	1,746	9,908	5.3	2,643	13,224	4.3	2,145	11,499

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		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	\$ 37,400	5.8%	\$2,169	\$ 13,375	6.9%	\$2,581	\$ 15,373	7.2%	\$2,693	\$ 16,098
2020	38,616	5.8	2,240	13,558	6.9	2,665	15,584	7.2	2,780	16,319
2021	39,871	5.8	2,313	13,729	6.9	2,751	15,781	7.2	2,871	16,525
2022	41,167	5.8	2,388	13,886	6.9	2,841	15,961	7.2	2,964	16,714
2023	42,505	5.8	2,465	14,027	6.9	2,933	16,123	7.2	3,060	16,884
2024	43,886	5.8	2,545	14,150	6.9	3,028	16,265	7.2	3,160	17,032
2025	45,312	5.8	2,628	14,253	6.9	3,127	16,383	7.2	3,262	17,156
2026	46,785	5.8	2,714	14,334	6.9	3,228	16,476	7.2	3,369	17,253
2027	48,306	5.8	2,802	14,389	6.9	3,333	16,540	7.2	3,478	17,320
2028	49,876	5.8	2,893	14,416	6.9	3,441	16,572	7.2	3,591	17,353

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		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	\$ 37,400	8.6%	\$3,216	\$ 18,457	8.7%	\$3,254	\$ 18,827	10.3%	\$3,852	\$ 21,478
2020	38,616	8.6	3,321	18,710	8.7	3,360	19,085	10.3	3,977	21,772
2021	39,871	8.6	3,429	18,946	8.7	3,469	19,326	10.3	4,107	22,047
2022	41,167	8.6	3,540	19,163	8.7	3,582	19,547	10.3	4,240	22,299
2023	42,505	8.6	3,655	19,358	8.7	3,698	19,746	10.3	4,378	22,526
2024	43,886	8.6	3,774	19,528	8.7	3,818	19,919	10.3	4,520	22,724
2025	45,312	8.6	3,897	19,670	8.7	3,942	20,064	10.3	4,667	22,890
2026	46,785	8.6	4,024	19,781	8.7	4,070	20,177	10.3	4,819	23,019
2027	48,306	8.6	4,154	19,857	8.7	4,203	20,255	10.3	4,976	23,108
2028	49,876	8.6	4,289	19,895	8.7	4,339	20,294	10.3	5,137	23,152

Notes regarding the above projections:

- 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.

Village of Freeburg - General

Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		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	\$ 37,400	3.8%	\$1,421	\$ 9,656	5.6%	\$2,094	\$ 12,865	4.5%	\$1,683	\$ 11,184
2020	38,616	3.8	1,467	9,788	5.6	2,162	13,041	4.5	1,738	11,337
2021	39,871	3.8	1,515	9,911	5.6	2,233	13,205	4.5	1,794	11,480
2022	41,167	3.8	1,564	10,024	5.6	2,305	13,356	4.5	1,853	11,611
2023	42,505	3.8	1,615	10,126	5.6	2,380	13,492	4.5	1,913	11,729
2024	43,886	3.8	1,668	10,215	5.6	2,458	13,610	4.5	1,975	11,832
2025	45,312	3.8	1,722	10,289	5.6	2,537	13,709	4.5	2,039	11,918
2026	46,785	3.8	1,778	10,347	5.6	2,620	13,786	4.5	2,105	11,985
2027	48,306	3.8	1,836	10,387	5.6	2,705	13,839	4.5	2,174	12,031
2028	49,876	3.8	1,895	10,407	5.6	2,793	13,865	4.5	2,244	12,054

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		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	\$ 37,400	6.1%	\$2,281	\$ 14,012	7.2%	\$2,693	\$ 16,064	7.6%	\$2,842	\$ 16,821
2020	38,616	6.1	2,356	14,204	7.2	2,780	16,284	7.6	2,935	17,051
2021	39,871	6.1	2,432	14,383	7.2	2,871	16,489	7.6	3,030	17,266
2022	41,167	6.1	2,511	14,547	7.2	2,964	16,678	7.6	3,129	17,463
2023	42,505	6.1	2,593	14,695	7.2	3,060	16,847	7.6	3,230	17,640
2024	43,886	6.1	2,677	14,824	7.2	3,160	16,995	7.6	3,335	17,795
2025	45,312	6.1	2,764	14,932	7.2	3,262	17,119	7.6	3,444	17,925
2026	46,785	6.1	2,854	15,016	7.2	3,369	17,216	7.6	3,556	18,026
2027	48,306	6.1	2,947	15,074	7.2	3,478	17,283	7.6	3,671	18,096
2028	49,876	6.1	3,042	15,103	7.2	3,591	17,316	7.6	3,791	18,131

