



The City of Herculaneum

Supplemental Actuarial Valuation of Alternate
LAGERS Benefits
February 28, 2021



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May 6, 2022

The City of Herculaneum
Herculaneum, Missouri

Ladies and Gentlemen:

Submitted in this report are the results of an actuarial valuation prepared to determine the employer contribution rates required to support, for your employees, certain 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 changes in LAGERS benefits by a political subdivision (Sections 105.660 - 105.685 RSMo).

The contribution requirement for benefits likely to accrue as a result of the future service of your employees is described in this report as the normal cost rate plus the casualty rate. This contribution rate, expressed as a percent of active employee payroll, will depend on the benefit plan adopted.

The contribution requirement to pay for benefits likely to result from service rendered by your employees prior to the valuation date, the liability for which is not covered by present employer account balances, is described in this report as the prior service cost rate. The prior service cost rate is the rate of contribution designed to pay for any unfunded actuarial accrued liability.

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 for the benefit plan in effect. These contributions are mandatory.

The actuarial assumptions and methods used to determine the stated costs are described in Appendix I 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. Annual actuarial valuation results for the political subdivision and information pertaining to those results may be found in the political subdivision's annual actuarial valuation report as of February 28, 2021.

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.

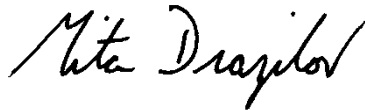
The computed contribution rates will permit the System to continue to operate in accordance with the actuarial principles of level cost financing and the state law which governs LAGERS. Summary provisions of the law as well as benefit illustrations can be found in Appendices II and III.

In accordance with 105.675 RSMo, 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 adopt an alternate benefit plan. 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. The statement of cost must also be provided to the Joint Committee on Public Employee Retirement. The statement can be mailed to the State Capitol, Room 219-A, Jefferson City, MO 65101 or e-mailed to JCPER@senate.mo.gov.

The valuation was based on the same data as was used in your February 28, 2021 annual actuarial valuation. If you have any questions concerning this report or LAGERS in general, please contact the LAGERS office in Jefferson City.

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

Respectfully submitted,
Gabriel, Roeder, Smith & Company

A handwritten signature in black ink that reads "Mita Drazilov". The signature is fluid and cursive, with the first name "Mita" and last name "Drazilov" clearly legible.

Mita D. Drazilov, ASA, FCA, MAAA



Alternate Plan Provisions Affecting Employer Contribution Rates

The law governing LAGERS provides for a member contribution rate of 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 that 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 II of this report.

The City of Herculaneum

Computed Employer Contribution Rates - General Employees

As of February 28, 2021

Benefit Plan Information

<u>Benefit Plans</u>	<u>Present Plan</u>	<u>Alternate Plan</u>
# Benefit Program:	L-1	L-12
Final Average Salary:	5 years	5 years
Member Contribution Rate:	4%	4%
Retirement Eligibility:	Regular	Regular

Actuarial Information

Employer Contribution Rates (as a percent of payroll)

	<u>Present Plan</u>	<u>Alternate Plan</u>
Normal Cost Rate	2.7%	6.8%
Casualty Rate	0.2	0.4
Prior Service Cost Rate ¹	<u>10.4</u>	<u>18.4</u>
Total Employer Contribution Rate	13.3%	25.6%

**Increase in Employer Contribution Rate for
Alternate Plan as a percent of payroll**

12.3%

Increase in Actuarial Accrued Liability ¹

\$795,052

Employer contribution rates shown above are for the fiscal year beginning in 2022. If the alternate plan is adopted prior to the fiscal year beginning in 2022, 12.3% would be added to the employer contribution rate currently in effect.

Change in provisions from present plan.

¹ The increase in the actuarial accrued liability due to adoption of the alternate plan was amortized over a 20 year period to compute the increase in the Prior Service Cost Rate.

If you have any questions, please call the LAGERS office at 1-800-447-4334.



