The Initial Valuation For

City of Madison

as of February 28, 2022

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800.521.0498 | P: 248.799.9000 | www.grsconsulting.com

March 16, 2022

City of Madison
Madison, 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.

One Towne Square | Suite 800 | Southfield, Michigan 48076-3723

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

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

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

In accordance with LAGERS Board policy, the employer contribution rates established by this valuation report are valid for purposes of joining the System for a two year period from the date of this valuation which was February 28, 2022. The valuation was based on data furnished from your records concerning individual employees (see Appendix V).

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

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

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

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

The signing actuary is independent of the plan sponsor.

Respectfully submitted,
Gabriel, Roeder, Smith & Company

Mita Drazilov

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 Madison

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	7.80%	0.20%	3.60%	11.60%	9.70%	7.80%	5.90%
L-3	General	9.50	0.30	4.50	14.30	12.40	10.50	8.60
LT-4(65)	General	8.70	0.20	4.10	13.00	11.10	9.20	7.30
LT-5(65)	General	10.20	0.30	4.90	15.40	13.50	11.60	9.70
L-7	General	11.20	0.30	5.40	16.90	15.00	13.10	11.20
LT-8(65)	General	11.70	0.30	5.70	17.70	15.80	13.90	12.00
L-12	General	12.90	0.40	6.30	19.60	17.70	15.80	13.90
LT-14(65)	General	13.20	0.40	6.40	20.00	18.10	16.20	14.30
L-6	General	14.70	0.50	7.20	22.40	20.50	18.60	16.70

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

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 Madison

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	8.00%	0.20%	3.70%	11.90%	10.00%	8.10%	6.20%
L-3	General	9.80	0.30	4.70	14.80	12.90	11.00	9.10
LT-4(65)	General	8.90	0.20	4.30	13.40	11.50	9.60	7.70
LT-5(65)	General	10.50	0.30	5.10	15.90	14.00	12.10	10.20
L-7	General	11.60	0.30	5.60	17.50	15.60	13.70	11.80
LT-8(65)	General	12.00	0.30	5.90	18.20	16.30	14.40	12.50
L-12	General	13.30	0.40	6.50	20.20	18.30	16.40	14.50
LT-14(65)	General	13.60	0.40	6.70	20.70	18.80	16.90	15.00
L-6	General	15.10	0.50	7.50	23.10	21.20	19.30	17.40

* Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost 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 Madison

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	7.80%	0.20%	3.60%	11.60%	9.70%	7.80%	5.90%
L-3	General	9.50	0.30	4.50	14.30	12.40	10.50	8.60
LT-4(65)	General	8.70	0.20	4.10	13.00	11.10	9.20	7.30
LT-5(65)	General	10.20	0.30	4.90	15.40	13.50	11.60	9.70
L-7	General	11.20	0.30	5.40	16.90	15.00	13.10	11.20
LT-8(65)	General	11.70	0.30	5.70	17.70	15.80	13.90	12.00
L-12	General	12.90	0.40	6.30	19.60	17.70	15.80	13.90
LT-14(65)	General	13.20	0.40	6.40	20.00	18.10	16.20	14.30
L-6	General	14.70	0.50	7.20	22.40	20.50	18.60	16.70

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

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

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 Madison

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	8.00%	0.20%	3.70%	11.90%	10.00%	8.10%	6.20%
L-3	General	9.80	0.30	4.70	14.80	12.90	11.00	9.10
LT-4(65)	General	8.90	0.20	4.30	13.40	11.50	9.60	7.70
LT-5(65)	General	10.50	0.30	5.10	15.90	14.00	12.10	10.20
L-7	General	11.60	0.30	5.60	17.50	15.60	13.70	11.80
LT-8(65)	General	12.00	0.30	5.90	18.20	16.30	14.40	12.50
L-12	General	13.30	0.40	6.50	20.20	18.30	16.40	14.50
LT-14(65)	General	13.60	0.40	6.70	20.70	18.80	16.90	15.00
L-6	General	15.10	0.50	7.50	23.10	21.20	19.30	17.40

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 Madison

Employer Contribution Dollars
General

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

Regular Retirement Eligibility

5 Year FAS				
Benefit	Member Contribution Rate			
Program	0%	2%	4%	6%
L-1	$ 15,532	$ 12,988	$ 10,444	$ 7,900
L-3	19,148	16,604	14,060	11,515
LT-4(65)	17,407	14,863	12,319	9,775
LT-5(65)	20,621	18,077	15,532	12,988
L-7	22,629	20,085	17,541	14,997
LT-8(65)	23,700	21,156	18,612	16,068
L-12	26,244	23,700	21,156	18,612
LT-14(65)	26,780	24,236	21,692	19,148
L-6	29,994	27,450	24,905	22,361

3 Year FAS				
Benefit	Member Contribution Rate			
Program	0%	2%	4%	6%
L-1	$ 15,934	$ 13,390	$ 10,846	$ 8,302
L-3	19,817	17,273	14,729	12,185
LT-4(65)	17,943	15,399	12,854	10,310
LT-5(65)	21,290	18,746	16,202	13,658
L-7	23,433	20,888	18,344	15,800
LT-8(65)	24,370	21,826	19,282	16,738
L-12	27,048	24,504	21,960	19,416
LT-14(65)	27,717	25,173	22,629	20,085
L-6	30,931	28,387	25,843	23,299

Rule of 80 Retirement Eligibility

5 Year FAS				
Benefit	Member Contribution Rate			
Program	0%	2%	4%	6%
L-1	$ 15,532	$ 12,988	$ 10,444	$ 7,900
L-3	19,148	16,604	14,060	11,515
LT-4(65)	17,407	14,863	12,319	9,775
LT-5(65)	20,621	18,077	15,532	12,988
L-7	22,629	20,085	17,541	14,997
LT-8(65)	23,700	21,156	18,612	16,068
L-12	26,244	23,700	21,156	18,612
LT-14(65)	26,780	24,236	21,692	19,148
L-6	29,994	27,450	24,905	22,361

3 Year FAS				
Benefit	Member Contribution Rate			
Program	0%	2%	4%	6%
L-1	$ 15,934	$ 13,390	$ 10,846	$ 8,302
L-3	19,817	17,273	14,729	12,185
LT-4(65)	17,943	15,399	12,854	10,310
LT-5(65)	21,290	18,746	16,202	13,658
L-7	23,433	20,888	18,344	15,800
LT-8(65)	24,370	21,826	19,282	16,738
L-12	27,048	24,504	21,960	19,416
LT-14(65)	27,717	25,173	22,629	20,085
L-6	30,931	28,387	25,843	23,299

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

Employees and Payroll Included in the Valuation

	General
Number of Employees	3
Annual Payroll	$ 133,900

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

APPENDIX I

UNFUNDED ACTUARIAL ACCRUED LIABILITY

Unfunded Actuarial Accrued Liability (UAAL)

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

The policy of the LAGERS Board of Trustees provides that unfunded liabilities are to be paid for by level percent of payroll contributions over a period of 30 years. The contribution rates shown on pages 4 through 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 Madison

Regular Retirement Eligibility

Benefit Group	Employee Group	Member Contribution Rate - 0% UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	$ 82,725	$ 85,463
L-3	General	103,364	106,847
LT-4(65)	General	94,633	97,782
LT-5(65)	General	112,303	116,062
L-7	General	124,053	128,207
LT-8(65)	General	130,015	134,360
L-12	General	144,707	149,583
LT-14(65)	General	147,706	152,667
L-6	General	165,405	170,958

Unfunded Actuarial Accrued Liability (UAAL)

Rule of 80 Retirement Eligibility

Benefit Group	Employee Group	Member Contribution Rate - 0% UAAL (5 Year FAS)	Member Contribution Rate - 0% UAAL (3 Year FAS)
L-1	General	$ 82,725	$ 85,463
L-3	General	103,364	106,847
LT-4(65)	General	94,633	97,782
LT-5(65)	General	112,303	116,062
L-7	General	124,053	128,207
LT-8(65)	General	130,015	134,360
L-12	General	144,707	149,583
LT-14(65)	General	147,706	152,667
L-6	General	165,405	170,958

APPENDIX II

SUMMARY OF FINANCIAL ASSUMPTIONS

Summary of Assumptions Used in Actuarial Valuations

Assumptions Adopted by Board of Trustees After Consulting With Actuary

1. The investment return rate used in making the valuations was 7.00% per year, net of investment expenses, compounded annually. This rate of return is not the assumed real rate of return. The real rate of return is the rate of investment return in excess of the inflation rate. The price inflation rate used in making the valuations was 2.25% and the wage inflation rate used in making the valuations was 2.75%. The 7.00% investment return rate translates to an assumed real rate of return over price inflation of 4.75% and over wage inflation of 4.25%. Adopted 2021.

2. The healthy retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were 115% of the PubG-2010 Retiree Mortality Table for males and females. The disabled retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were 115% of the PubNS-2010 Disabled Retiree Mortality Table for males and females. The pre-retirement mortality tables used were 75% of the PubG-2010 Employee Mortality Table for males and females of General groups and 75% of the PubS-2010 Employee Mortality Table for males and females of Police, Fire and Public Safety groups. Mortality rates for a particular calendar year are determined by applying the MP-2020 mortality improvement scale to the above described tables. Adopted 2021.

