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May 16, 2022

Carl Junction Fire Protection District Carl Junction, 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 - 105.685 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 7 as the normal cost rate and the casualty rate. 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 7 as the prior service cost rate. 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 rate 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 normal cost rate, casualty rate, and prior service cost rate (the total employer contribution rate as shown on pages 4 thru 7). These contributions are mandatory after official action has been taken to join the System.

The total annual dollar costs shown on pages 8 and 9 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, 2021.

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 February 28, 2022. 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, Gabriel, Roeder, Smith & Company

Mita D. Drazilov, ASA, FCA, MAAA

Mita Drazilor

Alternate Plan Provisions Affecting Employer Contribution Rates

The law governing LAGERS provides for a member contribution rate of either 0%, 2%, 4% or 6%, with benefits based on either a 5 year or 3 year Final Average Salary (FAS).

Member Contribution Rate - 0% Plan. Under the 0% 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.

Member Contribution Rate - 2%, 4% or 6% Plan. Under any plan other than 0%, each covered member contributes a percentage 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.

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 144 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.



<u>Employer Contribution Rates</u> <u>5 Year FAS - Regular Retirement Eligibility</u>

			Percents of Active Member Payroll					
					Tota	al Employer C	Contribution	Rate
		Normal		Prior	1	Based Upon 1	the Following	3
Benefit	Employee	Cost	Casualty	Service	N	lember Cont	ribution Rate	es
Program	Groups	Rate	Rate	Cost Rate *	0%	2%	4%	6%
L-1	Fire	8.70%	0.60%	2.10%	11.40%	9.50%	7.60%	5.70%
L-3	Fire	10.60	0.70	2.70	14.00	12.10	10.20	8.30
LT-4(65)	Fire	10.50	0.60	2.80	13.90	12.00	10.10	8.20
LT-5(65)	Fire	12.00	0.70	3.10	15.80	13.90	12.00	10.10
L-7	Fire	12.60	0.80	3.20	16.60	14.70	12.80	10.90
LT-8(65)	Fire	13.50	0.80	3.50	17.80	15.90	14.00	12.10
L-12	Fire	14.50	0.90	3.70	19.10	17.20	15.30	13.40
LT-14(65)	Fire	15.00	0.90	3.90	19.80	17.90	16.00	14.10
L-6	Fire	16.50	1.00	4.30	21.80	19.90	18.00	16.10

^{*} 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 rate will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.



Employer Contribution Rates 3 Year FAS - Regular Retirement Eligibility

			Percents of Active Member Payroll					
					Tota	al Employer C	Contribution	Rate
		Normal		Prior	1	Based Upon 1	the Following	3
Benefit	Employee	Cost	Casualty	Service	N	lember Cont	ribution Rate	es
Program	Groups	Rate	Rate	Cost Rate *	0%	2%	4%	6%
L-1	Fire	8.90%	0.60%	2.20%	11.70%	9.80%	7.90%	6.00%
L-3	Fire	11.00	0.70	2.80	14.50	12.60	10.70	8.80
LT-4(65)	Fire	10.80	0.60	2.80	14.20	12.30	10.40	8.50
LT-5(65)	Fire	12.40	0.70	3.20	16.30	14.40	12.50	10.60
L-7	Fire	13.00	0.80	3.30	17.10	15.20	13.30	11.40
LT-8(65)	Fire	13.90	0.80	3.60	18.30	16.40	14.50	12.60
L-12	Fire	15.00	0.90	3.90	19.80	17.90	16.00	14.10
LT-14(65)	Fire	15.50	0.90	4.00	20.40	18.50	16.60	14.70
L-6	Fire	17.00	1.00	4.40	22.40	20.50	18.60	16.70

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



Employer Contribution Rates 5 Year FAS - Rule of 80 Retirement Eligibility#

			Percents of Active Member Payroll					
					Total Employer Contribution Rate			Rate
		Normal		Prior		Based Upon 1	the Following	3
Benefit	Employee	Cost	Casualty	Service	N	lember Cont	ribution Rate	:S
Program	Groups	Rate	Rate	Cost Rate *	0%	2%	4%	6%
L-1	Fire	9.00%	0.60%	2.30%	11.90%	10.00%	8.10%	6.20%
L-3	Fire	11.00	0.70	2.90	14.60	12.70	10.80	8.90
LT-4(65)	Fire	11.20	0.60	3.20	15.00	13.10	11.20	9.30
LT-5(65)	Fire	12.70	0.70	3.50	16.90	15.00	13.10	11.20
L-7	Fire	13.00	0.80	3.50	17.30	15.40	13.50	11.60
LT-8(65)	Fire	14.10	0.80	3.90	18.80	16.90	15.00	13.10
L-12	Fire	15.00	0.90	4.00	19.90	18.00	16.10	14.20
LT-14(65)	Fire	15.60	0.90	4.30	20.80	18.90	17.00	15.10
L-6	Fire	17.10	1.00	4.60	22.70	20.80	18.90	17.00

- # 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.
- * 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 rate will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.



Employer Contribution Rates 3 Year FAS - Rule of 80 Retirement Eligibility#

			Percents of Active Member Payroll					
					Total Employer Contribution Rate			Rate
		Normal		Prior		Based Upon 1	the Following	3
Benefit	Employee	Cost	Casualty	Service	N	lember Cont	ribution Rate	!S
Program	Groups	Rate	Rate	Cost Rate *	0%	2%	4%	6%
L-1	Fire	9.20%	0.60%	2.40%	12.20%	10.30%	8.40%	6.50%
L-3	Fire	11.30	0.70	3.00	15.00	13.10	11.20	9.30
LT-4(65)	Fire	11.60	0.60	3.30	15.50	13.60	11.70	9.80
LT-5(65)	Fire	13.10	0.70	3.70	17.50	15.60	13.70	11.80
L-7	Fire	13.40	0.80	3.60	17.80	15.90	14.00	12.10
LT-8(65)	Fire	14.60	0.80	4.00	19.40	17.50	15.60	13.70
L-12	Fire	15.50	0.90	4.20	20.60	18.70	16.80	14.90
LT-14(65)	Fire	16.10	0.90	4.40	21.40	19.50	17.60	15.70
L-6	Fire	17.60	1.00	4.80	23.40	21.50	19.60	17.70

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



Employer Contribution Dollars General

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:

Regular Retirement Eligibility

	5 Year FAS						
Benefit	N	lember Cont	tribution Rat	te			
Program	0%	2%	4%	6%			
L-1	\$ 47,552	\$ 39,627	\$ 31,702	\$ 23,776			
L-3	58,398	50,472	42,547	34,621			
LT-4(65)	57,980	50,055	42,130	34,204			
LT-5(65)	65,906	57,980	50,055	42,130			
L-7	69,243	61,317	53,392	45,467			
LT-8(65)	74,248	66,323	58,398	50,472			
L-12	79,671	71,746	63,820	55,895			
LT-14(65)	82,591	74,665	66,740	58,815			
L-6	90,933	83,008	75,083	67,157			

	3 Year FAS						
Benefit	N	lember Cont	tribution Rat	:e			
Program	0%	2%	4%	6%			
L-1	\$ 48,804	\$ 40,878	\$ 32,953	\$ 25,028			
L-3	60,483	52,558	44,632	36,707			
LT-4(65)	59,232	51,306	43,381	35,456			
LT-5(65)	67,991	60,066	52,141	44,215			
L-7	71,328	63,403	55,478	47,552			
LT-8(65)	76,334	68,409	60,483	52,558			
L-12	82,591	74,665	66,740	58,815			
LT-14(65)	85,094	77,168	69,243	61,317			
L-6	93,436	85,511	77,585	69,660			

Rule of 80 Retirement Eligibility

	5 Year FAS						
Benefit	N	lember Cont	tribution Rat	:e			
Program	0%	2%	4%	6%			
L-1	\$ 49,638	\$ 41,713	\$ 33,787	\$ 25,862			
L-3	60,900	52,975	45,050	37,124			
LT-4(65)	62,569	54,643	46,718	38,793			
LT-5(65)	70,494	62,569	54,643	46,718			
L-7	72,163	64,237	56,312	48,387			
LT-8(65)	78,420	70,494	62,569	54,643			
L-12	83,008	75,083	67,157	59,232			
LT-14(65)	86,762	78,837	70,911	62,986			
L-6	94,687	86,762	78,837	70,911			

	3 Year FAS						
Benefit	N	lember Cont	tribution Rat	:e			
Program	0%	2%	4%	6%			
L-1	\$ 50,889	\$ 42,964	\$ 35,039	\$ 27,113			
L-3	62,569	54,643	46,718	38,793			
LT-4(65)	64,654	56,729	48,804	40,878			
LT-5(65)	72,997	65,072	57,146	49,221			
L-7	74,248	66,323	58,398	50,472			
LT-8(65)	80,922	72,997	65,072	57,146			
L-12	85,928	78,002	70,077	62,152			
LT-14(65)	89,265	81,339	73,414	65,489			
L-6	97,607	89,682	81,757	73,831			

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

	Fire		
Number of Employees	9		
Annual Payroll	\$ 417,125		

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 7 as the "Prior Service Cost Rate" 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:

Carl Junction Fire Protection District

Regular Retirement Eligibility

		Member Contribution Rate - 0%		
Benefit	Employee	UAAL	UAAL	
Group	Group	(5 Year FAS)	(3 Year FAS)	
L-1	Fire	\$ 152,789	\$ 157,791	
L-3	Fire	191,074	197,297	
LT-4(65)	Fire	196,818	203,311	
LT-5(65)	Fire	224,073	231,410	
L-7	Fire	229,275	236,727	
LT-8(65)	Fire	251,233	259,489	
L-12	Fire	267,512	276,169	
LT-14(65)	Fire	278,502	287,523	
L-6	Fire	305,757	315,655	



Unfunded Actuarial Accrued Liability (UAAL)

Rule of 80 Retirement Eligibility

		Member Contribution Rate - 0%		
Benefit	Employee	UAAL	UAAL	
Group	Group	(5 Year FAS)	(3 Year FAS)	
L-1	Fire	\$ 165,261	\$ 170,922	
L-3	Fire	206,553	213,664	
LT-4(65)	Fire	227,680	235,497	
LT-5(65)	Fire	253,387	262,121	
L-7	Fire	247,863	256,323	
LT-8(65)	Fire	279,061	288,642	
L-12	Fire	289,185	299,070	
LT-14(65)	Fire	304,794	315,214	
L-6	Fire	330,514	341,818	





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 7.00% 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 2.25% and the wage inflation rate used in making the valuations was 2.75%. The 7.00% investment return rate translates to an assumed real rate of return over price inflation of 4.75% and over wage inflation of 4.25%. Adopted 2021.
- 2. The healthy retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were 115% of the PubG-2010 Retiree Mortality Table for males and females. The disabled retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were 115% of the PubNS-2010 Disabled Retiree Mortality Table for males and females. The pre-retirement mortality tables used were 75% of the PubG-2010 Employee Mortality Table for males and females of General groups and 75% of the PubS-2010 Employee Mortality Table for males and females of Police, Fire and Public Safety groups. Mortality rates for a particular calendar year are determined by applying the MP-2020 mortality improvement scale to the above described tables. Adopted 2021.
- 3. The probabilities of withdrawal and disability from service, together with individual pay increase assumptions, are shown in Schedule 1. Adopted 2021.
- 4. The probabilities of retirement with an age and service allowance are shown in Schedule 2. Adopted 2021.
- 5. Post-retirement cost of living allowances are assumed to be 2.00% per year. Adopted 2021.
- 6. Total active member payroll is assumed to increase 2.75% 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 2021.
- 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.
- 9. This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.



