

as of December 31, 2018



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June 19, 2019

Nodaway County Soil and Water Conservation District Maryville, Missouri

Ladies and Gentlemen:

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

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

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

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

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

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

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of this report. In our opinion, they do produce results which, in the aggregate, are reasonable. Additional miscellaneous and technical assumptions as well as disclosures required by the actuarial standards of practice may be found in the LAGERS Compiled Annual Actuarial Valuation report as of February 28, 2018.

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

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

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

In accordance with LAGERS Board policy, the employer contribution rates established by this valuation report are valid for purposes of joining the System for a two year period from the date of this valuation which was December 31, 2018. The valuation was based on data furnished from your records concerning individual employees (see Appendix V).

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

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

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

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

The signing actuary is independent of the plan sponsor.

Respectfully submitted,

Mita D. Drazilov, ASA, FCA, MAAA

Mita Drazilos



Alternate Plan Provisions Affecting Employer Contribution Rates

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

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

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

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

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

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



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

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
	отоирз		COSC		nate
L-1	General	0.20%	2.20%	0.20%	2.60%
L-3	General	0.30	3.30	0.30	3.90
LT-4(65)	General	0.20	2.70	0.20	3.10
LT-5(65)	General	0.30	3.70	0.30	4.30
L-7	General	0.40	4.40	0.30	5.10
LT-8(65)	General	0.40	4.60	0.30	5.30
L-12	General	0.50	5.50	0.40	6.40
LT-14(65)	General	0.50	5.70	0.40	6.60
L-6	General	0.50	6.80	0.50	7.80

^{*} Prior service credit was given for vesting purposes only.



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

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.20%	2.30%	0.20%	2.70%
L-3	General	0.30	3.50	0.30	4.10
LT-4(65)	General	0.30	2.90	0.20	3.40
LT-5(65)	General	0.30	3.90	0.30	4.50
L-7	General	0.40	4.60	0.30	5.30
LT-8(65)	General	0.40	5.00	0.30	5.70
L-12	General	0.50	5.80	0.40	6.70
LT-14(65)	General	0.50	6.00	0.40	6.90
L-6	General	0.60	7.10	0.50	8.20

^{*} Prior service credit was given for vesting purposes only.



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

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.30%	5.70%	0.20%	6.20%
L-3	General	0.40	6.90	0.30	7.60
LT-4(65)	General	0.40	6.30	0.20	6.90
LT-5(65)	General	0.50	7.30	0.30	8.10
L-7	General	0.50	8.10	0.30	8.90
LT-8(65)	General	0.50	8.40	0.30	9.20
L-12	General	0.60	9.30	0.40	10.30
LT-14(65)	General	0.60	9.50	0.40	10.50
L-6	General	0.70	10.50	0.50	11.70

^{*} Prior service credit was given for vesting purposes only.



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

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
	-				
L-1	General	0.40%	5.90%	0.20%	6.50%
L-3	General	0.40	7.10	0.30	7.80
LT-4(65)	General	0.40	6.50	0.20	7.10
LT-5(65)	General	0.50	7.60	0.30	8.40
L-7	General	0.50	8.40	0.30	9.20
LT-8(65)	General	0.60	8.70	0.30	9.60
L-12	General	0.60	9.60	0.40	10.60
LT-14(65)	General	0.60	9.80	0.40	10.80
L-6	General	0.70	10.90	0.50	12.10

^{*} Prior service credit was given for vesting purposes only.



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

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.30%	3.10%	0.20%	3.60%
L-3	General	0.40	4.40	0.30	5.10
LT-4(65)	General	0.40	4.70	0.20	5.30
LT-5(65)	General	0.50	5.60	0.30	6.40
L-7	General	0.50	5.70	0.30	6.50
LT-8(65)	General	0.50	6.60	0.30	7.40
L-12	General	0.60	7.10	0.40	8.10
LT-14(65)	General	0.60	7.60	0.40	8.60
L-6	General	0.70	8.50	0.50	9.70

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



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

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.30%	3.30%	0.20%	3.80%
L-3	General	0.40	4.60	0.30	5.30
LT-4(65)	General	0.40	5.00	0.20	5.60
LT-5(65)	General	0.50	5.90	0.30	6.70
L-7	General	0.50	6.00	0.30	6.80
LT-8(65)	General	0.60	6.80	0.30	7.70
L-12	General	0.60	7.40	0.40	8.40
LT-14(65)	General	0.60	8.00	0.40	9.00
L-6	General	0.70	8.90	0.50	10.10

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



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

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.40%	6.60%	0.20%	7.20%
L-3	General	0.50	8.00	0.30	8.80
LT-4(65)	General	0.60	8.20	0.20	9.00
LT-5(65)	General	0.60	9.20	0.30	10.10
L-7	General	0.60	9.40	0.30	10.30
LT-8(65)	General	0.70	10.30	0.30	11.30
L-12	General	0.70	10.90	0.40	12.00
LT-14(65)	General	0.80	11.30	0.40	12.50
L-6	General	0.80	12.30	0.50	13.60

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



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

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.40%	6.80%	0.20%	7.40%
L-3	General	0.50	8.30	0.30	9.10
LT-4(65)	General	0.60	8.50	0.20	9.30
LT-5(65)	General	0.60	9.60	0.30	10.50
L-7	General	0.60	9.80	0.30	10.70
LT-8(65)	General	0.70	10.60	0.30	11.60
L-12	General	0.70	11.20	0.40	12.30
LT-14(65)	General	0.80	11.70	0.40	12.90
L-6	General	0.80	12.70	0.50	14.00

