



The Initial Valuation For  
**City of Union Star**  
as of September 30, 2021



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November 3, 2021

City of Union Star  
Union Star, 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 September 30, 2021. The valuation was based on data furnished from your records concerning individual employees (see Appendix V).

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

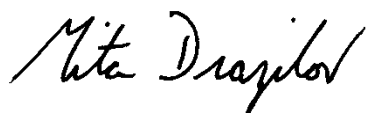
If you have any questions concerning this report or LAGERS in general, please contact the LAGERS office in Jefferson City.

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

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

The signing actuary is independent of the plan sponsor.

Respectfully submitted,



Mita D. Drazilov, ASA, FCA, MAAA



## Alternate Plan Provisions Affecting Employer Contribution Rates

The law governing LAGERS provides for 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.

# City of Union Star

## Employer Contribution Rates 5 Year FAS - Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll						
		Normal Cost Rate	Casualty Rate	Prior Service Cost Rate *	Total Employer Contribution Rate Based Upon the Following Member Contribution Rates			
					0%	2%	4%	6%
L-1	General	7.70%	0.20%	6.00%	13.90%	12.00%	10.10%	8.20%
L-3	General	9.40	0.30	7.50	17.20	15.30	13.40	11.50
LT-4(65)	General	8.50	0.20	6.80	15.50	13.60	11.70	9.80
LT-5(65)	General	10.00	0.30	8.10	18.40	16.50	14.60	12.70
L-7	General	11.00	0.30	9.00	20.30	18.40	16.50	14.60
LT-8(65)	General	11.50	0.30	9.40	21.20	19.30	17.40	15.50
L-12	General	12.70	0.40	10.50	23.60	21.70	19.80	17.90
LT-14(65)	General	12.90	0.40	10.70	24.00	22.10	20.20	18.30
L-6	General	14.40	0.50	11.90	26.80	24.90	23.00	21.10

\* 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.

The total employer contribution rate for each member contribution rate option shown above includes the prior service cost rate, casualty rate and corresponding normal cost rate. The prior service cost rate is the cost associated with paying off the unfunded actuarial accrued liability (past service). The normal cost rate plus the casualty rate is the cost of members' service being rendered each year (future service). For purposes of this initial valuation, the total employer contribution rate for the 0% member contribution rate plan is decreased by 1.9%, 3.8% and 5.7% for the 2%, 4% and 6% member contribution rate plans, respectively.

# City of Union Star

## Employer Contribution Rates 3 Year FAS - Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll						
		Normal Cost Rate	Casualty Rate	Prior Service Cost Rate *	Total Employer Contribution Rate Based Upon the Following Member Contribution Rates			
					0%	2%	4%	6%
L-1	General	7.90%	0.20%	6.20%	14.30%	12.40%	10.50%	8.60%
L-3	General	9.60	0.30	7.70	17.60	15.70	13.80	11.90
LT-4(65)	General	8.70	0.20	7.00	15.90	14.00	12.10	10.20
LT-5(65)	General	10.30	0.30	8.30	18.90	17.00	15.10	13.20
L-7	General	11.40	0.30	9.30	21.00	19.10	17.20	15.30
LT-8(65)	General	11.80	0.30	9.70	21.80	19.90	18.00	16.10
L-12	General	13.10	0.40	10.80	24.30	22.40	20.50	18.60
LT-14(65)	General	13.30	0.40	11.00	24.70	22.80	20.90	19.00
L-6	General	14.90	0.50	12.30	27.70	25.80	23.90	22.00

\* 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.

The total employer contribution rate for each member contribution rate option shown above includes the prior service cost rate, casualty rate and corresponding normal cost rate. The prior service cost rate is the cost associated with paying off the unfunded actuarial accrued liability (past service). The normal cost rate plus the casualty rate is the cost of members' service being rendered each year (future service). For purposes of this initial valuation, the total employer contribution rate for the 0% member contribution rate plan is decreased by 1.9%, 3.8% and 5.7% for the 2%, 4% and 6% member contribution rate plans, respectively.

# City of Union Star

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

Benefit Program	Employee Groups	Percents of Active Member Payroll						
		Normal Cost Rate	Casualty Rate	Prior Service Cost Rate *	Total Employer Contribution Rate Based Upon the Following Member Contribution Rates			
					0%	2%	4%	6%
L-1	General	7.70%	0.20%	6.00%	13.90%	12.00%	10.10%	8.20%
L-3	General	9.40	0.30	7.50	17.20	15.30	13.40	11.50
LT-4(65)	General	8.50	0.20	6.80	15.50	13.60	11.70	9.80
LT-5(65)	General	10.00	0.30	8.10	18.40	16.50	14.60	12.70
L-7	General	11.00	0.30	9.00	20.30	18.40	16.50	14.60
LT-8(65)	General	11.50	0.30	9.40	21.20	19.30	17.40	15.50
L-12	General	12.70	0.40	10.50	23.60	21.70	19.80	17.90
LT-14(65)	General	12.90	0.40	10.70	24.00	22.10	20.20	18.30
L-6	General	14.40	0.50	11.90	26.80	24.90	23.00	21.10

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

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

The total employer contribution rate for each member contribution rate option shown above includes the prior service cost rate, casualty rate and corresponding normal cost rate. The prior service cost rate is the cost associated with paying off the unfunded actuarial accrued liability (past service). The normal cost rate plus the casualty rate is the cost of members' service being rendered each year (future service). For purposes of this initial valuation, the total employer contribution rate for the 0% member contribution rate plan is decreased by 1.9%, 3.8% and 5.7% for the 2%, 4% and 6% member contribution rate plans, respectively.



# City of Union Star

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

Benefit Program	Employee Groups	Percents of Active Member Payroll						
		Normal Cost Rate	Casualty Rate	Prior Service Cost Rate *	Total Employer Contribution Rate Based Upon the Following Member Contribution Rates			
					0%	2%	4%	6%
L-1	General	7.90%	0.20%	6.20%	14.30%	12.40%	10.50%	8.60%
L-3	General	9.60	0.30	7.70	17.60	15.70	13.80	11.90
LT-4(65)	General	8.70	0.20	7.00	15.90	14.00	12.10	10.20
LT-5(65)	General	10.30	0.30	8.30	18.90	17.00	15.10	13.20
L-7	General	11.40	0.30	9.30	21.00	19.10	17.20	15.30
LT-8(65)	General	11.80	0.30	9.70	21.80	19.90	18.00	16.10
L-12	General	13.10	0.40	10.80	24.30	22.40	20.50	18.60
LT-14(65)	General	13.30	0.40	11.00	24.70	22.80	20.90	19.00
L-6	General	14.90	0.50	12.30	27.70	25.80	23.90	22.00

# 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.

The total employer contribution rate for each member contribution rate option shown above includes the prior service cost rate, casualty rate and corresponding normal cost rate. The prior service cost rate is the cost associated with paying off the unfunded actuarial accrued liability (past service). The normal cost rate plus the casualty rate is the cost of members' service being rendered each year (future service). For purposes of this initial valuation, the total employer contribution rate for the 0% member contribution rate plan is decreased by 1.9%, 3.8% and 5.7% for the 2%, 4% and 6% member contribution rate plans, respectively.

# City of Union Star

## 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

Benefit Program	5 Year FAS			
	Member Contribution Rate			
	0%	2%	4%	6%
L-1	\$ 4,770	\$ 4,118	\$ 3,466	\$ 2,814
L-3	5,903	5,251	4,599	3,947
LT-4(65)	5,320	4,668	4,015	3,363
LT-5(65)	6,315	5,663	5,011	4,359
L-7	6,967	6,315	5,663	5,011
LT-8(65)	7,276	6,624	5,972	5,320
L-12	8,100	7,447	6,795	6,143
LT-14(65)	8,237	7,585	6,933	6,281
L-6	9,198	8,546	7,894	7,242

Benefit Program	3 Year FAS			
	Member Contribution Rate			
	0%	2%	4%	6%
L-1	\$ 4,908	\$ 4,256	\$ 3,604	\$ 2,952
L-3	6,040	5,388	4,736	4,084
LT-4(65)	5,457	4,805	4,153	3,501
LT-5(65)	6,486	5,834	5,182	4,530
L-7	7,207	6,555	5,903	5,251
LT-8(65)	7,482	6,830	6,178	5,526
L-12	8,340	7,688	7,036	6,384
LT-14(65)	8,477	7,825	7,173	6,521
L-6	9,507	8,855	8,202	7,550