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/Public Safety Members							
Sample	Years of	N	⁄len	W	omen	Police		Fire	
Ages	Service	Disability	Withdrawal	Disability	Withdrawal	Disability	Withdrawal	Disability	Withdrawal
All	0		20.00%		23.00%		18.00%		12.00%
	1		18.00		21.00		17.00		10.00
	2		16.00		18.00		16.00		8.00
	3		13.00		15.00		14.00		8.00
	4		12.00		13.00		13.00		7.00
25	5 & Over	0.07%	8.80	0.02%	12.40	0.10%	10.80	0.07%	6.00
30		0.10	7.10	0.03	10.20	0.11	8.50	0.11	4.50
35		0.13	5.60	0.06	7.80	0.16	6.30	0.25	3.20
40		0.18	4.10	0.09	5.80	0.22	4.60	0.39	2.40
45		0.25	3.10	0.15	4.40	0.34	3.40	0.62	1.90
50		0.37	2.40	0.22	3.50	0.53	2.10	0.95	1.30
55		0.57	1.70	0.32	2.50	0.88	1.10	1.46	0.70
60		0.86	1.10	0.45	1.40		0.00		0.00
65			0.00		0.00		0.00		0.00

Percent Increase in Individual's Pay During Next Year

_		During Heat rear		
Sample	General/			
Ages	Public Safety	Police	Fire	
25	6.75%	6.55%	7.15%	
25	0.75%	0.55%	7.15%	
30	5.95	5.75	6.05	
35	5.35	5.25	5.15	
40	4.85	4.75	4.45	
45	4.25	4.25	4.05	
50	3.85	3.85	3.85	
55	3.65	3.65	3.45	



Schedule 2.

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

Early Retirement

Retirement	General Members		General Members Retirement Police/		
Ages	Men	Women	Ages	Public Safety	Fire
55	3.00%	3.00%	50	2.50%	2.25%
56	3.00%	3.00%	51	2.50%	2.25%
57	3.00%	3.00%	52	3.00%	2.25%
58	3.00%	3.00%	53	3.00%	2.25%
59	3.00%	3.00%	54	3.50%	2.25%

Normal Retirement

Retirement	General Members		General Members Retirement Police/		Police/	
Ages	Men	Women	Ages	Public Safety	Fire	
60	10%	10%	55	11%	13%	
61	10	10	56	11	13	
62	25	15	57	11	13	
63	20	15	58	11	13	
64	20	15	59	11	13	
65 66	25 25	25 30	60 61	11 11	15 20	
67	20	25	62	22	20	
68	20	25	63	18	20	
69	20	20	64	18	20	
70	100	100	65	100	100	



Schedule 2. (Concluded)

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

Retirement	etirement General Mer		mbers Police/	
Ages	Men	Women	Public Safety	Fire
50	20%	15%	25%	25%
51	20	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	25	15	20	45
63	25	15	20	45
64	25	20	20	45
65	30	25	100	100
66	30	25		
67	20	25		
68	20	25		
69	20	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, 2021 (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, public safety 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, public safety 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 a percent of compensation beginning after completion of sufficient employment for 6 months of credited service. The law governing LAGERS has a provision for the adoption of a 2%, 4% or 6% member contribution rate.

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 0% plan in which the full cost of LAGERS participation is paid by the employer. Adoption of the 0% plan may be done at the time of membership or a later date; however, a change in the member contribution rate may not be made more frequently than every 2 years. Under the 0% plan 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

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

Final	Estimated		Estimated		
Average	LAGERS	Social	Monthly	y Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS	
35 Years of Service:					
\$1,500	\$ 525	\$ 916	\$1,441	96%	
2,000	700	1,055	1,755	88%	
2,500	875	1,192	2,067	83%	
3,000	1,050	1,330	2,380	79%	
3,500	1,225	1,469	2,694	77%	
4,000	1,400	1,605	3,005	75%	
25 Years of Service:					
\$1,500	\$ 375	\$ 916	\$1,291	86%	
2,000	500	1,055	1,555	78%	
2,500	625	1,192	1,817	73%	
3,000	750	1,330	2,080	69%	
3,500	875	1,469	2,344	67%	
4,000	1,000	1,605	2,605	65%	
15 Years of Service:					
\$1,500	\$225	\$ 916	\$1,141	76%	
2,000	300	1,055	1,355	68%	
2,500	375	1,192	1,567	63%	
3,000	450	1,330	1,780	59%	
3,500	525	1,469	1,994	57%	
4,000	600	1,605	2,205	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.



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 2021 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

Final	Estimated		Estimated		
Average	LAGERS	Social	Monthly	y Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS	
35 Years of Service:					
\$1,500	\$ 656	\$ 916	\$1,572	105%	
2,000	875	1,055	1,930	97%	
2,500	1,094	1,192	2,286	91%	
3,000	1,313	1,330	2,643	88%	
3,500	1,531	1,469	3,000	86%	
4,000	1,750	1,605	3,355	84%	
25 Years of Service:					
\$1,500	\$ 469	\$ 916	\$1,385	92%	
2,000	625	1,055	1,680	84%	
2,500	781	1,192	1,973	79%	
3,000	938	1,330	2,268	76%	
3,500	1,094	1,469	2,563	73%	
4,000	1,250	1,605	2,855	71%	
15 Years of Service:					
\$1,500	\$281	\$ 916	\$1,197	80%	
2,000	375	1,055	1,430	72%	
2,500	469	1,192	1,661	66%	
3,000	563	1,330	1,893	63%	
3,500	656	1,469	2,125	61%	
4,000	750	1,605	2,355	59%	

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2021 - 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¢.

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

Final	Estimated		Estimated		
Average	LAGERS	Social	Monthly	y Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS	
35 Years of Service:					
\$1,500	\$ 788	\$ 916	\$1,704	114%	
2,000	1,050	1,055	2,105	105%	
2,500	1,313	1,192	2,505	100%	
3,000	1,575	1,330	2,905	97%	
3,500	1,838	1,469	3,307	94%	
4,000	2,100	1,605	3,705	93%	
25 Years of Service:					
\$1,500	\$ 563	\$ 916	\$1,479	99%	
2,000	750	1,055	1,805	90%	
2,500	938	1,192	2,130	85%	
3,000	1,125	1,330	2,455	82%	
3,500	1,313	1,469	2,782	79%	
4,000	1,500	1,605	3,105	78%	
15 Years of Service:					
\$1,500	\$338	\$ 916	\$1,254	84%	
2,000	450	1,055	1,505	75%	
2,500	563	1,192	1,755	70%	
3,000	675	1,330	2,005	67%	
3,500	788	1,469	2,257	64%	
4,000	900	1,605	2,505	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¢.



[&]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 2021 - 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	y Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS	
35 Years of Service:					
\$1,500	\$ 919	\$ 916	\$1,835	122%	
2,000	1,225	1,055	2,280	114%	
2,500	1,531	1,192	2,723	109%	
3,000	1,838	1,330	3,168	106%	
3,500	2,144	1,469	3,613	103%	
4,000	2,450	1,605	4,055	101%	
25 Years of Service:					
\$1,500	\$ 656	\$ 916	\$1,572	105%	
2,000	875	1,055	1,930	97%	
2,500	1,094	1,192	2,286	91%	
3,000	1,313	1,330	2,643	88%	
3,500	1,531	1,469	3,000	86%	
4,000	1,750	1,605	3,355	84%	
15 Years of Service:					
\$1,500	\$ 394	\$ 916	\$1,310	87%	
2,000	525	1,055	1,580	79%	
2,500	656	1,192	1,848	74%	
3,000	788	1,330	2,118	71%	
3,500	919	1,469	2,388	68%	
4,000	1,050	1,605	2,655	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 2021 - 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	y Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS	
35 Years of Service:					
\$1,500	\$1,050	\$ 916	\$1,966	131%	
2,000	1,400	1,055	2,455	123%	
2,500	1,750	1,192	2,942	118%	
3,000	2,100	1,330	3,430	114%	
3,500	2,450	1,469	3,919	112%	
4,000	2,800	1,605	4,405	110%	
25 Years of Service:					
\$1,500	\$ 750	\$ 916	\$1,666	111%	
2,000	1,000	1,055	2,055	103%	
2,500	1,250	1,192	2,442	98%	
3,000	1,500	1,330	2,830	94%	
3,500	1,750	1,469	3,219	92%	
4,000	2,000	1,605	3,605	90%	
15 Years of Service:					
\$1,500	\$ 450	\$ 916	\$1,366	91%	
2,000	600	1,055	1,655	83%	
2,500	750	1,192	1,942	78%	
3,000	900	1,330	2,230	74%	
3,500	1,050	1,469	2,519	72%	
4,000	1,200	1,605	2,805	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 2021 - it does not include any amounts which might be payable to an eligible spouse or children.

(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	ated	Perc	cent
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	2:						
\$1,500	\$1,050	\$ 525	\$ 916	\$1,050	\$1,441	70%	96%
2,000	1,400	700	1,055	1,400	1,755	70%	88%
2,500	1,750	875	1,192	1,750	2,067	70%	83%
3,000	2,100	1,050	1,330	2,100	2,380	70%	79%
3,500	2,450	1,225	1,469	2,450	2,694	70%	77%
4,000	2,800	1,400	1,605	2,800	3,005	70%	75%
25 Years of Service	2:						
\$1,500	\$ 750	\$ 375	\$ 916	\$ 750	\$1,291	50%	86%
2,000	1,000	500	1,055	1,000	1,555	50%	78%
2,500	1,250	625	1,192	1,250	1,817	50%	73%
3,000	1,500	750	1,330	1,500	2,080	50%	69%
3,500	1,750	875	1,469	1,750	2,344	50%	67%
4,000	2,000	1,000	1,605	2,000	2,605	50%	65%
15 Years of Service	2:						
\$1,500	\$ 450	\$225	\$ 916	\$ 450	\$1,141	30%	76%
2,000	600	300	1,055	600	1,355	30%	68%
2,500	750	375	1,192	750	1,567	30%	63%
3,000	900	450	1,330	900	1,780	30%	59%
3,500	1,050	525	1,469	1,050	1,994	30%	57%
4,000	1,200	600	1,605	1,200	2,205	30%	55%

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

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 2021 - it does not include any amounts which might be payable to an eligible spouse or children.