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



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	\$ 2,438		
L-3	3,657		
LT-4(65)	2,907		
LT-5(65)	4,032		
L-7	4,782		
LT-8(65)	4,970		
L-12	6,002		
LT-14(65)	6,189		
L-6	7,314		

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 2,532			
L-3	3,845			
LT-4(65)	3,188			
LT-5(65)	4,220			
L-7	4,970			
LT-8(65)	5,345			
L-12	6,283			
LT-14(65)	6,470			
L-6	7,689			

Non-Contributory Plan

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 5,814			
L-3	7,127			
LT-4(65)	6,470			
LT-5(65)	7,596			
L-7	8,346			
LT-8(65)	8,627			
L-12	9,659			
LT-14(65)	9,846			
L-6	10,972			

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 6,095			
L-3	7,314			
LT-4(65)	6,658			
LT-5(65)	7,877			
L-7	8,627			
LT-8(65)	9,002			
L-12	9,940			
LT-14(65)	10,128			
L-6	11,347			

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



Employer Contribution Dollars Rule of 80 Retirement Eligibility

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

Contributory Plan

5 Year FAS					
Benefit					
Program	General				
L-1	\$ 3,376				
L-3	4,782				
LT-4(65)	4,970				
LT-5(65)	6,002				
L-7	6,095				
LT-8(65)	6,939				
L-12	7,596				
LT-14(65)	8,065				
L-6	9,096				

3 Yea	r FAS
Benefit	
Program	General
L-1	\$ 3,563
L-3	4,970
LT-4(65)	5,251
LT-5(65)	6,283
L-7	6,377
LT-8(65)	7,221
L-12	7,877
LT-14(65)	8,440
L-6	9,471

Non-Contributory Plan

5 Year FAS				
Benefit				
Program	General			
L-1	\$ 6,752			
L-3	8,252			
LT-4(65)	8,440			
LT-5(65)	9,471			
L-7	9,659			
LT-8(65)	10,596			
L-12	11,253			
LT-14(65)	11,722			
L-6	12,753			

3 Year FAS				
Benefit				
Program	General			
L-1	\$ 6,939			
L-3	8,533			
LT-4(65)	8,721			
LT-5(65)	9,846			
L-7	10,034			
LT-8(65)	10,878			
L-12	11,534			
LT-14(65)	12,097			
L-6	13,128			

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



Employees and Payroll Included in the Valuation

	General
Number of Employees	3
Annual Payroll	\$ 93,774

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





UNFUNDED ACTUARIAL ACCRUED LIABILITY

Unfunded Actuarial Accrued Liability (UAAL)

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

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

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

Nodaway County Soil and Water Conservation District

		Contril	butory	Non-Con	tributory
Benefit Group	Employee Group	UAAL (5 Year FAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$3,127	\$ 3,321	\$ 5,608	\$ 5,819
L-3	General	4,551	4,828	7,026	7,270
LT-4(65)	General	3,918	4,141	6,412	6,640
LT-5(65)	General	5,151	5,431	7,607	7,875
L-7	General	6,004	6,317	8,442	8,724
LT-8(65)	General	6,395	6,722	8,810	9,127
L-12	General	7,458	7,794	9,822	10,171
LT-14(65)	General	7,646	7,996	10,024	10,375
L-6	General	8,927	9,307	11,267	11,627



Unfunded Actuarial Accrued Liability (UAAL)

		Contril	butory	Non-Con	tributory
Benefit Group	Employee Group	UAAL (5 Year FAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 4,300	\$ 4,566	\$ 6,739	\$ 7,002
L-3	General	6,038	6,348	8,435	8,747
LT-4(65)	General	6,743	7,081	9,175	9,501
LT-5(65)	General	7,873	8,229	10,255	10,622
L-7	General	7,766	8,155	10,115	10,473
LT-8(65)	General	8,981	9,409	11,333	11,728
L-12	General	9,463	9,921	11,792	12,256
LT-14(65)	General	10,082	10,548	12,405	12,867
L-6	General	11,225	11,729	13,501	13,976





SUMMARY OF FINANCIAL ASSUMPTIONS

Summary of Assumptions Used in Actuarial Valuations

Assumptions Adopted by Board of Trustees After Consulting With Actuary

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



Schedule 1.

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

Percent of Active Members Separating Within Next Year

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

Percent Increase in Individual's Pay

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



Schedule 2.

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

Early Retirement

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

Normal Retirement

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



Schedule 2. (Continued)

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

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





SUMMARY OF LAGERS PROVISIONS

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

as of February 28, 2018 (Section references are to RSMo)

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

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

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

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

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

LT-4(65) Benefit Program:

LT-5(65) Benefit Program:

LT-8(65) Benefit Program:

1.00% for life, plus 1.00% to age 65

1.25% for life, plus 0.75% to age 65

LT-14(65) Benefit Program:

1.50% for life, plus 0.50% to age 65

LT-14(65) Benefit Program:

1.75% for life, plus 0.25% to age 65

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

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

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

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



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

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

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

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

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

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

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

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

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



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

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

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

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

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

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





BENEFIT ILLUSTRATIONS

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

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

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

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



[&]quot;Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

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

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

Average Salary (FAS) ¹ LAGERS BENEFIT ³ Social Security ² Monthly Total \$ % of FAS 35 Years of Service: \$1,500 \$ 788 \$ 889 \$1,677 112% 2,000 1,050 1,032 2,082 104%	
35 Years of Service: \$1,500 \$ 788 \$ 889 \$1,677 112%	
\$1,500 \$ 788 \$ 889 \$1,677 112%	
2,000 1,050 1,032 2,082 104%	%
2,000 1,000 1,002 2,002	%
2,500 1,313 1,175 2,488 100%	%
3,000 1,575 1,318 2,893 96%	%
3,500 1,838 1,462 3,300 94%	%
4,000 2,100 1,604 3,704 93%	%
25 Years of Service:	
\$1,500 \$ 563 \$ 889 \$1,452 97%	%
2,000 750 1,032 1,782 89%	%
2,500 938 1,175 2,113 85%	%
3,000 1,125 1,318 2,443 81%	%
3,500 1,313 1,462 2,775 79%	%
4,000 1,500 1,604 3,104 78%	%
15 Years of Service:	
\$1,500 \$338 \$ 889 \$1,227 82%	%
2,000 450 1,032 1,482 74%	%
2,500 563 1,175 1,738 70%	%
3,000 675 1,318 1,993 66%	%
3,500 788 1,462 2,250 64%	%
4,000 900 1,604 2,504 63%	%