3. The probabilities of withdrawal and disability from service, together with individual pay increase assumptions, are shown in Schedule 1. Adopted 2021.

4. The probabilities of retirement with an age and service allowance are shown in Schedule 2. Adopted 2021.

5. Post-retirement cost of living allowances are assumed to be 2.00% per year. Adopted 2021.

6. Total active member payroll is assumed to increase 2.75% a year, which is the portion of the individual pay increase assumptions attributable to wage inflation. In effect, this assumes no change in the number of active members per employer. Adopted 2021.

7. An individual entry-age actuarial cost method of valuation was used in determining age and service allowance actuarial liabilities and normal cost. Adopted 1986.

8. The data about persons now covered was furnished by the political subdivision. Although examined for general reasonableness, the data was not audited by us.

9. This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Schedule 1.

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

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

	Percent Increase in Individual's Pay During Next Year		
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 Men	General Members Women
55	3.00%	3.00%
56	3.00%	3.00%
57	3.00%	3.00%
58	3.00%	3.00%
59	3.00%	3.00%

Retirement Ages	Police/ Public Safety	Fire
50	2.50%	2.25%
51	2.50%	2.25%
52	3.00%	2.25%
53	3.00%	2.25%
54	3.50%	2.25%

Normal Retirement

Retirement Ages	General Members Men	General Members Women
60	10%	10%
61	10	10
62	25	15
63	20	15
64	20	15
65	25	25
66	25	30
67	20	25
68	20	25
69	20	20
70	100	100

Retirement Ages	Police/ Public Safety	Fire
55	11%	13%
56	11	13
57	11	13
58	11	13
59	11	13
60	11	15
61	11	20
62	22	20
63	18	20
64	18	20
65	100	100

Schedule 2. (Concluded)

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

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

APPENDIX III

SUMMARY OF LAGERS PROVISIONS

Missouri LocAl Government Employees Retirement System
Brief Summary of LAGERS
Benefits and Conditions Evaluated and/or Considered
as of February 28, 2021
(Section references are to RSMo)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) The surviving spouse receives an allowance equal to the Option A allowance (joint and 75% survivor benefit) computed based upon the deceased members' service & earnings record to time of death.

(b) When no spouse benefit is payable, the dependent children under age 18 (age 23 if they are full time students) each receive an equal share of 60% of an age & service allowance computed based upon the deceased member's service & earnings record to time of death.

(c) If the death is determined to be duty related, the 5 year service requirement is waived and the benefit is based on years of credited service the member would have completed had the member continued in LAGERS-covered employment to age 60.

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

(a) Subject to the maximum in (b), the redetermined amount is the amount other-wise payable multiplied by: 100% plus up to 4%, as determined by the LAGERS Board of Trustees, for each full year of retirement.

(b) The redetermined amount may not exceed the amount otherwise payable multiplied by the ratio of the Consumer Price Index for the immediately preceding month of June to the Consumer Price Index for the month of June immediately preceding retirement.

Member Contributions. Sections 70.690 & 70.705. Each member contributes a percent of compensation beginning after completion of sufficient employment for 6 months of credited service. The law governing LAGERS has a provision for the adoption of a 2%, 4% or 6% member contribution rate.

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

The law governing LAGERS also has a provision for the adoption of a 0% plan in which the full cost of LAGERS participation is paid by the employer. Adoption of the 0% plan may be done at the time of membership or a later date; however, a change in the member contribution rate may not be made more frequently than every 2 years. Under the 0% plan there is no individual account maintained for each employee and no refund of contributions if an employee terminates before being eligible for a benefit.

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

APPENDIX IV

BENEFIT ILLUSTRATIONS

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

Final Average Salary (FAS) [1]	LAGERS BENEFIT [3]	Estimated Social Security [2]	Estimated Monthly Total $	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%

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

[2] "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2021 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

Final Average Salary (FAS) [1]	LAGERS BENEFIT [3]	Estimated Social Security [2]	Estimated Monthly Total $	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%

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

[2] "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2021 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

Final Average Salary (FAS) [1]	LAGERS BENEFIT [3]	Estimated Social Security [2]	Estimated Monthly Total	
			$	% of FAS
35 Years of Service:				
$1,500	$ 788	$ 916	$1,704	114%
2,000	1,050	1,055	2,105	105%
2,500	1,313	1,192	2,505	100%
3,000	1,575	1,330	2,905	97%
3,500	1,838	1,469	3,307	94%
4,000	2,100	1,605	3,705	93%
25 Years of Service:				
$1,500	$ 563	$ 916	$1,479	99%
2,000	750	1,055	1,805	90%
2,500	938	1,192	2,130	85%
3,000	1,125	1,330	2,455	82%
3,500	1,313	1,469	2,782	79%
4,000	1,500	1,605	3,105	78%
15 Years of Service:				
$1,500	$338	$ 916	$1,254	84%
2,000	450	1,055	1,505	75%
2,500	563	1,192	1,755	70%
3,000	675	1,330	2,005	67%
3,500	788	1,469	2,257	64%
4,000	900	1,605	2,505	63%

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

[2] "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2021 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

Final Average Salary (FAS) [1]	LAGERS BENEFIT [3]	Estimated Social Security [2]	Estimated Monthly Total $	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%

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

2 "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2021 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

Final Average Salary (FAS) [1]	LAGERS BENEFIT [3]	Estimated Social Security [2]	Estimated Monthly Total $	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%

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

[2] "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2021 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

Final Average Salary (FAS) [1]	LAGERS BENEFIT [3] To 65	LAGERS BENEFIT [3] At 65	Estimated Social Security [2]	Estimated Monthly Total To 65	Estimated Monthly Total At 65	Percent of FAS To 65	Percent of FAS 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%

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

[2] "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2021 - it does not include any amounts which might be payable to an eligible spouse or children.

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

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-5(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS [1] to age 65)
1.25% of FAS [1] at age 65)

Final Average Salary (FAS) [1]	LAGERS BENEFIT [3] To 65	LAGERS BENEFIT [3] At 65	Estimated Social Security [2]	Estimated Monthly Total To 65	Estimated Monthly Total At 65	Percent of FAS To 65	Percent of FAS 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%

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

[2] "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2021 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

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

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

[2] "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2021 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

Final Average Salary (FAS) [1]	LAGERS BENEFIT [3] To 65	LAGERS BENEFIT [3] At 65	Estimated Social Security [2]	Estimated Monthly Total To 65	Estimated Monthly Total At 65	Percent of FAS To 65	Percent of FAS At 65
35 Years of Service:							
$1,500	$1,050	$ 919	$ 916	$1,050	$1,835	70%	122%
2,000	1,400	1,225	1,055	1,400	2,280	70%	114%
2,500	1,750	1,531	1,192	1,750	2,723	70%	109%
3,000	2,100	1,838	1,330	2,100	3,168	70%	106%
3,500	2,450	2,144	1,469	2,450	3,613	70%	103%
4,000	2,800	2,450	1,605	2,800	4,055	70%	101%
25 Years of Service:							
$1,500	$ 750	$ 656	$ 916	$ 750	$1,572	50%	105%
2,000	1,000	875	1,055	1,000	1,930	50%	97%
2,500	1,250	1,094	1,192	1,250	2,286	50%	91%
3,000	1,500	1,313	1,330	1,500	2,643	50%	88%
3,500	1,750	1,531	1,469	1,750	3,000	50%	86%
4,000	2,000	1,750	1,605	2,000	3,355	50%	84%
15 Years of Service:							
$1,500	$ 450	$ 394	$ 916	$ 450	$1,310	30%	87%
2,000	600	525	1,055	600	1,580	30%	79%
2,500	750	656	1,192	750	1,848	30%	74%
3,000	900	788	1,330	900	2,118	30%	71%
3,500	1,050	919	1,469	1,050	2,388	30%	68%
4,000	1,200	1,050	1,605	1,200	2,655	30%	66%

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

[2] "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2021 - it does not include any amounts which might be payable to an eligible spouse or children.

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

APPENDIX V

AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

City of Madison - General

February 28, 2022

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		2						2	$ 92,300
50-54	1							1	$ 41,600
55-59									
60-64									
65-69									
70 & Over									
Totals	**1**	**2**						**3**	**$ 133,900**

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

Age: 50.0 years.
Benefit Service: 5.9 years.
Annual Pay: $44,633.

APPENDIX VI

RISK COMMENTARY

Risk Commentary

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

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

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

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

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

The computed contribution rates shown on pages 4 thru 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.

800.521.0498 | P: 248.799.9000 | www.grsconsulting.com

March 16, 2022 E-mail

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

Dear Bob:

Enclosed is the report of the February 28, 2022 Initial Actuarial Valuation of LAGERS benefits for the employees of

City of Madison

Sincerely,

Mita D. Drazilov, ASA, FCA, MAAA

MDD:wp

One Towne Square | Suite 800 | Southfield, Michigan 48076-3723

800.521.0498 | P: 248.799.9000 | www.grsconsulting.com

March 16, 2022

City of Madison
Madison, Missouri

Ladies and Gentlemen:

This report contains projections needed to comply with Missouri state disclosure requirements (Section 105.665 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision. This report is intended to be a supplement to the February 28, 2022 Initial Valuation for the City of Madison dated March 16, 2022.