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

1.25% of FAS ¹ at age 65)

Final	LAG	ERS	Estimated	Estim	ated	Perc	ent
Average	BENI	EFIT ³	Social	Monthl	y Total	of F	AS
Salary (FAS) ¹	To 65	At 65	Security ²	To 65	At 65	To 65	At 65
35 Years of Service	e:						
\$1,500	\$1,050	\$ 656	\$ 916	\$1,050	\$1,572	70%	105%
2,000	1,400	875	1,055	1,400	1,930	70%	97%
2,500	1,750	1,094	1,192	1,750	2,286	70%	91%
3,000	2,100	1,313	1,330	2,100	2,643	70%	88%
3,500	2,450	1,531	1,469	2,450	3,000	70%	86%
4,000	2,800	1,750	1,605	2,800	3,355	70%	84%
25 Years of Service	e:						
\$1,500	\$ 750	\$ 469	\$ 916	\$ 750	\$1,385	50%	92%
2,000	1,000	625	1,055	1,000	1,680	50%	84%
2,500	1,250	781	1,192	1,250	1,973	50%	79%
3,000	1,500	938	1,330	1,500	2,268	50%	76%
3,500	1,750	1,094	1,469	1,750	2,563	50%	73%
4,000	2,000	1,250	1,605	2,000	2,855	50%	71%
15 Years of Service	e:						
\$1,500	\$ 450	\$281	\$ 916	\$ 450	\$1,197	30%	80%
2,000	600	375	1,055	600	1,430	30%	72%
2,500	750	469	1,192	750	1,661	30%	66%
3,000	900	563	1,330	900	1,893	30%	63%
3,500	1,050	656	1,469	1,050	2,125	30%	61%
4,000	1,200	750	1,605	1,200	2,355	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 2021 - it does not include any amounts which might be payable to an eligible spouse or children.

(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 BENEFIT ³		Estimated Social	Estim	nated	Percent of FAS To 65 At 65	
Average				Month	ly Total		
Salary (FAS) ¹	To 65	At 65	Security ²	To 65 At 65			
35 Years of Service	:						
\$1,500	\$1,050	\$ 788	\$ 916	\$1,050	\$1,704	70%	114%
2,000	1,400	1,050	1,055	1,400	2,105	70%	105%
2,500	1,750	1,313	1,192	1,750	2,505	70%	100%
3,000	2,100	1,575	1,330	2,100	2,905	70%	97%
3,500	2,450	1,838	1,469	2,450	3,307	70%	94%
4,000	2,800	2,100	1,605	2,800	3,705	70%	93%
25 Years of Service	:						
\$1,500	\$ 750	\$ 563	\$ 916	\$ 750	\$1,479	50%	99%
2,000	1,000	750	1,055	1,000	1,805	50%	90%
2,500	1,250	938	1,192	1,250	2,130	50%	85%
3,000	1,500	1,125	1,330	1,500	2,455	50%	82%
3,500	1,750	1,313	1,469	1,750	2,782	50%	79%
4,000	2,000	1,500	1,605	2,000	3,105	50%	78%
15 Years of Service	:						
\$1,500	\$ 450	\$338	\$ 916	\$ 450	\$1,254	30%	84%
2,000	600	450	1,055	600	1,505	30%	75%
2,500	750	563	1,192	750	1,755	30%	70%
3,000	900	675	1,330	900	2,005	30%	67%
3,500	1,050	788	1,469	1,050	2,257	30%	64%
4,000	1,200	900	1,605	1,200	2,505	30%	63%

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



² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2021 - 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¢.

(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 BENEFIT ³		Estimated Social	Estim	nated	Percent of FAS To 65 At 65	
Average				Month	y Total		
Salary (FAS) ¹	To 65	At 65	Security ²	To 65 At 65			
35 Years of Service	:						
\$1,500	\$1,050	\$ 919	\$ 916	\$1,050	\$1,835	70%	122%
2,000	1,400	1,225	1,055	1,400	2,280	70%	114%
2,500	1,750	1,531	1,192	1,750	2,723	70%	109%
3,000	2,100	1,838	1,330	2,100	3,168	70%	106%
3,500	2,450	2,144	1,469	2,450	3,613	70%	103%
4,000	2,800	2,450	1,605	2,800	4,055	70%	101%
25 Years of Service	:						
\$1,500	\$ 750	\$ 656	\$ 916	\$ 750	\$1,572	50%	105%
2,000	1,000	875	1,055	1,000	1,930	50%	97%
2,500	1,250	1,094	1,192	1,250	2,286	50%	91%
3,000	1,500	1,313	1,330	1,500	2,643	50%	88%
3,500	1,750	1,531	1,469	1,750	3,000	50%	86%
4,000	2,000	1,750	1,605	2,000	3,355	50%	84%
15 Years of Service	:						
\$1,500	\$ 450	\$ 394	\$ 916	\$ 450	\$1,310	30%	87%
2,000	600	525	1,055	600	1,580	30%	79%
2,500	750	656	1,192	750	1,848	30%	74%
3,000	900	788	1,330	900	2,118	30%	71%
3,500	1,050	919	1,469	1,050	2,388	30%	68%
4,000	1,200	1,050	1,605	1,200	2,655	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 2021 - it does not include any amounts which might be payable to an eligible spouse or children.



AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

Carl Junction Fire Protection District - General

February 28, 2022

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	\$ 84,870
30-34	1	1						2	\$ 89,632
35-39									
40-44	1							1	\$ 43,061
45-49	1			1				2	\$ 100,533
50-54	1							1	\$ 45,504
55-59	1							1	\$ 53,525
60-64									
65-69									
70 & Over									
Totals	7	1		1				9	\$ 417,125

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

Age: 39.8 years.

Benefit Service: 3.3 years.

Annual Pay: \$46,347.





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



Risk Commentary (Concluded)

PLAN MATURITY MEASURES

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

RATIO OF MARKET VALUE OF ASSETS TO PAYROLL

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

RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL

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

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

RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS

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

DURATION OF ACTUARIAL ACCRUED LIABILITY

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

ADDITIONAL RISK ASSESSMENT

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





May 16, 2022 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 February 28, 2022 Initial Actuarial Valuation of LAGERS benefits for the employees of

Carl Junction Fire Protection District

Sincerely,

Mita D. Drazilov, ASA, FCA, MAAA

Mita Drajilor

MDD:wp



May 16, 2022

Carl Junction Fire Protection District Carl Junction, Missouri

Ladies and Gentlemen:

This report contains 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. This report is intended to be a supplement to the February 28, 2022 Initial Valuation for the Carl Junction Fire Protection District dated May 16, 2022.

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, 2021. The unfunded actuarial accrued liability shown for each member contribution rate option is based on the 0% member contribution rate plan.

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, Gabriel, Roeder, Smith & Company

Mita D. Drazilov, ASA, FCA, MAAA

Employer Contribution Rates (0% Member Contribution Rate, 5 Year FAS)

Regular Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
			l Employer	Unfunded		Employer	Unfunded		Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contri	bution	Actuarial	Contr	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2022	\$ 417,125	11.4%	\$47,552	\$ 152,789	14.0%	\$58,398	\$ 191,074	13.9%	\$57,980	\$ 196,818
2023	428,596	11.4	48,860	154,255	14.0	60,003	192,907	13.9	59,575	198,706
2024	440,382	11.4	50,204	155,569	14.0	61,653	194,551	13.9	61,213	200,399
2025	452,493	11.4	51,584	156,715	14.0	63,349	195,984	13.9	62,897	201,875
2026	464,937	11.4	53,003	157,673	14.0	65,091	197,182	13.9	64,626	203,109
2027	477,723	11.4	54,460	158,423	14.0	66,881	198,119	13.9	66,403	204,075
2028	490,860	11.4	55,958	158,942	14.0	68,720	198,768	13.9	68,230	204,744
2029	504,359	11.4	57,497	159,207	14.0	70,610	199,099	13.9	70,106	205,085
2030	518,229	11.4	59,078	159,192	14.0	72,552	199,080	13.9	72,034	205,065
2031	532,480	11.4	60,703	158,869	14.0	74,547	198,676	13.9	74,015	204,649

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		Estimated Employer U			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	
2022	\$ 417,125	15.8%	\$65,906	\$ 224,073	16.6%	\$69,243	\$ 229,275	17.8%	\$74,248	\$ 251,233	
2023	428,596	15.8	67,718	226,222	16.6	71,147	231,474	17.8	76,290	253,643	
2024	440,382	15.8	69,580	228,150	16.6	73,103	233,446	17.8	78,388	255,804	
2025	452,493	15.8	71,494	229,830	16.6	75,114	235,165	17.8	80,544	257,688	
2026	464,937	15.8	73,460	231,235	16.6	77,180	236,602	17.8	82,759	259,263	
2027	477,723	15.8	75,480	232,334	16.6	79,302	237,727	17.8	85,035	260,496	
2028	490,860	15.8	77,556	233,095	16.6	81,483	238,506	17.8	87,373	261,350	
2029	504,359	15.8	79,689	233,483	16.6	83,724	238,903	17.8	89,776	261,785	
2030	518,229	15.8	81,880	233,461	16.6	86,026	238,880	17.8	92,245	261,760	
2031	532 480	15.8	84 132	232 987	16.6	88.392	238.395	17.8	94.781	261.228	

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		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
2022	\$ 417,125	19.1%	\$79,671	\$ 267,512	19.8%	\$82,591	\$ 278,502	21.8%	\$90,933	\$ 305,757
2023	428,596	19.1	81,862	270,078	19.8	84,862	281,174	21.8	93,434	308,690
2024	440,382	19.1	84,113	272,379	19.8	87,196	283,570	21.8	96,003	311,320
2025	452,493	19.1	86,426	274,385	19.8	89,594	285,658	21.8	98,643	313,613
2026	464,937	19.1	88,803	276,062	19.8	92,058	287,404	21.8	101,356	315,530
2027	477,723	19.1	91,245	277,374	19.8	94,589	288,770	21.8	104,144	317,030
2028	490,860	19.1	93,754	278,283	19.8	97,190	289,716	21.8	107,007	318,069
2029	504,359	19.1	96,333	278,747	19.8	99,863	290,199	21.8	109,950	318,599
2030	518,229	19.1	98,982	278,720	19.8	102,609	290,171	21.8	112,974	318,568
2031	532,480	19.1	101,704	278,154	19.8	105,431	289,582	21.8	116,081	317,921

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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 (2% Member Contribution Rate, 5 Year FAS) (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	ed Contribution		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
2022	\$ 417,125	9.5%	\$39,627	\$ 152,789	12.1%	\$50,472	\$ 191,074	12.0%	\$50,055	\$ 196,818
2023	428,596	9.5	40,717	154,255	12.1	51,860	192,907	12.0	51,432	198,706
2024	440,382	9.5	41,836	155,569	12.1	53,286	194,551	12.0	52,846	200,399
2025	452,493	9.5	42,987	156,715	12.1	54,752	195,984	12.0	54,299	201,875
2026	464,937	9.5	44,169	157,673	12.1	56,257	197,182	12.0	55,792	203,109
2027	477,723	9.5	45,384	158,423	12.1	57,804	198,119	12.0	57,327	204,075
2028	490,860	9.5	46,632	158,942	12.1	59,394	198,768	12.0	58,903	204,744
2029	504,359	9.5	47,914	159,207	12.1	61,027	199,099	12.0	60,523	205,085
2030	518,229	9.5	49,232	159,192	12.1	62,706	199,080	12.0	62,187	205,065
2031	532,480	9.5	50,586	158,869	12.1	64,430	198,676	12.0	63,898	204,649