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

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

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

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

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

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

Missouri LAGERS

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

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

1.00% of FAS ¹ at age 65)

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

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

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

Missouri LAGERS

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

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

1.25% of FAS ¹ at age 65)

Final	LAG	ERS	Estimated	Estim	nated	Perc	ent
Average	BENI	EFIT ³	Social	Monthl	ly Total	of F	AS
Salary (FAS) ¹	To 65	At 65	Security ²	To 65	At 65	To 65	At 65
35 Years of Service	2:						
\$1,500	\$1,050	\$ 656	\$ 889	\$1,050	\$1,545	70%	103%
2,000	1,400	875	1,032	1,400	1,907	70%	95%
2,500	1,750	1,094	1,175	1,750	2,269	70%	91%
3,000	2,100	1,313	1,318	2,100	2,631	70%	88%
3,500	2,450	1,531	1,462	2,450	2,993	70%	86%
4,000	2,800	1,750	1,604	2,800	3,354	70%	84%
25 Years of Service	2:						
\$1,500	\$ 750	\$ 469	\$ 889	\$ 750	\$1,358	50%	91%
2,000	1,000	625	1,032	1,000	1,657	50%	83%
2,500	1,250	781	1,175	1,250	1,956	50%	78%
3,000	1,500	938	1,318	1,500	2,256	50%	75%
3,500	1,750	1,094	1,462	1,750	2,556	50%	73%
4,000	2,000	1,250	1,604	2,000	2,854	50%	71%
15 Years of Service	2:						
\$1,500	\$ 450	\$281	\$ 889	\$ 450	\$1,170	30%	78%
2,000	600	375	1,032	600	1,407	30%	70%
2,500	750	469	1,175	750	1,644	30%	66%
3,000	900	563	1,318	900	1,881	30%	63%
3,500	1,050	656	1,462	1,050	2,118	30%	61%
4,000	1,200	750	1,604	1,200	2,354	30%	59%

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

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

Missouri LAGERS

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

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

1.50% of FAS ¹ at age 65)

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

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

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

Missouri LAGERS

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

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

1.75% of FAS ¹ at age 65)

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

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

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.



AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

December 31, 2018

By Attained Age and Years of Service

		Years of Service to Valuation Date Totals												
Attained									Valuation					
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll					
Under 20														
20-24														
25-29	2							2	\$ 63,778					
30-34	1							1	\$ 29,996					
35-39														
40-44														
45-49														
50-54														
55-59														
60-64														
65-69														
70 & Over														
Totals	3							3	\$ 93,774					

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

Age: 28.5 years.

Benefit Service: 0.0 years. Annual Pay: \$31,258.





RISK COMMENTARY

Risk Commentary

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

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

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

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

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

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



Risk Commentary (Concluded)

PLAN MATURITY MEASURES

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

RATIO OF MARKET VALUE OF ASSETS TO PAYROLL

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

RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL

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

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

RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS

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

DURATION OF ACTUARIAL ACCRUED LIABILITY

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

ADDITIONAL RISK ASSESSMENT

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





June 19, 2019 E-mail

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

Dear Bob:

Enclosed is the report of the December 31, 2018 Initial Actuarial Valuation of LAGERS benefits for the employees of

Nodaway County Soil and Water Conservation District

Sincerely,

Mita D. Drazilov, ASA, FCA, MAAA

Mita Drazilor

MDD:wp



June 19, 2019

Nodaway County Soil and Water Conservation District Maryville, 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 December 31, 2018 Initial Valuation for the Nodaway County Soil and Water Conservation District dated June 19, 2019.

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of the Initial Valuation Report. In our opinion, they do produce results which, in the aggregate, are reasonable. Additional miscellaneous and technical assumptions as well as disclosures required by the actuarial standards of practice may be found in the LAGERS Compiled Annual Actuarial Valuation report as of February 28, 2018.

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

Respectfully submitted,

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

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 93,774	2.6%	\$2,438	\$ 3,127	3.9%	\$3,657	\$ 4,551	3.1%	\$2,907	\$ 3,918
2019	96,822	2.6	2,517	3,170	3.9	3,776	4,613	3.1	3,001	3,972
2020	99,969	2.6	2,599	3,210	3.9	3,899	4,671	3.1	3,099	4,022
2021	103,218	2.6	2,684	3,247	3.9	4,026	4,724	3.1	3,200	4,068
2022	106,573	2.6	2,771	3,280	3.9	4,156	4,772	3.1	3,304	4,109
2023	110,037	2.6	2,861	3,309	3.9	4,291	4,814	3.1	3,411	4,145
2024	113,613	2.6	2,954	3,333	3.9	4,431	4,849	3.1	3,522	4,175
2025	117,305	2.6	3,050	3,352	3.9	4,575	4,876	3.1	3,636	4,199
2026	121,117	2.6	3,149	3,365	3.9	4,724	4,895	3.1	3,755	4,215
2027	125,053	2.6	3,251	3,371	3.9	4,877	4,904	3.1	3,877	4,223

			LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
Valuation Projected Year Payroll	Estimated		l Employer ibution	• •		Estimated Employer Contribution		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		
2018	\$ 93,774	4.3%	\$4,032	\$ 5,151	5.1%	\$4,782	\$ 6,004	5.3%	\$4,970	\$ 6,395	
2019	96,822	4.3	4,163	5,222	5.1	4,938	6,086	5.3	5,132	6,483	
2020	99,969	4.3	4,299	5,288	5.1	5,098	6,163	5.3	5,298	6,565	
2021	103,218	4.3	4,438	5,348	5.1	5,264	6,233	5.3	5,471	6,640	
2022	106,573	4.3	4,583	5,402	5.1	5,435	6,296	5.3	5,648	6,707	
2023	110,037	4.3	4,732	5,449	5.1	5,612	6,351	5.3	5,832	6,766	
2024	113,613	4.3	4,885	5,489	5.1	5,794	6,397	5.3	6,021	6,815	
2025	117,305	4.3	5,044	5,520	5.1	5,983	6,433	5.3	6,217	6,854	
2026	121,117	4.3	5,208	5,541	5.1	6,177	6,458	5.3	6,419	6,881	
2027	125.053	4.3	5.377	5.552	5.1	6.378	6.470	5.3	6.628	6.894	

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		Estimated Employer Contribution			l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 93,774	6.4%	\$6,002	\$ 7,458	6.6%	\$6,189	\$ 7,646	7.8%	\$7,314	\$ 8,927
2019	96,822	6.4	6,197	7,560	6.6	6,390	7,751	7.8	7,552	9,049
2020	99,969	6.4	6,398	7,655	6.6	6,598	7,849	7.8	7,798	9,163
2021	103,218	6.4	6,606	7,743	6.6	6,812	7,939	7.8	8,051	9,268
2022	106,573	6.4	6,821	7,822	6.6	7,034	8,020	7.8	8,313	9,362
2023	110,037	6.4	7,042	7,891	6.6	7,262	8,090	7.8	8,583	9,444
2024	113,613	6.4	7,271	7,948	6.6	7,498	8,149	7.8	8,862	9,513
2025	117,305	6.4	7,508	7,993	6.6	7,742	8,195	7.8	9,150	9,567
2026	121,117	6.4	7,751	8,024	6.6	7,994	8,227	7.8	9,447	9,604
2027	125,053	6.4	8,003	8,039	6.6	8,253	8,243	7.8	9,754	9,622

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



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

Regular Retirement Eligibility

		L-1 Benefit Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	Estimated Employer		Estimated	l Employer	Unfunded
	Estimated Contribution		Actuarial	Contribution		Actuarial	Contribution		Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 93,774	2.7%	\$2,532	\$ 3,321	4.1%	\$3,845	\$ 4,828	3.4%	\$3,188	\$ 4,141
2019	96,822	2.7	2,614	3,366	4.1	3,970	4,894	3.4	3,292	4,198
2020	99,969	2.7	2,699	3,408	4.1	4,099	4,956	3.4	3,399	4,251
2021	103,218	2.7	2,787	3,447	4.1	4,232	5,013	3.4	3,509	4,300
2022	106,573	2.7	2,877	3,482	4.1	4,369	5,064	3.4	3,623	4,344
2023	110,037	2.7	2,971	3,513	4.1	4,512	5,108	3.4	3,741	4,382
2024	113,613	2.7	3,068	3,539	4.1	4,658	5,145	3.4	3,863	4,414
2025	117,305	2.7	3,167	3,559	4.1	4,810	5,174	3.4	3,988	4,439
2026	121,117	2.7	3,270	3,573	4.1	4,966	5,194	3.4	4,118	4,456
2027	125,053	2.7	3,376	3,580	4.1	5,127	5,204	3.4	4,252	4,465

			LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
Estimate	Estimated		d Employer ibution	· •		Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial	
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	
2018	\$ 93,774	4.5%	\$4,220	\$ 5,431	5.3%	\$4,970	\$ 6,317	5.7%	\$5,345	\$ 6,722	
2019	96,822	4.5	4,357	5,505	5.3	5,132	6,404	5.7	5,519	6,814	
2020	99,969	4.5	4,499	5,574	5.3	5,298	6,485	5.7	5,698	6,900	
2021	103,218	4.5	4,645	5,638	5.3	5,471	6,559	5.7	5,883	6,979	
2022	106,573	4.5	4,796	5,695	5.3	5,648	6,626	5.7	6,075	7,050	
2023	110,037	4.5	4,952	5,745	5.3	5,832	6,684	5.7	6,272	7,112	
2024	113,613	4.5	5,113	5,787	5.3	6,021	6,733	5.7	6,476	7,164	
2025	117,305	4.5	5,279	5,820	5.3	6,217	6,771	5.7	6,686	7,204	
2026	121,117	4.5	5,450	5,843	5.3	6,419	6,797	5.7	6,904	7,232	
2027	125.053	4.5	5.627	5.854	5.3	6.628	6.810	5.7	7.128	7.246	

