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March 24, 2023

Pettis County Fire District Sedalia, 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, 2022.

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, 2023. 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

Mite Drapilor

\_ 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.



Employer Contribution Rates	
5 Year FAS - Regular Retirement Eligibility	/

		Percents of Active Member Payroll						
					Total Employer Contribution Rate			Rate
		Normal		Prior	I	Based Upon t	the Following	5
Benefit	Employee	Cost	Casualty	Service	N	lember Cont	ribution Rate	S
Program	Groups	Rate	Rate	Cost Rate *	0%	2%	4%	6%
L-1	Fire	10.10%	0.60%	0.70%	11.40%	9.50%	7.60%	5.70%
L-3	Fire	12.40	0.70	0.90	14.00	12.10	10.20	8.30
LT-4(65)	Fire	12.30	0.60	0.90	13.80	11.90	10.00	8.10
LT-5(65)	Fire	14.00	0.70	1.00	15.70	13.80	11.90	10.00
L-7	Fire	14.70	0.80	1.10	16.60	14.70	12.80	10.90
LT-8(65)	Fire	15.80	0.80	1.20	17.80	15.90	14.00	12.10
L-12	Fire	17.00	0.90	1.30	19.20	17.30	15.40	13.50
LT-14(65)	Fire	17.50	0.90	1.30	19.70	17.80	15.90	14.00
L-6	Fire	19.30	1.00	1.40	21.70	19.80	17.90	16.00

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



#### Employer Contribution Rates <u>3 Year FAS - Regular Retirement Eligibility</u>

		Percents of Active Member Payroll						
					Total Employer Contribution Rate			Rate
		Normal		Prior	l	Based Upon t	the Following	5
Benefit	Employee	Cost	Casualty	Service	N	lember Cont	ribution Rate	s
Program	Groups	Rate	Rate	Cost Rate *	0%	2%	4%	6%
L-1	Fire	10.40%	0.60%	0.70%	11.70%	9.80%	7.90%	6.00%
L-3	Fire	12.70	0.70	0.90	14.30	12.40	10.50	8.60
LT-4(65)	Fire	12.70	0.60	0.90	14.20	12.30	10.40	8.50
LT-5(65)	Fire	14.40	0.70	1.00	16.10	14.20	12.30	10.40
L-7	Fire	15.10	0.80	1.10	17.00	15.10	13.20	11.30
LT-8(65)	Fire	16.20	0.80	1.20	18.20	16.30	14.40	12.50
L-12	Fire	17.50	0.90	1.30	19.70	17.80	15.90	14.00
LT-14(65)	Fire	18.00	0.90	1.30	20.20	18.30	16.40	14.50
L-6	Fire	19.80	1.00	1.50	22.30	20.40	18.50	16.60

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



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

		Percents of Active Member Payroll						
					Total Employer Contribution Rate			Rate
		Normal		Prior	l	Based Upon t	the Following	5
Benefit	Employee	Cost	Casualty	Service	N	lember Cont	ribution Rate	s
Program	Groups	Rate	Rate	Cost Rate *	0%	2%	4%	6%
L-1	Fire	10.10%	0.60%	0.70%	11.40%	9.50%	7.60%	5.70%
L-3	Fire	12.40	0.70	0.90	14.00	12.10	10.20	8.30
LT-4(65)	Fire	12.30	0.60	0.90	13.80	11.90	10.00	8.10
LT-5(65)	Fire	14.00	0.70	1.00	15.70	13.80	11.90	10.00
L-7	Fire	14.70	0.80	1.10	16.60	14.70	12.80	10.90
LT-8(65)	Fire	15.80	0.80	1.20	17.80	15.90	14.00	12.10
L-12	Fire	17.00	0.90	1.30	19.20	17.30	15.40	13.50
LT-14(65)	Fire	17.50	0.90	1.30	19.70	17.80	15.90	14.00
L-6	Fire	19.30	1.00	1.40	21.70	19.80	17.90	16.00