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		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	\$ 37,400	9.0%	\$3,366	\$ 19,234	9.2%	\$3,441	\$ 19,624	10.7%	\$4,002	\$ 22,365
2020	38,616	9.0	3,475	19,498	9.2	3,553	19,893	10.7	4,132	22,671
2021	39,871	9.0	3,588	19,744	9.2	3,668	20,144	10.7	4,266	22,957
2022	41,167	9.0	3,705	19,970	9.2	3,787	20,374	10.7	4,405	23,219
2023	42,505	9.0	3,825	20,173	9.2	3,910	20,581	10.7	4,548	23,455
2024	43,886	9.0	3,950	20,350	9.2	4,038	20,762	10.7	4,696	23,661
2025	45,312	9.0	4,078	20,498	9.2	4,169	20,913	10.7	4,848	23,833
2026	46,785	9.0	4,211	20,614	9.2	4,304	21,031	10.7	5,006	23,968
2027	48,306	9.0	4,348	20,694	9.2	4,444	21,112	10.7	5,169	24,061
2028	49,876	9.0	4,489	20,734	9.2	4,589	21,152	10.7	5,337	24,107

Notes regarding the above projections:

- 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.

Village of Freeburg - General

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

(0% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2019	\$ 37,400	7.4%	\$2,768	\$ 12,770	9.2%	\$3,441	\$ 15,954	8.2%	\$3,067	\$ 14,236
2020	38,616	7.4	2,858	12,945	9.2	3,553	16,173	8.2	3,167	14,431
2021	39,871	7.4	2,950	13,108	9.2	3,668	16,377	8.2	3,269	14,613
2022	41,167	7.4	3,046	13,258	9.2	3,787	16,564	8.2	3,376	14,780
2023	42,505	7.4	3,145	13,393	9.2	3,910	16,732	8.2	3,485	14,930
2024	43,886	7.4	3,248	13,511	9.2	4,038	16,879	8.2	3,599	15,061
2025	45,312	7.4	3,353	13,609	9.2	4,169	17,002	8.2	3,716	15,171
2026	46,785	7.4	3,462	13,686	9.2	4,304	17,098	8.2	3,836	15,257
2027	48,306	7.4	3,575	13,739	9.2	4,444	17,164	8.2	3,961	15,316
2028	49,876	7.4	3,691	13,765	9.2	4,589	17,197	8.2	4,090	15,345

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2019	\$ 37,400	9.7%	\$3,628	\$ 17,057	10.8%	\$4,039	\$ 19,157	11.1%	\$4,151	\$ 19,885
2020	38,616	9.7	3,746	17,291	10.8	4,171	19,419	11.1	4,286	20,157
2021	39,871	9.7	3,867	17,509	10.8	4,306	19,664	11.1	4,426	20,411
2022	41,167	9.7	3,993	17,709	10.8	4,446	19,889	11.1	4,570	20,644
2023	42,505	9.7	4,123	17,889	10.8	4,591	20,091	11.1	4,718	20,854
2024	43,886	9.7	4,257	18,046	10.8	4,740	20,267	11.1	4,871	21,037
2025	45,312	9.7	4,395	18,177	10.8	4,894	20,415	11.1	5,030	21,190
2026	46,785	9.7	4,538	18,280	10.8	5,053	20,530	11.1	5,193	21,310
2027	48,306	9.7	4,686	18,351	10.8	5,217	20,609	11.1	5,362	21,392
2028	49,876	9.7	4,838	18,386	10.8	5,387	20,648	11.1	5,536	21,433

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2019	\$ 37,400	12.5%	\$4,675	\$ 22,334	12.6%	\$4,712	\$ 22,697	14.2%	\$5,311	\$ 25,525
2020	38,616	12.5	4,827	22,640	12.6	4,866	23,008	14.2	5,483	25,875
2021	39,871	12.5	4,984	22,925	12.6	5,024	23,298	14.2	5,662	26,201
2022	41,167	12.5	5,146	23,187	12.6	5,187	23,564	14.2	5,846	26,501
2023	42,505	12.5	5,313	23,423	12.6	5,356	23,803	14.2	6,036	26,770
2024	43,886	12.5	5,486	23,629	12.6	5,530	24,012	14.2	6,232	27,005
2025	45,312	12.5	5,664	23,801	12.6	5,709	24,187	14.2	6,434	27,202
2026	46,785	12.5	5,848	23,936	12.6	5,895	24,324	14.2	6,643	27,356
2027	48,306	12.5	6,038	24,029	12.6	6,087	24,418	14.2	6,859	27,462
2028	49,876	12.5	6,235	24,075	12.6	6,284	24,465	14.2	7,082	27,514

Notes regarding the above projections:

- 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.