		L-12 Benefit Program			LT-14	4(65) Benefit F	Program	L-6 Benefit Program		
			l Employer	Unfunded		d Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contribution		Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 93,774	6.7%	\$6,283	\$ 7,794	6.9%	\$6,470	\$ 7,996	8.2%	\$7,689	\$ 9,307
2019	96,822	6.7	6,487	7,901	6.9	6,681	8,106	8.2	7,939	9,435
2020	99,969	6.7	6,698	8,001	6.9	6,898	8,208	8.2	8,197	9,554
2021	103,218	6.7	6,916	8,092	6.9	7,122	8,302	8.2	8,464	9,663
2022	106,573	6.7	7,140	8,174	6.9	7,354	8,386	8.2	8,739	9,761
2023	110,037	6.7	7,372	8,246	6.9	7,593	8,460	8.2	9,023	9,847
2024	113,613	6.7	7,612	8,306	6.9	7,839	8,522	8.2	9,316	9,919
2025	117,305	6.7	7,859	8,353	6.9	8,094	8,570	8.2	9,619	9,975
2026	121,117	6.7	8,115	8,385	6.9	8,357	8,603	8.2	9,932	10,014
2027	125,053	6.7	8,379	8,401	6.9	8,629	8,619	8.2	10,254	10,033

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



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

(0% member contributions are additional)

Regular Retirement Eligibility

		L-1 Benefit Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contribution		Actuarial	Contr	Contribution	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 93,774	6.2%	\$5,814	\$ 5,608	7.6%	\$7,127	\$ 7,026	6.9%	\$6,470	\$ 6,412
2019	96,822	6.2	6,003	5,685	7.6	7,358	7,122	6.9	6,681	6,500
2020	99,969	6.2	6,198	5,757	7.6	7,598	7,212	6.9	6,898	6,582
2021	103,218	6.2	6,400	5,823	7.6	7,845	7,294	6.9	7,122	6,657
2022	106,573	6.2	6,608	5,882	7.6	8,100	7,368	6.9	7,354	6,725
2023	110,037	6.2	6,822	5,934	7.6	8,363	7,433	6.9	7,593	6,784
2024	113,613	6.2	7,044	5,977	7.6	8,635	7,487	6.9	7,839	6,833
2025	117,305	6.2	7,273	6,011	7.6	8,915	7,529	6.9	8,094	6,872
2026	121,117	6.2	7,509	6,034	7.6	9,205	7,558	6.9	8,357	6,899
2027	125,053	6.2	7,753	6,046	7.6	9,504	7,572	6.9	8,629	6,912

			LT-5(65) Benefit Program			7 Benefit Pro	gram	LT-8(65) Benefit Program		
	Estimated	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 93,774	8.1%	\$7,596	\$ 7,607	8.9%	\$8,346	\$ 8,442	9.2%	\$8,627	\$ 8,810
2019	96,822	8.1	7,843	7,711	8.9	8,617	8,558	9.2	8,908	8,931
2020	99,969	8.1	8,097	7,808	8.9	8,897	8,666	9.2	9,197	9,044
2021	103,218	8.1	8,361	7,897	8.9	9,186	8,765	9.2	9,496	9,147
2022	106,573	8.1	8,632	7,977	8.9	9,485	8,854	9.2	9,805	9,240
2023	110,037	8.1	8,913	8,047	8.9	9,793	8,932	9.2	10,123	9,321
2024	113,613	8.1	9,203	8,106	8.9	10,112	8,997	9.2	10,452	9,389
2025	117,305	8.1	9,502	8,152	8.9	10,440	9,048	9.2	10,792	9,442
2026	121,117	8.1	9,810	8,184	8.9	10,779	9,083	9.2	11,143	9,479
2027	125.053	8.1	10.129	8.200	8.9	11.130	9.100	9.2	11.505	9.497

		L-12 Benefit Program			LT-14	4(65) Benefit I	Program	L-6 Benefit Program		
			l Employer	Unfunded		d Employer	Unfunded		d Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contribution		Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 93,774	10.3%	\$9,659	\$ 9,822	10.5%	\$9,846	\$ 10,024	11.7%	\$10,972	\$ 11,267
2019	96,822	10.3	9,973	9,957	10.5	10,166	10,161	11.7	11,328	11,421
2020	99,969	10.3	10,297	10,083	10.5	10,497	10,289	11.7	11,696	11,565
2021	103,218	10.3	10,631	10,198	10.5	10,838	10,407	11.7	12,077	11,697
2022	106,573	10.3	10,977	10,302	10.5	11,190	10,513	11.7	12,469	11,816
2023	110,037	10.3	11,334	10,392	10.5	11,554	10,605	11.7	12,874	11,920
2024	113,613	10.3	11,702	10,468	10.5	11,929	10,682	11.7	13,293	12,007
2025	117,305	10.3	12,082	10,527	10.5	12,317	10,742	11.7	13,725	12,075
2026	121,117	10.3	12,475	10,568	10.5	12,717	10,784	11.7	14,171	12,122
2027	125,053	10.3	12,880	10,588	10.5	13,131	10,805	11.7	14,631	12,145

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



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

(0% member contributions are additional)

Regular Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contr	ibution	Actuarial	Contri	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 93,774	6.5%	\$6,095	\$ 5,819	7.8%	\$7,314	\$ 7,270	7.1%	\$6,658	\$ 6,640
2019	96,822	6.5	6,293	5,899	7.8	7,552	7,370	7.1	6,874	6,731
2020	99,969	6.5	6,498	5,973	7.8	7,798	7,463	7.1	7,098	6,816
2021	103,218	6.5	6,709	6,041	7.8	8,051	7,548	7.1	7,328	6,894
2022	106,573	6.5	6,927	6,102	7.8	8,313	7,625	7.1	7,567	6,964
2023	110,037	6.5	7,152	6,156	7.8	8,583	7,692	7.1	7,813	7,025
2024	113,613	6.5	7,385	6,201	7.8	8,862	7,748	7.1	8,067	7,076
2025	117,305	6.5	7,625	6,236	7.8	9,150	7,792	7.1	8,329	7,116
2026	121,117	6.5	7,873	6,260	7.8	9,447	7,822	7.1	8,599	7,144
2027	125,053	6.5	8,128	6,272	7.8	9,754	7,837	7.1	8,879	7,158