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

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



#### Employer Contribution Rates <u>3 Year FAS - Rule of 80 Retirement Eligibility</u>#

		Percents of Active Member Payroll						
					Total Employer Contribution Rate			Rate
		Normal		Prior		•	the Following	
Benefit	Employee	Cost	Casualty	Service	N	lember Cont	ribution Rate	s
Program	Groups	Rate	Rate	Cost Rate *	0%	2%	4%	6%
L-1	Fire	10.40%	0.60%	0.70%	11.70%	9.80%	7.90%	6.00%
L-3	Fire	12.70	0.70	0.90	14.30	12.40	10.50	8.60
LT-4(65)	Fire	12.70	0.60	0.90	14.20	12.30	10.40	8.50
LT-5(65)	Fire	14.40	0.70	1.00	16.10	14.20	12.30	10.40
L-7	Fire	15.10	0.80	1.10	17.00	15.10	13.20	11.30
LT-8(65)	Fire	16.20	0.80	1.20	18.20	16.30	14.40	12.50
L-12	Fire	17.50	0.90	1.30	19.70	17.80	15.90	14.00
LT-14(65)	Fire	18.00	0.90	1.30	20.20	18.30	16.40	14.50
L-6	Fire	19.80	1.00	1.50	22.30	20.40	18.50	16.60

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

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



# **Employer Contribution Dollars**

Fire

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:

5 Year FAS										
Benefit	N	Member Contribution Rate								
Program	0%	2%	4%	6%						
L-1	\$ 15,647	\$ 13,039	\$ 10,431	\$ 7,823						
L-3	19,215	16,607	14,000	11,392						
LT-4(65)	18,941	16,333	13,725	11,117						
LT-5(65)	21,548	18,941	16,333	13,725						
L-7	22,784	20,176	17,568	14,960						
LT-8(65)	24,431	21,823	19,215	16,607						
L-12	26,352	23,744	21,137	18,529						
LT-14(65)	27,038	24,431	21,823	19,215						
L-6	29,783	27,176	24,568	21,960						

-									
3 Year FAS									
Benefit	N	Member Contribution Rate							
Program	0%	2%	4%	6%					
L-1	\$ 16,058	\$ 13,451	\$ 10,843	\$ 8,235					
L-3	19,627	17,019	14,411	11,804					
LT-4(65)	19,490	16,882	14,274	11,666					
LT-5(65)	22,097	19,490	16,882	14,274					
L-7	23,333	20,725	18,117	15,509					
LT-8(65)	24,980	22,372	19,764	17,156					
L-12	27,038	24,431	21,823	19,215					
LT-14(65)	27,725	25,117	22,509	19,901					
L-6	30,607	27,999	25,391	22,784					

#### **Regular Retirement Eligibility**

**Rule of 80 Retirement Eligibility** 

	5 Year FAS						3 Year FAS				
Benefit	Μ	Member Contribution Rate				Benefit	N	lember Cont	tribution Rat	e	
Program	0%	2%	4%	6%		Program	0%	2%	4%	6%	
L-1	\$ 15,647	\$ 13,039	\$ 10,431	\$ 7,823		L-1	\$ 16,058	\$ 13,451	\$ 10,843	\$ 8,235	
L-3	19,215	16,607	14,000	11,392		L-3	19,627	17,019	14,411	11,804	
LT-4(65)	18,941	16,333	13,725	11,117		LT-4(65)	19,490	16,882	14,274	11,666	
LT-5(65)	21,548	18,941	16,333	13,725		LT-5(65)	22,097	19,490	16,882	14,274	
L-7	22,784	20,176	17,568	14,960		L-7	23,333	20,725	18,117	15,509	
LT-8(65)	24,431	21,823	19,215	16,607		LT-8(65)	24,980	22,372	19,764	17,156	
L-12	26,352	23,744	21,137	18,529		L-12	27,038	24,431	21,823	19,215	
LT-14(65)	27,038	24,431	21,823	19,215		LT-14(65)	27,725	25,117	22,509	19,901	
L-6	29,783	27,176	24,568	21,960		L-6	30,607	27,999	25,391	22,784	

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



#### **Employees and Payroll Included in the Valuation**

	Fire
Number of Employees	2
Annual Payroll	\$ 137,250

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:

## **Pettis County Fire District**

		Member Contribution Rate - 0%				
Benefit	Employee		UAAL			
Group	Group	(5 Year FAS)	(3 Year FAS)			
L-1	Fire	\$ 16,996	\$ 17,493			
L-3	Fire	21,242	21,853			
LT-4(65)	Fire	20,534	21,126			
LT-5(65)	Fire	23,893	24,587			
L-7	Fire	25,500	26,234			
LT-8(65)	Fire	27,265	28,049			
L-12	Fire	29,753	30,597			
LT-14(65)	Fire	30,623	31,500			
L-6	Fire	33,999	34,959			