The City of Herculaneum

Projected Estimated Employer Contribution Rates - General Employees

As of February 28, 2021

Valuation Date Feb. 28/29	Estimated Projected Payroll	Present Plan			Alternate Plan			Change Due to Proposed Provisions		
		Estimated Employer Contribution		Estimated Difference Between AAL and AVA	Estimated Employer Contribution		Estimated Difference Between AAL and AVA	Estimated Employer Contribution		Estimated Difference Between AAL and AVA
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$730,859	13.3%	\$97,204	\$1,019,487	25.6%	\$187,100	\$1,814,539	12.3%	\$89,896	\$795,052
2022	750,958	13.3	99,877	1,012,213	25.6	192,245	1,802,081	12.3	92,368	789,868
2023	771,609	13.3	102,624	1,002,267	25.6	197,532	1,784,915	12.3	94,908	782,648
2024	792,828	13.3	105,446	989,403	25.6	202,964	1,762,607	12.3	97,518	773,204
2025	814,631	13.3	108,346	973,355	25.6	208,546	1,734,687	12.3	100,200	761,332
2026	837,033	13.3	111,325	953,837	25.6	214,280	1,700,652	12.3	102,955	746,815
2027	860,051	13.3	114,387	930,544	25.6	220,173	1,659,960	12.3	105,786	729,416
2028	883,702	13.3	117,532	903,144	25.6	226,228	1,612,027	12.3	108,696	708,883
2029	908,004	13.3	120,765	871,282	25.6	232,449	1,556,227	12.3	111,684	684,945
2030	932,974	12.5	116,622	834,573	24.8	231,378	1,491,881	12.3	114,756	657,308

AAL = Actuarial Accrued Liability

AVA = Actuarial Value of Assets

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) For purposes of the above projections, it was assumed that all actuarial assumptions would be realized. In particular, it was assumed that the actuarial value of assets would earn 7.00% in each year.
- 3) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 4) 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.
- 5) Differences between fiscal end dates of the employer and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 6) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Other disclosures required by Section 105.665 of the Revised Statutes of Missouri (RSMo):

- 1) As of February 28, 2021, the actuarial value of assets is \$50,293; the estimated market value of assets is \$52,996; the actuarial accrued liability is \$1,069,780; and the funded ratio is 4.7%. These results are based on the assets and liabilities associated with the Employer Accumulation Fund and the Member Deposit Fund for this division.
- 2) Under Section 70.730 of the Revised Statutes of Missouri, the computed employer contribution rate shall not exceed the contribution rate for the immediately preceding fiscal year by more than one percent (not including the effects of any benefit changes). As of February 28, 2021, there is no difference between the capped and uncapped employer contribution rate.



The City of Herculaneum

Computed Employer Contribution Rates - Police Employees

As of February 28, 2021

Benefit Plan Information

<u>Benefit Plans</u>	<u>Present Plan</u>	<u>Alternate Plan</u>
# Benefit Program:	L-1	L-12
Final Average Salary:	5 years	5 years
Member Contribution Rate:	4%	4%
Retirement Eligibility:	Regular	Regular

Actuarial Information

Employer Contribution Rates (as a percent of payroll)

	<u>Present Plan</u>	<u>Alternate Plan</u>
Normal Cost Rate	3.7%	8.7%
Casualty Rate	0.4	0.7
Prior Service Cost Rate ¹	<u>2.5</u>	<u>6.5</u>
Total Employer Contribution Rate	6.6%	15.9%
Increase in Employer Contribution Rate for Alternate Plan as a percent of payroll		9.3%
Increase in Actuarial Accrued Liability ¹		\$200,154

Employer contribution rates shown above are for the fiscal year beginning in 2022. If the alternate plan is adopted prior to the fiscal year beginning in 2022, 9.3% would be added to the employer contribution rate currently in effect.

Change in provisions from present plan.

¹ The increase in the actuarial accrued liability due to adoption of the alternate plan was amortized over a 20 year period to compute the increase in the Prior Service Cost Rate.

If you have any questions, please call the LAGERS office at 1-800-447-4334.