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial	
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	
2018	\$ 93,774	8.4%	\$7,877	\$ 7,875	9.2%	\$8,627	\$ 8,724	9.6%	\$9,002	\$ 9,127	
2019	96,822	8.4	8,133	7,983	9.2	8,908	8,844	9.6	9,295	9,252	
2020	99,969	8.4	8,397	8,084	9.2	9,197	8,956	9.6	9,597	9,369	
2021	103,218	8.4	8,670	8,176	9.2	9,496	9,058	9.6	9,909	9,476	
2022	106,573	8.4	8,952	8,259	9.2	9,805	9,150	9.6	10,231	9,572	
2023	110,037	8.4	9,243	8,332	9.2	10,123	9,230	9.6	10,564	9,656	
2024	113,613	8.4	9,543	8,393	9.2	10,452	9,297	9.6	10,907	9,726	
2025	117,305	8.4	9,854	8,440	9.2	10,792	9,350	9.6	11,261	9,781	
2026	121,117	8.4	10,174	8,473	9.2	11,143	9,386	9.6	11,627	9,819	
2027	125.053	8.4	10.504	8 489	9.2	11.505	9 404	9.6	12.005	9.838	

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated Valuation - Projected		Estimated Employer Contribution			d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 93,774	10.6%	\$9,940	\$ 10,171	10.8%	\$10,128	\$ 10,375	12.1%	\$11,347	\$ 11,627
2019	96,822	10.6	10,263	10,310	10.8	10,457	10,517	12.1	11,715	11,786
2020	99,969	10.6	10,597	10,440	10.8	10,797	10,650	12.1	12,096	11,935
2021	103,218	10.6	10,941	10,559	10.8	11,148	10,772	12.1	12,489	12,071
2022	106,573	10.6	11,297	10,666	10.8	11,510	10,881	12.1	12,895	12,194
2023	110,037	10.6	11,664	10,760	10.8	11,884	10,977	12.1	13,314	12,301
2024	113,613	10.6	12,043	10,838	10.8	12,270	11,057	12.1	13,747	12,391
2025	117,305	10.6	12,434	10,899	10.8	12,669	11,119	12.1	14,194	12,461
2026	121,117	10.6	12,838	10,941	10.8	13,081	11,162	12.1	14,655	12,509
2027	125,053	10.6	13,256	10,962	10.8	13,506	11,183	12.1	15,131	12,533

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



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

Rule of 80 Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	bution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2018	\$ 93,774	3.6%	\$3,376	\$ 4,300	5.1%	\$4,782	\$ 6,038	5.3%	\$4,970	\$ 6,743	
2019	96,822	3.6	3,486	4,359	5.1	4,938	6,121	5.3	5,132	6,835	
2020	99,969	3.6	3,599	4,414	5.1	5,098	6,198	5.3	5,298	6,921	
2021	103,218	3.6	3,716	4,464	5.1	5,264	6,269	5.3	5,471	7,000	
2022	106,573	3.6	3,837	4,509	5.1	5,435	6,333	5.3	5,648	7,071	
2023	110,037	3.6	3,961	4,549	5.1	5,612	6,389	5.3	5,832	7,133	
2024	113,613	3.6	4,090	4,582	5.1	5,794	6,436	5.3	6,021	7,185	
2025	117,305	3.6	4,223	4,608	5.1	5,983	6,472	5.3	6,217	7,226	
2026	121,117	3.6	4,360	4,626	5.1	6,177	6,497	5.3	6,419	7,254	
2027	125,053	3.6	4,502	4,635	5.1	6,378	6,509	5.3	6,628	7,268	

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		d Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial	
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	
2018	\$ 93,774	6.4%	\$6,002	\$ 7,873	6.5%	\$6,095	\$ 7,766	7.4%	\$6,939	\$ 8,981	
2019	96,822	6.4	6,197	7,981	6.5	6,293	7,872	7.4	7,165	9,104	
2020	99,969	6.4	6,398	8,082	6.5	6,498	7,971	7.4	7,398	9,219	
2021	103,218	6.4	6,606	8,174	6.5	6,709	8,062	7.4	7,638	9,324	
2022	106,573	6.4	6,821	8,257	6.5	6,927	8,144	7.4	7,886	9,419	
2023	110,037	6.4	7,042	8,330	6.5	7,152	8,216	7.4	8,143	9,502	
2024	113,613	6.4	7,271	8,391	6.5	7,385	8,276	7.4	8,407	9,571	
2025	117,305	6.4	7,508	8,438	6.5	7,625	8,323	7.4	8,681	9,625	
2026	121,117	6.4	7,751	8,471	6.5	7,873	8,355	7.4	8,963	9,662	
2027	125.053	6.4	8.003	8 487	6.5	8.128	8.371	7.4	9.254	9.680	

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated	Estimated Employer Contribution		Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 93,774	8.1%	\$7,596	\$ 9,463	8.6%	\$8,065	\$ 10,082	9.7%	\$9,096	\$ 11,225
2019	96,822	8.1	7,843	9,593	8.6	8,327	10,220	9.7	9,392	11,379
2020	99,969	8.1	8,097	9,714	8.6	8,597	10,349	9.7	9,697	11,522
2021	103,218	8.1	8,361	9,825	8.6	8,877	10,467	9.7	10,012	11,654
2022	106,573	8.1	8,632	9,925	8.6	9,165	10,573	9.7	10,338	11,772
2023	110,037	8.1	8,913	10,012	8.6	9,463	10,666	9.7	10,674	11,875
2024	113,613	8.1	9,203	10,085	8.6	9,771	10,744	9.7	11,020	11,962
2025	117,305	8.1	9,502	10,142	8.6	10,088	10,805	9.7	11,379	12,030
2026	121,117	8.1	9,810	10,181	8.6	10,416	10,847	9.7	11,748	12,077
2027	125,053	8.1	10,129	10,200	8.6	10,755	10,868	9.7	12,130	12,100