Village of Freeburg - General

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

(0% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 37,400	7.7%	\$2,880	\$ 13,236	9.5%	\$3,553	\$ 16,541	8.4%	\$3,142	\$ 14,762
2020	38,616	7.7	2,973	13,417	9.5	3,669	16,768	8.4	3,244	14,964
2021	39,871	7.7	3,070	13,586	9.5	3,788	16,979	8.4	3,349	15,153
2022	41,167	7.7	3,170	13,741	9.5	3,911	17,173	8.4	3,458	15,326
2023	42,505	7.7	3,273	13,881	9.5	4,038	17,347	8.4	3,570	15,482
2024	43,886	7.7	3,379	14,003	9.5	4,169	17,499	8.4	3,686	15,618
2025	45,312	7.7	3,489	14,105	9.5	4,305	17,626	8.4	3,806	15,732
2026	46,785	7.7	3,602	14,185	9.5	4,445	17,726	8.4	3,930	15,821
2027	48,306	7.7	3,720	14,240	9.5	4,589	17,795	8.4	4,058	15,882
2028	49,876	7.7	3,840	14,267	9.5	4,738	17,829	8.4	4,190	15,912

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 37,400	10.0%	\$3,740	\$ 17,694	11.1%	\$4,151	\$ 19,867	11.5%	\$4,301	\$ 20,624
2020	38,616	10.0	3,862	17,936	11.1	4,286	20,139	11.5	4,441	20,907
2021	39,871	10.0	3,987	18,162	11.1	4,426	20,393	11.5	4,585	21,171
2022	41,167	10.0	4,117	18,370	11.1	4,570	20,626	11.5	4,734	21,413
2023	42,505	10.0	4,251	18,557	11.1	4,718	20,836	11.5	4,888	21,631
2024	43,886	10.0	4,389	18,720	11.1	4,871	21,019	11.5	5,047	21,821
2025	45,312	10.0	4,531	18,856	11.1	5,030	21,172	11.5	5,211	21,980
2026	46,785	10.0	4,679	18,963	11.1	5,193	21,292	11.5	5,380	22,104
2027	48,306	10.0	4,831	19,036	11.1	5,362	21,374	11.5	5,555	22,189
2028	49,876	10.0	4,988	19,072	11.1	5,536	21,415	11.5	5,736	22,231

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2019	\$ 37,400	12.9%	\$4,825	\$ 23,186	13.1%	\$4,899	\$ 23,570	14.6%	\$5,460	\$ 26,473
2020	38,616	12.9	4,981	23,504	13.1	5,059	23,893	14.6	5,638	26,836
2021	39,871	12.9	5,143	23,800	13.1	5,223	24,194	14.6	5,821	27,174
2022	41,167	12.9	5,311	24,072	13.1	5,393	24,471	14.6	6,010	27,485
2023	42,505	12.9	5,483	24,317	13.1	5,568	24,720	14.6	6,206	27,764
2024	43,886	12.9	5,661	24,531	13.1	5,749	24,937	14.6	6,407	28,008
2025	45,312	12.9	5,845	24,710	13.1	5,936	25,119	14.6	6,616	28,212
2026	46,785	12.9	6,035	24,850	13.1	6,129	25,261	14.6	6,831	28,371
2027	48,306	12.9	6,231	24,946	13.1	6,328	25,359	14.6	7,053	28,481
2028	49,876	12.9	6,434	24,994	13.1	6,534	25,407	14.6	7,282	28,535

Notes regarding the above projections:

- 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.