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of the Initial Valuation Report. In our opinion, they do produce results which, in the aggregate, are reasonable. Additional miscellaneous and technical assumptions as well as disclosures required by the actuarial standards of practice may be found in the LAGERS Compiled Annual Actuarial Valuation report as of February 28, 2021. The unfunded actuarial accrued liability shown for each member contribution rate option is based on the 0% member contribution rate plan.

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

Respectfully submitted,
Gabriel, Roeder, Smith & Company

Mita D. Drazilov, ASA, FCA, MAAA

One Towne Square | Suite 800 | Southfield, Michigan 48076-3723

City of Madison - General

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

Regular Retirement Eligibility

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	11.6%	$15,532	$ 82,725	14.3%	$19,148	$ 103,364	13.0%	$17,407	$ 94,633
2023	137,582	11.6	15,960	83,519	14.3	19,674	104,356	13.0	17,886	95,541
2024	141,366	11.6	16,398	84,231	14.3	20,215	105,245	13.0	18,378	96,355
2025	145,254	11.6	16,849	84,851	14.3	20,771	106,020	13.0	18,883	97,065
2026	149,248	11.6	17,313	85,370	14.3	21,342	106,668	13.0	19,402	97,658
2027	153,352	11.6	17,789	85,776	14.3	21,929	107,175	13.0	19,936	98,122
2028	157,569	11.6	18,278	86,057	14.3	22,532	107,526	13.0	20,484	98,444
2029	161,902	11.6	18,781	86,200	14.3	23,152	107,705	13.0	21,047	98,608
2030	166,354	11.6	19,297	86,192	14.3	23,789	107,695	13.0	21,626	98,599
2031	170,929	11.6	19,828	86,017	14.3	24,443	107,476	13.0	22,221	98,399

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	15.4%	$20,621	$ 112,303	16.9%	$22,629	$ 124,053	17.7%	$23,700	$ 130,015
2023	137,582	15.4	21,188	113,380	16.9	23,251	125,243	17.7	24,352	131,262
2024	141,366	15.4	21,770	114,346	16.9	23,891	126,310	17.7	25,022	132,381
2025	145,254	15.4	22,369	115,188	16.9	24,548	127,240	17.7	25,710	133,356
2026	149,248	15.4	22,984	115,892	16.9	25,223	128,018	17.7	26,417	134,171
2027	153,352	15.4	23,616	116,443	16.9	25,916	128,627	17.7	27,143	134,809
2028	157,569	15.4	24,266	116,825	16.9	26,629	129,049	17.7	27,890	135,251
2029	161,902	15.4	24,933	117,020	16.9	27,361	129,264	17.7	28,657	135,476
2030	166,354	15.4	25,619	117,009	16.9	28,114	129,252	17.7	29,445	135,463
2031	170,929	15.4	26,323	116,771	16.9	28,887	128,990	17.7	30,254	135,188

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	19.6%	$26,244	$ 144,707	20.0%	$26,780	$ 147,706	22.4%	$29,994	$ 165,405
2023	137,582	19.6	26,966	146,095	20.0	27,516	149,123	22.4	30,818	166,992
2024	141,366	19.6	27,708	147,340	20.0	28,273	150,394	22.4	31,666	168,415
2025	145,254	19.6	28,470	148,425	20.0	29,051	151,502	22.4	32,537	169,655
2026	149,248	19.6	29,253	149,332	20.0	29,850	152,428	22.4	33,432	170,692
2027	153,352	19.6	30,057	150,042	20.0	30,670	153,153	22.4	34,351	171,503
2028	157,569	19.6	30,884	150,534	20.0	31,514	153,655	22.4	35,295	172,065
2029	161,902	19.6	31,733	150,785	20.0	32,380	153,911	22.4	36,266	172,352
2030	166,354	19.6	32,605	150,770	20.0	33,271	153,896	22.4	37,263	172,335
2031	170,929	19.6	33,502	150,464	20.0	34,186	153,583	22.4	38,288	171,985

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 28th have not been incorporated in the above results.
5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

City of Madison - General

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

Regular Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	$ 133,900	9.7%	$12,988	$ 82,725	12.4%	$16,604	$ 103,364	11.1%	$14,863	$ 94,633
2023	137,582	9.7	13,345	83,519	12.4	17,060	104,356	11.1	15,272	95,541
2024	141,366	9.7	13,713	84,231	12.4	17,529	105,245	11.1	15,692	96,355
2025	145,254	9.7	14,090	84,851	12.4	18,011	106,020	11.1	16,123	97,065
2026	149,248	9.7	14,477	85,370	12.4	18,507	106,668	11.1	16,567	97,658
2027	153,352	9.7	14,875	85,776	12.4	19,016	107,175	11.1	17,022	98,122
2028	157,569	9.7	15,284	86,057	12.4	19,539	107,526	11.1	17,490	98,444
2029	161,902	9.7	15,704	86,200	12.4	20,076	107,705	11.1	17,971	98,608
2030	166,354	9.7	16,136	86,192	12.4	20,628	107,695	11.1	18,465	98,599
2031	170,929	9.7	16,580	86,017	12.4	21,195	107,476	11.1	18,973	98,399

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	$ 133,900	13.5%	$18,077	$ 112,303	15.0%	$20,085	$ 124,053	15.8%	$21,156	$ 130,015
2023	137,582	13.5	18,574	113,380	15.0	20,637	125,243	15.8	21,738	131,262
2024	141,366	13.5	19,084	114,346	15.0	21,205	126,310	15.8	22,336	132,381
2025	145,254	13.5	19,609	115,188	15.0	21,788	127,240	15.8	22,950	133,356
2026	149,248	13.5	20,148	115,892	15.0	22,387	128,018	15.8	23,581	134,171
2027	153,352	13.5	20,703	116,443	15.0	23,003	128,627	15.8	24,230	134,809
2028	157,569	13.5	21,272	116,825	15.0	23,635	129,049	15.8	24,896	135,251
2029	161,902	13.5	21,857	117,020	15.0	24,285	129,264	15.8	25,581	135,476
2030	166,354	13.5	22,458	117,009	15.0	24,953	129,252	15.8	26,284	135,463
2031	170,929	13.5	23,075	116,771	15.0	25,639	128,990	15.8	27,007	135,188

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	$ 133,900	17.7%	$23,700	$ 144,707	18.1%	$24,236	$ 147,706	20.5%	$27,450	$ 165,405
2023	137,582	17.7	24,352	146,095	18.1	24,902	149,123	20.5	28,204	166,992
2024	141,366	17.7	25,022	147,340	18.1	25,587	150,394	20.5	28,980	168,415
2025	145,254	17.7	25,710	148,425	18.1	26,291	151,502	20.5	29,777	169,655
2026	149,248	17.7	26,417	149,332	18.1	27,014	152,428	20.5	30,596	170,692
2027	153,352	17.7	27,143	150,042	18.1	27,757	153,153	20.5	31,437	171,503
2028	157,569	17.7	27,890	150,534	18.1	28,520	153,655	20.5	32,302	172,065
2029	161,902	17.7	28,657	150,785	18.1	29,304	153,911	20.5	33,190	172,352
2030	166,354	17.7	29,445	150,770	18.1	30,110	153,896	20.5	34,103	172,335
2031	170,929	17.7	30,254	150,464	18.1	30,938	153,583	20.5	35,040	171,985

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 28th have not been incorporated in the above results.
5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

City of Madison - General

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

Regular Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	$ 133,900	7.8%	$10,444	$ 82,725	10.5%	$14,060	$ 103,364	9.2%	$12,319	$ 94,633
2023	137,582	7.8	10,731	83,519	10.5	14,446	104,356	9.2	12,658	95,541
2024	141,366	7.8	11,027	84,231	10.5	14,843	105,245	9.2	13,006	96,355
2025	145,254	7.8	11,330	84,851	10.5	15,252	106,020	9.2	13,363	97,065
2026	149,248	7.8	11,641	85,370	10.5	15,671	106,668	9.2	13,731	97,658
2027	153,352	7.8	11,961	85,776	10.5	16,102	107,175	9.2	14,108	98,122
2028	157,569	7.8	12,290	86,057	10.5	16,545	107,526	9.2	14,496	98,444
2029	161,902	7.8	12,628	86,200	10.5	17,000	107,705	9.2	14,895	98,608
2030	166,354	7.8	12,976	86,192	10.5	17,467	107,695	9.2	15,305	98,599
2031	170,929	7.8	13,332	86,017	10.5	17,948	107,476	9.2	15,725	98,399