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		Estimated Employer Contribution			Estimated Employer Contribution			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	
2022	\$ 417,125	13.9%	\$57,980	\$ 224,073	14.7%	\$61,317	\$ 229,275	15.9%	\$66,323	\$ 251,233	
2023	428,596	13.9	59,575	226,222	14.7	63,004	231,474	15.9	68,147	253,643	
2024	440,382	13.9	61,213	228,150	14.7	64,736	233,446	15.9	70,021	255,804	
2025	452,493	13.9	62,897	229,830	14.7	66,516	235,165	15.9	71,946	257,688	
2026	464,937	13.9	64,626	231,235	14.7	68,346	236,602	15.9	73,925	259,263	
2027	477,723	13.9	66,403	232,334	14.7	70,225	237,727	15.9	75,958	260,496	
2028	490,860	13.9	68,230	233,095	14.7	72,156	238,506	15.9	78,047	261,350	
2029	504,359	13.9	70,106	233,483	14.7	74,141	238,903	15.9	80,193	261,785	
2030	518,229	13.9	72,034	233,461	14.7	76,180	238,880	15.9	82,398	261,760	
2031	532,480	13.9	74,015	232,987	14.7	78,275	238,395	15.9	84,664	261,228	

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L	6 Benefit Pro	gram
		Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2022	\$ 417,125	17.2%	\$71,746	\$ 267,512	17.9%	\$74,665	\$ 278,502	19.9%	\$83,008	\$ 305,757
2023	428,596	17.2	73,719	270,078	17.9	76,719	281,174	19.9	85,291	308,690
2024	440,382	17.2	75,746	272,379	17.9	78,828	283,570	19.9	87,636	311,320
2025	452,493	17.2	77,829	274,385	17.9	80,996	285,658	19.9	90,046	313,613
2026	464,937	17.2	79,969	276,062	17.9	83,224	287,404	19.9	92,522	315,530
2027	477,723	17.2	82,168	277,374	17.9	85,512	288,770	19.9	95,067	317,030
2028	490,860	17.2	84,428	278,283	17.9	87,864	289,716	19.9	97,681	318,069
2029	504,359	17.2	86,750	278,747	17.9	90,280	290,199	19.9	100,367	318,599
2030	518,229	17.2	89,135	278,720	17.9	92,763	290,171	19.9	103,128	318,568
2031	532,480	17.2	91,587	278,154	17.9	95,314	289,582	19.9	105,964	317,921

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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.
- 1) 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 (4% Member Contribution Rate, 5 Year FAS) (Member contributions are additional)

Regular 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	ated <u>Contribution</u>		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
2022	\$ 417,125	7.6%	\$31,702	\$ 152,789	10.2%	\$42,547	\$ 191,074	10.1%	\$42,130	\$ 196,818
2023	428,596	7.6	32,573	154,255	10.2	43,717	192,907	10.1	43,288	198,706
2024	440,382	7.6	33,469	155,569	10.2	44,919	194,551	10.1	44,479	200,399
2025	452,493	7.6	34,389	156,715	10.2	46,154	195,984	10.1	45,702	201,875
2026	464,937	7.6	35,335	157,673	10.2	47,424	197,182	10.1	46,959	203,109
2027	477,723	7.6	36,307	158,423	10.2	48,728	198,119	10.1	48,250	204,075
2028	490,860	7.6	37,305	158,942	10.2	50,068	198,768	10.1	49,577	204,744
2029	504,359	7.6	38,331	159,207	10.2	51,445	199,099	10.1	50,940	205,085
2030	518,229	7.6	39,385	159,192	10.2	52,859	199,080	10.1	52,341	205,065
2031	532,480	7.6	40,468	158,869	10.2	54,313	198,676	10.1	53,780	204,649

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Fatimata d		l Employer	Unfunded		l Employer	Unfunded		l Employer	Unfunded	
Valuation	Estimated Projected	As a % of	ibution Annual	Actuarial Accrued	As a % of	ibution Annual	Actuarial Accrued	As a % of	ibution Annual	Actuarial Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2022	\$ 417,125	12.0%	\$50,055	\$ 224,073	12.8%	\$53,392	\$ 229,275	14.0%	\$58,398	\$ 251,233	
2023	428,596	12.0	51,432	226,222	12.8	54,860	231,474	14.0	60,003	253,643	
2024	440,382	12.0	52,846	228,150	12.8	56,369	233,446	14.0	61,653	255,804	
2025	452,493	12.0	54,299	229,830	12.8	57,919	235,165	14.0	63,349	257,688	
2026	464,937	12.0	55,792	231,235	12.8	59,512	236,602	14.0	65,091	259,263	
2027	477,723	12.0	57,327	232,334	12.8	61,149	237,727	14.0	66,881	260,496	
2028	490,860	12.0	58,903	233,095	12.8	62,830	238,506	14.0	68,720	261,350	
2029	504,359	12.0	60,523	233,483	12.8	64,558	238,903	14.0	70,610	261,785	
2030	518,229	12.0	62,187	233,461	12.8	66,333	238,880	14.0	72,552	261,760	
2031	532 480	12.0	63 898	232 987	12.8	68 157	238 395	14.0	74 547	261 228	

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
		Estimated	d Employer	Unfunded	Estimated	d Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2022	\$ 417,125	15.3%	\$63,820	\$ 267,512	16.0%	\$66,740	\$ 278,502	18.0%	\$75,083	\$ 305,757
2023	428,596	15.3	65,575	270,078	16.0	68,575	281,174	18.0	77,147	308,690
2024	440,382	15.3	67,378	272,379	16.0	70,461	283,570	18.0	79,269	311,320
2025	452,493	15.3	69,231	274,385	16.0	72,399	285,658	18.0	81,449	313,613
2026	464,937	15.3	71,135	276,062	16.0	74,390	287,404	18.0	83,689	315,530
2027	477,723	15.3	73,092	277,374	16.0	76,436	288,770	18.0	85,990	317,030
2028	490,860	15.3	75,102	278,283	16.0	78,538	289,716	18.0	88,355	318,069
2029	504,359	15.3	77,167	278,747	16.0	80,697	290,199	18.0	90,785	318,599
2030	518,229	15.3	79,289	278,720	16.0	82,917	290,171	18.0	93,281	318,568
2031	532,480	15.3	81,469	278,154	16.0	85,197	289,582	18.0	95,846	317,921

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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 (6% Member Contribution Rate, 5 Year FAS) (Member contributions are additional)

Regular 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	d Contribution		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	
2022	\$ 417,125	5.7%	\$23,776	\$ 152,789	8.3%	\$34,621	\$ 191,074	8.2%	\$34,204	\$ 196,818	
2023	428,596	5.7	24,430	154,255	8.3	35,573	192,907	8.2	35,145	198,706	
2024	440,382	5.7	25,102	155,569	8.3	36,552	194,551	8.2	36,111	200,399	
2025	452,493	5.7	25,792	156,715	8.3	37,557	195,984	8.2	37,104	201,875	
2026	464,937	5.7	26,501	157,673	8.3	38,590	197,182	8.2	38,125	203,109	
2027	477,723	5.7	27,230	158,423	8.3	39,651	198,119	8.2	39,173	204,075	
2028	490,860	5.7	27,979	158,942	8.3	40,741	198,768	8.2	40,251	204,744	
2029	504,359	5.7	28,748	159,207	8.3	41,862	199,099	8.2	41,357	205,085	
2030	518,229	5.7	29,539	159,192	8.3	43,013	199,080	8.2	42,495	205,065	
2031	532,480	5.7	30,351	158,869	8.3	44,196	198,676	8.2	43,663	204,649	

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		l Employer ibution	Unfunded Actuarial		Estimated Employer Contribution			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	
2022	\$ 417,125	10.1%	\$42,130	\$ 224,073	10.9%	\$45,467	\$ 229,275	12.1%	\$50,472	\$ 251,233	
2023	428,596	10.1	43,288	226,222	10.9	46,717	231,474	12.1	51,860	253,643	
2024	440,382	10.1	44,479	228,150	10.9	48,002	233,446	12.1	53,286	255,804	
2025	452,493	10.1	45,702	229,830	10.9	49,322	235,165	12.1	54,752	257,688	
2026	464,937	10.1	46,959	231,235	10.9	50,678	236,602	12.1	56,257	259,263	
2027	477,723	10.1	48,250	232,334	10.9	52,072	237,727	12.1	57,804	260,496	
2028	490,860	10.1	49,577	233,095	10.9	53,504	238,506	12.1	59,394	261,350	
2029	504,359	10.1	50,940	233,483	10.9	54,975	238,903	12.1	61,027	261,785	
2030	518,229	10.1	52,341	233,461	10.9	56,487	238,880	12.1	62,706	261,760	
2031	532 480	10.1	53.780	232.987	10.9	58.040	238.395	12.1	64 430	261.228	

		L-12 Benefit Program			LT-14	1(65) Benefit I	rogram	L-6 Benefit Program		
	enternal		l Employer	Unfunded		l Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2022	\$ 417,125	13.4%	\$55,895	\$ 267,512	14.1%	\$58,815	\$ 278,502	16.1%	\$67,157	\$ 305,757
2023	428,596	13.4	57,432	270,078	14.1	60,432	281,174	16.1	69,004	308,690
2024	440,382	13.4	59,011	272,379	14.1	62,094	283,570	16.1	70,902	311,320
2025	452,493	13.4	60,634	274,385	14.1	63,802	285,658	16.1	72,851	313,613
2026	464,937	13.4	62,302	276,062	14.1	65,556	287,404	16.1	74,855	315,530
2027	477,723	13.4	64,015	277,374	14.1	67,359	288,770	16.1	76,913	317,030
2028	490,860	13.4	65,775	278,283	14.1	69,211	289,716	16.1	79,028	318,069
2029	504,359	13.4	67,584	278,747	14.1	71,115	290,199	16.1	81,202	318,599
2030	518,229	13.4	69,443	278,720	14.1	73,070	290,171	16.1	83,435	318,568
2031	532,480	13.4	71,352	278,154	14.1	75,080	289,582	16.1	85,729	317,921

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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 (0% Member Contribution Rate, 3 Year FAS)