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



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

Rule of 80 Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	ibution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2018	\$ 93,774	3.8%	\$3,563	\$ 4,566	5.3%	\$4,970	\$ 6,348	5.6%	\$5,251	\$ 7,081	
2019	96,822	3.8	3,679	4,629	5.3	5,132	6,435	5.6	5,422	7,178	
2020	99,969	3.8	3,799	4,687	5.3	5,298	6,516	5.6	5,598	7,269	
2021	103,218	3.8	3,922	4,741	5.3	5,471	6,590	5.6	5,780	7,352	
2022	106,573	3.8	4,050	4,789	5.3	5,648	6,657	5.6	5,968	7,427	
2023	110,037	3.8	4,181	4,831	5.3	5,832	6,715	5.6	6,162	7,492	
2024	113,613	3.8	4,317	4,866	5.3	6,021	6,764	5.6	6,362	7,547	
2025	117,305	3.8	4,458	4,894	5.3	6,217	6,802	5.6	6,569	7,590	
2026	121,117	3.8	4,602	4,913	5.3	6,419	6,828	5.6	6,783	7,619	
2027	125,053	3.8	4,752	4,922	5.3	6,628	6,841	5.6	7,003	7,634	

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial	
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	
2018	\$ 93,774	6.7%	\$6,283	\$ 8,229	6.8%	\$6,377	\$ 8,155	7.7%	\$7,221	\$ 9,409	
2019	96,822	6.7	6,487	8,342	6.8	6,584	8,267	7.7	7,455	9,538	
2020	99,969	6.7	6,698	8,447	6.8	6,798	8,371	7.7	7,698	9,658	
2021	103,218	6.7	6,916	8,544	6.8	7,019	8,467	7.7	7,948	9,768	
2022	106,573	6.7	7,140	8,631	6.8	7,247	8,553	7.7	8,206	9,867	
2023	110,037	6.7	7,372	8,707	6.8	7,483	8,628	7.7	8,473	9,954	
2024	113,613	6.7	7,612	8,770	6.8	7,726	8,691	7.7	8,748	10,027	
2025	117,305	6.7	7,859	8,820	6.8	7,977	8,740	7.7	9,032	10,084	
2026	121,117	6.7	8,115	8,854	6.8	8,236	8,774	7.7	9,326	10,123	
2027	125.053	6.7	8.379	8.871	6.8	8.504	8.791	7.7	9.629	10.142	

		L-:	12 Benefit Pro	gram	LT-14(65) Benefit Program			L-6 Benefit Program		
			l Employer	Unfunded		d Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 93,774	8.4%	\$7,877	\$ 9,921	9.0%	\$8,440	\$ 10,548	10.1%	\$9,471	\$ 11,729
2019	96,822	8.4	8,133	10,057	9.0	8,714	10,693	10.1	9,779	11,890
2020	99,969	8.4	8,397	10,184	9.0	8,997	10,828	10.1	10,097	12,040
2021	103,218	8.4	8,670	10,300	9.0	9,290	10,952	10.1	10,425	12,178
2022	106,573	8.4	8,952	10,405	9.0	9,592	11,063	10.1	10,764	12,302
2023	110,037	8.4	9,243	10,496	9.0	9,903	11,160	10.1	11,114	12,410
2024	113,613	8.4	9,543	10,572	9.0	10,225	11,241	10.1	11,475	12,500
2025	117,305	8.4	9,854	10,632	9.0	10,557	11,305	10.1	11,848	12,571
2026	121,117	8.4	10,174	10,673	9.0	10,901	11,349	10.1	12,233	12,620
2027	125,053	8.4	10,504	10,693	9.0	11,255	11,371	10.1	12,630	12,644

- 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.



<u>Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)</u>

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contri	ibution	Actuarial	Contri	bution	Actuarial	Contri	ibution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2018	\$ 93,774	7.2%	\$6,752	\$ 6,739	8.8%	\$8,252	\$ 8,435	9.0%	\$8,440	\$ 9,175	
2019	96,822	7.2	6,971	6,831	8.8	8,520	8,551	9.0	8,714	9,301	
2020	99,969	7.2	7,198	6,917	8.8	8,797	8,659	9.0	8,997	9,418	
2021	103,218	7.2	7,432	6,996	8.8	9,083	8,758	9.0	9,290	9,526	
2022	106,573	7.2	7,673	7,067	8.8	9,378	8,847	9.0	9,592	9,623	
2023	110,037	7.2	7,923	7,129	8.8	9,683	8,925	9.0	9,903	9,708	
2024	113,613	7.2	8,180	7,181	8.8	9,998	8,990	9.0	10,225	9,779	
2025	117,305	7.2	8,446	7,222	8.8	10,323	9,041	9.0	10,557	9,834	
2026	121,117	7.2	8,720	7,250	8.8	10,658	9,076	9.0	10,901	9,872	
2027	125,053	7.2	9,004	7,264	8.8	11,005	9,093	9.0	11,255	9,891	