#### **Regular Retirement Eligibility**



### Unfunded Actuarial Accrued Liability (UAAL)

		Member Contribution Rate - 0%			
Benefit	Employee	UAAL	UAAL		
Group	Group	(5 Year FAS)	(3 Year FAS)		
L-1	Fire	\$ 16,996	\$ 17,493		
L-3	Fire	21,242	21,853		
LT-4(65)	Fire	20,534	21,126		
LT-5(65)	Fire	23,893	24,587		
L-7	Fire	25,500	26,234		
LT-8(65)	Fire	27,265	28,049		
L-12	Fire	29,753	30,597		
LT-14(65)	Fire	30,623	31,500		
L-6	Fire	33,999	34,959		

### Rule of 80 Retirement Eligibility



**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 Ac	tive Membe	ers		
		Separating Within Next Year							
		Ge	eneral/Public	Safety Mem	nbers				
Sample	Years of	Ν	/len	W	omen	P	olice	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

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

### **Early Retirement**

#### **Normal Retirement**

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



### Schedule 2. (Concluded)

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

Retirement	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, 2022 (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	n: 1.00% for life, plus 1.00% to age 65
LT-5(65) Benefit Prograr	n: 1.25% for life, plus 0.75% to age 65
LT-8(65) Benefit Program	n: 1.50% for life, plus 0.50% to age 65
LT-14(65) Benefit Progra	am: 1.75% for life, plus 0.25% to age 65

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

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

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

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



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

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

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

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

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

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

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

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

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



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

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

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

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

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

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



**APPENDIX IV** 

**BENEFIT ILLUSTRATIONS** 

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

Final		Estimated	Estimated			
Average	LAGERS	Social	Monthly	y Total		
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% of FAS		
35 Years of Service:						
\$1,500	\$ 525	\$ 936	\$1,461	97%		
2,000	700	1,073	1,773	89%		
2,500	875	1,208	2,083	83%		
3,000	1,050	1,343	2,393	80%		
3,500	1,225	1,480	2,705	77%		
4,000	1,400	1,614	3,014	75%		
25 Years of Service:						
\$1,500	\$ 375	\$ 936	\$1,311	87%		
2,000	500	1,073	1,573	79%		
2,500	625	1,208	1,833	73%		
3,000	750	1,343	2,093	70%		
3,500	875	1,480	2,355	67%		
4,000	1,000	1,614	2,614	65%		
15 Years of Service:						
\$1,500	\$225	\$ 936	\$1,161	77%		
2,000	300	1,073	1,373	69%		
2,500	375	1,208	1,583	63%		
3,000	450	1,343	1,793	60%		
3,500	525	1,480	2,005	57%		
4,000	600	1,614	2,214	55%		

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

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2022 - it does not include any amounts which might be payable to an eligible spouse or children.



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

Final		Estimated	Estimated			
Average	LAGERS	Social	Monthly Total			
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% of FAS		
35 Years of Service:						
\$1,500	\$ 656	\$ 936	\$1,592	106%		
2,000	875	1,073	1,948	97%		
2,500	1,094	1,208	2,302	92%		
3,000	1,313	1,343	2,656	89%		
3,500	1,531	1,480	3,011	86%		
4,000	1,750	1,614	3,364	84%		
25 Years of Service:						
\$1,500	\$ 469	\$ 936	\$1,405	94%		
2,000	625	1,073	1,698	85%		
2,500	781	1,208	1,989	80%		
3,000	938	1,343	2,281	76%		
3,500	1,094	1,480	2,574	74%		
4,000	1,250	1,614	2,864	72%		
15 Years of Service:						
\$1,500	\$281	\$ 936	\$1,217	81%		
2,000	375	1,073	1,448	72%		
2,500	469	1,208	1,677	67%		
3,000	563	1,343	1,906	64%		
3,500	656	1,480	2,136	61%		
4,000	750	1,614	2,364	59%		

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

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2022 - it does not include any amounts which might be payable to an eligible spouse or children.