Regular Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
	Estimated		Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial		Employer bution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	\$ 417,125	11.7%	\$48,804	\$ 157,791	14.5%	\$60,483	\$ 197,297	14.2%	\$59,232	\$ 203,311
2023	428,596	11.7	50,146	159,305	14.5	62,146	199,190	14.2	60,861	205,261
2024	440,382	11.7	51,525	160,662	14.5	63,855	200,887	14.2	62,534	207,010
2025	452,493	11.7	52,942	161,845	14.5	65,611	202,366	14.2	64,254	208,534
2026	464,937	11.7	54,398	162,834	14.5	67,416	203,603	14.2	66,021	209,809
2027	477,723	11.7	55,894	163,608	14.5	69,270	204,571	14.2	67,837	210,806
2028	490,860	11.7	57,431	164,144	14.5	71,175	205,241	14.2	69,702	211,497
2029	504,359	11.7	59,010	164,417	14.5	73,132	205,583	14.2	71,619	211,849
2030	518,229	11.7	60,633	164,401	14.5	75,143	205,563	14.2	73,589	211,829
2031	532,480	11.7	62,300	164,067	14.5	77,210	205,146	14.2	75,612	211,399

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		Estimated Employer Unfunded Contribution Actuarial			l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	\$ 417,125	16.3%	\$67,991	\$ 231,410	17.1%	\$71,328	\$ 236,727	18.3%	\$76,334	\$ 259,489
2023	428,596	16.3	69,861	233,630	17.1	73,290	238,998	18.3	78,433	261,978
2024	440,382	16.3	71,782	235,621	17.1	75,305	241,035	18.3	80,590	264,210
2025	452,493	16.3	73,756	237,356	17.1	77,376	242,810	18.3	82,806	266,156
2026	464,937	16.3	75,785	238,807	17.1	79,504	244,294	18.3	85,083	267,783
2027	477,723	16.3	77,869	239,942	17.1	81,691	245,455	18.3	87,423	269,056
2028	490,860	16.3	80,010	240,728	17.1	83,937	246,259	18.3	89,827	269,938
2029	504,359	16.3	82,211	241,129	17.1	86,245	246,669	18.3	92,298	270,388
2030	518,229	16.3	84,471	241,106	17.1	88,617	246,645	18.3	94,836	270,362
2031	532 480	16.3	86.794	240.616	17.1	91.054	246.144	18.3	97 444	269.813

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated Valuation Projected		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
2022	\$ 417,125	19.8%	\$82,591	\$ 276,169	20.4%	\$85,094	\$ 287,523	22.4%	\$93,436	\$ 315,655
2023	428,596	19.8	84,862	278,818	20.4	87,434	290,281	22.4	96,006	318,683
2024	440,382	19.8	87,196	281,194	20.4	89,838	292,755	22.4	98,646	321,399
2025	452,493	19.8	89,594	283,265	20.4	92,309	294,911	22.4	101,358	323,766
2026	464,937	19.8	92,058	284,996	20.4	94,847	296,714	22.4	104,146	325,745
2027	477,723	19.8	94,589	286,351	20.4	97,455	298,125	22.4	107,010	327,294
2028	490,860	19.8	97,190	287,289	20.4	100,135	299,102	22.4	109,953	328,367
2029	504,359	19.8	99,863	287,768	20.4	102,889	299,600	22.4	112,976	328,914
2030	518,229	19.8	102,609	287,740	20.4	105,719	299,571	22.4	116,083	328,882
2031	532,480	19.8	105,431	287,156	20.4	108,626	298,963	22.4	119,276	328,214

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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 (2% Member Contribution Rate, 3 Year FAS) (Member contributions are additional)

Regular Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
			l Employer	Unfunded		Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contri	bution	Actuarial	Contri	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2022	\$ 417,125	9.8%	\$40,878	\$ 157,791	12.6%	\$52,558	\$ 197,297	12.3%	\$51,306	\$ 203,311
2023	428,596	9.8	42,002	159,305	12.6	54,003	199,190	12.3	52,717	205,261
2024	440,382	9.8	43,157	160,662	12.6	55,488	200,887	12.3	54,167	207,010
2025	452,493	9.8	44,344	161,845	12.6	57,014	202,366	12.3	55,657	208,534
2026	464,937	9.8	45,564	162,834	12.6	58,582	203,603	12.3	57,187	209,809
2027	477,723	9.8	46,817	163,608	12.6	60,193	204,571	12.3	58,760	210,806
2028	490,860	9.8	48,104	164,144	12.6	61,848	205,241	12.3	60,376	211,497
2029	504,359	9.8	49,427	164,417	12.6	63,549	205,583	12.3	62,036	211,849
2030	518,229	9.8	50,786	164,401	12.6	65,297	205,563	12.3	63,742	211,829
2031	532,480	9.8	52,183	164,067	12.6	67,092	205,146	12.3	65,495	211,399

	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		Estimated Employer Contribution			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
2022	\$ 417,125	14.4%	\$60,066	\$ 231,410	15.2%	\$63,403	\$ 236,727	16.4%	\$68,409	\$ 259,489
2023	428,596	14.4	61,718	233,630	15.2	65,147	238,998	16.4	70,290	261,978
2024	440,382	14.4	63,415	235,621	15.2	66,938	241,035	16.4	72,223	264,210
2025	452,493	14.4	65,159	237,356	15.2	68,779	242,810	16.4	74,209	266,156
2026	464,937	14.4	66,951	238,807	15.2	70,670	244,294	16.4	76,250	267,783
2027	477,723	14.4	68,792	239,942	15.2	72,614	245,455	16.4	78,347	269,056
2028	490,860	14.4	70,684	240,728	15.2	74,611	246,259	16.4	80,501	269,938
2029	504,359	14.4	72,628	241,129	15.2	76,663	246,669	16.4	82,715	270,388
2030	518,229	14.4	74,625	241,106	15.2	78,771	246,645	16.4	84,990	270,362
2031	532,480	14.4	76.677	240.616	15.2	80.937	246.144	16.4	87.327	269.813

		L-:	12 Benefit Pro	gram	LT-14	1(65) Benefit I	Program	L·	-6 Benefit Pro	gram
	Estimated		Estimated Employer Contribution			Estimated Employer Contribution			imated Employer Contribution % of Annual roll Dollars 0.5% \$85,511 0.5 87,862 0.5 90,278	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll		Accrued Liability
2022	\$ 417,125	17.9%	\$74,665	\$ 276,169	18.5%	\$77,168	\$ 287,523	20.5%	\$85,511	\$ 315,655
2023	428,596	17.9	76,719	278,818	18.5	79,290	290,281	20.5	87,862	318,683
2024	440,382	17.9	78,828	281,194	18.5	81,471	292,755	20.5	90,278	321,399
2025	452,493	17.9	80,996	283,265	18.5	83,711	294,911	20.5	92,761	323,766
2026	464,937	17.9	83,224	284,996	18.5	86,013	296,714	20.5	95,312	325,745
2027	477,723	17.9	85,512	286,351	18.5	88,379	298,125	20.5	97,933	327,294
2028	490,860	17.9	87,864	287,289	18.5	90,809	299,102	20.5	100,626	328,367
2029	504,359	17.9	90,280	287,768	18.5	93,306	299,600	20.5	103,394	328,914
2030	518,229	17.9	92,763	287,740	18.5	95,872	299,571	20.5	106,237	328,882
2031	532,480	17.9	95,314	287,156	18.5	98,509	298,963	20.5	109,158	328,214

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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 (4% Member Contribution Rate, 3 Year FAS) (Member contributions are additional)

Regular Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
	Estimated	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial		Employer bution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	\$ 417,125	7.9%	\$32,953	\$ 157,791	10.7%	\$44,632	\$ 197,297	10.4%	\$43,381	\$ 203,311
2023	428,596	7.9	33,859	159,305	10.7	45,860	199,190	10.4	44,574	205,261
2024	440,382	7.9	34,790	160,662	10.7	47,121	200,887	10.4	45,800	207,010
2025	452,493	7.9	35,747	161,845	10.7	48,417	202,366	10.4	47,059	208,534
2026	464,937	7.9	36,730	162,834	10.7	49,748	203,603	10.4	48,353	209,809
2027	477,723	7.9	37,740	163,608	10.7	51,116	204,571	10.4	49,683	210,806
2028	490,860	7.9	38,778	164,144	10.7	52,522	205,241	10.4	51,049	211,497
2029	504,359	7.9	39,844	164,417	10.7	53,966	205,583	10.4	52,453	211,849
2030	518,229	7.9	40,940	164,401	10.7	55,451	205,563	10.4	53,896	211,829
2031	532,480	7.9	42,066	164,067	10.7	56,975	205,146	10.4	55,378	211,399

		LT-5	(65) Benefit P	rogram	L	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		Estimated Employer Contribution			l Employer ibution	Unfunded Actuarial		ribution Annual	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll		Accrued Liability
2022	\$ 417,125	12.5%	\$52,141	\$ 231,410	13.3%	\$55,478	\$ 236,727	14.5%	\$60,483	\$ 259,489
2023	428,596	12.5	53,575	233,630	13.3	57,003	238,998	14.5	62,146	261,978
2024	440,382	12.5	55,048	235,621	13.3	58,571	241,035	14.5	63,855	264,210
2025	452,493	12.5	56,562	237,356	13.3	60,182	242,810	14.5	65,611	266,156
2026	464,937	12.5	58,117	238,807	13.3	61,837	244,294	14.5	67,416	267,783
2027	477,723	12.5	59,715	239,942	13.3	63,537	245,455	14.5	69,270	269,056
2028	490,860	12.5	61,358	240,728	13.3	65,284	246,259	14.5	71,175	269,938
2029	504,359	12.5	63,045	241,129	13.3	67,080	246,669	14.5	73,132	270,388
2030	518,229	12.5	64,779	241,106	13.3	68,924	246,645	14.5	75,143	270,362
2031	532,480	12.5	66,560	240,616	13.3	70,820	246,144	14.5	77,210	269,813

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated Valuation Projected		Estimated Employer Contribution			l Employer ibution	Unfunded Actuarial		d Employer ribution Annual Dollars \$77,585 79,719	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll		Accrued Liability
2022	\$ 417,125	16.0%	\$66,740	\$ 276,169	16.6%	\$69,243	\$ 287,523	18.6%	\$77,585	\$ 315,655
2023	428,596	16.0	68,575	278,818	16.6	71,147	290,281	18.6	79,719	318,683
2024	440,382	16.0	70,461	281,194	16.6	73,103	292,755	18.6	81,911	321,399
2025	452,493	16.0	72,399	283,265	16.6	75,114	294,911	18.6	84,164	323,766
2026	464,937	16.0	74,390	284,996	16.6	77,180	296,714	18.6	86,478	325,745
2027	477,723	16.0	76,436	286,351	16.6	79,302	298,125	18.6	88,856	327,294
2028	490,860	16.0	78,538	287,289	16.6	81,483	299,102	18.6	91,300	328,367
2029	504,359	16.0	80,697	287,768	16.6	83,724	299,600	18.6	93,811	328,914
2030	518,229	16.0	82,917	287,740	16.6	86,026	299,571	18.6	96,391	328,882
2031	532,480	16.0	85,197	287,156	16.6	88,392	298,963	18.6	99,041	328,214

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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 (6% Member Contribution Rate, 3 Year FAS) (Member contributions are additional)

