



The Initial Valuation For

Clay County Senior Services Fund

as of September 30, 2019



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December 13, 2019

Clay County Senior Services Fund
Gladstone, Missouri

Ladies and Gentlemen:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The signing actuary is independent of the plan sponsor.

Respectfully submitted,



Mita D. Drazilov, ASA, FCA, MAAA



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.

Clay County Senior Services Fund

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	7.40%	4.60%	0.20%	12.20%
L-3	General	9.30	6.30	0.30	15.90
LT-4(65)	General	7.80	5.40	0.20	13.40
LT-5(65)	General	9.60	6.90	0.30	16.80
L-7	General	11.10	8.00	0.30	19.40
LT-8(65)	General	11.40	8.40	0.30	20.10
L-12	General	13.00	9.70	0.40	23.10
LT-14(65)	General	13.20	9.90	0.40	23.50
L-6	General	14.90	11.50	0.50	26.90

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

Clay County Senior Services Fund

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	7.60%	4.80%	0.20%	12.60%
L-3	General	9.60	6.60	0.30	16.50
LT-4(65)	General	8.10	5.70	0.20	14.00
LT-5(65)	General	9.90	7.20	0.30	17.40
L-7	General	11.50	8.40	0.30	20.20
LT-8(65)	General	11.80	8.80	0.30	20.90
L-12	General	13.50	10.10	0.40	24.00
LT-14(65)	General	13.60	10.40	0.40	24.40
L-6	General	15.40	11.90	0.50	27.80

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

Clay County Senior Services Fund

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	7.50%	7.90%	0.20%	15.60%
L-3	General	9.40	9.70	0.30	19.40
LT-4(65)	General	8.00	8.70	0.20	16.90
LT-5(65)	General	9.70	10.30	0.30	20.30
L-7	General	11.30	11.40	0.30	23.00
LT-8(65)	General	11.50	11.80	0.30	23.60
L-12	General	13.20	13.10	0.40	26.70
LT-14(65)	General	13.30	13.40	0.40	27.10
L-6	General	15.00	14.90	0.50	30.40

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

Clay County Senior Services Fund

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	7.80%	8.10%	0.20%	16.10%
L-3	General	9.70	9.90	0.30	19.90
LT-4(65)	General	8.30	9.00	0.20	17.50
LT-5(65)	General	10.10	10.60	0.30	21.00
L-7	General	11.70	11.80	0.30	23.80
LT-8(65)	General	11.90	12.20	0.30	24.40
L-12	General	13.60	13.60	0.40	27.60
LT-14(65)	General	13.70	13.80	0.40	27.90
L-6	General	15.50	15.40	0.50	31.40

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

Clay County Senior Services Fund

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	7.40%	4.60%	0.20%	12.20%
L-3	General	9.30	6.30	0.30	15.90
LT-4(65)	General	7.80	5.40	0.20	13.40
LT-5(65)	General	9.60	6.90	0.30	16.80
L-7	General	11.10	8.00	0.30	19.40
LT-8(65)	General	11.40	8.40	0.30	20.10
L-12	General	13.00	9.70	0.40	23.10
LT-14(65)	General	13.20	9.90	0.40	23.50
L-6	General	14.90	11.50	0.50	26.90

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

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

Clay County Senior Services Fund

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	7.60%	4.80%	0.20%	12.60%
L-3	General	9.60	6.60	0.30	16.50
LT-4(65)	General	8.10	5.70	0.20	14.00
LT-5(65)	General	9.90	7.20	0.30	17.40
L-7	General	11.50	8.40	0.30	20.20
LT-8(65)	General	11.80	8.80	0.30	20.90
L-12	General	13.50	10.10	0.40	24.00
LT-14(65)	General	13.60	10.40	0.40	24.40
L-6	General	15.40	11.90	0.50	27.80

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Clay County Senior Services Fund

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	7.50%	7.90%	0.20%	15.60%
L-3	General	9.40	9.70	0.30	19.40
LT-4(65)	General	8.00	8.70	0.20	16.90
LT-5(65)	General	9.70	10.30	0.30	20.30
L-7	General	11.30	11.40	0.30	23.00
LT-8(65)	General	11.50	11.80	0.30	23.60
L-12	General	13.20	13.10	0.40	26.70
LT-14(65)	General	13.30	13.40	0.40	27.10
L-6	General	15.00	14.90	0.50	30.40

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Clay County Senior Services Fund

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	7.80%	8.10%	0.20%	16.10%
L-3	General	9.70	9.90	0.30	19.90
LT-4(65)	General	8.30	9.00	0.20	17.50
LT-5(65)	General	10.10	10.60	0.30	21.00
L-7	General	11.70	11.80	0.30	23.80
LT-8(65)	General	11.90	12.20	0.30	24.40
L-12	General	13.60	13.60	0.40	27.60
LT-14(65)	General	13.70	13.80	0.40	27.90
L-6	General	15.50	15.40	0.50	31.40

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Clay County Senior Services Fund

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	\$ 25,617
L-3	33,386
LT-4(65)	28,136
LT-5(65)	35,275
L-7	40,735
LT-8(65)	42,204
L-12	48,504
LT-14(65)	49,343
L-6	56,482

3 Year FAS	
Benefit Program	General
L-1	\$ 26,456
L-3	34,645
LT-4(65)	29,396
LT-5(65)	36,535
L-7	42,414
LT-8(65)	43,884
L-12	50,393
LT-14(65)	51,233
L-6	58,372

Non-Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 32,756
L-3	40,735
LT-4(65)	35,485
LT-5(65)	42,624
L-7	48,294
LT-8(65)	49,553
L-12	56,063
LT-14(65)	56,902
L-6	63,831

3 Year FAS	
Benefit Program	General
L-1	\$ 33,805
L-3	41,784
LT-4(65)	36,745
LT-5(65)	44,094
L-7	49,973
LT-8(65)	51,233
L-12	57,952
LT-14(65)	58,582
L-6	65,931

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.