Village of Freeburg - General

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		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	\$ 37,400	5.0%	\$1,870	\$ 12,308	7.1%	\$2,655	\$ 16,148	7.6%	\$2,842	\$ 17,521
2020	38,616	5.0	1,931	12,477	7.1	2,742	16,369	7.6	2,935	17,761
2021	39,871	5.0	1,994	12,634	7.1	2,831	16,575	7.6	3,030	17,985
2022	41,167	5.0	2,058	12,778	7.1	2,923	16,765	7.6	3,129	18,191
2023	42,505	5.0	2,125	12,908	7.1	3,018	16,935	7.6	3,230	18,376
2024	43,886	5.0	2,194	13,021	7.1	3,116	17,084	7.6	3,335	18,537
2025	45,312	5.0	2,266	13,116	7.1	3,217	17,208	7.6	3,444	18,672
2026	46,785	5.0	2,339	13,190	7.1	3,322	17,305	7.6	3,556	18,778
2027	48,306	5.0	2,415	13,241	7.1	3,430	17,372	7.6	3,671	18,851
2028	49,876	5.0	2,494	13,266	7.1	3,541	17,405	7.6	3,791	18,887

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		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	\$ 37,400	9.0%	\$3,366	\$ 20,052	9.1%	\$3,403	\$ 19,981	10.4%	\$3,890	\$ 22,587
2020	38,616	9.0	3,475	20,327	9.1	3,514	20,255	10.4	4,016	22,896
2021	39,871	9.0	3,588	20,583	9.1	3,628	20,510	10.4	4,147	23,185
2022	41,167	9.0	3,705	20,818	9.1	3,746	20,744	10.4	4,281	23,450
2023	42,505	9.0	3,825	21,030	9.1	3,868	20,955	10.4	4,421	23,688
2024	43,886	9.0	3,950	21,215	9.1	3,994	21,139	10.4	4,564	23,896
2025	45,312	9.0	4,078	21,370	9.1	4,123	21,293	10.4	4,712	24,070
2026	46,785	9.0	4,211	21,491	9.1	4,257	21,413	10.4	4,866	24,206
2027	48,306	9.0	4,348	21,574	9.1	4,396	21,496	10.4	5,024	24,300
2028	49,876	9.0	4,489	21,615	9.1	4,539	21,537	10.4	5,187	24,346

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		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	\$ 37,400	11.1%	\$4,151	\$ 23,820	11.8%	\$4,413	\$ 25,130	13.2%	\$4,937	\$ 27,593
2020	38,616	11.1	4,286	24,146	11.8	4,557	25,474	13.2	5,097	27,971
2021	39,871	11.1	4,426	24,450	11.8	4,705	25,795	13.2	5,263	28,324
2022	41,167	11.1	4,570	24,730	11.8	4,858	26,090	13.2	5,434	28,648
2023	42,505	11.1	4,718	24,981	11.8	5,016	26,355	13.2	5,611	28,939
2024	43,886	11.1	4,871	25,200	11.8	5,179	26,586	13.2	5,793	29,193
2025	45,312	11.1	5,030	25,384	11.8	5,347	26,780	13.2	5,981	29,406
2026	46,785	11.1	5,193	25,527	11.8	5,521	26,931	13.2	6,176	29,572
2027	48,306	11.1	5,362	25,626	11.8	5,700	27,035	13.2	6,376	29,686
2028	49,876	11.1	5,536	25,675	11.8	5,885	27,087	13.2	6,584	29,743

Notes regarding the above projections:

- 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.

Village of Freeburg - General

Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		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	\$ 37,400	5.4%	\$2,020	\$ 12,907	7.5%	\$2,805	\$ 16,885	8.0%	\$2,992	\$ 18,308
2020	38,616	5.4	2,085	13,084	7.5	2,896	17,116	8.0	3,089	18,559
2021	39,871	5.4	2,153	13,249	7.5	2,990	17,332	8.0	3,190	18,793
2022	41,167	5.4	2,223	13,400	7.5	3,088	17,530	8.0	3,293	19,008
2023	42,505	5.4	2,295	13,536	7.5	3,188	17,708	8.0	3,400	19,201
2024	43,886	5.4	2,370	13,655	7.5	3,291	17,864	8.0	3,511	19,370
2025	45,312	5.4	2,447	13,754	7.5	3,398	17,994	8.0	3,625	19,511
2026	46,785	5.4	2,526	13,832	7.5	3,509	18,096	8.0	3,743	19,621
2027	48,306	5.4	2,609	13,885	7.5	3,623	18,166	8.0	3,864	19,697
2028	49,876	5.4	2,693	13,912	7.5	3,741	18,201	8.0	3,990	19,735