Regular Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
	Estimated		Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial		Employer bution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	\$ 417,125	6.0%	\$25,028	\$ 157,791	8.8%	\$36,707	\$ 197,297	8.5%	\$35,456	\$ 203,311
2023	428,596	6.0	25,716	159,305	8.8	37,716	199,190	8.5	36,431	205,261
2024	440,382	6.0	26,423	160,662	8.8	38,754	200,887	8.5	37,432	207,010
2025	452,493	6.0	27,150	161,845	8.8	39,819	202,366	8.5	38,462	208,534
2026	464,937	6.0	27,896	162,834	8.8	40,914	203,603	8.5	39,520	209,809
2027	477,723	6.0	28,663	163,608	8.8	42,040	204,571	8.5	40,606	210,806
2028	490,860	6.0	29,452	164,144	8.8	43,196	205,241	8.5	41,723	211,497
2029	504,359	6.0	30,262	164,417	8.8	44,384	205,583	8.5	42,871	211,849
2030	518,229	6.0	31,094	164,401	8.8	45,604	205,563	8.5	44,049	211,829
2031	532,480	6.0	31,949	164,067	8.8	46,858	205,146	8.5	45,261	211,399

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		Estimated Employer Contribution			d Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	\$ 417,125	10.6%	\$44,215	\$ 231,410	11.4%	\$47,552	\$ 236,727	12.6%	\$52,558	\$ 259,489
2023	428,596	10.6	45,431	233,630	11.4	48,860	238,998	12.6	54,003	261,978
2024	440,382	10.6	46,680	235,621	11.4	50,204	241,035	12.6	55,488	264,210
2025	452,493	10.6	47,964	237,356	11.4	51,584	242,810	12.6	57,014	266,156
2026	464,937	10.6	49,283	238,807	11.4	53,003	244,294	12.6	58,582	267,783
2027	477,723	10.6	50,639	239,942	11.4	54,460	245,455	12.6	60,193	269,056
2028	490,860	10.6	52,031	240,728	11.4	55,958	246,259	12.6	61,848	269,938
2029	504,359	10.6	53,462	241,129	11.4	57,497	246,669	12.6	63,549	270,388
2030	518,229	10.6	54,932	241,106	11.4	59,078	246,645	12.6	65,297	270,362
2031	532 480	10.6	56 443	240 616	11.4	60.703	246 144	12.6	67.092	269.813

		L-:	12 Benefit Pro	gram	LT-14	1(65) Benefit I	Program	L-	6 Benefit Pro	gram
		Estimated	d Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2022	\$ 417,125	14.1%	\$58,815	\$ 276,169	14.7%	\$61,317	\$ 287,523	16.7%	\$69,660	\$ 315,655
2023	428,596	14.1	60,432	278,818	14.7	63,004	290,281	16.7	71,576	318,683
2024	440,382	14.1	62,094	281,194	14.7	64,736	292,755	16.7	73,544	321,399
2025	452,493	14.1	63,802	283,265	14.7	66,516	294,911	16.7	75,566	323,766
2026	464,937	14.1	65,556	284,996	14.7	68,346	296,714	16.7	77,644	325,745
2027	477,723	14.1	67,359	286,351	14.7	70,225	298,125	16.7	79,780	327,294
2028	490,860	14.1	69,211	287,289	14.7	72,156	299,102	16.7	81,974	328,367
2029	504,359	14.1	71,115	287,768	14.7	74,141	299,600	16.7	84,228	328,914
2030	518,229	14.1	73,070	287,740	14.7	76,180	299,571	16.7	86,544	328,882
2031	532,480	14.1	75,080	287,156	14.7	78,275	298,963	16.7	88,924	328,214

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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 (0% Member Contribution Rate, 5 Year FAS)

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		L-1 Benefit Program			L-	3 Benefit Prog	gram	LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated			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	
2022	\$ 417,125	11.9%	\$49,638	\$ 165,261	14.6%	\$60,900	\$ 206,553	15.0%	\$62,569	\$ 227,680	
2023	428,596	11.9	51,003	166,846	14.6	62,575	208,534	15.0	64,289	229,864	
2024	440,382	11.9	52,405	168,268	14.6	64,296	210,311	15.0	66,057	231,823	
2025	452,493	11.9	53,847	169,507	14.6	66,064	211,860	15.0	67,874	233,530	
2026	464,937	11.9	55,328	170,543	14.6	67,881	213,155	15.0	69,741	234,957	
2027	477,723	11.9	56,849	171,354	14.6	69,748	214,168	15.0	71,658	236,074	
2028	490,860	11.9	58,412	171,916	14.6	71,666	214,870	15.0	73,629	236,848	
2029	504,359	11.9	60,019	172,202	14.6	73,636	215,228	15.0	75,654	237,243	
2030	518,229	11.9	61,669	172,185	14.6	75,661	215,207	15.0	77,734	237,220	
2031	532,480	11.9	63,365	171,835	14.6	77,742	214,770	15.0	79,872	236,738	

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	\$ 417,125	16.9%	\$70,494	\$ 253,387	17.3%	\$72,163	\$ 247,863	18.8%	\$78,420	\$ 279,061
2023	428,596	16.9	72,433	255,818	17.3	74,147	250,241	18.8	80,576	281,738
2024	440,382	16.9	74,425	257,998	17.3	76,186	252,373	18.8	82,792	284,139
2025	452,493	16.9	76,471	259,898	17.3	78,281	254,232	18.8	85,069	286,231
2026	464,937	16.9	78,574	261,487	17.3	80,434	255,786	18.8	87,408	287,981
2027	477,723	16.9	80,735	262,730	17.3	82,646	257,002	18.8	89,812	289,350
2028	490,860	16.9	82,955	263,591	17.3	84,919	257,844	18.8	92,282	290,298
2029	504,359	16.9	85,237	264,030	17.3	87,254	258,274	18.8	94,819	290,782
2030	518,229	16.9	87,581	264,005	17.3	89,654	258,249	18.8	97,427	290,754
2031	532 480	16.9	89 989	263 469	173	92 119	257 725	18.8	100 106	290 164

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
		Estimated	d Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2022	\$ 417,125	19.9%	\$83,008	\$ 289,185	20.8%	\$86,762	\$ 304,794	22.7%	\$94,687	\$ 330,514
2023	428,596	19.9	85,291	291,959	20.8	89,148	307,718	22.7	97,291	333,685
2024	440,382	19.9	87,636	294,447	20.8	91,599	310,340	22.7	99,967	336,528
2025	452,493	19.9	90,046	296,615	20.8	94,119	312,625	22.7	102,716	339,006
2026	464,937	19.9	92,522	298,428	20.8	96,707	314,536	22.7	105,541	341,078
2027	477,723	19.9	95,067	299,847	20.8	99,366	316,031	22.7	108,443	342,700
2028	490,860	19.9	97,681	300,830	20.8	102,099	317,067	22.7	111,425	343,823
2029	504,359	19.9	100,367	301,331	20.8	104,907	317,595	22.7	114,489	344,396
2030	518,229	19.9	103,128	301,302	20.8	107,792	317,564	22.7	117,638	344,363
2031	532,480	19.9	105,964	300,690	20.8	110,756	316,919	22.7	120,873	343,664

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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 (2% Member Contribution Rate, 5 Year FAS) (Member contributions are additional)

Rule of 80 Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contr	bution	Actuarial	Contri	bution	Actuarial	Contr	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2022	\$ 417,125	10.0%	\$41,713	\$ 165,261	12.7%	\$52,975	\$ 206,553	13.1%	\$54,643	\$ 227,680
2023	428,596	10.0	42,860	166,846	12.7	54,432	208,534	13.1	56,146	229,864
2024	440,382	10.0	44,038	168,268	12.7	55,929	210,311	13.1	57,690	231,823
2025	452,493	10.0	45,249	169,507	12.7	57,467	211,860	13.1	59,277	233,530
2026	464,937	10.0	46,494	170,543	12.7	59,047	213,155	13.1	60,907	234,957
2027	477,723	10.0	47,772	171,354	12.7	60,671	214,168	13.1	62,582	236,074
2028	490,860	10.0	49,086	171,916	12.7	62,339	214,870	13.1	64,303	236,848
2029	504,359	10.0	50,436	172,202	12.7	64,054	215,228	13.1	66,071	237,243
2030	518,229	10.0	51,823	172,185	12.7	65,815	215,207	13.1	67,888	237,220
2031	532,480	10.0	53,248	171,835	12.7	67,625	214,770	13.1	69,755	236,738

		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
2022	\$ 417,125	15.0%	\$62,569	\$ 253,387	15.4%	\$64,237	\$ 247,863	16.9%	\$70,494	\$ 279,061
2023	428,596	15.0	64,289	255,818	15.4	66,004	250,241	16.9	72,433	281,738
2024	440,382	15.0	66,057	257,998	15.4	67,819	252,373	16.9	74,425	284,139
2025	452,493	15.0	67,874	259,898	15.4	69,684	254,232	16.9	76,471	286,231
2026	464,937	15.0	69,741	261,487	15.4	71,600	255,786	16.9	78,574	287,981
2027	477,723	15.0	71,658	262,730	15.4	73,569	257,002	16.9	80,735	289,350
2028	490,860	15.0	73,629	263,591	15.4	75,592	257,844	16.9	82,955	290,298
2029	504,359	15.0	75,654	264,030	15.4	77,671	258,274	16.9	85,237	290,782
2030	518,229	15.0	77,734	264,005	15.4	79,807	258,249	16.9	87,581	290,754
2031	532 480	15.0	79 872	263 469	15.4	82 002	257 725	16.9	89 989	290 164

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
			l Employer	Unfunded		l Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2022	\$ 417,125	18.0%	\$75,083	\$ 289,185	18.9%	\$78,837	\$ 304,794	20.8%	\$86,762	\$ 330,514
2023	428,596	18.0	77,147	291,959	18.9	81,005	307,718	20.8	89,148	333,685
2024	440,382	18.0	79,269	294,447	18.9	83,232	310,340	20.8	91,599	336,528
2025	452,493	18.0	81,449	296,615	18.9	85,521	312,625	20.8	94,119	339,006
2026	464,937	18.0	83,689	298,428	18.9	87,873	314,536	20.8	96,707	341,078
2027	477,723	18.0	85,990	299,847	18.9	90,290	316,031	20.8	99,366	342,700
2028	490,860	18.0	88,355	300,830	18.9	92,773	317,067	20.8	102,099	343,823
2029	504,359	18.0	90,785	301,331	18.9	95,324	317,595	20.8	104,907	344,396
2030	518,229	18.0	93,281	301,302	18.9	97,945	317,564	20.8	107,792	344,363
2031	532,480	18.0	95,846	300,690	18.9	100,639	316,919	20.8	110,756	343,664

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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.
- 1) 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 (4% Member Contribution Rate, 5 Year FAS) (Member contributions are additional)