Clay County Senior Services Fund

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	\$ 25,617
L-3	33,386
LT-4(65)	28,136
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LT-5(65)	36,535
L-7	42,414
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L-12	50,393
LT-14(65)	51,233
L-6	58,372

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5 Year FAS	
Benefit Program	General
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L-7	48,294
LT-8(65)	49,553
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Benefit Program	General
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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.

Clay County Senior Services Fund

Employees and Payroll Included in the Valuation

	General
Number of Employees	4
Annual Payroll	\$ 209,972

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:

Clay County Senior Services Fund

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	\$ 272,224	\$ 281,579	\$ 277,994	\$ 287,285
L-3	General	342,182	353,871	347,498	359,109
LT-4(65)	General	289,761	299,712	295,411	305,302
LT-5(65)	General	355,329	367,471	360,570	372,624
L-7	General	412,139	426,185	416,994	430,928
LT-8(65)	General	420,897	435,251	425,701	439,939
L-12	General	482,092	498,452	486,509	502,751
LT-14(65)	General	486,473	502,986	490,861	507,256
L-6	General	552,047	570,758	555,985	574,573

Clay County Senior Services Fund

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	\$ 272,224	\$ 281,579	\$ 277,994	\$ 287,285
L-3	General	342,182	353,871	347,498	359,109
LT-4(65)	General	289,761	299,712	295,411	305,302
LT-5(65)	General	355,329	367,471	360,570	372,624
L-7	General	412,139	426,185	416,994	430,928
LT-8(65)	General	420,897	435,251	425,701	439,939
L-12	General	482,092	498,452	486,509	502,751
LT-14(65)	General	486,473	502,986	490,861	507,256
L-6	General	552,047	570,758	555,985	574,573

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
		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	General Members		Retirement		
Ages	Men	Women	Ages	Police	Fire
55	3.00%	3.00%	50	2.50%	2.50%
56	3.00%	3.00%	51	2.50%	2.50%
57	3.00%	3.00%	52	2.50%	2.50%
58	3.00%	3.00%	53	2.50%	2.50%
59	3.00%	3.00%	54	2.50%	2.50%

Normal Retirement

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

Schedule 2. (Continued)

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

Retirement 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, 2019

(Section references are to RSMo)

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

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

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

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

L-1 Benefit Program:	1.00% for life
L-3 Benefit Program:	1.25% for life
L-7 Benefit Program:	1.50% for life
L-12 Benefit Program:	1.75% for life
L-6 Benefit Program:	2.00% for life
LT-4(65) Benefit Program:	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 $\frac{1}{2}$ 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		Estimated	Estimated	
Average	LAGERS	Social	Monthly Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service:				
\$1,500	\$ 525	\$ 930	\$1,455	97%
2,000	700	1,076	1,776	89%
2,500	875	1,223	2,098	84%
3,000	1,050	1,370	2,420	81%
3,500	1,225	1,516	2,741	78%
4,000	1,400	1,662	3,062	77%
25 Years of Service:				
\$1,500	\$ 375	\$ 930	\$1,305	87%
2,000	500	1,076	1,576	79%
2,500	625	1,223	1,848	74%
3,000	750	1,370	2,120	71%
3,500	875	1,516	2,391	68%
4,000	1,000	1,662	2,662	67%
15 Years of Service:				
\$1,500	\$225	\$ 930	\$1,155	77%
2,000	300	1,076	1,376	69%
2,500	375	1,223	1,598	64%
3,000	450	1,370	1,820	61%
3,500	525	1,516	2,041	58%
4,000	600	1,662	2,262	57%

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 2019 - 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		Estimated	Estimated	
Average	LAGERS	Social	Monthly Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS

35 Years of Service:

\$1,500	\$ 656	\$ 930	\$1,586	106%
2,000	875	1,076	1,951	98%
2,500	1,094	1,223	2,317	93%
3,000	1,313	1,370	2,683	89%
3,500	1,531	1,516	3,047	87%
4,000	1,750	1,662	3,412	85%

25 Years of Service:

\$1,500	\$ 469	\$ 930	\$1,399	93%
2,000	625	1,076	1,701	85%
2,500	781	1,223	2,004	80%
3,000	938	1,370	2,308	77%
3,500	1,094	1,516	2,610	75%
4,000	1,250	1,662	2,912	73%

15 Years of Service:

\$1,500	\$281	\$ 930	\$1,211	81%
2,000	375	1,076	1,451	73%
2,500	469	1,223	1,692	68%
3,000	563	1,370	1,933	64%
3,500	656	1,516	2,172	62%
4,000	750	1,662	2,412	60%

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

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

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

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 2019 - 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	\$ 930	\$1,849	123%
2,000	1,225	1,076	2,301	115%
2,500	1,531	1,223	2,754	110%
3,000	1,838	1,370	3,208	107%
3,500	2,144	1,516	3,660	105%
4,000	2,450	1,662	4,112	103%
25 Years of Service:				
\$1,500	\$ 656	\$ 930	\$1,586	106%
2,000	875	1,076	1,951	98%
2,500	1,094	1,223	2,317	93%
3,000	1,313	1,370	2,683	89%
3,500	1,531	1,516	3,047	87%
4,000	1,750	1,662	3,412	85%
15 Years of Service:				
\$1,500	\$ 394	\$ 930	\$1,324	88%
2,000	525	1,076	1,601	80%
2,500	656	1,223	1,879	75%
3,000	788	1,370	2,158	72%
3,500	919	1,516	2,435	70%
4,000	1,050	1,662	2,712	68%