### Rule of 80 Retirement Eligibility

Benefit Program	5 Year FAS			
	Member Contribution Rate			
	0%	2%	4%	6%
L-1	\$ 4,770	\$ 4,118	\$ 3,466	\$ 2,814
L-3	5,903	5,251	4,599	3,947
LT-4(65)	5,320	4,668	4,015	3,363
LT-5(65)	6,315	5,663	5,011	4,359
L-7	6,967	6,315	5,663	5,011
LT-8(65)	7,276	6,624	5,972	5,320
L-12	8,100	7,447	6,795	6,143
LT-14(65)	8,237	7,585	6,933	6,281
L-6	9,198	8,546	7,894	7,242

Benefit Program	3 Year FAS			
	Member Contribution Rate			
	0%	2%	4%	6%
L-1	\$ 4,908	\$ 4,256	\$ 3,604	\$ 2,952
L-3	6,040	5,388	4,736	4,084
LT-4(65)	5,457	4,805	4,153	3,501
LT-5(65)	6,486	5,834	5,182	4,530
L-7	7,207	6,555	5,903	5,251
LT-8(65)	7,482	6,830	6,178	5,526
L-12	8,340	7,688	7,036	6,384
LT-14(65)	8,477	7,825	7,173	6,521
L-6	9,507	8,855	8,202	7,550

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

# City of Union Star

## Employees and Payroll Included in the Valuation

	General
Number of Employees	1
Annual Payroll	\$ 34,320

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

## **APPENDIX I**

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### **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:

### City of Union Star

#### Regular Retirement Eligibility

Benefit Group	Employee Group	Member Contribution Rate - 0%	
		UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 35,112	\$ 36,251
L-3	General	43,886	45,316
LT-4(65)	General	39,799	41,101
LT-5(65)	General	47,401	48,949
L-7	General	52,666	54,384
LT-8(65)	General	55,009	56,800
L-12	General	61,432	63,441
LT-14(65)	General	62,613	64,657
L-6	General	70,222	72,495

# City of Union Star

## Unfunded Actuarial Accrued Liability (UAAL)

### Rule of 80 Retirement Eligibility

Benefit Group	Employee Group	Member Contribution Rate - 0%	
		UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 35,112	\$ 36,251
L-3	General	43,886	45,316
LT-4(65)	General	39,799	41,101
LT-5(65)	General	47,401	48,949
L-7	General	52,666	54,384
LT-8(65)	General	55,009	56,800
L-12	General	61,432	63,441
LT-14(65)	General	62,613	64,657
L-6	General	70,222	72,495

## **APPENDIX II**

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### **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. 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							
Sample Ages	Years of Service	General/Public Safety Members				Police		Fire	
		Men		Women		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

Sample Ages	General/ Public Safety			Police	Fire
25	6.75%			6.55%	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 Ages	General Members		Retirement Ages	Police/ Public Safety	Fire
	Men	Women			
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 Ages	General Members		Retirement Ages	Police/ Public Safety	Fire
	Men	Women			
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	25	25	60	11	15
66	25	30	61	11	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 Ages	General Members		Police/ Public Safety	Fire
	Men	Women		
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		

## **APPENDIX III**

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### **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**

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### **BENEFIT ILLUSTRATIONS**



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

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% 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%

<sup>1</sup> "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.

<sup>2</sup> "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.

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

# Missouri LAGERS

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

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total		
			\$	% 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%	

<sup>1</sup> "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.

<sup>2</sup> "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.

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

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

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% 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%

<sup>1</sup> "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.

<sup>2</sup> "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.

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

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

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% 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%

<sup>1</sup> "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.

<sup>2</sup> "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.

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

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

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% 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%

<sup>1</sup> "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.

<sup>2</sup> "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.

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

# Missouri LAGERS

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

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 525	\$ 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:							
\$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:							
\$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%

<sup>1</sup> "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.

<sup>2</sup> "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.

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

# Missouri LAGERS

## Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary (LT-5(65) Benefit Program is Years of Credited Service times: 2.00% of FAS <sup>1</sup> to age 65) 1.25% of FAS <sup>1</sup> at age 65)

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 656	\$ 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:							
\$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:							
\$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%

<sup>1</sup> "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.

<sup>2</sup> "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.

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

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

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 788	\$ 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%

<sup>1</sup> "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.

<sup>2</sup> "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.

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



# Missouri LAGERS

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

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 919	\$ 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%

<sup>1</sup> "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.

<sup>2</sup> "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.

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

## **APPENDIX V**

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### **AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES**

# City of Union Star - General

September 30, 2021

## By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20									
20-24									
25-29									
30-34									
35-39									
40-44									
45-49									
50-54									
55-59		1						1	\$ 34,320
60-64									
65-69									
70 & Over									
<b>Totals</b>		<b>1</b>						<b>1</b>	<b>\$ 34,320</b>

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

Age: 54.8 years.

Benefit Service: 8.5 years.

Annual Pay: \$34,320.

## **APPENDIX VI**

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### **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.



November 3, 2021 E-mail

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

Dear Bob:

Enclosed is the report of the September 30, 2021 Initial Actuarial Valuation of LAGERS benefits for the employees of

City of Union Star

Sincerely,

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

Mita D. Drazilov, ASA, FCA, MAAA

MDD:wp



November 3, 2021

City of Union Star  
Union Star, 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 September 30, 2021 Initial Valuation for the City of Union Star dated November 3, 2021.

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,

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

Mita D. Drazilov, ASA, FCA, MAAA



# City of Union Star - General

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

### Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	13.9%	\$4,770	\$ 35,112	17.2%	\$5,903	\$ 43,886	15.5%	\$5,320	\$ 39,799
2022	35,264	13.9	4,902	35,449	17.2	6,065	44,307	15.5	5,466	40,181
2023	36,234	13.9	5,037	35,751	17.2	6,232	44,685	15.5	5,616	40,523
2024	37,230	13.9	5,175	36,014	17.2	6,404	45,014	15.5	5,771	40,821
2025	38,254	13.9	5,317	36,234	17.2	6,580	45,289	15.5	5,929	41,071
2026	39,306	13.9	5,464	36,406	17.2	6,761	45,504	15.5	6,092	41,266
2027	40,387	13.9	5,614	36,525	17.2	6,947	45,653	15.5	6,260	41,401
2028	41,498	13.9	5,768	36,586	17.2	7,138	45,729	15.5	6,432	41,470
2029	42,639	13.9	5,927	36,582	17.2	7,334	45,725	15.5	6,609	41,466
2030	43,812	13.9	6,090	36,508	17.2	7,536	45,632	15.5	6,791	41,382

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	18.4%	\$6,315	\$ 47,401	20.3%	\$6,967	\$ 52,666	21.2%	\$7,276	\$ 55,009
2022	35,264	18.4	6,489	47,856	20.3	7,159	53,171	21.2	7,476	55,537
2023	36,234	18.4	6,667	48,264	20.3	7,356	53,624	21.2	7,682	56,010
2024	37,230	18.4	6,850	48,619	20.3	7,558	54,019	21.2	7,893	56,422
2025	38,254	18.4	7,039	48,916	20.3	7,766	54,349	21.2	8,110	56,767
2026	39,306	18.4	7,232	49,149	20.3	7,979	54,607	21.2	8,333	57,037
2027	40,387	18.4	7,431	49,310	20.3	8,199	54,786	21.2	8,562	57,224
2028	41,498	18.4	7,636	49,392	20.3	8,424	54,877	21.2	8,798	57,319
2029	42,639	18.4	7,846	49,387	20.3	8,656	54,872	21.2	9,039	57,313
2030	43,812	18.4	8,061	49,287	20.3	8,894	54,761	21.2	9,288	57,197

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	23.6%	\$8,100	\$ 61,432	24.0%	\$8,237	\$ 62,613	26.8%	\$9,198	\$ 70,222
2022	35,264	23.6	8,322	62,021	24.0	8,463	63,214	26.8	9,451	70,896
2023	36,234	23.6	8,551	62,549	24.0	8,696	63,753	26.8	9,711	71,500
2024	37,230	23.6	8,786	63,010	24.0	8,935	64,222	26.8	9,978	72,027
2025	38,254	23.6	9,028	63,395	24.0	9,181	64,615	26.8	10,252	72,467
2026	39,306	23.6	9,276	63,696	24.0	9,433	64,922	26.8	10,534	72,812
2027	40,387	23.6	9,531	63,905	24.0	9,693	65,135	26.8	10,824	73,051
2028	41,498	23.6	9,794	64,011	24.0	9,960	65,244	26.8	11,121	73,173
2029	42,639	23.6	10,063	64,005	24.0	10,233	65,238	26.8	11,427	73,166
2030	43,812	23.6	10,340	63,875	24.0	10,515	65,106	26.8	11,742	73,017

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.