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		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	\$ 37,400	9.4%	\$3,516	\$ 20,939	9.5%	\$3,553	\$ 20,866	10.8%	\$4,039	\$ 23,572
2020	38,616	9.4	3,630	21,226	9.5	3,669	21,152	10.8	4,171	23,895
2021	39,871	9.4	3,748	21,494	9.5	3,788	21,419	10.8	4,306	24,196
2022	41,167	9.4	3,870	21,740	9.5	3,911	21,664	10.8	4,446	24,473
2023	42,505	9.4	3,995	21,961	9.5	4,038	21,884	10.8	4,591	24,722
2024	43,886	9.4	4,125	22,154	9.5	4,169	22,076	10.8	4,740	24,939
2025	45,312	9.4	4,259	22,315	9.5	4,305	22,237	10.8	4,894	25,121
2026	46,785	9.4	4,398	22,441	9.5	4,445	22,363	10.8	5,053	25,263
2027	48,306	9.4	4,541	22,528	9.5	4,589	22,449	10.8	5,217	25,361
2028	49,876	9.4	4,688	22,571	9.5	4,738	22,492	10.8	5,387	25,409

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		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	\$ 37,400	11.6%	\$4,338	\$ 24,842	12.3%	\$4,600	\$ 26,188	13.8%	\$5,161	\$ 28,727
2020	38,616	11.6	4,479	25,182	12.3	4,750	26,547	13.8	5,329	29,121
2021	39,871	11.6	4,625	25,500	12.3	4,904	26,882	13.8	5,502	29,488
2022	41,167	11.6	4,775	25,792	12.3	5,064	27,189	13.8	5,681	29,825
2023	42,505	11.6	4,931	26,054	12.3	5,228	27,465	13.8	5,866	30,128
2024	43,886	11.6	5,091	26,283	12.3	5,398	27,706	13.8	6,056	30,393
2025	45,312	11.6	5,256	26,474	12.3	5,573	27,908	13.8	6,253	30,614
2026	46,785	11.6	5,427	26,624	12.3	5,755	28,066	13.8	6,456	30,787
2027	48,306	11.6	5,603	26,727	12.3	5,942	28,175	13.8	6,666	30,906
2028	49,876	11.6	5,786	26,778	12.3	6,135	28,229	13.8	6,883	30,965

Notes regarding the above projections:

- 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.

Village of Freeburg - General

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

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 37,400	8.9%	\$3,329	\$ 15,731	11.0%	\$4,114	\$ 19,661	11.5%	\$4,301	\$ 20,942
2020	38,616	8.9	3,437	15,947	11.0	4,248	19,930	11.5	4,441	21,229
2021	39,871	8.9	3,549	16,148	11.0	4,386	20,181	11.5	4,585	21,497
2022	41,167	8.9	3,664	16,333	11.0	4,528	20,412	11.5	4,734	21,743
2023	42,505	8.9	3,783	16,499	11.0	4,676	20,619	11.5	4,888	21,964
2024	43,886	8.9	3,906	16,644	11.0	4,827	20,800	11.5	5,047	22,157
2025	45,312	8.9	4,033	16,765	11.0	4,984	20,952	11.5	5,211	22,318
2026	46,785	8.9	4,164	16,860	11.0	5,146	21,070	11.5	5,380	22,444
2027	48,306	8.9	4,299	16,925	11.0	5,314	21,151	11.5	5,555	22,531
2028	49,876	8.9	4,439	16,957	11.0	5,486	21,191	11.5	5,736	22,574

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 37,400	12.9%	\$4,825	\$ 23,560	13.0%	\$4,862	\$ 23,582	14.3%	\$5,348	\$ 26,181
2020	38,616	12.9	4,981	23,883	13.0	5,020	23,905	14.3	5,522	26,540
2021	39,871	12.9	5,143	24,184	13.0	5,183	24,206	14.3	5,702	26,875
2022	41,167	12.9	5,311	24,460	13.0	5,352	24,483	14.3	5,887	27,182
2023	42,505	12.9	5,483	24,709	13.0	5,526	24,732	14.3	6,078	27,458
2024	43,886	12.9	5,661	24,926	13.0	5,705	24,949	14.3	6,276	27,699
2025	45,312	12.9	5,845	25,108	13.0	5,891	25,131	14.3	6,480	27,901
2026	46,785	12.9	6,035	25,250	13.0	6,082	25,273	14.3	6,690	28,059
2027	48,306	12.9	6,231	25,348	13.0	6,280	25,371	14.3	6,908	28,168
2028	49,876	12.9	6,434	25,396	13.0	6,484	25,419	14.3	7,132	28,222