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 2019 - 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		Estimated	Estimated	
Average	LAGERS	Social	Monthly Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service:				
\$1,500	\$1,050	\$ 930	\$1,980	132%
2,000	1,400	1,076	2,476	124%
2,500	1,750	1,223	2,973	119%
3,000	2,100	1,370	3,470	116%
3,500	2,450	1,516	3,966	113%
4,000	2,800	1,662	4,462	112%
25 Years of Service:				
\$1,500	\$ 750	\$ 930	\$1,680	112%
2,000	1,000	1,076	2,076	104%
2,500	1,250	1,223	2,473	99%
3,000	1,500	1,370	2,870	96%
3,500	1,750	1,516	3,266	93%
4,000	2,000	1,662	3,662	92%
15 Years of Service:				
\$1,500	\$ 450	\$ 930	\$1,380	92%
2,000	600	1,076	1,676	84%
2,500	750	1,223	1,973	79%
3,000	900	1,370	2,270	76%
3,500	1,050	1,516	2,566	73%
4,000	1,200	1,662	2,862	72%

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

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

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	\$ 930	\$1,050	\$1,455	70%	97%
2,000	1,400	700	1,076	1,400	1,776	70%	89%
2,500	1,750	875	1,223	1,750	2,098	70%	84%
3,000	2,100	1,050	1,370	2,100	2,420	70%	81%
3,500	2,450	1,225	1,516	2,450	2,741	70%	78%
4,000	2,800	1,400	1,662	2,800	3,062	70%	77%
25 Years of Service:							
\$1,500	\$ 750	\$ 375	\$ 930	\$ 750	\$1,305	50%	87%
2,000	1,000	500	1,076	1,000	1,576	50%	79%
2,500	1,250	625	1,223	1,250	1,848	50%	74%
3,000	1,500	750	1,370	1,500	2,120	50%	71%
3,500	1,750	875	1,516	1,750	2,391	50%	68%
4,000	2,000	1,000	1,662	2,000	2,662	50%	67%
15 Years of Service:							
\$1,500	\$ 450	\$225	\$ 930	\$ 450	\$1,155	30%	77%
2,000	600	300	1,076	600	1,376	30%	69%
2,500	750	375	1,223	750	1,598	30%	64%
3,000	900	450	1,370	900	1,820	30%	61%
3,500	1,050	525	1,516	1,050	2,041	30%	58%
4,000	1,200	600	1,662	1,200	2,262	30%	57%

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

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

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	\$ 930	\$1,050	\$1,586	70%	106%
2,000	1,400	875	1,076	1,400	1,951	70%	98%
2,500	1,750	1,094	1,223	1,750	2,317	70%	93%
3,000	2,100	1,313	1,370	2,100	2,683	70%	89%
3,500	2,450	1,531	1,516	2,450	3,047	70%	87%
4,000	2,800	1,750	1,662	2,800	3,412	70%	85%
25 Years of Service:							
\$1,500	\$ 750	\$ 469	\$ 930	\$ 750	\$1,399	50%	93%
2,000	1,000	625	1,076	1,000	1,701	50%	85%
2,500	1,250	781	1,223	1,250	2,004	50%	80%
3,000	1,500	938	1,370	1,500	2,308	50%	77%
3,500	1,750	1,094	1,516	1,750	2,610	50%	75%
4,000	2,000	1,250	1,662	2,000	2,912	50%	73%
15 Years of Service:							
\$1,500	\$ 450	\$281	\$ 930	\$ 450	\$1,211	30%	81%
2,000	600	375	1,076	600	1,451	30%	73%
2,500	750	469	1,223	750	1,692	30%	68%
3,000	900	563	1,370	900	1,933	30%	64%
3,500	1,050	656	1,516	1,050	2,172	30%	62%
4,000	1,200	750	1,662	1,200	2,412	30%	60%

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

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

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

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

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

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	\$ 930	\$1,050	\$1,849	70%	123%
2,000	1,400	1,225	1,076	1,400	2,301	70%	115%
2,500	1,750	1,531	1,223	1,750	2,754	70%	110%
3,000	2,100	1,838	1,370	2,100	3,208	70%	107%
3,500	2,450	2,144	1,516	2,450	3,660	70%	105%
4,000	2,800	2,450	1,662	2,800	4,112	70%	103%
25 Years of Service:							
\$1,500	\$ 750	\$ 656	\$ 930	\$ 750	\$1,586	50%	106%
2,000	1,000	875	1,076	1,000	1,951	50%	98%
2,500	1,250	1,094	1,223	1,250	2,317	50%	93%
3,000	1,500	1,313	1,370	1,500	2,683	50%	89%
3,500	1,750	1,531	1,516	1,750	3,047	50%	87%
4,000	2,000	1,750	1,662	2,000	3,412	50%	85%
15 Years of Service:							
\$1,500	\$ 450	\$ 394	\$ 930	\$ 450	\$1,324	30%	88%
2,000	600	525	1,076	600	1,601	30%	80%
2,500	750	656	1,223	750	1,879	30%	75%
3,000	900	788	1,370	900	2,158	30%	72%
3,500	1,050	919	1,516	1,050	2,435	30%	70%
4,000	1,200	1,050	1,662	1,200	2,712	30%	68%

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

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

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

APPENDIX V

AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

Clay County Senior Services Fund

September 30, 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									
35-39									
40-44									
45-49									
50-54	1							1	\$ 44,558
55-59			1					1	\$ 73,532
60-64			2					2	\$ 91,882
65-69									
70 & Over									
Totals	1		3					4	\$ 209,972

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

Age: 58.7 years.

Benefit Service: 10.7 years.