		LT-5(65) Benefit Program			L-	7 Benefit Pro	gram	LT-8(65) Benefit Program			
			d Employer	Unfunded		l Employer	Unfunded	Estimated Employer Contribution		Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2018	\$ 93,774	10.1%	\$9,471	\$ 10,255	10.3%	\$9,659	\$ 10,115	11.3%	\$10,596	\$ 11,333	
2019	96,822	10.1	9,779	10,395	10.3	9,973	10,254	11.3	10,941	11,488	
2020	99,969	10.1	10,097	10,526	10.3	10,297	10,383	11.3	11,296	11,633	
2021	103,218	10.1	10,425	10,646	10.3	10,631	10,502	11.3	11,664	11,766	
2022	106,573	10.1	10,764	10,754	10.3	10,977	10,609	11.3	12,043	11,886	
2023	110,037	10.1	11,114	10,848	10.3	11,334	10,702	11.3	12,434	11,990	
2024	113,613	10.1	11,475	10,927	10.3	11,702	10,780	11.3	12,838	12,077	
2025	117,305	10.1	11,848	10,989	10.3	12,082	10,841	11.3	13,255	12,145	
2026	121,117	10.1	12,233	11,031	10.3	12,475	10,883	11.3	13,686	12,192	
2027	125.053	10.1	12 630	11 052	10.3	12 880	10 904	11 3	14 131	12 215	

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated National Projects of		Estimated Employer Contribution			d Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 93,774	12.0%	\$11,253	\$ 11,792	12.5%	\$11,722	\$ 12,405	13.6%	\$12,753	\$ 13,501
2019	96,822	12.0	11,619	11,954	12.5	12,103	12,575	13.6	13,168	13,686
2020	99,969	12.0	11,996	12,105	12.5	12,496	12,734	13.6	13,596	13,859
2021	103,218	12.0	12,386	12,243	12.5	12,902	12,880	13.6	14,038	14,017
2022	106,573	12.0	12,789	12,367	12.5	13,322	13,011	13.6	14,494	14,159
2023	110,037	12.0	13,204	12,476	12.5	13,755	13,125	13.6	14,965	14,283
2024	113,613	12.0	13,634	12,567	12.5	14,202	13,221	13.6	15,451	14,387
2025	117,305	12.0	14,077	12,638	12.5	14,663	13,296	13.6	15,953	14,468
2026	121,117	12.0	14,534	12,687	12.5	15,140	13,347	13.6	16,472	14,524
2027	125,053	12.0	15,006	12,711	12.5	15,632	13,372	13.6	17,007	14,552

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



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

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 93,774	7.4%	\$6,939	\$ 7,002	9.1%	\$8,533	\$ 8,747	9.3%	\$8,721	\$ 9,501
2019	96,822	7.4	7,165	7,098	9.1	8,811	8,867	9.3	9,004	9,631
2020	99,969	7.4	7,398	7,188	9.1	9,097	8,979	9.3	9,297	9,752
2021	103,218	7.4	7,638	7,270	9.1	9,393	9,082	9.3	9,599	9,863
2022	106,573	7.4	7,886	7,344	9.1	9,698	9,174	9.3	9,911	9,963
2023	110,037	7.4	8,143	7,408	9.1	10,013	9,255	9.3	10,233	10,050
2024	113,613	7.4	8,407	7,462	9.1	10,339	9,322	9.3	10,566	10,123
2025	117,305	7.4	8,681	7,504	9.1	10,675	9,375	9.3	10,909	10,180
2026	121,117	7.4	8,963	7,533	9.1	11,022	9,411	9.3	11,264	10,219
2027	125,053	7.4	9,254	7,547	9.1	11,380	9,429	9.3	11,630	10,239

	Estimated	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 93,774	10.5%	\$9,846	\$ 10,622	10.7%	\$10,034	\$ 10,473	11.6%	\$10,878	\$ 11,728
2019	96,822	10.5	10,166	10,768	10.7	10,360	10,616	11.6	11,231	11,889
2020	99,969	10.5	10,497	10,904	10.7	10,697	10,750	11.6	11,596	12,039
2021	103,218	10.5	10,838	11,029	10.7	11,044	10,873	11.6	11,973	12,177
2022	106,573	10.5	11,190	11,141	10.7	11,403	10,983	11.6	12,362	12,301
2023	110,037	10.5	11,554	11,239	10.7	11,774	11,079	11.6	12,764	12,409
2024	113,613	10.5	11,929	11,321	10.7	12,157	11,160	11.6	13,179	12,499
2025	117,305	10.5	12,317	11,385	10.7	12,552	11,223	11.6	13,607	12,570
2026	121,117	10.5	12,717	11,429	10.7	12,960	11,266	11.6	14,050	12,619
2027	125.053	10.5	13.131	11.451	10.7	13.381	11.288	11.6	14.506	12.643

		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
	Estimated									
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 93,774	12.3%	\$11,534	\$ 12,256	12.9%	\$12,097	\$ 12,867	14.0%	\$13,128	\$ 13,976
2019	96,822	12.3	11,909	12,424	12.9	12,490	13,043	14.0	13,555	14,167
2020	99,969	12.3	12,296	12,581	12.9	12,896	13,207	14.0	13,996	14,346
2021	103,218	12.3	12,696	12,725	12.9	13,315	13,358	14.0	14,451	14,510
2022	106,573	12.3	13,108	12,854	12.9	13,748	13,494	14.0	14,920	14,657
2023	110,037	12.3	13,535	12,967	12.9	14,195	13,613	14.0	15,405	14,786
2024	113,613	12.3	13,974	13,061	12.9	14,656	13,712	14.0	15,906	14,894
2025	117,305	12.3	14,429	13,135	12.9	15,132	13,789	14.0	16,423	14,978
2026	121,117	12.3	14,897	13,186	12.9	15,624	13,842	14.0	16,956	15,036
2027	125,053	12.3	15,382	13,211	12.9	16,132	13,868	14.0	17,507	15,065

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