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	$ 133,900	11.6%	$15,532	$ 112,303	13.1%	$17,541	$ 124,053	13.9%	$18,612	$ 130,015
2023	137,582	11.6	15,960	113,380	13.1	18,023	125,243	13.9	19,124	131,262
2024	141,366	11.6	16,398	114,346	13.1	18,519	126,310	13.9	19,650	132,381
2025	145,254	11.6	16,849	115,188	13.1	19,028	127,240	13.9	20,190	133,356
2026	149,248	11.6	17,313	115,892	13.1	19,551	128,018	13.9	20,745	134,171
2027	153,352	11.6	17,789	116,443	13.1	20,089	128,627	13.9	21,316	134,809
2028	157,569	11.6	18,278	116,825	13.1	20,642	129,049	13.9	21,902	135,251
2029	161,902	11.6	18,781	117,020	13.1	21,209	129,264	13.9	22,504	135,476
2030	166,354	11.6	19,297	117,009	13.1	21,792	129,252	13.9	23,123	135,463
2031	170,929	11.6	19,828	116,771	13.1	22,392	128,990	13.9	23,759	135,188

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	$ 133,900	15.8%	$21,156	$ 144,707	16.2%	$21,692	$ 147,706	18.6%	$24,905	$ 165,405
2023	137,582	15.8	21,738	146,095	16.2	22,288	149,123	18.6	25,590	166,992
2024	141,366	15.8	22,336	147,340	16.2	22,901	150,394	18.6	26,294	168,415
2025	145,254	15.8	22,950	148,425	16.2	23,531	151,502	18.6	27,017	169,655
2026	149,248	15.8	23,581	149,332	16.2	24,178	152,428	18.6	27,760	170,692
2027	153,352	15.8	24,230	150,042	16.2	24,843	153,153	18.6	28,523	171,503
2028	157,569	15.8	24,896	150,534	16.2	25,526	153,655	18.6	29,308	172,065
2029	161,902	15.8	25,581	150,785	16.2	26,228	153,911	18.6	30,114	172,352
2030	166,354	15.8	26,284	150,770	16.2	26,949	153,896	18.6	30,942	172,335
2031	170,929	15.8	27,007	150,464	16.2	27,690	153,583	18.6	31,793	171,985

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 28th have not been incorporated in the above results.
5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

City of Madison - General

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

Regular Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	5.9%	$7,900	$ 82,725	8.6%	$11,515	$ 103,364	7.3%	$9,775	$ 94,633
2023	137,582	5.9	8,117	83,519	8.6	11,832	104,356	7.3	10,043	95,541
2024	141,366	5.9	8,341	84,231	8.6	12,157	105,245	7.3	10,320	96,355
2025	145,254	5.9	8,570	84,851	8.6	12,492	106,020	7.3	10,604	97,065
2026	149,248	5.9	8,806	85,370	8.6	12,835	106,668	7.3	10,895	97,658
2027	153,352	5.9	9,048	85,776	8.6	13,188	107,175	7.3	11,195	98,122
2028	157,569	5.9	9,297	86,057	8.6	13,551	107,526	7.3	11,503	98,444
2029	161,902	5.9	9,552	86,200	8.6	13,924	107,705	7.3	11,819	98,608
2030	166,354	5.9	9,815	86,192	8.6	14,306	107,695	7.3	12,144	98,599
2031	170,929	5.9	10,085	86,017	8.6	14,700	107,476	7.3	12,478	98,399

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	9.7%	$12,988	$ 112,303	11.2%	$14,997	$ 124,053	12.0%	$16,068	$ 130,015
2023	137,582	9.7	13,345	113,380	11.2	15,409	125,243	12.0	16,510	131,262
2024	141,366	9.7	13,713	114,346	11.2	15,833	126,310	12.0	16,964	132,381
2025	145,254	9.7	14,090	115,188	11.2	16,268	127,240	12.0	17,430	133,356
2026	149,248	9.7	14,477	115,892	11.2	16,716	128,018	12.0	17,910	134,171
2027	153,352	9.7	14,875	116,443	11.2	17,175	128,627	12.0	18,402	134,809
2028	157,569	9.7	15,284	116,825	11.2	17,648	129,049	12.0	18,908	135,251
2029	161,902	9.7	15,704	117,020	11.2	18,133	129,264	12.0	19,428	135,476
2030	166,354	9.7	16,136	117,009	11.2	18,632	129,252	12.0	19,962	135,463
2031	170,929	9.7	16,580	116,771	11.2	19,144	128,990	12.0	20,511	135,188

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	13.9%	$18,612	$ 144,707	14.3%	$19,148	$ 147,706	16.7%	$22,361	$ 165,405
2023	137,582	13.9	19,124	146,095	14.3	19,674	149,123	16.7	22,976	166,992
2024	141,366	13.9	19,650	147,340	14.3	20,215	150,394	16.7	23,608	168,415
2025	145,254	13.9	20,190	148,425	14.3	20,771	151,502	16.7	24,257	169,655
2026	149,248	13.9	20,745	149,332	14.3	21,342	152,428	16.7	24,924	170,692
2027	153,352	13.9	21,316	150,042	14.3	21,929	153,153	16.7	25,610	171,503
2028	157,569	13.9	21,902	150,534	14.3	22,532	153,655	16.7	26,314	172,065
2029	161,902	13.9	22,504	150,785	14.3	23,152	153,911	16.7	27,038	172,352
2030	166,354	13.9	23,123	150,770	14.3	23,789	153,896	16.7	27,781	172,335
2031	170,929	13.9	23,759	150,464	14.3	24,443	153,583	16.7	28,545	171,985

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 28th have not been incorporated in the above results.
5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

City of Madison - General

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

Regular Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	11.9%	$15,934	$ 85,463	14.8%	$19,817	$ 106,847	13.4%	$17,943	$ 97,782
2023	137,582	11.9	16,372	86,283	14.8	20,362	107,872	13.4	18,436	98,720
2024	141,366	11.9	16,823	87,018	14.8	20,922	108,791	13.4	18,943	99,561
2025	145,254	11.9	17,285	87,659	14.8	21,498	109,592	13.4	19,464	100,294
2026	149,248	11.9	17,761	88,195	14.8	22,089	110,262	13.4	19,999	100,907
2027	153,352	11.9	18,249	88,614	14.8	22,696	110,786	13.4	20,549	101,387
2028	157,569	11.9	18,751	88,904	14.8	23,320	111,149	13.4	21,114	101,719
2029	161,902	11.9	19,266	89,052	14.8	23,961	111,334	13.4	21,695	101,888
2030	166,354	11.9	19,796	89,043	14.8	24,620	111,323	13.4	22,291	101,878
2031	170,929	11.9	20,341	88,862	14.8	25,297	111,097	13.4	22,904	101,671

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	15.9%	$21,290	$ 116,062	17.5%	$23,433	$ 128,207	18.2%	$24,370	$ 134,360
2023	137,582	15.9	21,876	117,175	17.5	24,077	129,437	18.2	25,040	135,649
2024	141,366	15.9	22,477	118,173	17.5	24,739	130,540	18.2	25,729	136,805
2025	145,254	15.9	23,095	119,043	17.5	25,419	131,501	18.2	26,436	137,812
2026	149,248	15.9	23,730	119,771	17.5	26,118	132,305	18.2	27,163	138,654
2027	153,352	15.9	24,383	120,340	17.5	26,837	132,934	18.2	27,910	139,313
2028	157,569	15.9	25,053	120,734	17.5	27,575	133,370	18.2	28,678	139,770
2029	161,902	15.9	25,742	120,935	17.5	28,333	133,592	18.2	29,466	140,003
2030	166,354	15.9	26,450	120,923	17.5	29,112	133,579	18.2	30,276	139,990
2031	170,929	15.9	27,178	120,677	17.5	29,913	133,308	18.2	31,109	139,706

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	20.2%	$27,048	$ 149,583	20.7%	$27,717	$ 152,667	23.1%	$30,931	$ 170,958
2023	137,582	20.2	27,792	151,018	20.7	28,479	154,131	23.1	31,781	172,598
2024	141,366	20.2	28,556	152,305	20.7	29,263	155,444	23.1	32,656	174,069
2025	145,254	20.2	29,341	153,427	20.7	30,068	156,589	23.1	33,554	175,351
2026	149,248	20.2	30,148	154,365	20.7	30,894	157,546	23.1	34,476	176,423
2027	153,352	20.2	30,977	155,099	20.7	31,744	158,295	23.1	35,424	177,262
2028	157,569	20.2	31,829	155,607	20.7	32,617	158,814	23.1	36,398	177,843
2029	161,902	20.2	32,704	155,866	20.7	33,514	159,079	23.1	37,399	178,139
2030	166,354	20.2	33,604	155,851	20.7	34,435	159,064	23.1	38,428	178,122
2031	170,929	20.2	34,528	155,534	20.7	35,382	158,741	23.1	39,485	177,760

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 28th have not been incorporated in the above results.
5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

City of Madison - General

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

Regular Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	10.0%	$13,390	$ 85,463	12.9%	$17,273	$ 106,847	11.5%	$15,399	$ 97,782
2023	137,582	10.0	13,758	86,283	12.9	17,748	107,872	11.5	15,822	98,720
2024	141,366	10.0	14,137	87,018	12.9	18,236	108,791	11.5	16,257	99,561
2025	145,254	10.0	14,525	87,659	12.9	18,738	109,592	11.5	16,704	100,294
2026	149,248	10.0	14,925	88,195	12.9	19,253	110,262	11.5	17,164	100,907
2027	153,352	10.0	15,335	88,614	12.9	19,782	110,786	11.5	17,635	101,387
2028	157,569	10.0	15,757	88,904	12.9	20,326	111,149	11.5	18,120	101,719
2029	161,902	10.0	16,190	89,052	12.9	20,885	111,334	11.5	18,619	101,888
2030	166,354	10.0	16,635	89,043	12.9	21,460	111,323	11.5	19,131	101,878
2031	170,929	10.0	17,093	88,862	12.9	22,050	111,097	11.5	19,657	101,671