Rule of 80 Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
			l Employer	Unfunded		Employer	Unfunded		l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contri	bution	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
2022	\$ 417,125	8.1%	\$33,787	\$ 165,261	10.8%	\$45,050	\$ 206,553	11.2%	\$46,718	\$ 227,680
2023	428,596	8.1	34,716	166,846	10.8	46,288	208,534	11.2	48,003	229,864
2024	440,382	8.1	35,671	168,268	10.8	47,561	210,311	11.2	49,323	231,823
2025	452,493	8.1	36,652	169,507	10.8	48,869	211,860	11.2	50,679	233,530
2026	464,937	8.1	37,660	170,543	10.8	50,213	213,155	11.2	52,073	234,957
2027	477,723	8.1	38,696	171,354	10.8	51,594	214,168	11.2	53,505	236,074
2028	490,860	8.1	39,760	171,916	10.8	53,013	214,870	11.2	54,976	236,848
2029	504,359	8.1	40,853	172,202	10.8	54,471	215,228	11.2	56,488	237,243
2030	518,229	8.1	41,977	172,185	10.8	55,969	215,207	11.2	58,042	237,220
2031	532,480	8.1	43,131	171,835	10.8	57,508	214,770	11.2	59,638	236,738

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		Estimated Employer Contribution As a % of Annual Payroll Dollars	
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability			Accrued Liability
2022	\$ 417,125	13.1%	\$54,643	\$ 253,387	13.5%	\$56,312	\$ 247,863	15.0%	\$62,569	\$ 279,061
2023	428,596	13.1	56,146	255,818	13.5	57,860	250,241	15.0	64,289	281,738
2024	440,382	13.1	57,690	257,998	13.5	59,452	252,373	15.0	66,057	284,139
2025	452,493	13.1	59,277	259,898	13.5	61,087	254,232	15.0	67,874	286,231
2026	464,937	13.1	60,907	261,487	13.5	62,766	255,786	15.0	69,741	287,981
2027	477,723	13.1	62,582	262,730	13.5	64,493	257,002	15.0	71,658	289,350
2028	490,860	13.1	64,303	263,591	13.5	66,266	257,844	15.0	73,629	290,298
2029	504,359	13.1	66,071	264,030	13.5	68,088	258,274	15.0	75,654	290,782
2030	518,229	13.1	67,888	264,005	13.5	69,961	258,249	15.0	77,734	290,754
2031	532 480	13.1	69.755	263 469	13.5	71.885	257.725	15.0	79 872	290.164

		L-:	12 Benefit Pro	gram	LT-14	1(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated National Region and		Estimated Employer Contribution		Estimated Employer Contribution		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
2022	\$ 417,125	16.1%	\$67,157	\$ 289,185	17.0%	\$70,911	\$ 304,794	18.9%	\$78,837	\$ 330,514
2023	428,596	16.1	69,004	291,959	17.0	72,861	307,718	18.9	81,005	333,685
2024	440,382	16.1	70,902	294,447	17.0	74,865	310,340	18.9	83,232	336,528
2025	452,493	16.1	72,851	296,615	17.0	76,924	312,625	18.9	85,521	339,006
2026	464,937	16.1	74,855	298,428	17.0	79,039	314,536	18.9	87,873	341,078
2027	477,723	16.1	76,913	299,847	17.0	81,213	316,031	18.9	90,290	342,700
2028	490,860	16.1	79,028	300,830	17.0	83,446	317,067	18.9	92,773	343,823
2029	504,359	16.1	81,202	301,331	17.0	85,741	317,595	18.9	95,324	344,396
2030	518,229	16.1	83,435	301,302	17.0	88,099	317,564	18.9	97,945	344,363
2031	532,480	16.1	85,729	300,690	17.0	90,522	316,919	18.9	100,639	343,664

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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 (6% Member Contribution Rate, 5 Year FAS) (Member contributions are additional)

Rule of 80 Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
			l Employer	Unfunded		Employer	Unfunded	Estimated Employer		Unfunded
	Estimated	Contr	ibution	Actuarial	Contri	bution	Actuarial	Contr	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2022	\$ 417,125	6.2%	\$25,862	\$ 165,261	8.9%	\$37,124	\$ 206,553	9.3%	\$38,793	\$ 227,680
2023	428,596	6.2	26,573	166,846	8.9	38,145	208,534	9.3	39,859	229,864
2024	440,382	6.2	27,304	168,268	8.9	39,194	210,311	9.3	40,956	231,823
2025	452,493	6.2	28,055	169,507	8.9	40,272	211,860	9.3	42,082	233,530
2026	464,937	6.2	28,826	170,543	8.9	41,379	213,155	9.3	43,239	234,957
2027	477,723	6.2	29,619	171,354	8.9	42,517	214,168	9.3	44,428	236,074
2028	490,860	6.2	30,433	171,916	8.9	43,687	214,870	9.3	45,650	236,848
2029	504,359	6.2	31,270	172,202	8.9	44,888	215,228	9.3	46,905	237,243
2030	518,229	6.2	32,130	172,185	8.9	46,122	215,207	9.3	48,195	237,220
2031	532,480	6.2	33,014	171,835	8.9	47,391	214,770	9.3	49,521	236,738

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		l Employer ibution	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
2022	\$ 417,125	11.2%	\$46,718	\$ 253,387	11.6%	\$48,387	\$ 247,863	13.1%	\$54,643	\$ 279,061
2023	428,596	11.2	48,003	255,818	11.6	49,717	250,241	13.1	56,146	281,738
2024	440,382	11.2	49,323	257,998	11.6	51,084	252,373	13.1	57,690	284,139
2025	452,493	11.2	50,679	259,898	11.6	52,489	254,232	13.1	59,277	286,231
2026	464,937	11.2	52,073	261,487	11.6	53,933	255,786	13.1	60,907	287,981
2027	477,723	11.2	53,505	262,730	11.6	55,416	257,002	13.1	62,582	289,350
2028	490,860	11.2	54,976	263,591	11.6	56,940	257,844	13.1	64,303	290,298
2029	504,359	11.2	56,488	264,030	11.6	58,506	258,274	13.1	66,071	290,782
2030	518,229	11.2	58,042	264,005	11.6	60,115	258,249	13.1	67,888	290,754
2031	532 480	11.2	59.638	263 469	11.6	61.768	257.725	13.1	69.755	290.164

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated		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
2022	\$ 417,125	14.2%	\$59,232	\$ 289,185	15.1%	\$62,986	\$ 304,794	17.0%	\$70,911	\$ 330,514
2023	428,596	14.2	60,861	291,959	15.1	64,718	307,718	17.0	72,861	333,685
2024	440,382	14.2	62,534	294,447	15.1	66,498	310,340	17.0	74,865	336,528
2025	452,493	14.2	64,254	296,615	15.1	68,326	312,625	17.0	76,924	339,006
2026	464,937	14.2	66,021	298,428	15.1	70,205	314,536	17.0	79,039	341,078
2027	477,723	14.2	67,837	299,847	15.1	72,136	316,031	17.0	81,213	342,700
2028	490,860	14.2	69,702	300,830	15.1	74,120	317,067	17.0	83,446	343,823
2029	504,359	14.2	71,619	301,331	15.1	76,158	317,595	17.0	85,741	344,396
2030	518,229	14.2	73,589	301,302	15.1	78,253	317,564	17.0	88,099	344,363
2031	532,480	14.2	75,612	300,690	15.1	80,404	316,919	17.0	90,522	343,664

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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 (0% Member Contribution Rate, 3 Year FAS)

Rule of 80 Retirement Eligibility

		L-1 Benefit Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contribution		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
2022	\$ 417,125	12.2%	\$50,889	\$ 170,922	15.0%	\$62,569	\$ 213,664	15.5%	\$64,654	\$ 235,497
2023	428,596	12.2	52,289	172,562	15.0	64,289	215,714	15.5	66,432	237,756
2024	440,382	12.2	53,727	174,032	15.0	66,057	217,552	15.5	68,259	239,782
2025	452,493	12.2	55,204	175,314	15.0	67,874	219,154	15.5	70,136	241,548
2026	464,937	12.2	56,722	176,386	15.0	69,741	220,494	15.5	72,065	243,024
2027	477,723	12.2	58,282	177,225	15.0	71,658	221,542	15.5	74,047	244,179
2028	490,860	12.2	59,885	177,806	15.0	73,629	222,268	15.5	76,083	244,979
2029	504,359	12.2	61,532	178,102	15.0	75,654	222,638	15.5	78,176	245,387
2030	518,229	12.2	63,224	178,085	15.0	77,734	222,617	15.5	80,325	245,363
2031	532,480	12.2	64,963	177,723	15.0	79,872	222,165	15.5	82,534	244,865

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	\$ 417,125	17.5%	\$72,997	\$ 262,121	17.8%	\$74,248	\$ 256,323	19.4%	\$80,922	\$ 288,642
2023	428,596	17.5	75,004	264,635	17.8	76,290	258,782	19.4	83,148	291,411
2024	440,382	17.5	77,067	266,890	17.8	78,388	260,987	19.4	85,434	293,894
2025	452,493	17.5	79,186	268,855	17.8	80,544	262,909	19.4	87,784	296,058
2026	464,937	17.5	81,364	270,498	17.8	82,759	264,516	19.4	90,198	297,868
2027	477,723	17.5	83,602	271,784	17.8	85,035	265,774	19.4	92,678	299,284
2028	490,860	17.5	85,901	272,675	17.8	87,373	266,645	19.4	95,227	300,265
2029	504,359	17.5	88,263	273,129	17.8	89,776	267,089	19.4	97,846	300,765
2030	518,229	17.5	90,690	273,103	17.8	92,245	267,063	19.4	100,536	300,736
2031	532 480	17.5	93.184	272.548	17.8	94.781	266.521	19 4	103.301	300.125

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
		Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded	Estimated	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
2022	\$ 417,125	20.6%	\$85,928	\$ 299,070	21.4%	\$89,265	\$ 315,214	23.4%	\$97,607	\$ 341,818
2023	428,596	20.6	88,291	301,939	21.4	91,720	318,238	23.4	100,291	345,097
2024	440,382	20.6	90,719	304,512	21.4	94,242	320,950	23.4	103,049	348,038
2025	452,493	20.6	93,214	306,754	21.4	96,834	323,314	23.4	105,883	350,601
2026	464,937	20.6	95,777	308,629	21.4	99,497	325,290	23.4	108,795	352,744
2027	477,723	20.6	98,411	310,096	21.4	102,233	326,836	23.4	111,787	354,421
2028	490,860	20.6	101,117	311,112	21.4	105,044	327,907	23.4	114,861	355,582
2029	504,359	20.6	103,898	311,630	21.4	107,933	328,453	23.4	118,020	356,174
2030	518,229	20.6	106,755	311,600	21.4	110,901	328,421	23.4	121,266	356,140
2031	532,480	20.6	109,691	310,967	21.4	113,951	327,754	23.4	124,600	355,417

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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 (2% Member Contribution Rate, 3 Year FAS) (Member contributions are additional)