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

Final	Estimated		Estimated			
Average	LAGERS	Social	l Monthly Tota			
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% of FAS		
35 Years of Service:						
\$1,500	\$ 788	\$ 936	\$1,724	115%		
2,000	1,050	1,073	2,123	106%		
2,500	1,313	1,208	2,521	101%		
3,000	1,575	1,343	2,918	97%		
3,500	1,838	1,480	3,318	95%		
4,000	2,100	1,614	3,714	93%		
25 Years of Service:						
\$1,500	\$ 563	\$ 936	\$1,499	100%		
2,000	750	1,073	1,823	91%		
2,500	938	1,208	2,146	86%		
3,000	1,125	1,343	2,468	82%		
3,500	1,313	1,480	2,793	80%		
4,000	1,500	1,614	3,114	78%		
15 Years of Service:						
\$1,500	\$338	\$ 936	\$1,274	85%		
2,000	450	1,073	1,523	76%		
2,500	563	1,208	1,771	71%		
3,000	675	1,343	2,018	67%		
3,500	788	1,480	2,268	65%		
4,000	900	1,614	2,514	63%		

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

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2022 - it does not include any amounts which might be payable to an eligible spouse or children.



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

Final		Estimated	Estimated		
Average	LAGERS	Social	Monthly	y Total	
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% of FAS	
35 Years of Service:					
\$1,500	\$ 919	\$ 936	\$1,855	124%	
2,000	1,225	1,073	2,298	115%	
2,500	1,531	1,208	2,739	110%	
3,000	1,838	1,343	3,181	106%	
3,500	2,144	1,480	3,624	104%	
4,000	2,450	1,614	4,064	102%	
25 Years of Service:					
\$1,500	\$ 656	\$ 936	\$1,592	106%	
2,000	875	1,073	1,948	97%	
2,500	1,094	1,208	2,302	92%	
3,000	1,313	1,343	2,656	89%	
3,500	1,531	1,480	3,011	86%	
4,000	1,750	1,614	3,364	84%	
15 Years of Service:					
\$1,500	\$ 394	\$ 936	\$1,330	89%	
2,000	525	1,073	1,598	80%	
2,500	656	1,208	1,864	75%	
3,000	788	1,343	2,131	71%	
3,500	919	1,480	2,399	69%	
4,000	1,050	1,614	2,664	67%	

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

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2022 - it does not include any amounts which might be payable to an eligible spouse or children.



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

Final		Estimated	Estima	ated	
Average	LAGERS	Social	Monthly Total		
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% of FAS	
35 Years of Service:					
\$1,500	\$1,050	\$ 936	\$1,986	132%	
2,000	1,400	1,073	2,473	124%	
2,500	1,750	1,208	2,958	118%	
3,000	2,100	1,343	3,443	115%	
3,500	2,450	1,480	3,930	112%	
4,000	2,800	1,614	4,414	110%	
25 Years of Service:					
\$1,500	\$ 750	\$ 936	\$1,686	112%	
2,000	1,000	1,073	2,073	104%	
2,500	1,250	1,208	2,458	98%	
3,000	1,500	1,343	2,843	95%	
3,500	1,750	1,480	3,230	92%	
4,000	2,000	1,614	3,614	90%	
15 Years of Service:					
\$1,500	\$ 450	\$ 936	\$1,386	92%	
2,000	600	1,073	1,673	84%	
2,500	750	1,208	1,958	78%	
3,000	900	1,343	2,243	75%	
3,500	1,050	1,480	2,530	72%	
4,000	1,200	1,614	2,814	70%	

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

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2022 - it does not include any amounts which might be payable to an eligible spouse or children.