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	14.0%	$18,746	$ 116,062	15.6%	$20,888	$ 128,207	16.3%	$21,826	$ 134,360
2023	137,582	14.0	19,261	117,175	15.6	21,463	129,437	16.3	22,426	135,649
2024	141,366	14.0	19,791	118,173	15.6	22,053	130,540	16.3	23,043	136,805
2025	145,254	14.0	20,336	119,043	15.6	22,660	131,501	16.3	23,676	137,812
2026	149,248	14.0	20,895	119,771	15.6	23,283	132,305	16.3	24,327	138,654
2027	153,352	14.0	21,469	120,340	15.6	23,923	132,934	16.3	24,996	139,313
2028	157,569	14.0	22,060	120,734	15.6	24,581	133,370	16.3	25,684	139,770
2029	161,902	14.0	22,666	120,935	15.6	25,257	133,592	16.3	26,390	140,003
2030	166,354	14.0	23,290	120,923	15.6	25,951	133,579	16.3	27,116	139,990
2031	170,929	14.0	23,930	120,677	15.6	26,665	133,308	16.3	27,861	139,706

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	18.3%	$24,504	$ 149,583	18.8%	$25,173	$ 152,667	21.2%	$28,387	$ 170,958
2023	137,582	18.3	25,178	151,018	18.8	25,865	154,131	21.2	29,167	172,598
2024	141,366	18.3	25,870	152,305	18.8	26,577	155,444	21.2	29,970	174,069
2025	145,254	18.3	26,581	153,427	18.8	27,308	156,589	21.2	30,794	175,351
2026	149,248	18.3	27,312	154,365	18.8	28,059	157,546	21.2	31,641	176,423
2027	153,352	18.3	28,063	155,099	18.8	28,830	158,295	21.2	32,511	177,262
2028	157,569	18.3	28,835	155,607	18.8	29,623	158,814	21.2	33,405	177,843
2029	161,902	18.3	29,628	155,866	18.8	30,438	159,079	21.2	34,323	178,139
2030	166,354	18.3	30,443	155,851	18.8	31,275	159,064	21.2	35,267	178,122
2031	170,929	18.3	31,280	155,534	18.8	32,135	158,741	21.2	36,237	177,760

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 28th have not been incorporated in the above results.
5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

City of Madison - General

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

Regular Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	8.1%	$10,846	$ 85,463	11.0%	$14,729	$ 106,847	9.6%	$12,854	$ 97,782
2023	137,582	8.1	11,144	86,283	11.0	15,134	107,872	9.6	13,208	98,720
2024	141,366	8.1	11,451	87,018	11.0	15,550	108,791	9.6	13,571	99,561
2025	145,254	8.1	11,766	87,659	11.0	15,978	109,592	9.6	13,944	100,294
2026	149,248	8.1	12,089	88,195	11.0	16,417	110,262	9.6	14,328	100,907
2027	153,352	8.1	12,422	88,614	11.0	16,869	110,786	9.6	14,722	101,387
2028	157,569	8.1	12,763	88,904	11.0	17,333	111,149	9.6	15,127	101,719
2029	161,902	8.1	13,114	89,052	11.0	17,809	111,334	9.6	15,543	101,888
2030	166,354	8.1	13,475	89,043	11.0	18,299	111,323	9.6	15,970	101,878
2031	170,929	8.1	13,845	88,862	11.0	18,802	111,097	9.6	16,409	101,671

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	12.1%	$16,202	$ 116,062	13.7%	$18,344	$ 128,207	14.4%	$19,282	$ 134,360
2023	137,582	12.1	16,647	117,175	13.7	18,849	129,437	14.4	19,812	135,649
2024	141,366	12.1	17,105	118,173	13.7	19,367	130,540	14.4	20,357	136,805
2025	145,254	12.1	17,576	119,043	13.7	19,900	131,501	14.4	20,917	137,812
2026	149,248	12.1	18,059	119,771	13.7	20,447	132,305	14.4	21,492	138,654
2027	153,352	12.1	18,556	120,340	13.7	21,009	132,934	14.4	22,083	139,313
2028	157,569	12.1	19,066	120,734	13.7	21,587	133,370	14.4	22,690	139,770
2029	161,902	12.1	19,590	120,935	13.7	22,181	133,592	14.4	23,314	140,003
2030	166,354	12.1	20,129	120,923	13.7	22,790	133,579	14.4	23,955	139,990
2031	170,929	12.1	20,682	120,677	13.7	23,417	133,308	14.4	24,614	139,706

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	16.4%	$21,960	$ 149,583	16.9%	$22,629	$ 152,667	19.3%	$25,843	$ 170,958
2023	137,582	16.4	22,563	151,018	16.9	23,251	154,131	19.3	26,553	172,598
2024	141,366	16.4	23,184	152,305	16.9	23,891	155,444	19.3	27,284	174,069
2025	145,254	16.4	23,822	153,427	16.9	24,548	156,589	19.3	28,034	175,351
2026	149,248	16.4	24,477	154,365	16.9	25,223	157,546	19.3	28,805	176,423
2027	153,352	16.4	25,150	155,099	16.9	25,916	158,295	19.3	29,597	177,262
2028	157,569	16.4	25,841	155,607	16.9	26,629	158,814	19.3	30,411	177,843
2029	161,902	16.4	26,552	155,866	16.9	27,361	159,079	19.3	31,247	178,139
2030	166,354	16.4	27,282	155,851	16.9	28,114	159,064	19.3	32,106	178,122
2031	170,929	16.4	28,032	155,534	16.9	28,887	158,741	19.3	32,989	177,760

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 28th have not been incorporated in the above results.
5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

City of Madison - General

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

Regular Retirement Eligibility

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	6.2%	$8,302	$ 85,463	9.1%	$12,185	$ 106,847	7.7%	$10,310	$ 97,782
2023	137,582	6.2	8,530	86,283	9.1	12,520	107,872	7.7	10,594	98,720
2024	141,366	6.2	8,765	87,018	9.1	12,864	108,791	7.7	10,885	99,561
2025	145,254	6.2	9,006	87,659	9.1	13,218	109,592	7.7	11,185	100,294
2026	149,248	6.2	9,253	88,195	9.1	13,582	110,262	7.7	11,492	100,907
2027	153,352	6.2	9,508	88,614	9.1	13,955	110,786	7.7	11,808	101,387
2028	157,569	6.2	9,769	88,904	9.1	14,339	111,149	7.7	12,133	101,719
2029	161,902	6.2	10,038	89,052	9.1	14,733	111,334	7.7	12,466	101,888
2030	166,354	6.2	10,314	89,043	9.1	15,138	111,323	7.7	12,809	101,878
2031	170,929	6.2	10,598	88,862	9.1	15,555	111,097	7.7	13,162	101,671

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	10.2%	$13,658	$ 116,062	11.8%	$15,800	$ 128,207	12.5%	$16,738	$ 134,360
2023	137,582	10.2	14,033	117,175	11.8	16,235	129,437	12.5	17,198	135,649
2024	141,366	10.2	14,419	118,173	11.8	16,681	130,540	12.5	17,671	136,805
2025	145,254	10.2	14,816	119,043	11.8	17,140	131,501	12.5	18,157	137,812
2026	149,248	10.2	15,223	119,771	11.8	17,611	132,305	12.5	18,656	138,654
2027	153,352	10.2	15,642	120,340	11.8	18,096	132,934	12.5	19,169	139,313
2028	157,569	10.2	16,072	120,734	11.8	18,593	133,370	12.5	19,696	139,770
2029	161,902	10.2	16,514	120,935	11.8	19,104	133,592	12.5	20,238	140,003
2030	166,354	10.2	16,968	120,923	11.8	19,630	133,579	12.5	20,794	139,990
2031	170,929	10.2	17,435	120,677	11.8	20,170	133,308	12.5	21,366	139,706

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	14.5%	$19,416	$ 149,583	15.0%	$20,085	$ 152,667	17.4%	$23,299	$ 170,958
2023	137,582	14.5	19,949	151,018	15.0	20,637	154,131	17.4	23,939	172,598
2024	141,366	14.5	20,498	152,305	15.0	21,205	155,444	17.4	24,598	174,069
2025	145,254	14.5	21,062	153,427	15.0	21,788	156,589	17.4	25,274	175,351
2026	149,248	14.5	21,641	154,365	15.0	22,387	157,546	17.4	25,969	176,423
2027	153,352	14.5	22,236	155,099	15.0	23,003	158,295	17.4	26,683	177,262
2028	157,569	14.5	22,848	155,607	15.0	23,635	158,814	17.4	27,417	177,843
2029	161,902	14.5	23,476	155,866	15.0	24,285	159,079	17.4	28,171	178,139
2030	166,354	14.5	24,121	155,851	15.0	24,953	159,064	17.4	28,946	178,122
2031	170,929	14.5	24,785	155,534	15.0	25,639	158,741	17.4	29,742	177,760