# City of Union Star - General

## Employer Contribution Rates (2% Member Contribution Rate, 5 Year FAS) (Member contributions are additional)

### Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	12.0%	\$4,118	\$ 35,112	15.3%	\$5,251	\$ 43,886	13.6%	\$4,668	\$ 39,799
2022	35,264	12.0	4,232	35,449	15.3	5,395	44,307	13.6	4,796	40,181
2023	36,234	12.0	4,348	35,751	15.3	5,544	44,685	13.6	4,928	40,523
2024	37,230	12.0	4,468	36,014	15.3	5,696	45,014	13.6	5,063	40,821
2025	38,254	12.0	4,590	36,234	15.3	5,853	45,289	13.6	5,203	41,071
2026	39,306	12.0	4,717	36,406	15.3	6,014	45,504	13.6	5,346	41,266
2027	40,387	12.0	4,846	36,525	15.3	6,179	45,653	13.6	5,493	41,401
2028	41,498	12.0	4,980	36,586	15.3	6,349	45,729	13.6	5,644	41,470
2029	42,639	12.0	5,117	36,582	15.3	6,524	45,725	13.6	5,799	41,466
2030	43,812	12.0	5,257	36,508	15.3	6,703	45,632	13.6	5,958	41,382

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	16.5%	\$5,663	\$ 47,401	18.4%	\$6,315	\$ 52,666	19.3%	\$6,624	\$ 55,009
2022	35,264	16.5	5,819	47,856	18.4	6,489	53,171	19.3	6,806	55,537
2023	36,234	16.5	5,979	48,264	18.4	6,667	53,624	19.3	6,993	56,010
2024	37,230	16.5	6,143	48,619	18.4	6,850	54,019	19.3	7,185	56,422
2025	38,254	16.5	6,312	48,916	18.4	7,039	54,349	19.3	7,383	56,767
2026	39,306	16.5	6,485	49,149	18.4	7,232	54,607	19.3	7,586	57,037
2027	40,387	16.5	6,664	49,310	18.4	7,431	54,786	19.3	7,795	57,224
2028	41,498	16.5	6,847	49,392	18.4	7,636	54,877	19.3	8,009	57,319
2029	42,639	16.5	7,035	49,387	18.4	7,846	54,872	19.3	8,229	57,313
2030	43,812	16.5	7,229	49,287	18.4	8,061	54,761	19.3	8,456	57,197

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	21.7%	\$7,447	\$ 61,432	22.1%	\$7,585	\$ 62,613	24.9%	\$8,546	\$ 70,222
2022	35,264	21.7	7,652	62,021	22.1	7,793	63,214	24.9	8,781	70,896
2023	36,234	21.7	7,863	62,549	22.1	8,008	63,753	24.9	9,022	71,500
2024	37,230	21.7	8,079	63,010	22.1	8,228	64,222	24.9	9,270	72,027
2025	38,254	21.7	8,301	63,395	22.1	8,454	64,615	24.9	9,525	72,467
2026	39,306	21.7	8,529	63,696	22.1	8,687	64,922	24.9	9,787	72,812
2027	40,387	21.7	8,764	63,905	22.1	8,926	65,135	24.9	10,056	73,051
2028	41,498	21.7	9,005	64,011	22.1	9,171	65,244	24.9	10,333	73,173
2029	42,639	21.7	9,253	64,005	22.1	9,423	65,238	24.9	10,617	73,166
2030	43,812	21.7	9,507	63,875	22.1	9,682	65,106	24.9	10,909	73,017

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.



# City of Union Star - General

## Employer Contribution Rates (4% Member Contribution Rate, 5 Year FAS) (Member contributions are additional)

### Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	10.1%	\$3,466	\$ 35,112	13.4%	\$4,599	\$ 43,886	11.7%	\$4,015	\$ 39,799
2022	35,264	10.1	3,562	35,449	13.4	4,725	44,307	11.7	4,126	40,181
2023	36,234	10.1	3,660	35,751	13.4	4,855	44,685	11.7	4,239	40,523
2024	37,230	10.1	3,760	36,014	13.4	4,989	45,014	11.7	4,356	40,821
2025	38,254	10.1	3,864	36,234	13.4	5,126	45,289	11.7	4,476	41,071
2026	39,306	10.1	3,970	36,406	13.4	5,267	45,504	11.7	4,599	41,266
2027	40,387	10.1	4,079	36,525	13.4	5,412	45,653	11.7	4,725	41,401
2028	41,498	10.1	4,191	36,586	13.4	5,561	45,729	11.7	4,855	41,470
2029	42,639	10.1	4,307	36,582	13.4	5,714	45,725	11.7	4,989	41,466
2030	43,812	10.1	4,425	36,508	13.4	5,871	45,632	11.7	5,126	41,382

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	14.6%	\$5,011	\$ 47,401	16.5%	\$5,663	\$ 52,666	17.4%	\$5,972	\$ 55,009
2022	35,264	14.6	5,149	47,856	16.5	5,819	53,171	17.4	6,136	55,537
2023	36,234	14.6	5,290	48,264	16.5	5,979	53,624	17.4	6,305	56,010
2024	37,230	14.6	5,436	48,619	16.5	6,143	54,019	17.4	6,478	56,422
2025	38,254	14.6	5,585	48,916	16.5	6,312	54,349	17.4	6,656	56,767
2026	39,306	14.6	5,739	49,149	16.5	6,485	54,607	17.4	6,839	57,037
2027	40,387	14.6	5,897	49,310	16.5	6,664	54,786	17.4	7,027	57,224
2028	41,498	14.6	6,059	49,392	16.5	6,847	54,877	17.4	7,221	57,319
2029	42,639	14.6	6,225	49,387	16.5	7,035	54,872	17.4	7,419	57,313
2030	43,812	14.6	6,397	49,287	16.5	7,229	54,761	17.4	7,623	57,197

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	19.8%	\$6,795	\$ 61,432	20.2%	\$6,933	\$ 62,613	23.0%	\$7,894	\$ 70,222
2022	35,264	19.8	6,982	62,021	20.2	7,123	63,214	23.0	8,111	70,896
2023	36,234	19.8	7,174	62,549	20.2	7,319	63,753	23.0	8,334	71,500
2024	37,230	19.8	7,372	63,010	20.2	7,520	64,222	23.0	8,563	72,027
2025	38,254	19.8	7,574	63,395	20.2	7,727	64,615	23.0	8,798	72,467
2026	39,306	19.8	7,783	63,696	20.2	7,940	64,922	23.0	9,040	72,812
2027	40,387	19.8	7,997	63,905	20.2	8,158	65,135	23.0	9,289	73,051
2028	41,498	19.8	8,217	64,011	20.2	8,383	65,244	23.0	9,545	73,173
2029	42,639	19.8	8,443	64,005	20.2	8,613	65,238	23.0	9,807	73,166
2030	43,812	19.8	8,675	63,875	20.2	8,850	65,106	23.0	10,077	73,017

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.



# City of Union Star - General

## Employer Contribution Rates (6% Member Contribution Rate, 5 Year FAS) (Member contributions are additional)

### Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	8.2%	\$2,814	\$ 35,112	11.5%	\$3,947	\$ 43,886	9.8%	\$3,363	\$ 39,799
2022	35,264	8.2	2,892	35,449	11.5	4,055	44,307	9.8	3,456	40,181
2023	36,234	8.2	2,971	35,751	11.5	4,167	44,685	9.8	3,551	40,523
2024	37,230	8.2	3,053	36,014	11.5	4,281	45,014	9.8	3,649	40,821
2025	38,254	8.2	3,137	36,234	11.5	4,399	45,289	9.8	3,749	41,071
2026	39,306	8.2	3,223	36,406	11.5	4,520	45,504	9.8	3,852	41,266
2027	40,387	8.2	3,312	36,525	11.5	4,645	45,653	9.8	3,958	41,401
2028	41,498	8.2	3,403	36,586	11.5	4,772	45,729	9.8	4,067	41,470
2029	42,639	8.2	3,496	36,582	11.5	4,903	45,725	9.8	4,179	41,466
2030	43,812	8.2	3,593	36,508	11.5	5,038	45,632	9.8	4,294	41,382