The City of Herculaneum

Projected Estimated Employer Contribution Rates - Police Employees

As of February 28, 2021

Valuation Date Feb. 28/29	Estimated Projected Payroll	Present Plan			Alternate Plan			Change Due to Proposed Provisions		
		Estimated Employer Contribution		Estimated Difference Between AAL and AVA	Estimated Employer Contribution		Estimated Difference Between AAL and AVA	Estimated Employer Contribution		Estimated Difference Between AAL and AVA
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$372,933	6.6%	\$24,614	\$152,384	15.9%	\$59,296	\$352,538	9.3%	\$34,682	\$200,154
2022	383,189	6.6	25,290	153,266	15.9	60,927	352,115	9.3	35,637	198,849
2023	393,727	6.6	25,986	153,940	15.9	62,603	350,971	9.3	36,617	197,031
2024	404,554	6.6	26,701	154,384	15.9	64,324	349,038	9.3	37,623	194,654
2025	415,679	6.6	27,435	154,576	15.9	66,093	346,241	9.3	38,658	191,665
2026	427,110	6.6	28,189	154,490	15.9	67,910	342,500	9.3	39,721	188,010
2027	438,856	6.6	28,964	154,097	15.9	69,778	337,727	9.3	40,814	183,630
2028	450,925	6.6	29,761	153,368	15.9	71,697	331,829	9.3	41,936	178,461
2029	463,325	6.6	30,579	152,272	15.9	73,669	324,707	9.3	43,090	172,435
2030	476,066	7.6	36,181	150,775	16.9	80,455	316,252	9.3	44,274	165,477

AAL = Actuarial Accrued Liability

AVA = Actuarial Value of Assets

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) For purposes of the above projections, it was assumed that all actuarial assumptions would be realized. In particular, it was assumed that the actuarial value of assets would earn 7.00% in each year.
- 3) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 4) 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.
- 5) Differences between fiscal end dates of the employer and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 6) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Other disclosures required by Section 105.665 of the Revised Statutes of Missouri (RSMo):

- 1) As of February 28, 2021, the actuarial value of assets is \$144,872; the estimated market value of assets is \$152,658; the actuarial accrued liability is \$297,256; and the funded ratio is 48.7%. These results are based on the assets and liabilities associated with the Employer Accumulation Fund and the Member Deposit Fund for this division.
- 2) Under Section 70.730 of the Revised Statutes of Missouri, the computed employer contribution rate shall not exceed the contribution rate for the immediately preceding fiscal year by more than one percent (not including the effects of any benefit changes). As of February 28, 2021, there is no difference between the capped and uncapped employer contribution rate.



The City of Herculaneum

Computed Employer Contribution Rates - General Employees

As of February 28, 2021

Benefit Plan Information

<u>Benefit Plans</u>	<u>Present Plan</u>	<u>Alternate Plan</u>
# Benefit Program:	L-1	L-6
Final Average Salary:	5 years	5 years
Member Contribution Rate:	4%	4%
Retirement Eligibility:	Regular	Regular

Actuarial Information

Employer Contribution Rates (as a percent of payroll)

	<u>Present Plan</u>	<u>Alternate Plan</u>
Normal Cost Rate	2.7%	8.2%
Casualty Rate	0.2	0.5
Prior Service Cost Rate ¹	<u>10.4</u>	<u>21.1</u>
Total Employer Contribution Rate	13.3%	29.8%

**Increase in Employer Contribution Rate for
Alternate Plan as a percent of payroll**

16.5%

Increase in Actuarial Accrued Liability ¹

\$1,059,386

Employer contribution rates shown above are for the fiscal year beginning in 2022. If the alternate plan is adopted prior to the fiscal year beginning in 2022, 16.5% would be added to the employer contribution rate currently in effect.

Change in provisions from present plan.

¹ The increase in the actuarial accrued liability due to adoption of the alternate plan was amortized over a 20 year period to compute the increase in the Prior Service Cost Rate.

If you have any questions, please call the LAGERS office at 1-800-447-4334.