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^{th} 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 Madison - General

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

Rule of 80 Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	11.6%	$15,532	$ 82,725	14.3%	$19,148	$ 103,364	13.0%	$17,407	$ 94,633
2023	137,582	11.6	15,960	83,519	14.3	19,674	104,356	13.0	17,886	95,541
2024	141,366	11.6	16,398	84,231	14.3	20,215	105,245	13.0	18,378	96,355
2025	145,254	11.6	16,849	84,851	14.3	20,771	106,020	13.0	18,883	97,065
2026	149,248	11.6	17,313	85,370	14.3	21,342	106,668	13.0	19,402	97,658
2027	153,352	11.6	17,789	85,776	14.3	21,929	107,175	13.0	19,936	98,122
2028	157,569	11.6	18,278	86,057	14.3	22,532	107,526	13.0	20,484	98,444
2029	161,902	11.6	18,781	86,200	14.3	23,152	107,705	13.0	21,047	98,608
2030	166,354	11.6	19,297	86,192	14.3	23,789	107,695	13.0	21,626	98,599
2031	170,929	11.6	19,828	86,017	14.3	24,443	107,476	13.0	22,221	98,399

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	15.4%	$20,621	$ 112,303	16.9%	$22,629	$ 124,053	17.7%	$23,700	$ 130,015
2023	137,582	15.4	21,188	113,380	16.9	23,251	125,243	17.7	24,352	131,262
2024	141,366	15.4	21,770	114,346	16.9	23,891	126,310	17.7	25,022	132,381
2025	145,254	15.4	22,369	115,188	16.9	24,548	127,240	17.7	25,710	133,356
2026	149,248	15.4	22,984	115,892	16.9	25,223	128,018	17.7	26,417	134,171
2027	153,352	15.4	23,616	116,443	16.9	25,916	128,627	17.7	27,143	134,809
2028	157,569	15.4	24,266	116,825	16.9	26,629	129,049	17.7	27,890	135,251
2029	161,902	15.4	24,933	117,020	16.9	27,361	129,264	17.7	28,657	135,476
2030	166,354	15.4	25,619	117,009	16.9	28,114	129,252	17.7	29,445	135,463
2031	170,929	15.4	26,323	116,771	16.9	28,887	128,990	17.7	30,254	135,188

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	19.6%	$26,244	$ 144,707	20.0%	$26,780	$ 147,706	22.4%	$29,994	$ 165,405
2023	137,582	19.6	26,966	146,095	20.0	27,516	149,123	22.4	30,818	166,992
2024	141,366	19.6	27,708	147,340	20.0	28,273	150,394	22.4	31,666	168,415
2025	145,254	19.6	28,470	148,425	20.0	29,051	151,502	22.4	32,537	169,655
2026	149,248	19.6	29,253	149,332	20.0	29,850	152,428	22.4	33,432	170,692
2027	153,352	19.6	30,057	150,042	20.0	30,670	153,153	22.4	34,351	171,503
2028	157,569	19.6	30,884	150,534	20.0	31,514	153,655	22.4	35,295	172,065
2029	161,902	19.6	31,733	150,785	20.0	32,380	153,911	22.4	36,266	172,352
2030	166,354	19.6	32,605	150,770	20.0	33,271	153,896	22.4	37,263	172,335
2031	170,929	19.6	33,502	150,464	20.0	34,186	153,583	22.4	38,288	171,985

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 28th have not been incorporated in the above results.
5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

City of Madison - General

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

Rule of 80 Retirement Eligibility

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	$ 133,900	9.7%	$12,988	$ 82,725	12.4%	$16,604	$ 103,364	11.1%	$14,863	$ 94,633
2023	137,582	9.7	13,345	83,519	12.4	17,060	104,356	11.1	15,272	95,541
2024	141,366	9.7	13,713	84,231	12.4	17,529	105,245	11.1	15,692	96,355
2025	145,254	9.7	14,090	84,851	12.4	18,011	106,020	11.1	16,123	97,065
2026	149,248	9.7	14,477	85,370	12.4	18,507	106,668	11.1	16,567	97,658
2027	153,352	9.7	14,875	85,776	12.4	19,016	107,175	11.1	17,022	98,122
2028	157,569	9.7	15,284	86,057	12.4	19,539	107,526	11.1	17,490	98,444
2029	161,902	9.7	15,704	86,200	12.4	20,076	107,705	11.1	17,971	98,608
2030	166,354	9.7	16,136	86,192	12.4	20,628	107,695	11.1	18,465	98,599
2031	170,929	9.7	16,580	86,017	12.4	21,195	107,476	11.1	18,973	98,399

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	$ 133,900	13.5%	$18,077	$ 112,303	15.0%	$20,085	$ 124,053	15.8%	$21,156	$ 130,015
2023	137,582	13.5	18,574	113,380	15.0	20,637	125,243	15.8	21,738	131,262
2024	141,366	13.5	19,084	114,346	15.0	21,205	126,310	15.8	22,336	132,381
2025	145,254	13.5	19,609	115,188	15.0	21,788	127,240	15.8	22,950	133,356
2026	149,248	13.5	20,148	115,892	15.0	22,387	128,018	15.8	23,581	134,171
2027	153,352	13.5	20,703	116,443	15.0	23,003	128,627	15.8	24,230	134,809
2028	157,569	13.5	21,272	116,825	15.0	23,635	129,049	15.8	24,896	135,251
2029	161,902	13.5	21,857	117,020	15.0	24,285	129,264	15.8	25,581	135,476
2030	166,354	13.5	22,458	117,009	15.0	24,953	129,252	15.8	26,284	135,463
2031	170,929	13.5	23,075	116,771	15.0	25,639	128,990	15.8	27,007	135,188

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	$ 133,900	17.7%	$23,700	$ 144,707	18.1%	$24,236	$ 147,706	20.5%	$27,450	$ 165,405
2023	137,582	17.7	24,352	146,095	18.1	24,902	149,123	20.5	28,204	166,992
2024	141,366	17.7	25,022	147,340	18.1	25,587	150,394	20.5	28,980	168,415
2025	145,254	17.7	25,710	148,425	18.1	26,291	151,502	20.5	29,777	169,655
2026	149,248	17.7	26,417	149,332	18.1	27,014	152,428	20.5	30,596	170,692
2027	153,352	17.7	27,143	150,042	18.1	27,757	153,153	20.5	31,437	171,503
2028	157,569	17.7	27,890	150,534	18.1	28,520	153,655	20.5	32,302	172,065
2029	161,902	17.7	28,657	150,785	18.1	29,304	153,911	20.5	33,190	172,352
2030	166,354	17.7	29,445	150,770	18.1	30,110	153,896	20.5	34,103	172,335
2031	170,929	17.7	30,254	150,464	18.1	30,938	153,583	20.5	35,040	171,985

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^{th} 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 Madison - General

Employer Contribution Rates (4% Member Contribution Rate, 5 Year FAS)

(Member contributions are additional)

Rule of 80 Retirement Eligibility

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	7.8%	$10,444	$ 82,725	10.5%	$14,060	$ 103,364	9.2%	$12,319	$ 94,633
2023	137,582	7.8	10,731	83,519	10.5	14,446	104,356	9.2	12,658	95,541
2024	141,366	7.8	11,027	84,231	10.5	14,843	105,245	9.2	13,006	96,355
2025	145,254	7.8	11,330	84,851	10.5	15,252	106,020	9.2	13,363	97,065
2026	149,248	7.8	11,641	85,370	10.5	15,671	106,668	9.2	13,731	97,658
2027	153,352	7.8	11,961	85,776	10.5	16,102	107,175	9.2	14,108	98,122
2028	157,569	7.8	12,290	86,057	10.5	16,545	107,526	9.2	14,496	98,444
2029	161,902	7.8	12,628	86,200	10.5	17,000	107,705	9.2	14,895	98,608
2030	166,354	7.8	12,976	86,192	10.5	17,467	107,695	9.2	15,305	98,599
2031	170,929	7.8	13,332	86,017	10.5	17,948	107,476	9.2	15,725	98,399

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	11.6%	$15,532	$ 112,303	13.1%	$17,541	$ 124,053	13.9%	$18,612	$ 130,015
2023	137,582	11.6	15,960	113,380	13.1	18,023	125,243	13.9	19,124	131,262
2024	141,366	11.6	16,398	114,346	13.1	18,519	126,310	13.9	19,650	132,381
2025	145,254	11.6	16,849	115,188	13.1	19,028	127,240	13.9	20,190	133,356
2026	149,248	11.6	17,313	115,892	13.1	19,551	128,018	13.9	20,745	134,171
2027	153,352	11.6	17,789	116,443	13.1	20,089	128,627	13.9	21,316	134,809
2028	157,569	11.6	18,278	116,825	13.1	20,642	129,049	13.9	21,902	135,251
2029	161,902	11.6	18,781	117,020	13.1	21,209	129,264	13.9	22,504	135,476
2030	166,354	11.6	19,297	117,009	13.1	21,792	129,252	13.9	23,123	135,463
2031	170,929	11.6	19,828	116,771	13.1	22,392	128,990	13.9	23,759	135,188