Illustrations of Age and Service Allowance Amounts

For Sample Combinations of Service & Salary

(LT-4(65) Benefit Program is Years of Credited Service times: 2.00% of FAS<sup>1</sup> to age 65) 1.00% of FAS<sup>1</sup> at age 65)

Final	LAG		Estimated		Estimated		ent
Average	BENE	FIT <sup>3</sup>	Social	Month	y Total	of F	AS
Salary (FAS) <sup>1</sup>	To 65	At 65	Security <sup>2</sup>	To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 525	\$ 936	\$1,050	\$1,461	70%	97%
2,000	1,400	700	1,073	1,400	1,773	70%	89%
2,500	1,750	875	1,208	1,750	2,083	70%	83%
3,000	2,100	1,050	1,343	2,100	2,393	70%	80%
3,500	2,450	1,225	1,480	2,450	2,705	70%	77%
4,000	2,800	1,400	1,614	2,800	3,014	70%	75%
25 Years of Service	e:						
\$1,500	\$ 750	\$ 375	\$ 936	\$ 750	\$1,311	50%	87%
2,000	1,000	500	1,073	1,000	1,573	50%	79%
2,500	1,250	625	1,208	1,250	1,833	50%	73%
3,000	1,500	750	1,343	1,500	2,093	50%	70%
3,500	1,750	875	1,480	1,750	2,355	50%	67%
4,000	2,000	1,000	1,614	2,000	2,614	50%	65%
15 Years of Service	e:						
\$1,500	\$ 450	\$225	\$ 936	\$ 450	\$1,161	30%	77%
2,000	600	300	1,073	600	1,373	30%	69%
2,500	750	375	1,208	750	1,583	30%	63%
3,000	900	450	1,343	900	1,793	30%	60%
3,500	1,050	525	1,480	1,050	2,005	30%	57%
4,000	1,200	600	1,614	1,200	2,214	30%	55%

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

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2022 - it does not include any amounts which might be payable to an eligible spouse or children.



Illustrations of Age and Service Allowance Amounts

For Sample Combinations of Service & Salary

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

1.25% of FAS <sup>1</sup> at age 65)

Final	Average BENEFIT <sup>3</sup> Socia		Estimated	Estimated Monthly Total		Percent of FAS	
Salary (FAS) <sup>1</sup>			Security <sup>2</sup>	To 65	At 65	To 65	At 65
35 Years of Service	2:						
\$1,500	\$1,050	\$ 656	\$ 936	\$1,050	\$1,592	70%	106%
2,000	1,400	875	1,073	1,400	1,948	70%	97%
2,500	1,750	1,094	1,208	1,750	2,302	70%	92%
3,000	2,100	1,313	1,343	2,100	2,656	70%	89%
3,500	2,450	1,531	1,480	2,450	3,011	70%	86%
4,000	2,800	1,750	1,614 2,800		3,364	70%	84%
25 Years of Service	9:						
\$1,500	\$ 750	\$ 469	\$ 936	\$ 750	\$1,405	50%	94%
2,000	1,000	625	1,073	1,000	1,698	50%	85%
2,500	1,250	781	1,208	1,250	1,989	50%	80%
3,000	1,500	938	1,343	1,500	2,281	50%	76%
3,500	1,750	1,094	1,480	1,750	2,574	50%	74%
4,000	2,000	1,250	1,614	2,000	2,864	50%	72%
15 Years of Service	2:						
\$1,500	\$ 450	\$281	\$ 936	\$ 450	\$1,217	30%	81%
2,000	600	375	1,073	600	1,448	30%	72%
2,500	750	469	1,208	750	1,677	30%	67%
3,000	900	563	1,343	900	1,906	30%	64%
3,500	1,050	656	1,480	1,050	2,136	30%	61%
4,000	1,200	750	1,614	1,200	2,364	30%	59%

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

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2022 - it does not include any amounts which might be payable to an eligible spouse or children.



Illustrations of Age and Service Allowance Amounts

For Sample Combinations of Service & Salary

(LT-8(65) Benefit Program is Years of Credited Service times: 2.00% of FAS<sup>1</sup> to age 65) 1.50% of FAS<sup>1</sup> at age 65)