The City of Herculaneum

Projected Estimated Employer Contribution Rates - General Employees

As of February 28, 2021

Valuation Date Feb. 28/29	Estimated Projected Payroll	Present Plan			Alternate Plan			Change Due to Proposed Provisions		
		Estimated Employer Contribution		Estimated Difference Between AAL and AVA	Estimated Employer Contribution		Estimated Difference Between AAL and AVA	Estimated Employer Contribution		Estimated Difference Between AAL and AVA
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$730,859	13.3%	\$97,204	\$1,019,487	29.8%	\$217,796	\$2,078,873	16.5%	\$120,592	\$1,059,386
2022	750,958	13.3	99,877	1,012,213	29.8	223,785	2,064,692	16.5	123,908	1,052,479
2023	771,609	13.3	102,624	1,002,267	29.8	229,939	2,045,125	16.5	127,315	1,042,858
2024	792,828	13.3	105,446	989,403	29.8	236,263	2,019,677	16.5	130,817	1,030,274
2025	814,631	13.3	108,346	973,355	29.8	242,760	1,987,810	16.5	134,414	1,014,455
2026	837,033	13.3	111,325	953,837	29.8	249,436	1,948,948	16.5	138,111	995,111
2027	860,051	13.3	114,387	930,544	29.8	256,295	1,902,472	16.5	141,908	971,928
2028	883,702	13.3	117,532	903,144	29.8	263,343	1,847,713	16.5	145,811	944,569
2029	908,004	13.3	120,765	871,282	29.8	270,585	1,783,953	16.5	149,820	912,671
2030	932,974	12.5	116,622	834,573	29.0	270,562	1,710,418	16.5	153,940	875,845

AAL = Actuarial Accrued Liability

AVA = Actuarial Value of Assets

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) For purposes of the above projections, it was assumed that all actuarial assumptions would be realized. In particular, it was assumed that the actuarial value of assets would earn 7.00% in each year.
- 3) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 4) 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.
- 5) Differences between fiscal end dates of the employer and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 6) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Other disclosures required by Section 105.665 of the Revised Statutes of Missouri (RSMo):

- 1) As of February 28, 2021, the actuarial value of assets is \$50,293; the estimated market value of assets is \$52,996; the actuarial accrued liability is \$1,069,780; and the funded ratio is 4.7%. These results are based on the assets and liabilities associated with the Employer Accumulation Fund and the Member Deposit Fund for this division.
- 2) Under Section 70.730 of the Revised Statutes of Missouri, the computed employer contribution rate shall not exceed the contribution rate for the immediately preceding fiscal year by more than one percent (not including the effects of any benefit changes). As of February 28, 2021, there is no difference between the capped and uncapped employer contribution rate.



The City of Herculaneum

Computed Employer Contribution Rates - Police Employees

As of February 28, 2021

Benefit Plan Information

<u>Benefit Plans</u>	<u>Present Plan</u>	<u>Alternate Plan</u>
# Benefit Program:	L-1	L-6
Final Average Salary:	5 years	5 years
Member Contribution Rate:	4%	4%
Retirement Eligibility:	Regular	Regular

Actuarial Information

Employer Contribution Rates (as a percent of payroll)

	<u>Present Plan</u>	<u>Alternate Plan</u>
Normal Cost Rate	3.7%	10.4%
Casualty Rate	0.4	0.8
Prior Service Cost Rate ¹	<u>2.5</u>	<u>7.8</u>
Total Employer Contribution Rate	6.6%	19.0%

Increase in Employer Contribution Rate for Alternate Plan as a percent of payroll

12.4%

Increase in Actuarial Accrued Liability ¹

\$266,882

Employer contribution rates shown above are for the fiscal year beginning in 2022. If the alternate plan is adopted prior to the fiscal year beginning in 2022, 12.4% would be added to the employer contribution rate currently in effect.

Change in provisions from present plan.

¹ The increase in the actuarial accrued liability due to adoption of the alternate plan was amortized over a 20 year period to compute the increase in the Prior Service Cost Rate.

If you have any questions, please call the LAGERS office at 1-800-447-4334.



The City of Herculaneum

Projected Estimated Employer Contribution Rates - Police Employees

As of February 28, 2021

Valuation Date Feb. 28/29	Estimated Projected Payroll	Present Plan			Alternate Plan			Change Due to Proposed Provisions		
		Estimated Employer Contribution		Estimated Difference Between AAL and AVA	Estimated Employer Contribution		Estimated Difference Between AAL and AVA	Estimated Employer Contribution		Estimated Difference Between AAL and AVA
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2021	\$372,933	6.6%	\$24,614	\$152,384	19.0%	\$70,857	\$419,266	12.4%	\$46,243	\$266,882
2022	383,189	6.6	25,290	153,266	19.0	72,806	418,408	12.4	47,516	265,142
2023	393,727	6.6	25,986	153,940	19.0	74,808	416,658	12.4	48,822	262,718
2024	404,554	6.6	26,701	154,384	19.0	76,865	413,932	12.4	50,164	259,548
2025	415,679	6.6	27,435	154,576	19.0	78,979	410,139	12.4	51,544	255,563
2026	427,110	6.6	28,189	154,490	19.0	81,151	405,180	12.4	52,962	250,690
2027	438,856	6.6	28,964	154,097	19.0	83,383	398,946	12.4	54,419	244,849
2028	450,925	6.6	29,761	153,368	19.0	85,676	391,325	12.4	55,915	237,957
2029	463,325	6.6	30,579	152,272	19.0	88,032	382,193	12.4	57,453	229,921
2030	476,066	7.6	36,181	150,775	20.0	95,213	371,419	12.4	59,032	220,644