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	12.7%	\$4,359	\$ 47,401	14.6%	\$5,011	\$ 52,666	15.5%	\$5,320	\$ 55,009
2022	35,264	12.7	4,479	47,856	14.6	5,149	53,171	15.5	5,466	55,537
2023	36,234	12.7	4,602	48,264	14.6	5,290	53,624	15.5	5,616	56,010
2024	37,230	12.7	4,728	48,619	14.6	5,436	54,019	15.5	5,771	56,422
2025	38,254	12.7	4,858	48,916	14.6	5,585	54,349	15.5	5,929	56,767
2026	39,306	12.7	4,992	49,149	14.6	5,739	54,607	15.5	6,092	57,037
2027	40,387	12.7	5,129	49,310	14.6	5,897	54,786	15.5	6,260	57,224
2028	41,498	12.7	5,270	49,392	14.6	6,059	54,877	15.5	6,432	57,319
2029	42,639	12.7	5,415	49,387	14.6	6,225	54,872	15.5	6,609	57,313
2030	43,812	12.7	5,564	49,287	14.6	6,397	54,761	15.5	6,791	57,197

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	17.9%	\$6,143	\$ 61,432	18.3%	\$6,281	\$ 62,613	21.1%	\$7,242	\$ 70,222
2022	35,264	17.9	6,312	62,021	18.3	6,453	63,214	21.1	7,441	70,896
2023	36,234	17.9	6,486	62,549	18.3	6,631	63,753	21.1	7,645	71,500
2024	37,230	17.9	6,664	63,010	18.3	6,813	64,222	21.1	7,856	72,027
2025	38,254	17.9	6,847	63,395	18.3	7,000	64,615	21.1	8,072	72,467
2026	39,306	17.9	7,036	63,696	18.3	7,193	64,922	21.1	8,294	72,812
2027	40,387	17.9	7,229	63,905	18.3	7,391	65,135	21.1	8,522	73,051
2028	41,498	17.9	7,428	64,011	18.3	7,594	65,244	21.1	8,756	73,173
2029	42,639	17.9	7,632	64,005	18.3	7,803	65,238	21.1	8,997	73,166
2030	43,812	17.9	7,842	63,875	18.3	8,018	65,106	21.1	9,244	73,017

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.



# City of Union Star - General

## Employer Contribution Rates (0% Member Contribution Rate, 3 Year FAS)

### Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	14.3%	\$4,908	\$ 36,251	17.6%	\$6,040	\$ 45,316	15.9%	\$5,457	\$ 41,101
2022	35,264	14.3	5,043	36,599	17.6	6,206	45,751	15.9	5,607	41,495
2023	36,234	14.3	5,181	36,911	17.6	6,377	46,141	15.9	5,761	41,849
2024	37,230	14.3	5,324	37,183	17.6	6,552	46,481	15.9	5,920	42,157
2025	38,254	14.3	5,470	37,410	17.6	6,733	46,765	15.9	6,082	42,415
2026	39,306	14.3	5,621	37,588	17.6	6,918	46,987	15.9	6,250	42,617
2027	40,387	14.3	5,775	37,711	17.6	7,108	47,141	15.9	6,422	42,757
2028	41,498	14.3	5,934	37,774	17.6	7,304	47,220	15.9	6,598	42,828
2029	42,639	14.3	6,097	37,770	17.6	7,504	47,215	15.9	6,780	42,824
2030	43,812	14.3	6,265	37,693	17.6	7,711	47,119	15.9	6,966	42,737

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	18.9%	\$6,486	\$ 48,949	21.0%	\$7,207	\$ 54,384	21.8%	\$7,482	\$ 56,800
2022	35,264	18.9	6,665	49,419	21.0	7,405	54,906	21.8	7,688	57,345
2023	36,234	18.9	6,848	49,840	21.0	7,609	55,374	21.8	7,899	57,834
2024	37,230	18.9	7,036	50,207	21.0	7,818	55,782	21.8	8,116	58,260
2025	38,254	18.9	7,230	50,514	21.0	8,033	56,123	21.8	8,339	58,616
2026	39,306	18.9	7,429	50,754	21.0	8,254	56,390	21.8	8,569	58,895
2027	40,387	18.9	7,633	50,920	21.0	8,481	56,575	21.8	8,804	59,088
2028	41,498	18.9	7,843	51,005	21.0	8,715	56,669	21.8	9,047	59,186
2029	42,639	18.9	8,059	51,000	21.0	8,954	56,664	21.8	9,295	59,180
2030	43,812	18.9	8,280	50,896	21.0	9,201	56,549	21.8	9,551	59,060

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	24.3%	\$8,340	\$ 63,441	24.7%	\$8,477	\$ 64,657	27.7%	\$9,507	\$ 72,495
2022	35,264	24.3	8,569	64,050	24.7	8,710	65,277	27.7	9,768	73,190
2023	36,234	24.3	8,805	64,596	24.7	8,950	65,833	27.7	10,037	73,814
2024	37,230	24.3	9,047	65,072	24.7	9,196	66,318	27.7	10,313	74,358
2025	38,254	24.3	9,296	65,470	24.7	9,449	66,723	27.7	10,596	74,812
2026	39,306	24.3	9,551	65,781	24.7	9,709	67,040	27.7	10,888	75,168
2027	40,387	24.3	9,814	65,997	24.7	9,976	67,260	27.7	11,187	75,414
2028	41,498	24.3	10,084	66,107	24.7	10,250	67,372	27.7	11,495	75,540
2029	42,639	24.3	10,361	66,101	24.7	10,532	67,366	27.7	11,811	75,533
2030	43,812	24.3	10,646	65,967	24.7	10,822	67,229	27.7	12,136	75,380

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.



# City of Union Star - General

## Employer Contribution Rates (2% Member Contribution Rate, 3 Year FAS) (Member contributions are additional)

### Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	12.4%	\$4,256	\$ 36,251	15.7%	\$5,388	\$ 45,316	14.0%	\$4,805	\$ 41,101
2022	35,264	12.4	4,373	36,599	15.7	5,536	45,751	14.0	4,937	41,495
2023	36,234	12.4	4,493	36,911	15.7	5,689	46,141	14.0	5,073	41,849
2024	37,230	12.4	4,617	37,183	15.7	5,845	46,481	14.0	5,212	42,157
2025	38,254	12.4	4,743	37,410	15.7	6,006	46,765	14.0	5,356	42,415
2026	39,306	12.4	4,874	37,588	15.7	6,171	46,987	14.0	5,503	42,617
2027	40,387	12.4	5,008	37,711	15.7	6,341	47,141	14.0	5,654	42,757
2028	41,498	12.4	5,146	37,774	15.7	6,515	47,220	14.0	5,810	42,828
2029	42,639	12.4	5,287	37,770	15.7	6,694	47,215	14.0	5,969	42,824
2030	43,812	12.4	5,433	37,693	15.7	6,878	47,119	14.0	6,134	42,737

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	17.0%	\$5,834	\$ 48,949	19.1%	\$6,555	\$ 54,384	19.9%	\$6,830	\$ 56,800
2022	35,264	17.0	5,995	49,419	19.1	6,735	54,906	19.9	7,018	57,345
2023	36,234	17.0	6,160	49,840	19.1	6,921	55,374	19.9	7,211	57,834
2024	37,230	17.0	6,329	50,207	19.1	7,111	55,782	19.9	7,409	58,260
2025	38,254	17.0	6,503	50,514	19.1	7,307	56,123	19.9	7,613	58,616
2026	39,306	17.0	6,682	50,754	19.1	7,507	56,390	19.9	7,822	58,895
2027	40,387	17.0	6,866	50,920	19.1	7,714	56,575	19.9	8,037	59,088
2028	41,498	17.0	7,055	51,005	19.1	7,926	56,669	19.9	8,258	59,186
2029	42,639	17.0	7,249	51,000	19.1	8,144	56,664	19.9	8,485	59,180
2030	43,812	17.0	7,448	50,896	19.1	8,368	56,549	19.9	8,719	59,060

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	22.4%	\$7,688	\$ 63,441	22.8%	\$7,825	\$ 64,657	25.8%	\$8,855	\$ 72,495
2022	35,264	22.4	7,899	64,050	22.8	8,040	65,277	25.8	9,098	73,190
2023	36,234	22.4	8,116	64,596	22.8	8,261	65,833	25.8	9,348	73,814
2024	37,230	22.4	8,340	65,072	22.8	8,488	66,318	25.8	9,605	74,358
2025	38,254	22.4	8,569	65,470	22.8	8,722	66,723	25.8	9,870	74,812
2026	39,306	22.4	8,805	65,781	22.8	8,962	67,040	25.8	10,141	75,168
2027	40,387	22.4	9,047	65,997	22.8	9,208	67,260	25.8	10,420	75,414
2028	41,498	22.4	9,296	66,107	22.8	9,462	67,372	25.8	10,706	75,540
2029	42,639	22.4	9,551	66,101	22.8	9,722	67,366	25.8	11,001	75,533
2030	43,812	22.4	9,814	65,967	22.8	9,989	67,229	25.8	11,303	75,380

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.