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	15.8%	$21,156	$ 144,707	16.2%	$21,692	$ 147,706	18.6%	$24,905	$ 165,405
2023	137,582	15.8	21,738	146,095	16.2	22,288	149,123	18.6	25,590	166,992
2024	141,366	15.8	22,336	147,340	16.2	22,901	150,394	18.6	26,294	168,415
2025	145,254	15.8	22,950	148,425	16.2	23,531	151,502	18.6	27,017	169,655
2026	149,248	15.8	23,581	149,332	16.2	24,178	152,428	18.6	27,760	170,692
2027	153,352	15.8	24,230	150,042	16.2	24,843	153,153	18.6	28,523	171,503
2028	157,569	15.8	24,896	150,534	16.2	25,526	153,655	18.6	29,308	172,065
2029	161,902	15.8	25,581	150,785	16.2	26,228	153,911	18.6	30,114	172,352
2030	166,354	15.8	26,284	150,770	16.2	26,949	153,896	18.6	30,942	172,335
2031	170,929	15.8	27,007	150,464	16.2	27,690	153,583	18.6	31,793	171,985

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 28th have not been incorporated in the above results.
5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

City of Madison - General

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

Rule of 80 Retirement Eligibility

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	$ 133,900	5.9%	$7,900	$ 82,725	8.6%	$11,515	$ 103,364	7.3%	$9,775	$ 94,633
2023	137,582	5.9	8,117	83,519	8.6	11,832	104,356	7.3	10,043	95,541
2024	141,366	5.9	8,341	84,231	8.6	12,157	105,245	7.3	10,320	96,355
2025	145,254	5.9	8,570	84,851	8.6	12,492	106,020	7.3	10,604	97,065
2026	149,248	5.9	8,806	85,370	8.6	12,835	106,668	7.3	10,895	97,658
2027	153,352	5.9	9,048	85,776	8.6	13,188	107,175	7.3	11,195	98,122
2028	157,569	5.9	9,297	86,057	8.6	13,551	107,526	7.3	11,503	98,444
2029	161,902	5.9	9,552	86,200	8.6	13,924	107,705	7.3	11,819	98,608
2030	166,354	5.9	9,815	86,192	8.6	14,306	107,695	7.3	12,144	98,599
2031	170,929	5.9	10,085	86,017	8.6	14,700	107,476	7.3	12,478	98,399

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	$ 133,900	9.7%	$12,988	$ 112,303	11.2%	$14,997	$ 124,053	12.0%	$16,068	$ 130,015
2023	137,582	9.7	13,345	113,380	11.2	15,409	125,243	12.0	16,510	131,262
2024	141,366	9.7	13,713	114,346	11.2	15,833	126,310	12.0	16,964	132,381
2025	145,254	9.7	14,090	115,188	11.2	16,268	127,240	12.0	17,430	133,356
2026	149,248	9.7	14,477	115,892	11.2	16,716	128,018	12.0	17,910	134,171
2027	153,352	9.7	14,875	116,443	11.2	17,175	128,627	12.0	18,402	134,809
2028	157,569	9.7	15,284	116,825	11.2	17,648	129,049	12.0	18,908	135,251
2029	161,902	9.7	15,704	117,020	11.2	18,133	129,264	12.0	19,428	135,476
2030	166,354	9.7	16,136	117,009	11.2	18,632	129,252	12.0	19,962	135,463
2031	170,929	9.7	16,580	116,771	11.2	19,144	128,990	12.0	20,511	135,188

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	$ 133,900	13.9%	$18,612	$ 144,707	14.3%	$19,148	$ 147,706	16.7%	$22,361	$ 165,405
2023	137,582	13.9	19,124	146,095	14.3	19,674	149,123	16.7	22,976	166,992
2024	141,366	13.9	19,650	147,340	14.3	20,215	150,394	16.7	23,608	168,415
2025	145,254	13.9	20,190	148,425	14.3	20,771	151,502	16.7	24,257	169,655
2026	149,248	13.9	20,745	149,332	14.3	21,342	152,428	16.7	24,924	170,692
2027	153,352	13.9	21,316	150,042	14.3	21,929	153,153	16.7	25,610	171,503
2028	157,569	13.9	21,902	150,534	14.3	22,532	153,655	16.7	26,314	172,065
2029	161,902	13.9	22,504	150,785	14.3	23,152	153,911	16.7	27,038	172,352
2030	166,354	13.9	23,123	150,770	14.3	23,789	153,896	16.7	27,781	172,335
2031	170,929	13.9	23,759	150,464	14.3	24,443	153,583	16.7	28,545	171,985

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 28th have not been incorporated in the above results.
5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

City of Madison - General

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

Rule of 80 Retirement Eligibility

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	11.9%	$15,934	$ 85,463	14.8%	$19,817	$ 106,847	13.4%	$17,943	$ 97,782
2023	137,582	11.9	16,372	86,283	14.8	20,362	107,872	13.4	18,436	98,720
2024	141,366	11.9	16,823	87,018	14.8	20,922	108,791	13.4	18,943	99,561
2025	145,254	11.9	17,285	87,659	14.8	21,498	109,592	13.4	19,464	100,294
2026	149,248	11.9	17,761	88,195	14.8	22,089	110,262	13.4	19,999	100,907
2027	153,352	11.9	18,249	88,614	14.8	22,696	110,786	13.4	20,549	101,387
2028	157,569	11.9	18,751	88,904	14.8	23,320	111,149	13.4	21,114	101,719
2029	161,902	11.9	19,266	89,052	14.8	23,961	111,334	13.4	21,695	101,888
2030	166,354	11.9	19,796	89,043	14.8	24,620	111,323	13.4	22,291	101,878
2031	170,929	11.9	20,341	88,862	14.8	25,297	111,097	13.4	22,904	101,671

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	15.9%	$21,290	$ 116,062	17.5%	$23,433	$ 128,207	18.2%	$24,370	$ 134,360
2023	137,582	15.9	21,876	117,175	17.5	24,077	129,437	18.2	25,040	135,649
2024	141,366	15.9	22,477	118,173	17.5	24,739	130,540	18.2	25,729	136,805
2025	145,254	15.9	23,095	119,043	17.5	25,419	131,501	18.2	26,436	137,812
2026	149,248	15.9	23,730	119,771	17.5	26,118	132,305	18.2	27,163	138,654
2027	153,352	15.9	24,383	120,340	17.5	26,837	132,934	18.2	27,910	139,313
2028	157,569	15.9	25,053	120,734	17.5	27,575	133,370	18.2	28,678	139,770
2029	161,902	15.9	25,742	120,935	17.5	28,333	133,592	18.2	29,466	140,003
2030	166,354	15.9	26,450	120,923	17.5	29,112	133,579	18.2	30,276	139,990
2031	170,929	15.9	27,178	120,677	17.5	29,913	133,308	18.2	31,109	139,706

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability	As a % of Payroll	Annual Dollars	Actuarial Accrued Liability
2022	$ 133,900	20.2%	$27,048	$ 149,583	20.7%	$27,717	$ 152,667	23.1%	$30,931	$ 170,958
2023	137,582	20.2	27,792	151,018	20.7	28,479	154,131	23.1	31,781	172,598
2024	141,366	20.2	28,556	152,305	20.7	29,263	155,444	23.1	32,656	174,069
2025	145,254	20.2	29,341	153,427	20.7	30,068	156,589	23.1	33,554	175,351
2026	149,248	20.2	30,148	154,365	20.7	30,894	157,546	23.1	34,476	176,423
2027	153,352	20.2	30,977	155,099	20.7	31,744	158,295	23.1	35,424	177,262
2028	157,569	20.2	31,829	155,607	20.7	32,617	158,814	23.1	36,398	177,843
2029	161,902	20.2	32,704	155,866	20.7	33,514	159,079	23.1	37,399	178,139
2030	166,354	20.2	33,604	155,851	20.7	34,435	159,064	23.1	38,428	178,122
2031	170,929	20.2	34,528	155,534	20.7	35,382	158,741	23.1	39,485	177,760

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 28th have not been incorporated in the above results.
5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

City of Madison - General

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

Rule of 80 Retirement Eligibility

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	10.0%	$13,390	$ 85,463	12.9%	$17,273	$ 106,847	11.5%	$15,399	$ 97,782
2023	137,582	10.0	13,758	86,283	12.9	17,748	107,872	11.5	15,822	98,720
2024	141,366	10.0	14,137	87,018	12.9	18,236	108,791	11.5	16,257	99,561
2025	145,254	10.0	14,525	87,659	12.9	18,738	109,592	11.5	16,704	100,294
2026	149,248	10.0	14,925	88,195	12.9	19,253	110,262	11.5	17,164	100,907
2027	153,352	10.0	15,335	88,614	12.9	19,782	110,786	11.5	17,635	101,387
2028	157,569	10.0	15,757	88,904	12.9	20,326	111,149	11.5	18,120	101,719
2029	161,902	10.0	16,190	89,052	12.9	20,885	111,334	11.5	18,619	101,888
2030	166,354	10.0	16,635	89,043	12.9	21,460	111,323	11.5	19,131	101,878
2031	170,929	10.0	17,093	88,862	12.9	22,050	111,097	11.5	19,657	101,671