Annual Pay: \$52,493.

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.



December 13, 2019 E-mail

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

Dear Bob:

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

Clay County Senior Services Fund

Sincerely,

A handwritten signature in black ink that reads "Mita Drazilov".

Mita D. Drazilov, ASA, FCA, MAAA

MDD:wp

December 13, 2019

Clay County Senior Services Fund
Gladstone, Missouri

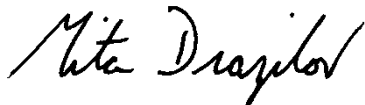
Ladies and Gentlemen:

This report contains projections needed to comply with Missouri state disclosure requirements (Section 105.660 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision. This report is intended to be a supplement to the September 30, 2019 Initial Valuation for the Clay County Senior Services Fund dated December 13, 2019.

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

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

Respectfully submitted,



Mita D. Drazilov, ASA, FCA, MAAA

Clay County Senior Services Fund - 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	\$ 209,972	12.2%	\$25,617	\$ 272,224	15.9%	\$33,386	\$ 342,182	13.4%	\$28,136	\$ 289,761
2020	216,796	12.2	26,449	275,953	15.9	34,471	346,870	13.4	29,051	293,731
2021	223,842	12.2	27,309	279,433	15.9	35,591	351,244	13.4	29,995	297,435
2022	231,117	12.2	28,196	282,628	15.9	36,748	355,260	13.4	30,970	300,836
2023	238,628	12.2	29,113	285,500	15.9	37,942	358,870	13.4	31,976	303,893
2024	246,383	12.2	30,059	288,007	15.9	39,175	362,022	13.4	33,015	306,562
2025	254,390	12.2	31,036	290,105	15.9	40,448	364,659	13.4	34,088	308,795
2026	262,658	12.2	32,044	291,745	15.9	41,763	366,720	13.4	35,196	310,540
2027	271,194	12.2	33,086	292,873	15.9	43,120	368,138	13.4	36,340	311,741
2028	280,008	12.2	34,161	293,432	15.9	44,521	368,841	13.4	37,521	312,336

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	\$ 209,972	16.8%	\$35,275	\$ 355,329	19.4%	\$40,735	\$ 412,139	20.1%	\$42,204	\$ 420,897
2020	216,796	16.8	36,422	360,197	19.4	42,058	417,785	20.1	43,576	426,663
2021	223,842	16.8	37,605	364,739	19.4	43,425	423,053	20.1	44,992	432,043
2022	231,117	16.8	38,828	368,909	19.4	44,837	427,890	20.1	46,455	436,983
2023	238,628	16.8	40,090	372,657	19.4	46,294	432,238	20.1	47,964	441,423
2024	246,383	16.8	41,392	375,930	19.4	47,798	436,034	20.1	49,523	445,300
2025	254,390	16.8	42,738	378,668	19.4	49,352	439,210	20.1	51,132	448,544
2026	262,658	16.8	44,127	380,808	19.4	50,956	441,692	20.1	52,794	451,079
2027	271,194	16.8	45,561	382,281	19.4	52,612	443,400	20.1	54,510	452,823
2028	280,008	16.8	47,041	383,011	19.4	54,322	444,247	20.1	56,282	453,688

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	\$ 209,972	23.1%	\$48,504	\$ 482,092	23.5%	\$49,343	\$ 486,473	26.9%	\$56,482	\$ 552,047
2020	216,796	23.1	50,080	488,697	23.5	50,947	493,138	26.9	58,318	559,610
2021	223,842	23.1	51,708	494,859	23.5	52,603	499,356	26.9	60,213	566,666
2022	231,117	23.1	53,388	500,517	23.5	54,312	505,065	26.9	62,170	573,145
2023	238,628	23.1	55,123	505,603	23.5	56,078	510,197	26.9	64,191	578,969
2024	246,383	23.1	56,914	510,043	23.5	57,900	514,678	26.9	66,277	584,054
2025	254,390	23.1	58,764	513,758	23.5	59,782	518,427	26.9	68,431	588,308
2026	262,658	23.1	60,674	516,662	23.5	61,725	521,357	26.9	70,655	591,633
2027	271,194	23.1	62,646	518,660	23.5	63,731	523,373	26.9	72,951	593,921
2028	280,008	23.1	64,682	519,650	23.5	65,802	524,372	26.9	75,322	595,055

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.

Clay County Senior Services Fund - 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 %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 209,972	12.6%	\$26,456	\$ 281,579	16.5%	\$34,645	\$ 353,871	14.0%	\$29,396	\$ 299,712
2020	216,796	12.6	27,316	285,437	16.5	35,771	358,719	14.0	30,351	303,818
2021	223,842	12.6	28,204	289,036	16.5	36,934	363,242	14.0	31,338	307,649
2022	231,117	12.6	29,121	292,341	16.5	38,134	367,395	14.0	32,356	311,166
2023	238,628	12.6	30,067	295,311	16.5	39,374	371,128	14.0	33,408	314,328
2024	246,383	12.6	31,044	297,905	16.5	40,653	374,387	14.0	34,494	317,089
2025	254,390	12.6	32,053	300,075	16.5	41,974	377,114	14.0	35,615	319,399
2026	262,658	12.6	33,095	301,771	16.5	43,339	379,245	14.0	36,772	321,204
2027	271,194	12.6	34,170	302,938	16.5	44,747	380,712	14.0	37,967	322,446
2028	280,008	12.6	35,281	303,516	16.5	46,201	381,439	14.0	39,201	323,062