# City of Union Star - General

## Employer Contribution Rates (4% Member Contribution Rate, 3 Year FAS) (Member contributions are additional)

### Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	10.5%	\$3,604	\$ 36,251	13.8%	\$4,736	\$ 45,316	12.1%	\$4,153	\$ 41,101
2022	35,264	10.5	3,703	36,599	13.8	4,866	45,751	12.1	4,267	41,495
2023	36,234	10.5	3,805	36,911	13.8	5,000	46,141	12.1	4,384	41,849
2024	37,230	10.5	3,909	37,183	13.8	5,138	46,481	12.1	4,505	42,157
2025	38,254	10.5	4,017	37,410	13.8	5,279	46,765	12.1	4,629	42,415
2026	39,306	10.5	4,127	37,588	13.8	5,424	46,987	12.1	4,756	42,617
2027	40,387	10.5	4,241	37,711	13.8	5,573	47,141	12.1	4,887	42,757
2028	41,498	10.5	4,357	37,774	13.8	5,727	47,220	12.1	5,021	42,828
2029	42,639	10.5	4,477	37,770	13.8	5,884	47,215	12.1	5,159	42,824
2030	43,812	10.5	4,600	37,693	13.8	6,046	47,119	12.1	5,301	42,737

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	15.1%	\$5,182	\$ 48,949	17.2%	\$5,903	\$ 54,384	18.0%	\$6,178	\$ 56,800
2022	35,264	15.1	5,325	49,419	17.2	6,065	54,906	18.0	6,348	57,345
2023	36,234	15.1	5,471	49,840	17.2	6,232	55,374	18.0	6,522	57,834
2024	37,230	15.1	5,622	50,207	17.2	6,404	55,782	18.0	6,701	58,260
2025	38,254	15.1	5,776	50,514	17.2	6,580	56,123	18.0	6,886	58,616
2026	39,306	15.1	5,935	50,754	17.2	6,761	56,390	18.0	7,075	58,895
2027	40,387	15.1	6,098	50,920	17.2	6,947	56,575	18.0	7,270	59,088
2028	41,498	15.1	6,266	51,005	17.2	7,138	56,669	18.0	7,470	59,186
2029	42,639	15.1	6,438	51,000	17.2	7,334	56,664	18.0	7,675	59,180
2030	43,812	15.1	6,616	50,896	17.2	7,536	56,549	18.0	7,886	59,060

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	20.5%	\$7,036	\$ 63,441	20.9%	\$7,173	\$ 64,657	23.9%	\$8,202	\$ 72,495
2022	35,264	20.5	7,229	64,050	20.9	7,370	65,277	23.9	8,428	73,190
2023	36,234	20.5	7,428	64,596	20.9	7,573	65,833	23.9	8,660	73,814
2024	37,230	20.5	7,632	65,072	20.9	7,781	66,318	23.9	8,898	74,358
2025	38,254	20.5	7,842	65,470	20.9	7,995	66,723	23.9	9,143	74,812
2026	39,306	20.5	8,058	65,781	20.9	8,215	67,040	23.9	9,394	75,168
2027	40,387	20.5	8,279	65,997	20.9	8,441	67,260	23.9	9,652	75,414
2028	41,498	20.5	8,507	66,107	20.9	8,673	67,372	23.9	9,918	75,540
2029	42,639	20.5	8,741	66,101	20.9	8,912	67,366	23.9	10,191	75,533
2030	43,812	20.5	8,981	65,967	20.9	9,157	67,229	23.9	10,471	75,380

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.



# City of Union Star - General

## Employer Contribution Rates (6% Member Contribution Rate, 3 Year FAS) (Member contributions are additional)

### Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	8.6%	\$2,952	\$ 36,251	11.9%	\$4,084	\$ 45,316	10.2%	\$3,501	\$ 41,101
2022	35,264	8.6	3,033	36,599	11.9	4,196	45,751	10.2	3,597	41,495
2023	36,234	8.6	3,116	36,911	11.9	4,312	46,141	10.2	3,696	41,849
2024	37,230	8.6	3,202	37,183	11.9	4,430	46,481	10.2	3,797	42,157
2025	38,254	8.6	3,290	37,410	11.9	4,552	46,765	10.2	3,902	42,415
2026	39,306	8.6	3,380	37,588	11.9	4,677	46,987	10.2	4,009	42,617
2027	40,387	8.6	3,473	37,711	11.9	4,806	47,141	10.2	4,119	42,757
2028	41,498	8.6	3,569	37,774	11.9	4,938	47,220	10.2	4,233	42,828
2029	42,639	8.6	3,667	37,770	11.9	5,074	47,215	10.2	4,349	42,824
2030	43,812	8.6	3,768	37,693	11.9	5,214	47,119	10.2	4,469	42,737

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	13.2%	\$4,530	\$ 48,949	15.3%	\$5,251	\$ 54,384	16.1%	\$5,526	\$ 56,800
2022	35,264	13.2	4,655	49,419	15.3	5,395	54,906	16.1	5,678	57,345
2023	36,234	13.2	4,783	49,840	15.3	5,544	55,374	16.1	5,834	57,834
2024	37,230	13.2	4,914	50,207	15.3	5,696	55,782	16.1	5,994	58,260
2025	38,254	13.2	5,050	50,514	15.3	5,853	56,123	16.1	6,159	58,616
2026	39,306	13.2	5,188	50,754	15.3	6,014	56,390	16.1	6,328	58,895
2027	40,387	13.2	5,331	50,920	15.3	6,179	56,575	16.1	6,502	59,088
2028	41,498	13.2	5,478	51,005	15.3	6,349	56,669	16.1	6,681	59,186
2029	42,639	13.2	5,628	51,000	15.3	6,524	56,664	16.1	6,865	59,180
2030	43,812	13.2	5,783	50,896	15.3	6,703	56,549	16.1	7,054	59,060

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	18.6%	\$6,384	\$ 63,441	19.0%	\$6,521	\$ 64,657	22.0%	\$7,550	\$ 72,495
2022	35,264	18.6	6,559	64,050	19.0	6,700	65,277	22.0	7,758	73,190
2023	36,234	18.6	6,740	64,596	19.0	6,884	65,833	22.0	7,971	73,814
2024	37,230	18.6	6,925	65,072	19.0	7,074	66,318	22.0	8,191	74,358
2025	38,254	18.6	7,115	65,470	19.0	7,268	66,723	22.0	8,416	74,812
2026	39,306	18.6	7,311	65,781	19.0	7,468	67,040	22.0	8,647	75,168
2027	40,387	18.6	7,512	65,997	19.0	7,674	67,260	22.0	8,885	75,414
2028	41,498	18.6	7,719	66,107	19.0	7,885	67,372	22.0	9,130	75,540
2029	42,639	18.6	7,931	66,101	19.0	8,101	67,366	22.0	9,381	75,533
2030	43,812	18.6	8,149	65,967	19.0	8,324	67,229	22.0	9,639	75,380

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.





# City of Union Star - General

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

### Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	13.9%	\$4,770	\$ 35,112	17.2%	\$5,903	\$ 43,886	15.5%	\$5,320	\$ 39,799
2022	35,264	13.9	4,902	35,449	17.2	6,065	44,307	15.5	5,466	40,181
2023	36,234	13.9	5,037	35,751	17.2	6,232	44,685	15.5	5,616	40,523
2024	37,230	13.9	5,175	36,014	17.2	6,404	45,014	15.5	5,771	40,821
2025	38,254	13.9	5,317	36,234	17.2	6,580	45,289	15.5	5,929	41,071
2026	39,306	13.9	5,464	36,406	17.2	6,761	45,504	15.5	6,092	41,266
2027	40,387	13.9	5,614	36,525	17.2	6,947	45,653	15.5	6,260	41,401
2028	41,498	13.9	5,768	36,586	17.2	7,138	45,729	15.5	6,432	41,470
2029	42,639	13.9	5,927	36,582	17.2	7,334	45,725	15.5	6,609	41,466
2030	43,812	13.9	6,090	36,508	17.2	7,536	45,632	15.5	6,791	41,382

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	18.4%	\$6,315	\$ 47,401	20.3%	\$6,967	\$ 52,666	21.2%	\$7,276	\$ 55,009
2022	35,264	18.4	6,489	47,856	20.3	7,159	53,171	21.2	7,476	55,537
2023	36,234	18.4	6,667	48,264	20.3	7,356	53,624	21.2	7,682	56,010
2024	37,230	18.4	6,850	48,619	20.3	7,558	54,019	21.2	7,893	56,422
2025	38,254	18.4	7,039	48,916	20.3	7,766	54,349	21.2	8,110	56,767
2026	39,306	18.4	7,232	49,149	20.3	7,979	54,607	21.2	8,333	57,037
2027	40,387	18.4	7,431	49,310	20.3	8,199	54,786	21.2	8,562	57,224
2028	41,498	18.4	7,636	49,392	20.3	8,424	54,877	21.2	8,798	57,319
2029	42,639	18.4	7,846	49,387	20.3	8,656	54,872	21.2	9,039	57,313
2030	43,812	18.4	8,061	49,287	20.3	8,894	54,761	21.2	9,288	57,197