AAL = Actuarial Accrued Liability

AVA = Actuarial Value of Assets

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) For purposes of the above projections, it was assumed that all actuarial assumptions would be realized. In particular, it was assumed that the actuarial value of assets would earn 7.00% in each year.
- 3) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 4) 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.
- 5) Differences between fiscal end dates of the employer and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 6) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Other disclosures required by Section 105.665 of the Revised Statutes of Missouri (RSMo):

- 1) As of February 28, 2021, the actuarial value of assets is \$144,872; the estimated market value of assets is \$152,658; the actuarial accrued liability is \$297,256; and the funded ratio is 48.7%. These results are based on the assets and liabilities associated with the Employer Accumulation Fund and the Member Deposit Fund for this division.
- 2) Under Section 70.730 of the Revised Statutes of Missouri, the computed employer contribution rate shall not exceed the contribution rate for the immediately preceding fiscal year by more than one percent (not including the effects of any benefit changes). As of February 28, 2021, there is no difference between the capped and uncapped employer contribution rate.



APPENDIX I

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.

Schedule 1.

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

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

Percent Increase in Individual's Pay During Next Year			
Sample Ages	General/ Public Safety	Police	Fire
25	6.75%	6.55%	7.15%
30	5.95	5.75	6.05
35	5.35	5.25	5.15
40	4.85	4.75	4.45
45	4.25	4.25	4.05
50	3.85	3.85	3.85
55	3.65	3.65	3.45
60	3.45	3.45	2.75
65	3.15	3.15	2.75

Schedule 2.

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

Early Retirement

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

Normal Retirement

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

Schedule 2. (Concluded)

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

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

APPENDIX II

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-9 Benefit Program:	1.60% for life
L-12 Benefit Program:	1.75% for life
L-6 Benefit Program:	2.00% for life
LT-4 Benefit Program:	1.00% for life, plus 1.00% to age 62
LT-5 Benefit Program:	1.25% for life, plus 0.75% to age 62
LT-8 Benefit Program:	1.50% for life, plus 0.50% to age 62
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-10(65) Benefit Program:	1.60% for life, plus 0.40% 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 otherwise 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 III

BENEFIT ILLUSTRATIONS

Missouri LAGERS

Illustrations of Age and Service Allowance Amounts

For Sample Combinations of Service & Salary
(L-1 Benefit Program is Years of Credited Service
times: 1.00% of FAS ¹)

Final		Estimated	Estimated	
Average	LAGERS	Social	Monthly Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service:				
\$1,500	\$ 525	\$ 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. The benefit 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		Estimated	Estimated	
Average	LAGERS	Social	Monthly Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service:				
\$1,500	\$ 656	\$ 916	\$1,572	105%
2,000	875	1,055	1,930	97%
2,500	1,094	1,192	2,286	91%
3,000	1,313	1,330	2,643	88%
3,500	1,531	1,469	3,000	86%
4,000	1,750	1,605	3,355	84%
25 Years of Service:				
\$1,500	\$ 469	\$ 916	\$1,385	92%
2,000	625	1,055	1,680	84%
2,500	781	1,192	1,973	79%
3,000	938	1,330	2,268	76%
3,500	1,094	1,469	2,563	73%
4,000	1,250	1,605	2,855	71%
15 Years of Service:				
\$1,500	\$281	\$ 916	\$1,197	80%
2,000	375	1,055	1,430	72%
2,500	469	1,192	1,661	66%
3,000	563	1,330	1,893	63%
3,500	656	1,469	2,125	61%
4,000	750	1,605	2,355	59%

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

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

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

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit. The benefit 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-9 Benefit Program is Years of Credited Service
times: 1.60% of FAS ¹)