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	\$ 209,972	17.4%	\$36,535	\$ 367,471	20.2%	\$42,414	\$ 426,185	20.9%	\$43,884	\$ 435,251
2020	216,796	17.4	37,723	372,505	20.2	43,793	432,024	20.9	45,310	441,214
2021	223,842	17.4	38,949	377,202	20.2	45,216	437,472	20.9	46,783	446,777
2022	231,117	17.4	40,214	381,515	20.2	46,686	442,474	20.9	48,303	451,885
2023	238,628	17.4	41,521	385,392	20.2	48,203	446,970	20.9	49,873	456,477
2024	246,383	17.4	42,871	388,777	20.2	49,769	450,895	20.9	51,494	460,486
2025	254,390	17.4	44,264	391,609	20.2	51,387	454,179	20.9	53,168	463,840
2026	262,658	17.4	45,702	393,822	20.2	53,057	456,746	20.9	54,896	466,461
2027	271,194	17.4	47,188	395,345	20.2	54,781	458,512	20.9	56,680	468,265
2028	280,008	17.4	48,721	396,100	20.2	56,562	459,388	20.9	58,522	469,159

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	\$ 209,972	24.0%	\$50,393	\$ 498,452	24.4%	\$51,233	\$ 502,986	27.8%	\$58,372	\$ 570,758
2020	216,796	24.0	52,031	505,281	24.4	52,898	509,877	27.8	60,269	578,577
2021	223,842	24.0	53,722	511,652	24.4	54,617	516,306	27.8	62,228	585,872
2022	231,117	24.0	55,468	517,502	24.4	56,393	522,209	27.8	64,251	592,570
2023	238,628	24.0	57,271	522,760	24.4	58,225	527,515	27.8	66,339	598,591
2024	246,383	24.0	59,132	527,351	24.4	60,117	532,148	27.8	68,494	603,848
2025	254,390	24.0	61,054	531,192	24.4	62,071	536,024	27.8	70,720	608,247
2026	262,658	24.0	63,038	534,194	24.4	64,089	539,053	27.8	73,019	611,685
2027	271,194	24.0	65,087	536,260	24.4	66,171	541,138	27.8	75,392	614,050
2028	280,008	24.0	67,202	537,284	24.4	68,322	542,171	27.8	77,842	615,223

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.

Clay County Senior Services Fund - 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	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	\$ 209,972	15.6%	\$32,756	\$ 277,994	19.4%	\$40,735	\$ 347,498	16.9%	\$35,485	\$ 295,411
2020	216,796	15.6	33,820	281,802	19.4	42,058	352,259	16.9	36,639	299,458
2021	223,842	15.6	34,919	285,355	19.4	43,425	356,701	16.9	37,829	303,234
2022	231,117	15.6	36,054	288,617	19.4	44,837	360,779	16.9	39,059	306,701
2023	238,628	15.6	37,226	291,550	19.4	46,294	364,445	16.9	40,328	309,817
2024	246,383	15.6	38,436	294,110	19.4	47,798	367,646	16.9	41,639	312,538
2025	254,390	15.6	39,685	296,252	19.4	49,352	370,324	16.9	42,992	314,815
2026	262,658	15.6	40,975	297,926	19.4	50,956	372,417	16.9	44,389	316,594
2027	271,194	15.6	42,306	299,078	19.4	52,612	373,857	16.9	45,832	317,818
2028	280,008	15.6	43,681	299,649	19.4	54,322	374,571	16.9	47,321	318,425

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	\$ 209,972	20.3%	\$42,624	\$ 360,570	23.0%	\$48,294	\$ 416,994	23.6%	\$49,553	\$ 425,701
2020	216,796	20.3	44,010	365,510	23.0	49,863	422,707	23.6	51,164	431,533
2021	223,842	20.3	45,440	370,119	23.0	51,484	428,037	23.6	52,827	436,974
2022	231,117	20.3	46,917	374,351	23.0	53,157	432,931	23.6	54,544	441,970
2023	238,628	20.3	48,441	378,155	23.0	54,884	437,330	23.6	56,316	446,461
2024	246,383	20.3	50,016	381,476	23.0	56,668	441,171	23.6	58,146	450,382
2025	254,390	20.3	51,641	384,255	23.0	58,510	444,385	23.6	60,036	453,663
2026	262,658	20.3	53,320	386,427	23.0	60,411	446,897	23.6	61,987	456,227
2027	271,194	20.3	55,052	387,921	23.0	62,375	448,625	23.6	64,002	457,991
2028	280,008	20.3	56,842	388,662	23.0	64,402	449,482	23.6	66,082	458,866

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	\$ 209,972	26.7%	\$56,063	\$ 486,509	27.1%	\$56,902	\$ 490,861	30.4%	\$63,831	\$ 555,985
2020	216,796	26.7	57,885	493,174	27.1	58,752	497,586	30.4	65,906	563,602
2021	223,842	26.7	59,766	499,393	27.1	60,661	503,860	30.4	68,048	570,709
2022	231,117	26.7	61,708	505,103	27.1	62,633	509,621	30.4	70,260	577,234
2023	238,628	26.7	63,714	510,235	27.1	64,668	514,799	30.4	72,543	583,099
2024	246,383	26.7	65,784	514,716	27.1	66,770	519,320	30.4	74,900	588,220
2025	254,390	26.7	67,922	518,465	27.1	68,940	523,103	30.4	77,335	592,505
2026	262,658	26.7	70,130	521,395	27.1	71,180	526,059	30.4	79,848	595,854
2027	271,194	26.7	72,409	523,411	27.1	73,494	528,093	30.4	82,443	598,158
2028	280,008	26.7	74,762	524,410	27.1	75,882	529,101	30.4	85,122	599,300

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.