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	23.6%	\$8,100	\$ 61,432	24.0%	\$8,237	\$ 62,613	26.8%	\$9,198	\$ 70,222
2022	35,264	23.6	8,322	62,021	24.0	8,463	63,214	26.8	9,451	70,896
2023	36,234	23.6	8,551	62,549	24.0	8,696	63,753	26.8	9,711	71,500
2024	37,230	23.6	8,786	63,010	24.0	8,935	64,222	26.8	9,978	72,027
2025	38,254	23.6	9,028	63,395	24.0	9,181	64,615	26.8	10,252	72,467
2026	39,306	23.6	9,276	63,696	24.0	9,433	64,922	26.8	10,534	72,812
2027	40,387	23.6	9,531	63,905	24.0	9,693	65,135	26.8	10,824	73,051
2028	41,498	23.6	9,794	64,011	24.0	9,960	65,244	26.8	11,121	73,173
2029	42,639	23.6	10,063	64,005	24.0	10,233	65,238	26.8	11,427	73,166
2030	43,812	23.6	10,340	63,875	24.0	10,515	65,106	26.8	11,742	73,017

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.



# City of Union Star - General

## Employer Contribution Rates (2% Member Contribution Rate, 5 Year FAS) (Member contributions are additional)

### Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	12.0%	\$4,118	\$ 35,112	15.3%	\$5,251	\$ 43,886	13.6%	\$4,668	\$ 39,799
2022	35,264	12.0	4,232	35,449	15.3	5,395	44,307	13.6	4,796	40,181
2023	36,234	12.0	4,348	35,751	15.3	5,544	44,685	13.6	4,928	40,523
2024	37,230	12.0	4,468	36,014	15.3	5,696	45,014	13.6	5,063	40,821
2025	38,254	12.0	4,590	36,234	15.3	5,853	45,289	13.6	5,203	41,071
2026	39,306	12.0	4,717	36,406	15.3	6,014	45,504	13.6	5,346	41,266
2027	40,387	12.0	4,846	36,525	15.3	6,179	45,653	13.6	5,493	41,401
2028	41,498	12.0	4,980	36,586	15.3	6,349	45,729	13.6	5,644	41,470
2029	42,639	12.0	5,117	36,582	15.3	6,524	45,725	13.6	5,799	41,466
2030	43,812	12.0	5,257	36,508	15.3	6,703	45,632	13.6	5,958	41,382

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	16.5%	\$5,663	\$ 47,401	18.4%	\$6,315	\$ 52,666	19.3%	\$6,624	\$ 55,009
2022	35,264	16.5	5,819	47,856	18.4	6,489	53,171	19.3	6,806	55,537
2023	36,234	16.5	5,979	48,264	18.4	6,667	53,624	19.3	6,993	56,010
2024	37,230	16.5	6,143	48,619	18.4	6,850	54,019	19.3	7,185	56,422
2025	38,254	16.5	6,312	48,916	18.4	7,039	54,349	19.3	7,383	56,767
2026	39,306	16.5	6,485	49,149	18.4	7,232	54,607	19.3	7,586	57,037
2027	40,387	16.5	6,664	49,310	18.4	7,431	54,786	19.3	7,795	57,224
2028	41,498	16.5	6,847	49,392	18.4	7,636	54,877	19.3	8,009	57,319
2029	42,639	16.5	7,035	49,387	18.4	7,846	54,872	19.3	8,229	57,313
2030	43,812	16.5	7,229	49,287	18.4	8,061	54,761	19.3	8,456	57,197

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	21.7%	\$7,447	\$ 61,432	22.1%	\$7,585	\$ 62,613	24.9%	\$8,546	\$ 70,222
2022	35,264	21.7	7,652	62,021	22.1	7,793	63,214	24.9	8,781	70,896
2023	36,234	21.7	7,863	62,549	22.1	8,008	63,753	24.9	9,022	71,500
2024	37,230	21.7	8,079	63,010	22.1	8,228	64,222	24.9	9,270	72,027
2025	38,254	21.7	8,301	63,395	22.1	8,454	64,615	24.9	9,525	72,467
2026	39,306	21.7	8,529	63,696	22.1	8,687	64,922	24.9	9,787	72,812
2027	40,387	21.7	8,764	63,905	22.1	8,926	65,135	24.9	10,056	73,051
2028	41,498	21.7	9,005	64,011	22.1	9,171	65,244	24.9	10,333	73,173
2029	42,639	21.7	9,253	64,005	22.1	9,423	65,238	24.9	10,617	73,166
2030	43,812	21.7	9,507	63,875	22.1	9,682	65,106	24.9	10,909	73,017

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.



# City of Union Star - General

## Employer Contribution Rates (4% Member Contribution Rate, 5 Year FAS) (Member contributions are additional)

### Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	10.1%	\$3,466	\$ 35,112	13.4%	\$4,599	\$ 43,886	11.7%	\$4,015	\$ 39,799
2022	35,264	10.1	3,562	35,449	13.4	4,725	44,307	11.7	4,126	40,181
2023	36,234	10.1	3,660	35,751	13.4	4,855	44,685	11.7	4,239	40,523
2024	37,230	10.1	3,760	36,014	13.4	4,989	45,014	11.7	4,356	40,821
2025	38,254	10.1	3,864	36,234	13.4	5,126	45,289	11.7	4,476	41,071
2026	39,306	10.1	3,970	36,406	13.4	5,267	45,504	11.7	4,599	41,266
2027	40,387	10.1	4,079	36,525	13.4	5,412	45,653	11.7	4,725	41,401
2028	41,498	10.1	4,191	36,586	13.4	5,561	45,729	11.7	4,855	41,470
2029	42,639	10.1	4,307	36,582	13.4	5,714	45,725	11.7	4,989	41,466
2030	43,812	10.1	4,425	36,508	13.4	5,871	45,632	11.7	5,126	41,382

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	14.6%	\$5,011	\$ 47,401	16.5%	\$5,663	\$ 52,666	17.4%	\$5,972	\$ 55,009
2022	35,264	14.6	5,149	47,856	16.5	5,819	53,171	17.4	6,136	55,537
2023	36,234	14.6	5,290	48,264	16.5	5,979	53,624	17.4	6,305	56,010
2024	37,230	14.6	5,436	48,619	16.5	6,143	54,019	17.4	6,478	56,422
2025	38,254	14.6	5,585	48,916	16.5	6,312	54,349	17.4	6,656	56,767
2026	39,306	14.6	5,739	49,149	16.5	6,485	54,607	17.4	6,839	57,037
2027	40,387	14.6	5,897	49,310	16.5	6,664	54,786	17.4	7,027	57,224
2028	41,498	14.6	6,059	49,392	16.5	6,847	54,877	17.4	7,221	57,319
2029	42,639	14.6	6,225	49,387	16.5	7,035	54,872	17.4	7,419	57,313
2030	43,812	14.6	6,397	49,287	16.5	7,229	54,761	17.4	7,623	57,197

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	19.8%	\$6,795	\$ 61,432	20.2%	\$6,933	\$ 62,613	23.0%	\$7,894	\$ 70,222
2022	35,264	19.8	6,982	62,021	20.2	7,123	63,214	23.0	8,111	70,896
2023	36,234	19.8	7,174	62,549	20.2	7,319	63,753	23.0	8,334	71,500
2024	37,230	19.8	7,372	63,010	20.2	7,520	64,222	23.0	8,563	72,027
2025	38,254	19.8	7,574	63,395	20.2	7,727	64,615	23.0	8,798	72,467
2026	39,306	19.8	7,783	63,696	20.2	7,940	64,922	23.0	9,040	72,812
2027	40,387	19.8	7,997	63,905	20.2	8,158	65,135	23.0	9,289	73,051
2028	41,498	19.8	8,217	64,011	20.2	8,383	65,244	23.0	9,545	73,173
2029	42,639	19.8	8,443	64,005	20.2	8,613	65,238	23.0	9,807	73,166
2030	43,812	19.8	8,675	63,875	20.2	8,850	65,106	23.0	10,077	73,017

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.