Final	LAGERS BENEFIT <sup>3</sup>		Estimated Social	Estimated Monthly Total		Percent	
Average					-	of FAS	
Salary (FAS) <sup>1</sup>	To 65	At 65	Security <sup>2</sup>	To 65	At 65	To 65	At 65
35 Years of Service	2:						
\$1,500	\$1,050	\$ 788	\$ 936	\$1,050	\$1,724	70%	115%
2,000	1,400	1,050	1,073	1,400	2,123	70%	106%
2,500	1,750	1,313	1,208	1,750	2,521	70%	101%
3,000	2,100	1,575	1,343	2,100	2,918	70%	97%
3,500	2,450	1,838	1,480	2,450	3,318	70%	95%
4,000	2,800	2,100	1,614 2,800		3,714	70%	93%
25 Years of Service	2:						
\$1,500	\$ 750	\$ 563	\$ 936	\$ 750	\$1,499	50%	100%
2,000	1,000	750	1,073	1,000	1,823	50%	91%
2,500	1,250	938	1,208	1,250	2,146	50%	86%
3,000	1,500	1,125	1,343	1,343 1,500 2,468		50%	82%
3,500	1,750	1,313	1,480	1,750	2,793	50%	80%
4,000	2,000	1,500	1,614	2,000	3,114	50%	78%
15 Years of Service	2:						
\$1,500	\$ 450	\$338	\$ 936	\$ 450	\$1,274	30%	85%
2,000	600	450	1,073	600	1,523	30%	76%
2,500	750	563	1,208	750	1,771	30%	71%
3,000	900	675	1,343	900	2,018	30%	67%
3,500	1,050	788	1,480	1,050	2,268	30%	65%
4,000	1,200	900	1,614	1,200	2,514	30%	63%

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

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2022 - it does not include any amounts which might be payable to an eligible spouse or children.



Illustrations of Age and Service Allowance Amounts

For Sample Combinations of Service & Salary

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

1.75% of FAS <sup>1</sup> at age 65)

Final	LAGERS BENEFIT <sup>3</sup> To 65 At 65		Estimated	Estim	ated	Percent of FAS	
Average			Social	Month	y Total		
Salary (FAS) <sup>1</sup>			Security <sup>2</sup>	To 65	At 65	To 65	At 65
35 Years of Service	:						
\$1,500	\$1,050	\$ 919	\$ 936	\$1,050	\$1,855	70%	124%
2,000	1,400	1,225	1,073	1,400	2,298	70%	115%
2,500	1,750	1,531	1,208	1,750	2,739	70%	110%
3,000	2,100	1,838	1,343	2,100	3,181	70%	106%
3,500	2,450	2,144	1,480	2,450 3,624		70%	104%
4,000	2,800	2,450	1,614	2,800	4,064	70%	102%
25 Years of Service	:						
\$1,500	\$ 750	\$ 656	\$ 936	\$ 750	\$1,592	50%	106%
2,000	1,000	875	1,073	1,000	1,948	50%	97%
2,500	1,250	1,094	1,208	1,250	2,302	50%	92%
3,000	1,500	1,313	1,343	43 1,500		50%	89%
3,500	1,750	1,531	1,480	1,750	3,011	50%	86%
4,000	2,000	1,750	1,614	2,000	3,364	50%	84%
15 Years of Service	:						
\$1,500	\$ 450	\$ 394	\$ 936	\$ 450	\$1,330	30%	89%
2,000	600	525	1,073	600	1,598	30%	80%
2,500	750	656	1,208	750	1,864	30%	75%
3,000	900	788	1,343	900	2,131	30%	71%
3,500	1,050	919	1,480	1,050	2,399	30%	69%
4,000	1,200	1,050	1,614	1,200	2,664	30%	67%

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

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2022 - it does not include any amounts which might be payable to an eligible spouse or children.



**APPENDIX V** 

AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

# **Pettis County Fire District - Fire**

#### February 28, 2023

#### By Attained Age and Years of Service

	Years of Service to Valuation Date						Totals		
Attained									Valuation
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll
Under 20									
20-24									
25-29									
30-34									
35-39									
40-44	1							1	\$ 60,000
45-49									
50-54									
55-59	1							1	\$ 77,250
60-64									
65-69									
70 & Over									
Totals	2							2	\$ 137,250

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

Age: 48.5 years. Benefit Service: 1.2 years. Annual Pay: \$68,625.



**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;
- 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.





March 24, 2023 E-mail

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

Dear Mr. Betts:

Enclosed is the report of the February 28, 2023 Initial Actuarial Valuation of LAGERS benefits for the employees of

Pettis County Fire District

Sincerely,

Mite Drazilor

Mita D. Drazilov, ASA, FCA, MAAA

MDD:wp



March 24, 2023

Pettis County Fire District Sedalia, 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, 2023 Initial Valuation for the Pettis County Fire District dated March 24, 2023.