Clay County Senior Services Fund - 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	\$ 209,972	16.1%	\$33,805	\$ 287,285	19.9%	\$41,784	\$ 359,109	17.5%	\$36,745	\$ 305,302
2020	216,796	16.1	34,904	291,221	19.9	43,142	364,029	17.5	37,939	309,485
2021	223,842	16.1	36,039	294,893	19.9	44,545	368,619	17.5	39,172	313,387
2022	231,117	16.1	37,210	298,264	19.9	45,992	372,833	17.5	40,445	316,970
2023	238,628	16.1	38,419	301,295	19.9	47,487	376,621	17.5	41,760	320,191
2024	246,383	16.1	39,668	303,941	19.9	49,030	379,929	17.5	43,117	323,003
2025	254,390	16.1	40,957	306,155	19.9	50,624	382,697	17.5	44,518	325,356
2026	262,658	16.1	42,288	307,885	19.9	52,269	384,860	17.5	45,965	327,195
2027	271,194	16.1	43,662	309,076	19.9	53,968	386,348	17.5	47,459	328,460
2028	280,008	16.1	45,081	309,666	19.9	55,722	387,086	17.5	49,001	329,087

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	\$ 209,972	21.0%	\$44,094	\$ 372,624	23.8%	\$49,973	\$ 430,928	24.4%	\$51,233	\$ 439,939
2020	216,796	21.0	45,527	377,729	23.8	51,597	436,832	24.4	52,898	445,966
2021	223,842	21.0	47,007	382,492	23.8	53,274	442,340	24.4	54,617	451,589
2022	231,117	21.0	48,535	386,865	23.8	55,006	447,397	24.4	56,393	456,752
2023	238,628	21.0	50,112	390,796	23.8	56,793	451,943	24.4	58,225	461,393
2024	246,383	21.0	51,740	394,228	23.8	58,639	455,912	24.4	60,117	465,445
2025	254,390	21.0	53,422	397,100	23.8	60,545	459,233	24.4	62,071	468,835
2026	262,658	21.0	55,158	399,344	23.8	62,513	461,828	24.4	64,089	471,485
2027	271,194	21.0	56,951	400,888	23.8	64,544	463,614	24.4	66,171	473,308
2028	280,008	21.0	58,802	401,653	23.8	66,642	464,499	24.4	68,322	474,212

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	\$ 209,972	27.6%	\$57,952	\$ 502,751	27.9%	\$58,582	\$ 507,256	31.4%	\$65,931	\$ 574,573
2020	216,796	27.6	59,836	509,639	27.9	60,486	514,205	31.4	68,074	582,445
2021	223,842	27.6	61,780	516,065	27.9	62,452	520,689	31.4	70,286	589,789
2022	231,117	27.6	63,788	521,965	27.9	64,482	526,642	31.4	72,571	596,532
2023	238,628	27.6	65,861	527,269	27.9	66,577	531,993	31.4	74,929	602,593
2024	246,383	27.6	68,002	531,900	27.9	68,741	536,665	31.4	77,364	607,885
2025	254,390	27.6	70,212	535,775	27.9	70,975	540,574	31.4	79,878	612,313
2026	262,658	27.6	72,494	538,803	27.9	73,282	543,629	31.4	82,475	615,774
2027	271,194	27.6	74,850	540,887	27.9	75,663	545,731	31.4	85,155	618,155
2028	280,008	27.6	77,282	541,920	27.9	78,122	546,773	31.4	87,923	619,335

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.

Clay County Senior Services Fund - 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 %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 209,972	12.2%	\$25,617	\$ 272,224	15.9%	\$33,386	\$ 342,182	13.4%	\$28,136	\$ 289,761
2020	216,796	12.2	26,449	275,953	15.9	34,471	346,870	13.4	29,051	293,731
2021	223,842	12.2	27,309	279,433	15.9	35,591	351,244	13.4	29,995	297,435
2022	231,117	12.2	28,196	282,628	15.9	36,748	355,260	13.4	30,970	300,836
2023	238,628	12.2	29,113	285,500	15.9	37,942	358,870	13.4	31,976	303,893
2024	246,383	12.2	30,059	288,007	15.9	39,175	362,022	13.4	33,015	306,562
2025	254,390	12.2	31,036	290,105	15.9	40,448	364,659	13.4	34,088	308,795
2026	262,658	12.2	32,044	291,745	15.9	41,763	366,720	13.4	35,196	310,540
2027	271,194	12.2	33,086	292,873	15.9	43,120	368,138	13.4	36,340	311,741
2028	280,008	12.2	34,161	293,432	15.9	44,521	368,841	13.4	37,521	312,336

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	\$ 209,972	16.8%	\$35,275	\$ 355,329	19.4%	\$40,735	\$ 412,139	20.1%	\$42,204	\$ 420,897
2020	216,796	16.8	36,422	360,197	19.4	42,058	417,785	20.1	43,576	426,663
2021	223,842	16.8	37,605	364,739	19.4	43,425	423,053	20.1	44,992	432,043
2022	231,117	16.8	38,828	368,909	19.4	44,837	427,890	20.1	46,455	436,983
2023	238,628	16.8	40,090	372,657	19.4	46,294	432,238	20.1	47,964	441,423
2024	246,383	16.8	41,392	375,930	19.4	47,798	436,034	20.1	49,523	445,300
2025	254,390	16.8	42,738	378,668	19.4	49,352	439,210	20.1	51,132	448,544
2026	262,658	16.8	44,127	380,808	19.4	50,956	441,692	20.1	52,794	451,079
2027	271,194	16.8	45,561	382,281	19.4	52,612	443,400	20.1	54,510	452,823
2028	280,008	16.8	47,041	383,011	19.4	54,322	444,247	20.1	56,282	453,688