# City of Union Star - General

## Employer Contribution Rates (6% Member Contribution Rate, 5 Year FAS) (Member contributions are additional)

### Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	8.2%	\$2,814	\$ 35,112	11.5%	\$3,947	\$ 43,886	9.8%	\$3,363	\$ 39,799
2022	35,264	8.2	2,892	35,449	11.5	4,055	44,307	9.8	3,456	40,181
2023	36,234	8.2	2,971	35,751	11.5	4,167	44,685	9.8	3,551	40,523
2024	37,230	8.2	3,053	36,014	11.5	4,281	45,014	9.8	3,649	40,821
2025	38,254	8.2	3,137	36,234	11.5	4,399	45,289	9.8	3,749	41,071
2026	39,306	8.2	3,223	36,406	11.5	4,520	45,504	9.8	3,852	41,266
2027	40,387	8.2	3,312	36,525	11.5	4,645	45,653	9.8	3,958	41,401
2028	41,498	8.2	3,403	36,586	11.5	4,772	45,729	9.8	4,067	41,470
2029	42,639	8.2	3,496	36,582	11.5	4,903	45,725	9.8	4,179	41,466
2030	43,812	8.2	3,593	36,508	11.5	5,038	45,632	9.8	4,294	41,382

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	12.7%	\$4,359	\$ 47,401	14.6%	\$5,011	\$ 52,666	15.5%	\$5,320	\$ 55,009
2022	35,264	12.7	4,479	47,856	14.6	5,149	53,171	15.5	5,466	55,537
2023	36,234	12.7	4,602	48,264	14.6	5,290	53,624	15.5	5,616	56,010
2024	37,230	12.7	4,728	48,619	14.6	5,436	54,019	15.5	5,771	56,422
2025	38,254	12.7	4,858	48,916	14.6	5,585	54,349	15.5	5,929	56,767
2026	39,306	12.7	4,992	49,149	14.6	5,739	54,607	15.5	6,092	57,037
2027	40,387	12.7	5,129	49,310	14.6	5,897	54,786	15.5	6,260	57,224
2028	41,498	12.7	5,270	49,392	14.6	6,059	54,877	15.5	6,432	57,319
2029	42,639	12.7	5,415	49,387	14.6	6,225	54,872	15.5	6,609	57,313
2030	43,812	12.7	5,564	49,287	14.6	6,397	54,761	15.5	6,791	57,197

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	17.9%	\$6,143	\$ 61,432	18.3%	\$6,281	\$ 62,613	21.1%	\$7,242	\$ 70,222
2022	35,264	17.9	6,312	62,021	18.3	6,453	63,214	21.1	7,441	70,896
2023	36,234	17.9	6,486	62,549	18.3	6,631	63,753	21.1	7,645	71,500
2024	37,230	17.9	6,664	63,010	18.3	6,813	64,222	21.1	7,856	72,027
2025	38,254	17.9	6,847	63,395	18.3	7,000	64,615	21.1	8,072	72,467
2026	39,306	17.9	7,036	63,696	18.3	7,193	64,922	21.1	8,294	72,812
2027	40,387	17.9	7,229	63,905	18.3	7,391	65,135	21.1	8,522	73,051
2028	41,498	17.9	7,428	64,011	18.3	7,594	65,244	21.1	8,756	73,173
2029	42,639	17.9	7,632	64,005	18.3	7,803	65,238	21.1	8,997	73,166
2030	43,812	17.9	7,842	63,875	18.3	8,018	65,106	21.1	9,244	73,017

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.



# City of Union Star - General

## Employer Contribution Rates (0% Member Contribution Rate, 3 Year FAS)

### Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	14.3%	\$4,908	\$ 36,251	17.6%	\$6,040	\$ 45,316	15.9%	\$5,457	\$ 41,101
2022	35,264	14.3	5,043	36,599	17.6	6,206	45,751	15.9	5,607	41,495
2023	36,234	14.3	5,181	36,911	17.6	6,377	46,141	15.9	5,761	41,849
2024	37,230	14.3	5,324	37,183	17.6	6,552	46,481	15.9	5,920	42,157
2025	38,254	14.3	5,470	37,410	17.6	6,733	46,765	15.9	6,082	42,415
2026	39,306	14.3	5,621	37,588	17.6	6,918	46,987	15.9	6,250	42,617
2027	40,387	14.3	5,775	37,711	17.6	7,108	47,141	15.9	6,422	42,757
2028	41,498	14.3	5,934	37,774	17.6	7,304	47,220	15.9	6,598	42,828
2029	42,639	14.3	6,097	37,770	17.6	7,504	47,215	15.9	6,780	42,824
2030	43,812	14.3	6,265	37,693	17.6	7,711	47,119	15.9	6,966	42,737

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	18.9%	\$6,486	\$ 48,949	21.0%	\$7,207	\$ 54,384	21.8%	\$7,482	\$ 56,800
2022	35,264	18.9	6,665	49,419	21.0	7,405	54,906	21.8	7,688	57,345
2023	36,234	18.9	6,848	49,840	21.0	7,609	55,374	21.8	7,899	57,834
2024	37,230	18.9	7,036	50,207	21.0	7,818	55,782	21.8	8,116	58,260
2025	38,254	18.9	7,230	50,514	21.0	8,033	56,123	21.8	8,339	58,616
2026	39,306	18.9	7,429	50,754	21.0	8,254	56,390	21.8	8,569	58,895
2027	40,387	18.9	7,633	50,920	21.0	8,481	56,575	21.8	8,804	59,088
2028	41,498	18.9	7,843	51,005	21.0	8,715	56,669	21.8	9,047	59,186
2029	42,639	18.9	8,059	51,000	21.0	8,954	56,664	21.8	9,295	59,180
2030	43,812	18.9	8,280	50,896	21.0	9,201	56,549	21.8	9,551	59,060

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	24.3%	\$8,340	\$ 63,441	24.7%	\$8,477	\$ 64,657	27.7%	\$9,507	\$ 72,495
2022	35,264	24.3	8,569	64,050	24.7	8,710	65,277	27.7	9,768	73,190
2023	36,234	24.3	8,805	64,596	24.7	8,950	65,833	27.7	10,037	73,814
2024	37,230	24.3	9,047	65,072	24.7	9,196	66,318	27.7	10,313	74,358
2025	38,254	24.3	9,296	65,470	24.7	9,449	66,723	27.7	10,596	74,812
2026	39,306	24.3	9,551	65,781	24.7	9,709	67,040	27.7	10,888	75,168
2027	40,387	24.3	9,814	65,997	24.7	9,976	67,260	27.7	11,187	75,414
2028	41,498	24.3	10,084	66,107	24.7	10,250	67,372	27.7	11,495	75,540
2029	42,639	24.3	10,361	66,101	24.7	10,532	67,366	27.7	11,811	75,533
2030	43,812	24.3	10,646	65,967	24.7	10,822	67,229	27.7	12,136	75,380

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.



# City of Union Star - General

## Employer Contribution Rates (2% Member Contribution Rate, 3 Year FAS) (Member contributions are additional)

### Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2021	\$ 34,320	12.4%	\$4,256	\$ 36,251	15.7%	\$5,388	\$ 45,316	14.0%	\$4,805	\$ 41,101
2022	35,264	12.4	4,373	36,599	15.7	5,536	45,751	14.0	4,937	41,495
2023	36,234	12.4	4,493	36,911	15.7	5,689	46,141	14.0	5,073	41,849
2024	37,230	12.4	4,617	37,183	15.7	5,845	46,481	14.0	5,212	42,157
2025	38,254	12.4	4,743	37,410	15.7	6,006	46,765	14.0	5,356	42,415
2026	39,306	12.4	4,874	37,588	15.7	6,171	46,987	14.0	5,503	42,617
2027	40,387	12.4	5,008	37,711	15.7	6,341	47,141	14.0	5,654	42,757
2028	41,498	12.4	5,146	37,774	15.7	6,515	47,220	14.0	5,810	42,828
2029	42,639	12.4	5,287	37,770	15.7	6,694	47,215	14.0	5,969	42,824
2030	43,812	12.4	5,433	37,693	15.7	6,878	47,119	14.0	6,134	42,737

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2021	\$ 34,320	17.0%	\$5,834	\$ 48,949	19.1%	\$6,555	\$ 54,384	19.9%	\$6,830	\$ 56,800
2022	35,264	17.0	5,995	49,419	19.1	6,735	54,906	19.9	7,018	57,345
2023	36,234	17.0	6,160	49,840	19.1	6,921	55,374	19.9	7,211	57,834
2024	37,230	17.0	6,329	50,207	19.1	7,111	55,782	19.9	7,409	58,260
2025	38,254	17.0	6,503	50,514	19.1	7,307	56,123	19.9	7,613	58,616
2026	39,306	17.0	6,682	50,754	19.1	7,507	56,390	19.9	7,822	58,895
2027	40,387	17.0	6,866	50,920	19.1	7,714	56,575	19.9	8,037	59,088
2028	41,498	17.0	7,055	51,005	19.1	7,926	56,669	19.9	8,258	59,186
2029	42,639	17.0	7,249	51,000	19.1	8,144	56,664	19.9	8,485	59,180
2030	43,812	17.0	7,448	50,896	19.1	8,368	56,549	19.9	8,719	59,060