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	14.0%	$18,746	$ 116,062	15.6%	$20,888	$ 128,207	16.3%	$21,826	$ 134,360
2023	137,582	14.0	19,261	117,175	15.6	21,463	129,437	16.3	22,426	135,649
2024	141,366	14.0	19,791	118,173	15.6	22,053	130,540	16.3	23,043	136,805
2025	145,254	14.0	20,336	119,043	15.6	22,660	131,501	16.3	23,676	137,812
2026	149,248	14.0	20,895	119,771	15.6	23,283	132,305	16.3	24,327	138,654
2027	153,352	14.0	21,469	120,340	15.6	23,923	132,934	16.3	24,996	139,313
2028	157,569	14.0	22,060	120,734	15.6	24,581	133,370	16.3	25,684	139,770
2029	161,902	14.0	22,666	120,935	15.6	25,257	133,592	16.3	26,390	140,003
2030	166,354	14.0	23,290	120,923	15.6	25,951	133,579	16.3	27,116	139,990
2031	170,929	14.0	23,930	120,677	15.6	26,665	133,308	16.3	27,861	139,706

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	18.3%	$24,504	$ 149,583	18.8%	$25,173	$ 152,667	21.2%	$28,387	$ 170,958
2023	137,582	18.3	25,178	151,018	18.8	25,865	154,131	21.2	29,167	172,598
2024	141,366	18.3	25,870	152,305	18.8	26,577	155,444	21.2	29,970	174,069
2025	145,254	18.3	26,581	153,427	18.8	27,308	156,589	21.2	30,794	175,351
2026	149,248	18.3	27,312	154,365	18.8	28,059	157,546	21.2	31,641	176,423
2027	153,352	18.3	28,063	155,099	18.8	28,830	158,295	21.2	32,511	177,262
2028	157,569	18.3	28,835	155,607	18.8	29,623	158,814	21.2	33,405	177,843
2029	161,902	18.3	29,628	155,866	18.8	30,438	159,079	21.2	34,323	178,139
2030	166,354	18.3	30,443	155,851	18.8	31,275	159,064	21.2	35,267	178,122
2031	170,929	18.3	31,280	155,534	18.8	32,135	158,741	21.2	36,237	177,760

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 28th have not been incorporated in the above results.
5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

City of Madison - General

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

Rule of 80 Retirement Eligibility

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	8.1%	$10,846	$ 85,463	11.0%	$14,729	$ 106,847	9.6%	$12,854	$ 97,782
2023	137,582	8.1	11,144	86,283	11.0	15,134	107,872	9.6	13,208	98,720
2024	141,366	8.1	11,451	87,018	11.0	15,550	108,791	9.6	13,571	99,561
2025	145,254	8.1	11,766	87,659	11.0	15,978	109,592	9.6	13,944	100,294
2026	149,248	8.1	12,089	88,195	11.0	16,417	110,262	9.6	14,328	100,907
2027	153,352	8.1	12,422	88,614	11.0	16,869	110,786	9.6	14,722	101,387
2028	157,569	8.1	12,763	88,904	11.0	17,333	111,149	9.6	15,127	101,719
2029	161,902	8.1	13,114	89,052	11.0	17,809	111,334	9.6	15,543	101,888
2030	166,354	8.1	13,475	89,043	11.0	18,299	111,323	9.6	15,970	101,878
2031	170,929	8.1	13,845	88,862	11.0	18,802	111,097	9.6	16,409	101,671

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	12.1%	$16,202	$ 116,062	13.7%	$18,344	$ 128,207	14.4%	$19,282	$ 134,360
2023	137,582	12.1	16,647	117,175	13.7	18,849	129,437	14.4	19,812	135,649
2024	141,366	12.1	17,105	118,173	13.7	19,367	130,540	14.4	20,357	136,805
2025	145,254	12.1	17,576	119,043	13.7	19,900	131,501	14.4	20,917	137,812
2026	149,248	12.1	18,059	119,771	13.7	20,447	132,305	14.4	21,492	138,654
2027	153,352	12.1	18,556	120,340	13.7	21,009	132,934	14.4	22,083	139,313
2028	157,569	12.1	19,066	120,734	13.7	21,587	133,370	14.4	22,690	139,770
2029	161,902	12.1	19,590	120,935	13.7	22,181	133,592	14.4	23,314	140,003
2030	166,354	12.1	20,129	120,923	13.7	22,790	133,579	14.4	23,955	139,990
2031	170,929	12.1	20,682	120,677	13.7	23,417	133,308	14.4	24,614	139,706

		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
Valuation Year	Estimated Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2022	$ 133,900	16.4%	$21,960	$ 149,583	16.9%	$22,629	$ 152,667	19.3%	$25,843	$ 170,958
2023	137,582	16.4	22,563	151,018	16.9	23,251	154,131	19.3	26,553	172,598
2024	141,366	16.4	23,184	152,305	16.9	23,891	155,444	19.3	27,284	174,069
2025	145,254	16.4	23,822	153,427	16.9	24,548	156,589	19.3	28,034	175,351
2026	149,248	16.4	24,477	154,365	16.9	25,223	157,546	19.3	28,805	176,423
2027	153,352	16.4	25,150	155,099	16.9	25,916	158,295	19.3	29,597	177,262
2028	157,569	16.4	25,841	155,607	16.9	26,629	158,814	19.3	30,411	177,843
2029	161,902	16.4	26,552	155,866	16.9	27,361	159,079	19.3	31,247	178,139
2030	166,354	16.4	27,282	155,851	16.9	28,114	159,064	19.3	32,106	178,122
2031	170,929	16.4	28,032	155,534	16.9	28,887	158,741	19.3	32,989	177,760

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 28th have not been incorporated in the above results.
5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

City of Madison - 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	
2022	$ 133,900	6.2%	$8,302	$ 85,463	9.1%	$12,185	$ 106,847	7.7%	$10,310	$ 97,782
2023	137,582	6.2	8,530	86,283	9.1	12,520	107,872	7.7	10,594	98,720
2024	141,366	6.2	8,765	87,018	9.1	12,864	108,791	7.7	10,885	99,561
2025	145,254	6.2	9,006	87,659	9.1	13,218	109,592	7.7	11,185	100,294
2026	149,248	6.2	9,253	88,195	9.1	13,582	110,262	7.7	11,492	100,907
2027	153,352	6.2	9,508	88,614	9.1	13,955	110,786	7.7	11,808	101,387
2028	157,569	6.2	9,769	88,904	9.1	14,339	111,149	7.7	12,133	101,719
2029	161,902	6.2	10,038	89,052	9.1	14,733	111,334	7.7	12,466	101,888
2030	166,354	6.2	10,314	89,043	9.1	15,138	111,323	7.7	12,809	101,878
2031	170,929	6.2	10,598	88,862	9.1	15,555	111,097	7.7	13,162	101,671

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	
2022	$ 133,900	10.2%	$13,658	$ 116,062	11.8%	$15,800	$ 128,207	12.5%	$16,738	$ 134,360
2023	137,582	10.2	14,033	117,175	11.8	16,235	129,437	12.5	17,198	135,649
2024	141,366	10.2	14,419	118,173	11.8	16,681	130,540	12.5	17,671	136,805
2025	145,254	10.2	14,816	119,043	11.8	17,140	131,501	12.5	18,157	137,812
2026	149,248	10.2	15,223	119,771	11.8	17,611	132,305	12.5	18,656	138,654
2027	153,352	10.2	15,642	120,340	11.8	18,096	132,934	12.5	19,169	139,313
2028	157,569	10.2	16,072	120,734	11.8	18,593	133,370	12.5	19,696	139,770
2029	161,902	10.2	16,514	120,935	11.8	19,104	133,592	12.5	20,238	140,003
2030	166,354	10.2	16,968	120,923	11.8	19,630	133,579	12.5	20,794	139,990
2031	170,929	10.2	17,435	120,677	11.8	20,170	133,308	12.5	21,366	139,706

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	
2022	$ 133,900	14.5%	$19,416	$ 149,583	15.0%	$20,085	$ 152,667	17.4%	$23,299	$ 170,958
2023	137,582	14.5	19,949	151,018	15.0	20,637	154,131	17.4	23,939	172,598
2024	141,366	14.5	20,498	152,305	15.0	21,205	155,444	17.4	24,598	174,069
2025	145,254	14.5	21,062	153,427	15.0	21,788	156,589	17.4	25,274	175,351
2026	149,248	14.5	21,641	154,365	15.0	22,387	157,546	17.4	25,969	176,423
2027	153,352	14.5	22,236	155,099	15.0	23,003	158,295	17.4	26,683	177,262
2028	157,569	14.5	22,848	155,607	15.0	23,635	158,814	17.4	27,417	177,843
2029	161,902	14.5	23,476	155,866	15.0	24,285	159,079	17.4	28,171	178,139
2030	166,354	14.5	24,121	155,851	15.0	24,953	159,064	17.4	28,946	178,122
2031	170,929	14.5	24,785	155,534	15.0	25,639	158,741	17.4	29,742	177,760

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.
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