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	\$ 209,972	23.1%	\$48,504	\$ 482,092	23.5%	\$49,343	\$ 486,473	26.9%	\$56,482	\$ 552,047
2020	216,796	23.1	50,080	488,697	23.5	50,947	493,138	26.9	58,318	559,610
2021	223,842	23.1	51,708	494,859	23.5	52,603	499,356	26.9	60,213	566,666
2022	231,117	23.1	53,388	500,517	23.5	54,312	505,065	26.9	62,170	573,145
2023	238,628	23.1	55,123	505,603	23.5	56,078	510,197	26.9	64,191	578,969
2024	246,383	23.1	56,914	510,043	23.5	57,900	514,678	26.9	66,277	584,054
2025	254,390	23.1	58,764	513,758	23.5	59,782	518,427	26.9	68,431	588,308
2026	262,658	23.1	60,674	516,662	23.5	61,725	521,357	26.9	70,655	591,633
2027	271,194	23.1	62,646	518,660	23.5	63,731	523,373	26.9	72,951	593,921
2028	280,008	23.1	64,682	519,650	23.5	65,802	524,372	26.9	75,322	595,055

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.

Clay County Senior Services Fund - 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 %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2019	\$ 209,972	12.6%	\$26,456	\$ 281,579	16.5%	\$34,645	\$ 353,871	14.0%	\$29,396	\$ 299,712
2020	216,796	12.6	27,316	285,437	16.5	35,771	358,719	14.0	30,351	303,818
2021	223,842	12.6	28,204	289,036	16.5	36,934	363,242	14.0	31,338	307,649
2022	231,117	12.6	29,121	292,341	16.5	38,134	367,395	14.0	32,356	311,166
2023	238,628	12.6	30,067	295,311	16.5	39,374	371,128	14.0	33,408	314,328
2024	246,383	12.6	31,044	297,905	16.5	40,653	374,387	14.0	34,494	317,089
2025	254,390	12.6	32,053	300,075	16.5	41,974	377,114	14.0	35,615	319,399
2026	262,658	12.6	33,095	301,771	16.5	43,339	379,245	14.0	36,772	321,204
2027	271,194	12.6	34,170	302,938	16.5	44,747	380,712	14.0	37,967	322,446
2028	280,008	12.6	35,281	303,516	16.5	46,201	381,439	14.0	39,201	323,062

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	\$ 209,972	17.4%	\$36,535	\$ 367,471	20.2%	\$42,414	\$ 426,185	20.9%	\$43,884	\$ 435,251
2020	216,796	17.4	37,723	372,505	20.2	43,793	432,024	20.9	45,310	441,214
2021	223,842	17.4	38,949	377,202	20.2	45,216	437,472	20.9	46,783	446,777
2022	231,117	17.4	40,214	381,515	20.2	46,686	442,474	20.9	48,303	451,885
2023	238,628	17.4	41,521	385,392	20.2	48,203	446,970	20.9	49,873	456,477
2024	246,383	17.4	42,871	388,777	20.2	49,769	450,895	20.9	51,494	460,486
2025	254,390	17.4	44,264	391,609	20.2	51,387	454,179	20.9	53,168	463,840
2026	262,658	17.4	45,702	393,822	20.2	53,057	456,746	20.9	54,896	466,461
2027	271,194	17.4	47,188	395,345	20.2	54,781	458,512	20.9	56,680	468,265
2028	280,008	17.4	48,721	396,100	20.2	56,562	459,388	20.9	58,522	469,159

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	\$ 209,972	24.0%	\$50,393	\$ 498,452	24.4%	\$51,233	\$ 502,986	27.8%	\$58,372	\$ 570,758
2020	216,796	24.0	52,031	505,281	24.4	52,898	509,877	27.8	60,269	578,577
2021	223,842	24.0	53,722	511,652	24.4	54,617	516,306	27.8	62,228	585,872
2022	231,117	24.0	55,468	517,502	24.4	56,393	522,209	27.8	64,251	592,570
2023	238,628	24.0	57,271	522,760	24.4	58,225	527,515	27.8	66,339	598,591
2024	246,383	24.0	59,132	527,351	24.4	60,117	532,148	27.8	68,494	603,848
2025	254,390	24.0	61,054	531,192	24.4	62,071	536,024	27.8	70,720	608,247
2026	262,658	24.0	63,038	534,194	24.4	64,089	539,053	27.8	73,019	611,685
2027	271,194	24.0	65,087	536,260	24.4	66,171	541,138	27.8	75,392	614,050
2028	280,008	24.0	67,202	537,284	24.4	68,322	542,171	27.8	77,842	615,223

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.

Clay County Senior Services Fund - 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	\$ 209,972	15.6%	\$32,756	\$ 277,994	19.4%	\$40,735	\$ 347,498	16.9%	\$35,485	\$ 295,411
2020	216,796	15.6	33,820	281,802	19.4	42,058	352,259	16.9	36,639	299,458
2021	223,842	15.6	34,919	285,355	19.4	43,425	356,701	16.9	37,829	303,234
2022	231,117	15.6	36,054	288,617	19.4	44,837	360,779	16.9	39,059	306,701
2023	238,628	15.6	37,226	291,550	19.4	46,294	364,445	16.9	40,328	309,817
2024	246,383	15.6	38,436	294,110	19.4	47,798	367,646	16.9	41,639	312,538
2025	254,390	15.6	39,685	296,252	19.4	49,352	370,324	16.9	42,992	314,815
2026	262,658	15.6	40,975	297,926	19.4	50,956	372,417	16.9	44,389	316,594
2027	271,194	15.6	42,306	299,078	19.4	52,612	373,857	16.9	45,832	317,818
2028	280,008	15.6	43,681	299,649	19.4	54,322	374,571	16.9	47,321	318,425