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2021	\$ 34,320	22.4%	\$7,688	\$ 63,441	22.8%	\$7,825	\$ 64,657	25.8%	\$8,855	\$ 72,495
2022	35,264	22.4	7,899	64,050	22.8	8,040	65,277	25.8	9,098	73,190
2023	36,234	22.4	8,116	64,596	22.8	8,261	65,833	25.8	9,348	73,814
2024	37,230	22.4	8,340	65,072	22.8	8,488	66,318	25.8	9,605	74,358
2025	38,254	22.4	8,569	65,470	22.8	8,722	66,723	25.8	9,870	74,812
2026	39,306	22.4	8,805	65,781	22.8	8,962	67,040	25.8	10,141	75,168
2027	40,387	22.4	9,047	65,997	22.8	9,208	67,260	25.8	10,420	75,414
2028	41,498	22.4	9,296	66,107	22.8	9,462	67,372	25.8	10,706	75,540
2029	42,639	22.4	9,551	66,101	22.8	9,722	67,366	25.8	11,001	75,533
2030	43,812	22.4	9,814	65,967	22.8	9,989	67,229	25.8	11,303	75,380

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.



# City of Union Star - General

## Employer Contribution Rates (4% Member Contribution Rate, 3 Year FAS) (Member contributions are additional)

### Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	10.5%	\$3,604	\$ 36,251	13.8%	\$4,736	\$ 45,316	12.1%	\$4,153	\$ 41,101
2022	35,264	10.5	3,703	36,599	13.8	4,866	45,751	12.1	4,267	41,495
2023	36,234	10.5	3,805	36,911	13.8	5,000	46,141	12.1	4,384	41,849
2024	37,230	10.5	3,909	37,183	13.8	5,138	46,481	12.1	4,505	42,157
2025	38,254	10.5	4,017	37,410	13.8	5,279	46,765	12.1	4,629	42,415
2026	39,306	10.5	4,127	37,588	13.8	5,424	46,987	12.1	4,756	42,617
2027	40,387	10.5	4,241	37,711	13.8	5,573	47,141	12.1	4,887	42,757
2028	41,498	10.5	4,357	37,774	13.8	5,727	47,220	12.1	5,021	42,828
2029	42,639	10.5	4,477	37,770	13.8	5,884	47,215	12.1	5,159	42,824
2030	43,812	10.5	4,600	37,693	13.8	6,046	47,119	12.1	5,301	42,737

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	15.1%	\$5,182	\$ 48,949	17.2%	\$5,903	\$ 54,384	18.0%	\$6,178	\$ 56,800
2022	35,264	15.1	5,325	49,419	17.2	6,065	54,906	18.0	6,348	57,345
2023	36,234	15.1	5,471	49,840	17.2	6,232	55,374	18.0	6,522	57,834
2024	37,230	15.1	5,622	50,207	17.2	6,404	55,782	18.0	6,701	58,260
2025	38,254	15.1	5,776	50,514	17.2	6,580	56,123	18.0	6,886	58,616
2026	39,306	15.1	5,935	50,754	17.2	6,761	56,390	18.0	7,075	58,895
2027	40,387	15.1	6,098	50,920	17.2	6,947	56,575	18.0	7,270	59,088
2028	41,498	15.1	6,266	51,005	17.2	7,138	56,669	18.0	7,470	59,186
2029	42,639	15.1	6,438	51,000	17.2	7,334	56,664	18.0	7,675	59,180
2030	43,812	15.1	6,616	50,896	17.2	7,536	56,549	18.0	7,886	59,060

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	20.5%	\$7,036	\$ 63,441	20.9%	\$7,173	\$ 64,657	23.9%	\$8,202	\$ 72,495
2022	35,264	20.5	7,229	64,050	20.9	7,370	65,277	23.9	8,428	73,190
2023	36,234	20.5	7,428	64,596	20.9	7,573	65,833	23.9	8,660	73,814
2024	37,230	20.5	7,632	65,072	20.9	7,781	66,318	23.9	8,898	74,358
2025	38,254	20.5	7,842	65,470	20.9	7,995	66,723	23.9	9,143	74,812
2026	39,306	20.5	8,058	65,781	20.9	8,215	67,040	23.9	9,394	75,168
2027	40,387	20.5	8,279	65,997	20.9	8,441	67,260	23.9	9,652	75,414
2028	41,498	20.5	8,507	66,107	20.9	8,673	67,372	23.9	9,918	75,540
2029	42,639	20.5	8,741	66,101	20.9	8,912	67,366	23.9	10,191	75,533
2030	43,812	20.5	8,981	65,967	20.9	9,157	67,229	23.9	10,471	75,380

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.



# City of Union Star - General

## Employer Contribution Rates (6% Member Contribution Rate, 3 Year FAS) (Member contributions are additional)

### Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	8.6%	\$2,952	\$ 36,251	11.9%	\$4,084	\$ 45,316	10.2%	\$3,501	\$ 41,101
2022	35,264	8.6	3,033	36,599	11.9	4,196	45,751	10.2	3,597	41,495
2023	36,234	8.6	3,116	36,911	11.9	4,312	46,141	10.2	3,696	41,849
2024	37,230	8.6	3,202	37,183	11.9	4,430	46,481	10.2	3,797	42,157
2025	38,254	8.6	3,290	37,410	11.9	4,552	46,765	10.2	3,902	42,415
2026	39,306	8.6	3,380	37,588	11.9	4,677	46,987	10.2	4,009	42,617
2027	40,387	8.6	3,473	37,711	11.9	4,806	47,141	10.2	4,119	42,757
2028	41,498	8.6	3,569	37,774	11.9	4,938	47,220	10.2	4,233	42,828
2029	42,639	8.6	3,667	37,770	11.9	5,074	47,215	10.2	4,349	42,824
2030	43,812	8.6	3,768	37,693	11.9	5,214	47,119	10.2	4,469	42,737

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	13.2%	\$4,530	\$ 48,949	15.3%	\$5,251	\$ 54,384	16.1%	\$5,526	\$ 56,800
2022	35,264	13.2	4,655	49,419	15.3	5,395	54,906	16.1	5,678	57,345
2023	36,234	13.2	4,783	49,840	15.3	5,544	55,374	16.1	5,834	57,834
2024	37,230	13.2	4,914	50,207	15.3	5,696	55,782	16.1	5,994	58,260
2025	38,254	13.2	5,050	50,514	15.3	5,853	56,123	16.1	6,159	58,616
2026	39,306	13.2	5,188	50,754	15.3	6,014	56,390	16.1	6,328	58,895
2027	40,387	13.2	5,331	50,920	15.3	6,179	56,575	16.1	6,502	59,088
2028	41,498	13.2	5,478	51,005	15.3	6,349	56,669	16.1	6,681	59,186
2029	42,639	13.2	5,628	51,000	15.3	6,524	56,664	16.1	6,865	59,180
2030	43,812	13.2	5,783	50,896	15.3	6,703	56,549	16.1	7,054	59,060

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$ 34,320	18.6%	\$6,384	\$ 63,441	19.0%	\$6,521	\$ 64,657	22.0%	\$7,550	\$ 72,495
2022	35,264	18.6	6,559	64,050	19.0	6,700	65,277	22.0	7,758	73,190
2023	36,234	18.6	6,740	64,596	19.0	6,884	65,833	22.0	7,971	73,814
2024	37,230	18.6	6,925	65,072	19.0	7,074	66,318	22.0	8,191	74,358
2025	38,254	18.6	7,115	65,470	19.0	7,268	66,723	22.0	8,416	74,812
2026	39,306	18.6	7,311	65,781	19.0	7,468	67,040	22.0	8,647	75,168
2027	40,387	18.6	7,512	65,997	19.0	7,674	67,260	22.0	8,885	75,414
2028	41,498	18.6	7,719	66,107	19.0	7,885	67,372	22.0	9,130	75,540
2029	42,639	18.6	7,931	66,101	19.0	8,101	67,366	22.0	9,381	75,533
2030	43,812	18.6	8,149	65,967	19.0	8,324	67,229	22.0	9,639	75,380

Notes regarding the above projections:

- 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 28<sup>th</sup> 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.