Final		Estimated	Estimated	
Average	LAGERS	Social	Monthly Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service:				
\$1,500	\$ 840	\$ 916	\$1,756	117%
2,000	1,120	1,055	2,175	109%
2,500	1,400	1,192	2,592	104%
3,000	1,680	1,330	3,010	100%
3,500	1,960	1,469	3,429	98%
4,000	2,240	1,605	3,845	96%
25 Years of Service:				
\$1,500	\$ 600	\$ 916	\$1,516	101%
2,000	800	1,055	1,855	93%
2,500	1,000	1,192	2,192	88%
3,000	1,200	1,330	2,530	84%
3,500	1,400	1,469	2,869	82%
4,000	1,600	1,605	3,205	80%
15 Years of Service:				
\$1,500	\$360	\$ 916	\$1,276	85%
2,000	480	1,055	1,535	77%
2,500	600	1,192	1,792	72%
3,000	720	1,330	2,050	68%
3,500	840	1,469	2,309	66%
4,000	960	1,605	2,565	64%

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

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit. The benefit 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		Estimated	Estimated	
Average	LAGERS	Social	Monthly Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service:				
\$1,500	\$ 919	\$ 916	\$1,835	122%
2,000	1,225	1,055	2,280	114%
2,500	1,531	1,192	2,723	109%
3,000	1,838	1,330	3,168	106%
3,500	2,144	1,469	3,613	103%
4,000	2,450	1,605	4,055	101%
25 Years of Service:				
\$1,500	\$ 656	\$ 916	\$1,572	105%
2,000	875	1,055	1,930	97%
2,500	1,094	1,192	2,286	91%
3,000	1,313	1,330	2,643	88%
3,500	1,531	1,469	3,000	86%
4,000	1,750	1,605	3,355	84%
15 Years of Service:				
\$1,500	\$ 394	\$ 916	\$1,310	87%
2,000	525	1,055	1,580	79%
2,500	656	1,192	1,848	74%
3,000	788	1,330	2,118	71%
3,500	919	1,469	2,388	68%
4,000	1,050	1,605	2,655	66%

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. The benefit 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		Estimated	Estimated	
Average	LAGERS	Social	Monthly Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service:				
\$1,500	\$1,050	\$ 916	\$1,966	131%
2,000	1,400	1,055	2,455	123%
2,500	1,750	1,192	2,942	118%
3,000	2,100	1,330	3,430	114%
3,500	2,450	1,469	3,919	112%
4,000	2,800	1,605	4,405	110%
25 Years of Service:				
\$1,500	\$ 750	\$ 916	\$1,666	111%
2,000	1,000	1,055	2,055	103%
2,500	1,250	1,192	2,442	98%
3,000	1,500	1,330	2,830	94%
3,500	1,750	1,469	3,219	92%
4,000	2,000	1,605	3,605	90%
15 Years of Service:				
\$1,500	\$ 450	\$ 916	\$1,366	91%
2,000	600	1,055	1,655	83%
2,500	750	1,192	1,942	78%
3,000	900	1,330	2,230	74%
3,500	1,050	1,469	2,519	72%
4,000	1,200	1,605	2,805	70%

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

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit. The benefit 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-11 Benefit Program is Years of Credited Service
times: 2.50% of FAS ¹)

Final		Estimated	Estimated	
Average	LAGERS	Social	Monthly Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service:				
\$1,500	\$1,313		\$1,313	88%
2,000	1,750		1,750	88%
2,500	2,188		2,188	88%
3,000	2,625		2,625	88%
3,500	3,063		3,063	88%
4,000	3,500		3,500	88%
25 Years of Service:				
\$1,500	\$ 938		\$ 938	63%
2,000	1,250		1,250	63%
2,500	1,563		1,563	63%
3,000	1,875		1,875	63%
3,500	2,188		2,188	63%
4,000	2,500		2,500	63%
15 Years of Service:				
\$1,500	\$ 563		\$ 563	38%
2,000	750		750	38%
2,500	938		938	38%
3,000	1,125		1,125	38%
3,500	1,313		1,313	38%
4,000	1,500		1,500	38%