Rule of 80 Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contribution		Actuarial	Contri	bution	Actuarial	Contri	bution	
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
2022	\$ 417,125	10.3%	\$42,964	\$ 170,922	13.1%	\$54,643	\$ 213,664	13.6%	\$56,729	\$ 235,497
2023	428,596	10.3	44,145	172,562	13.1	56,146	215,714	13.6	58,289	237,756
2024	440,382	10.3	45,359	174,032	13.1	57,690	217,552	13.6	59,892	239,782
2025	452,493	10.3	46,607	175,314	13.1	59,277	219,154	13.6	61,539	241,548
2026	464,937	10.3	47,889	176,386	13.1	60,907	220,494	13.6	63,231	243,024
2027	477,723	10.3	49,205	177,225	13.1	62,582	221,542	13.6	64,970	244,179
2028	490,860	10.3	50,559	177,806	13.1	64,303	222,268	13.6	66,757	244,979
2029	504,359	10.3	51,949	178,102	13.1	66,071	222,638	13.6	68,593	245,387
2030	518,229	10.3	53,378	178,085	13.1	67,888	222,617	13.6	70,479	245,363
2031	532,480	10.3	54,845	177,723	13.1	69,755	222,165	13.6	72,417	244,865

	LT-5(65) Benefit Program			L-	7 Benefit Pro	gram	LT-8(65) Benefit Program			
Estimated		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial		Estimated Employer Contribution	
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
2022	\$ 417,125	15.6%	\$65,072	\$ 262,121	15.9%	\$66,323	\$ 256,323	17.5%	\$72,997	\$ 288,642
2023	428,596	15.6	66,861	264,635	15.9	68,147	258,782	17.5	75,004	291,411
2024	440,382	15.6	68,700	266,890	15.9	70,021	260,987	17.5	77,067	293,894
2025	452,493	15.6	70,589	268,855	15.9	71,946	262,909	17.5	79,186	296,058
2026	464,937	15.6	72,530	270,498	15.9	73,925	264,516	17.5	81,364	297,868
2027	477,723	15.6	74,525	271,784	15.9	75,958	265,774	17.5	83,602	299,284
2028	490,860	15.6	76,574	272,675	15.9	78,047	266,645	17.5	85,901	300,265
2029	504,359	15.6	78,680	273,129	15.9	80,193	267,089	17.5	88,263	300,765
2030	518,229	15.6	80,844	273,103	15.9	82,398	267,063	17.5	90,690	300,736
2031	532,480	15.6	83,067	272,548	15.9	84,664	266,521	17.5	93,184	300,125

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
			l Employer	Unfunded		l Employer	Unfunded		l Employer	Unfunded
	Estimated		ibution	Actuarial		ibution	Actuarial		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
2022	\$ 417,125	18.7%	\$78,002	\$ 299,070	19.5%	\$81,339	\$ 315,214	21.5%	\$89,682	\$ 341,818
2023	428,596	18.7	80,147	301,939	19.5	83,576	318,238	21.5	92,148	345,097
2024	440,382	18.7	82,351	304,512	19.5	85,874	320,950	21.5	94,682	348,038
2025	452,493	18.7	84,616	306,754	19.5	88,236	323,314	21.5	97,286	350,601
2026	464,937	18.7	86,943	308,629	19.5	90,663	325,290	21.5	99,961	352,744
2027	477,723	18.7	89,334	310,096	19.5	93,156	326,836	21.5	102,710	354,421
2028	490,860	18.7	91,791	311,112	19.5	95,718	327,907	21.5	105,535	355,582
2029	504,359	18.7	94,315	311,630	19.5	98,350	328,453	21.5	108,437	356,174
2030	518,229	18.7	96,909	311,600	19.5	101,055	328,421	21.5	111,419	356,140
2031	532,480	18.7	99,574	310,967	19.5	103,834	327,754	21.5	114,483	355,417

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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 (4% Member Contribution Rate, 3 Year FAS) (Member contributions are additional)

Rule of 80 Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
			l Employer	Unfunded		Employer	Unfunded		Employer	Unfunded
	Estimated Contribution		ibution	Actuarial	Contri	bution	Actuarial	Contri	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2022	\$ 417,125	8.4%	\$35,039	\$ 170,922	11.2%	\$46,718	\$ 213,664	11.7%	\$48,804	\$ 235,497
2023	428,596	8.4	36,002	172,562	11.2	48,003	215,714	11.7	50,146	237,756
2024	440,382	8.4	36,992	174,032	11.2	49,323	217,552	11.7	51,525	239,782
2025	452,493	8.4	38,009	175,314	11.2	50,679	219,154	11.7	52,942	241,548
2026	464,937	8.4	39,055	176,386	11.2	52,073	220,494	11.7	54,398	243,024
2027	477,723	8.4	40,129	177,225	11.2	53,505	221,542	11.7	55,894	244,179
2028	490,860	8.4	41,232	177,806	11.2	54,976	222,268	11.7	57,431	244,979
2029	504,359	8.4	42,366	178,102	11.2	56,488	222,638	11.7	59,010	245,387
2030	518,229	8.4	43,531	178,085	11.2	58,042	222,617	11.7	60,633	245,363
2031	532,480	8.4	44,728	177,723	11.2	59,638	222,165	11.7	62,300	244,865

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	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
2022	\$ 417,125	13.7%	\$57,146	\$ 262,121	14.0%	\$58,398	\$ 256,323	15.6%	\$65,072	\$ 288,642
2023	428,596	13.7	58,718	264,635	14.0	60,003	258,782	15.6	66,861	291,411
2024	440,382	13.7	60,332	266,890	14.0	61,653	260,987	15.6	68,700	293,894
2025	452,493	13.7	61,992	268,855	14.0	63,349	262,909	15.6	70,589	296,058
2026	464,937	13.7	63,696	270,498	14.0	65,091	264,516	15.6	72,530	297,868
2027	477,723	13.7	65,448	271,784	14.0	66,881	265,774	15.6	74,525	299,284
2028	490,860	13.7	67,248	272,675	14.0	68,720	266,645	15.6	76,574	300,265
2029	504,359	13.7	69,097	273,129	14.0	70,610	267,089	15.6	78,680	300,765
2030	518,229	13.7	70,997	273,103	14.0	72,552	267,063	15.6	80,844	300,736
2031	532 480	13.7	72 950	272 548	14.0	74 547	266 521	15.6	83.067	300 125

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	-6 Benefit Pro	gram
	Estimated	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial		Annual Dollars \$81,757	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll		Accrued Liability
2022	\$ 417,125	16.8%	\$70,077	\$ 299,070	17.6%	\$73,414	\$ 315,214	19.6%	\$81,757	\$ 341,818
2023	428,596	16.8	72,004	301,939	17.6	75,433	318,238	19.6	84,005	345,097
2024	440,382	16.8	73,984	304,512	17.6	77,507	320,950	19.6	86,315	348,038
2025	452,493	16.8	76,019	306,754	17.6	79,639	323,314	19.6	88,689	350,601
2026	464,937	16.8	78,109	308,629	17.6	81,829	325,290	19.6	91,128	352,744
2027	477,723	16.8	80,257	310,096	17.6	84,079	326,836	19.6	93,634	354,421
2028	490,860	16.8	82,464	311,112	17.6	86,391	327,907	19.6	96,209	355,582
2029	504,359	16.8	84,732	311,630	17.6	88,767	328,453	19.6	98,854	356,174
2030	518,229	16.8	87,062	311,600	17.6	91,208	328,421	19.6	101,573	356,140
2031	532,480	16.8	89,457	310,967	17.6	93,716	327,754	19.6	104,366	355,417

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 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 (6% Member Contribution Rate, 3 Year FAS) (Member contributions are additional)

Rule of 80 Retirement Eligibility

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contribution		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
2022	\$ 417,125	6.5%	\$27,113	\$ 170,922	9.3%	\$38,793	\$ 213,664	9.8%	\$40,878	\$ 235,497
2023	428,596	6.5	27,859	172,562	9.3	39,859	215,714	9.8	42,002	237,756
2024	440,382	6.5	28,625	174,032	9.3	40,956	217,552	9.8	43,157	239,782
2025	452,493	6.5	29,412	175,314	9.3	42,082	219,154	9.8	44,344	241,548
2026	464,937	6.5	30,221	176,386	9.3	43,239	220,494	9.8	45,564	243,024
2027	477,723	6.5	31,052	177,225	9.3	44,428	221,542	9.8	46,817	244,179
2028	490,860	6.5	31,906	177,806	9.3	45,650	222,268	9.8	48,104	244,979
2029	504,359	6.5	32,783	178,102	9.3	46,905	222,638	9.8	49,427	245,387
2030	518,229	6.5	33,685	178,085	9.3	48,195	222,617	9.8	50,786	245,363
2031	532,480	6.5	34,611	177,723	9.3	49,521	222,165	9.8	52,183	244,865

		LT-5	(65) Benefit P	rogram	L-	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		d Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		Estimated Employer Contribution	
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	\$ 417,125	11.8%	\$49,221	\$ 262,121	12.1%	\$50,472	\$ 256,323	13.7%	\$57,146	\$ 288,642
2023	428,596	11.8	50,574	264,635	12.1	51,860	258,782	13.7	58,718	291,411
2024	440,382	11.8	51,965	266,890	12.1	53,286	260,987	13.7	60,332	293,894
2025	452,493	11.8	53,394	268,855	12.1	54,752	262,909	13.7	61,992	296,058
2026	464,937	11.8	54,863	270,498	12.1	56,257	264,516	13.7	63,696	297,868
2027	477,723	11.8	56,371	271,784	12.1	57,804	265,774	13.7	65,448	299,284
2028	490,860	11.8	57,921	272,675	12.1	59,394	266,645	13.7	67,248	300,265
2029	504,359	11.8	59,514	273,129	12.1	61,027	267,089	13.7	69,097	300,765
2030	518,229	11.8	61,151	273,103	12.1	62,706	267,063	13.7	70,997	300,736
2031	532 480	11.8	62 833	272 548	12 1	64 430	266 521	13.7	72 950	300 125

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L-	6 Benefit Pro	gram
	Estimated		Estimated Employer Contribution			d Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2022	\$ 417,125	14.9%	\$62,152	\$ 299,070	15.7%	\$65,489	\$ 315,214	17.7%	\$73,831	\$ 341,818
2023	428,596	14.9	63,861	301,939	15.7	67,290	318,238	17.7	75,861	345,097
2024	440,382	14.9	65,617	304,512	15.7	69,140	320,950	17.7	77,948	348,038
2025	452,493	14.9	67,421	306,754	15.7	71,041	323,314	17.7	80,091	350,601
2026	464,937	14.9	69,276	308,629	15.7	72,995	325,290	17.7	82,294	352,744
2027	477,723	14.9	71,181	310,096	15.7	75,003	326,836	17.7	84,557	354,421
2028	490,860	14.9	73,138	311,112	15.7	77,065	327,907	17.7	86,882	355,582
2029	504,359	14.9	75,149	311,630	15.7	79,184	328,453	17.7	89,272	356,174
2030	518,229	14.9	77,216	311,600	15.7	81,362	328,421	17.7	91,727	356,140
2031	532,480	14.9	79,340	310,967	15.7	83,599	327,754	17.7	94,249	355,417

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 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 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
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