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 37,400	15.0%	\$5,610	\$ 27,533	15.7%	\$5,872	\$ 28,833	17.1%	\$6,395	\$ 31,458
2020	38,616	15.0	5,792	27,910	15.7	6,063	29,228	17.1	6,603	31,889
2021	39,871	15.0	5,981	28,262	15.7	6,260	29,597	17.1	6,818	32,291
2022	41,167	15.0	6,175	28,585	15.7	6,463	29,935	17.1	7,040	32,660
2023	42,505	15.0	6,376	28,875	15.7	6,673	30,239	17.1	7,268	32,992
2024	43,886	15.0	6,583	29,129	15.7	6,890	30,505	17.1	7,505	33,282
2025	45,312	15.0	6,797	29,341	15.7	7,114	30,727	17.1	7,748	33,524
2026	46,785	15.0	7,018	29,507	15.7	7,345	30,901	17.1	8,000	33,713
2027	48,306	15.0	7,246	29,621	15.7	7,584	31,020	17.1	8,260	33,843
2028	49,876	15.0	7,481	29,678	15.7	7,831	31,079	17.1	8,529	33,908

Notes regarding the above projections:

- 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.

Village of Freeburg - General

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

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 37,400	9.3%	\$3,478	\$ 16,335	11.4%	\$4,264	\$ 20,413	11.9%	\$4,451	\$ 21,721
2020	38,616	9.3	3,591	16,559	11.4	4,402	20,693	11.9	4,595	22,019
2021	39,871	9.3	3,708	16,768	11.4	4,545	20,954	11.9	4,745	22,297
2022	41,167	9.3	3,829	16,960	11.4	4,693	21,194	11.9	4,899	22,552
2023	42,505	9.3	3,953	17,132	11.4	4,846	21,409	11.9	5,058	22,781
2024	43,886	9.3	4,081	17,282	11.4	5,003	21,597	11.9	5,222	22,981
2025	45,312	9.3	4,214	17,408	11.4	5,166	21,754	11.9	5,392	23,148
2026	46,785	9.3	4,351	17,506	11.4	5,333	21,877	11.9	5,567	23,279
2027	48,306	9.3	4,492	17,574	11.4	5,507	21,962	11.9	5,748	23,369
2028	49,876	9.3	4,638	17,608	11.4	5,686	22,004	11.9	5,935	23,414

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 37,400	13.3%	\$4,974	\$ 24,449	13.4%	\$5,012	\$ 24,502	14.7%	\$5,498	\$ 27,201
2020	38,616	13.3	5,136	24,784	13.4	5,175	24,838	14.7	5,677	27,574
2021	39,871	13.3	5,303	25,097	13.4	5,343	25,151	14.7	5,861	27,922
2022	41,167	13.3	5,475	25,384	13.4	5,516	25,439	14.7	6,052	28,241
2023	42,505	13.3	5,653	25,642	13.4	5,696	25,697	14.7	6,248	28,528
2024	43,886	13.3	5,837	25,867	13.4	5,881	25,923	14.7	6,451	28,779
2025	45,312	13.3	6,026	26,055	13.4	6,072	26,112	14.7	6,661	28,989
2026	46,785	13.3	6,222	26,202	13.4	6,269	26,260	14.7	6,877	29,153
2027	48,306	13.3	6,425	26,303	13.4	6,473	26,362	14.7	7,101	29,266
2028	49,876	13.3	6,634	26,353	13.4	6,683	26,412	14.7	7,332	29,322

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 37,400	15.5%	\$5,797	\$ 28,578	16.2%	\$6,059	\$ 29,926	17.7%	\$6,620	\$ 32,668
2020	38,616	15.5	5,985	28,970	16.2	6,256	30,336	17.7	6,835	33,116
2021	39,871	15.5	6,180	29,335	16.2	6,459	30,719	17.7	7,057	33,534
2022	41,167	15.5	6,381	29,670	16.2	6,669	31,070	17.7	7,287	33,917
2023	42,505	15.5	6,588	29,971	16.2	6,886	31,386	17.7	7,523	34,262
2024	43,886	15.5	6,802	30,234	16.2	7,110	31,662	17.7	7,768	34,563
2025	45,312	15.5	7,023	30,454	16.2	7,341	31,893	17.7	8,020	34,815
2026	46,785	15.5	7,252	30,626	16.2	7,579	32,073	17.7	8,281	35,012
2027	48,306	15.5	7,487	30,744	16.2	7,826	32,197	17.7	8,550	35,147
2028	49,876	15.5	7,731	30,803	16.2	8,080	32,258	17.7	8,828	35,214

Notes regarding the above projections:

- 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.
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