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. The benefit 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(62) Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹ to age 62)
1.00% of FAS ¹ at age 62)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 62	At 62		To 62	At 62	To 62	At 62
35 Years of Service:							
\$1,500	\$1,050	\$ 525	\$ 745	\$1,050	\$1,270	70%	85%
2,000	1,400	700	858	1,400	1,558	70%	78%
2,500	1,750	875	969	1,750	1,844	70%	74%
3,000	2,100	1,050	1,080	2,100	2,130	70%	71%
3,500	2,450	1,225	1,193	2,450	2,418	70%	69%
4,000	2,800	1,400	1,303	2,800	2,703	70%	68%
25 Years of Service:							
\$1,500	\$ 750	\$ 375	\$ 745	\$ 750	\$1,120	50%	75%
2,000	1,000	500	858	1,000	1,358	50%	68%
2,500	1,250	625	969	1,250	1,594	50%	64%
3,000	1,500	750	1,080	1,500	1,830	50%	61%
3,500	1,750	875	1,193	1,750	2,068	50%	59%
4,000	2,000	1,000	1,303	2,000	2,303	50%	58%
15 Years of Service:							
\$1,500	\$ 450	\$225	\$ 745	\$ 450	\$ 970	30%	65%
2,000	600	300	858	600	1,158	30%	58%
2,500	750	375	969	750	1,344	30%	54%
3,000	900	450	1,080	900	1,530	30%	51%
3,500	1,050	525	1,193	1,050	1,718	30%	49%
4,000	1,200	600	1,303	1,200	1,903	30%	48%

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. The benefit is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 62 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		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 525	\$ 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. The benefit 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(62) Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹ to age 62)
1.25% of FAS ¹ at age 62)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 62	At 62		To 62	At 62	To 62	At 62
35 Years of Service:							
\$1,500	\$1,050	\$ 656	\$ 745	\$1,050	\$1,401	70%	93%
2,000	1,400	875	858	1,400	1,733	70%	87%
2,500	1,750	1,094	969	1,750	2,063	70%	83%
3,000	2,100	1,313	1,080	2,100	2,393	70%	80%
3,500	2,450	1,531	1,193	2,450	2,724	70%	78%
4,000	2,800	1,750	1,303	2,800	3,053	70%	76%
25 Years of Service:							
\$1,500	\$ 750	\$ 469	\$ 745	\$ 750	\$1,214	50%	81%
2,000	1,000	625	858	1,000	1,483	50%	74%
2,500	1,250	781	969	1,250	1,750	50%	70%
3,000	1,500	938	1,080	1,500	2,018	50%	67%
3,500	1,750	1,094	1,193	1,750	2,287	50%	65%
4,000	2,000	1,250	1,303	2,000	2,553	50%	64%
15 Years of Service:							
\$1,500	\$ 450	\$281	\$ 745	\$ 450	\$1,026	30%	68%
2,000	600	375	858	600	1,233	30%	62%
2,500	750	469	969	750	1,438	30%	58%
3,000	900	563	1,080	900	1,643	30%	55%
3,500	1,050	656	1,193	1,050	1,849	30%	53%
4,000	1,200	750	1,303	1,200	2,053	30%	51%

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. The benefit is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 62 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		Estimated	Estimated		Percent	
			Social	Monthly Total		of FAS	
	To 65	At 65	Security ²	To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 656	\$ 916	\$1,050	\$1,572	70%	105%
2,000	1,400	875	1,055	1,400	1,930	70%	97%
2,500	1,750	1,094	1,192	1,750	2,286	70%	91%
3,000	2,100	1,313	1,330	2,100	2,643	70%	88%
3,500	2,450	1,531	1,469	2,450	3,000	70%	86%
4,000	2,800	1,750	1,605	2,800	3,355	70%	84%
25 Years of Service:							
\$1,500	\$ 750	\$ 469	\$ 916	\$ 750	\$1,385	50%	92%
2,000	1,000	625	1,055	1,000	1,680	50%	84%
2,500	1,250	781	1,192	1,250	1,973	50%	79%
3,000	1,500	938	1,330	1,500	2,268	50%	76%
3,500	1,750	1,094	1,469	1,750	2,563	50%	73%
4,000	2,000	1,250	1,605	2,000	2,855	50%	71%
15 Years of Service:							
\$1,500	\$ 450	\$281	\$ 916	\$ 450	\$1,197	30%	80%
2,000	600	375	1,055	600	1,430	30%	72%
2,500	750	469	1,192	750	1,661	30%	66%
3,000	900	563	1,330	900	1,893	30%	63%
3,500	1,050	656	1,469	1,050	2,125	30%	61%
4,000	1,200	750	1,605	1,200	2,355	30%	59%