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	\$ 209,972	20.3%	\$42,624	\$ 360,570	23.0%	\$48,294	\$ 416,994	23.6%	\$49,553	\$ 425,701
2020	216,796	20.3	44,010	365,510	23.0	49,863	422,707	23.6	51,164	431,533
2021	223,842	20.3	45,440	370,119	23.0	51,484	428,037	23.6	52,827	436,974
2022	231,117	20.3	46,917	374,351	23.0	53,157	432,931	23.6	54,544	441,970
2023	238,628	20.3	48,441	378,155	23.0	54,884	437,330	23.6	56,316	446,461
2024	246,383	20.3	50,016	381,476	23.0	56,668	441,171	23.6	58,146	450,382
2025	254,390	20.3	51,641	384,255	23.0	58,510	444,385	23.6	60,036	453,663
2026	262,658	20.3	53,320	386,427	23.0	60,411	446,897	23.6	61,987	456,227
2027	271,194	20.3	55,052	387,921	23.0	62,375	448,625	23.6	64,002	457,991
2028	280,008	20.3	56,842	388,662	23.0	64,402	449,482	23.6	66,082	458,866

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	\$ 209,972	26.7%	\$56,063	\$ 486,509	27.1%	\$56,902	\$ 490,861	30.4%	\$63,831	\$ 555,985
2020	216,796	26.7	57,885	493,174	27.1	58,752	497,586	30.4	65,906	563,602
2021	223,842	26.7	59,766	499,393	27.1	60,661	503,860	30.4	68,048	570,709
2022	231,117	26.7	61,708	505,103	27.1	62,633	509,621	30.4	70,260	577,234
2023	238,628	26.7	63,714	510,235	27.1	64,668	514,799	30.4	72,543	583,099
2024	246,383	26.7	65,784	514,716	27.1	66,770	519,320	30.4	74,900	588,220
2025	254,390	26.7	67,922	518,465	27.1	68,940	523,103	30.4	77,335	592,505
2026	262,658	26.7	70,130	521,395	27.1	71,180	526,059	30.4	79,848	595,854
2027	271,194	26.7	72,409	523,411	27.1	73,494	528,093	30.4	82,443	598,158
2028	280,008	26.7	74,762	524,410	27.1	75,882	529,101	30.4	85,122	599,300

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.

Clay County Senior Services Fund - 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	\$ 209,972	16.1%	\$33,805	\$ 287,285	19.9%	\$41,784	\$ 359,109	17.5%	\$36,745	\$ 305,302
2020	216,796	16.1	34,904	291,221	19.9	43,142	364,029	17.5	37,939	309,485
2021	223,842	16.1	36,039	294,893	19.9	44,545	368,619	17.5	39,172	313,387
2022	231,117	16.1	37,210	298,264	19.9	45,992	372,833	17.5	40,445	316,970
2023	238,628	16.1	38,419	301,295	19.9	47,487	376,621	17.5	41,760	320,191
2024	246,383	16.1	39,668	303,941	19.9	49,030	379,929	17.5	43,117	323,003
2025	254,390	16.1	40,957	306,155	19.9	50,624	382,697	17.5	44,518	325,356
2026	262,658	16.1	42,288	307,885	19.9	52,269	384,860	17.5	45,965	327,195
2027	271,194	16.1	43,662	309,076	19.9	53,968	386,348	17.5	47,459	328,460
2028	280,008	16.1	45,081	309,666	19.9	55,722	387,086	17.5	49,001	329,087

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	\$ 209,972	21.0%	\$44,094	\$ 372,624	23.8%	\$49,973	\$ 430,928	24.4%	\$51,233	\$ 439,939
2020	216,796	21.0	45,527	377,729	23.8	51,597	436,832	24.4	52,898	445,966
2021	223,842	21.0	47,007	382,492	23.8	53,274	442,340	24.4	54,617	451,589
2022	231,117	21.0	48,535	386,865	23.8	55,006	447,397	24.4	56,393	456,752
2023	238,628	21.0	50,112	390,796	23.8	56,793	451,943	24.4	58,225	461,393
2024	246,383	21.0	51,740	394,228	23.8	58,639	455,912	24.4	60,117	465,445
2025	254,390	21.0	53,422	397,100	23.8	60,545	459,233	24.4	62,071	468,835
2026	262,658	21.0	55,158	399,344	23.8	62,513	461,828	24.4	64,089	471,485
2027	271,194	21.0	56,951	400,888	23.8	64,544	463,614	24.4	66,171	473,308
2028	280,008	21.0	58,802	401,653	23.8	66,642	464,499	24.4	68,322	474,212

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	\$ 209,972	27.6%	\$57,952	\$ 502,751	27.9%	\$58,582	\$ 507,256	31.4%	\$65,931	\$ 574,573
2020	216,796	27.6	59,836	509,639	27.9	60,486	514,205	31.4	68,074	582,445
2021	223,842	27.6	61,780	516,065	27.9	62,452	520,689	31.4	70,286	589,789
2022	231,117	27.6	63,788	521,965	27.9	64,482	526,642	31.4	72,571	596,532
2023	238,628	27.6	65,861	527,269	27.9	66,577	531,993	31.4	74,929	602,593
2024	246,383	27.6	68,002	531,900	27.9	68,741	536,665	31.4	77,364	607,885
2025	254,390	27.6	70,212	535,775	27.9	70,975	540,574	31.4	79,878	612,313
2026	262,658	27.6	72,494	538,803	27.9	73,282	543,629	31.4	82,475	615,774
2027	271,194	27.6	74,850	540,887	27.9	75,663	545,731	31.4	85,155	618,155
2028	280,008	27.6	77,282	541,920	27.9	78,122	546,773	31.4	87,923	619,335

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.
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