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. The benefit 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(62) Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹ to age 62)
1.50% of FAS ¹ at age 62)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 62	At 62		To 62	At 62	To 62	At 62
35 Years of Service:							
\$1,500	\$1,050	\$ 788	\$ 745	\$1,050	\$1,533	70%	102%
2,000	1,400	1,050	858	1,400	1,908	70%	95%
2,500	1,750	1,313	969	1,750	2,282	70%	91%
3,000	2,100	1,575	1,080	2,100	2,655	70%	89%
3,500	2,450	1,838	1,193	2,450	3,031	70%	87%
4,000	2,800	2,100	1,303	2,800	3,403	70%	85%
25 Years of Service:							
\$1,500	\$ 750	\$ 563	\$ 745	\$ 750	\$1,308	50%	87%
2,000	1,000	750	858	1,000	1,608	50%	80%
2,500	1,250	938	969	1,250	1,907	50%	76%
3,000	1,500	1,125	1,080	1,500	2,205	50%	74%
3,500	1,750	1,313	1,193	1,750	2,506	50%	72%
4,000	2,000	1,500	1,303	2,000	2,803	50%	70%
15 Years of Service:							
\$1,500	\$ 450	\$338	\$ 745	\$ 450	\$1,083	30%	72%
2,000	600	450	858	600	1,308	30%	65%
2,500	750	563	969	750	1,532	30%	61%
3,000	900	675	1,080	900	1,755	30%	59%
3,500	1,050	788	1,193	1,050	1,981	30%	57%
4,000	1,200	900	1,303	1,200	2,203	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. The benefit is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 62 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		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 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. The benefit 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.

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Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-10(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹ to age 65)
1.60% of FAS ¹ at age 65)

Final	LAGERS		Estimated	Estimated		Percent	
Average	BENEFIT ³		Social	Monthly Total		of FAS	
Salary (FAS) ¹	To 65	At 65	Security ²	To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 840	\$ 916	\$1,050	\$1,756	70%	117%
2,000	1,400	1,120	1,055	1,400	2,175	70%	109%
2,500	1,750	1,400	1,192	1,750	2,592	70%	104%
3,000	2,100	1,680	1,330	2,100	3,010	70%	100%
3,500	2,450	1,960	1,469	2,450	3,429	70%	98%
4,000	2,800	2,240	1,605	2,800	3,845	70%	96%
25 Years of Service:							
\$1,500	\$750	\$ 600	\$ 916	\$ 750	\$1,516	50%	101%
2,000	1,000	800	1,055	1,000	1,855	50%	93%
2,500	1,250	1,000	1,192	1,250	2,192	50%	88%
3,000	1,500	1,200	1,330	1,500	2,530	50%	84%
3,500	1,750	1,400	1,469	1,750	2,869	50%	82%
4,000	2,000	1,600	1,605	2,000	3,205	50%	80%
15 Years of Service:							
\$1,500	\$ 450	\$360	\$ 916	\$ 450	\$1,276	30%	85%
2,000	600	480	1,055	600	1,535	30%	77%
2,500	750	600	1,192	750	1,792	30%	72%
3,000	900	720	1,330	900	2,050	30%	68%
3,500	1,050	840	1,469	1,050	2,309	30%	66%
4,000	1,200	960	1,605	1,200	2,565	30%	64%

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Missouri LAGERS

Illustrations of Age and Service Allowance Amounts

For Sample Combinations of Service & Salary

(LT-14(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹ to age 65)
1.75% of FAS ¹ at age 65)

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

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.

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May 6, 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, 2021 Supplemental Actuarial Valuation of LAGERS benefits for the employees of:

The City of Herculaneum

Sincerely,
Gabriel, Roeder, Smith & Company

A handwritten signature in black ink, reading "Mita Drazilov". The signature is fluid and cursive, with the first name "Mita" and last name "Drazilov" clearly distinguishable.

Mita D. Drazilov, ASA, FCA, MAAA

MDD:rmg
Enclosure