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, 2022. 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, M

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

		L-	1 Benefit Pro	gram	Ŀ	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2023	\$ 137,250	11.4%	\$15,647	\$ 16,996	14.0%	\$19,215	\$ 21,242	13.8%	\$18,941	\$ 20,534
2024	141,024	11.4	16,077	17,159	14.0	19,743	21,446	13.8	19,461	20,731
2025	144,902	11.4	16,519	17,305	14.0	20,286	21,629	13.8	19,996	20,908
2026	148,887	11.4	16,973	17,432	14.0	20,844	21,788	13.8	20,546	21,062
2027	152,981	11.4	17,440	17,539	14.0	21,417	21,921	13.8	21,111	21,191
2028	157,188	11.4	17,919	17,622	14.0	22,006	22,025	13.8	21,692	21,292
2029	161,511	11.4	18,412	17,680	14.0	22,612	22,097	13.8	22,289	21,362
2030	165,953	11.4	18,919	17,709	14.0	23,233	22,134	13.8	22,902	21,398
2031	170,517	11.4	19,439	17,707	14.0	23,872	22,132	13.8	23,531	21,396
2032	175,206	11.4	19,973	17,671	14.0	24,529	22,087	13.8	24,178	21,353

#### **Regular Retirement Eligibility**

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2023	\$ 137,250	15.7%	\$21,548	\$ 23,893	16.6%	\$22,784	\$ 25,500	17.8%	\$24,431	\$ 27,265	
2024	141,024	15.7	22,141	24,122	16.6	23,410	25,745	17.8	25,102	27,527	
2025	144,902	15.7	22,750	24,328	16.6	24,054	25,964	17.8	25,793	27,762	
2026	148,887	15.7	23,375	24,507	16.6	24,715	26,155	17.8	26,502	27,966	
2027	152,981	15.7	24,018	24,657	16.6	25,395	26,315	17.8	27,231	28,137	
2028	157,188	15.7	24,679	24,774	16.6	26,093	26,440	17.8	27,979	28,271	
2029	161,511	15.7	25,357	24,855	16.6	26,811	26,527	17.8	28,749	28,364	
2030	165,953	15.7	26,055	24,896	16.6	27,548	26,571	17.8	29,540	28,411	
2031	170,517	15.7	26,771	24,894	16.6	28,306	26,568	17.8	30,352	28,408	
2032	175,206	15.7	27,507	24,843	16.6	29,084	26,514	17.8	31,187	28,350	

		L-:	12 Benefit Pro	<u> </u>		rogram L-6 Benefi		6 Benefit Pro	gram	
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial Accrued Liability
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	
2023	\$ 137,250	19.2%	\$26,352	\$ 29,753	19.7%	\$27 <i>,</i> 038	\$ 30,623	21.7%	\$29,783	\$ 33,999
2024	141,024	19.2	27,077	30,038	19.7	27,782	30,917	21.7	30,602	34,325
2025	144,902	19.2	27,821	30,294	19.7	28,546	31,180	21.7	31,444	34,617
2026	148,887	19.2	28,586	30,517	19.7	29,331	31,410	21.7	32,308	34,872
2027	152,981	19.2	29,372	30,704	19.7	30,137	31,602	21.7	33,197	35,085
2028	157,188	19.2	30,180	30,850	19.7	30,966	31,752	21.7	34,110	35,252
2029	161,511	19.2	31,010	30,951	19.7	31,818	31,856	21.7	35,048	35,368
2030	165,953	19.2	31,863	31,003	19.7	32,693	31,909	21.7	36,012	35,427
2031	170,517	19.2	32,739	31,000	19.7	33,592	31,906	21.7	37,002	35,424
2032	175,206	19.2	33,640	30,937	19.7	34,516	31,841	21.7	38,020	35,352

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

(Member contributions are additional)

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	9.5%	\$13,039	\$ 16,996	12.1%	\$16,607	\$ 21,242	11.9%	\$16,333	\$ 20,534
2024	141,024	9.5	13,397	17,159	12.1	17,064	21,446	11.9	16,782	20,731
2025	144,902	9.5	13,766	17,305	12.1	17,533	21,629	11.9	17,243	20,908
2026	148,887	9.5	14,144	17,432	12.1	18,015	21,788	11.9	17,718	21,062
2027	152,981	9.5	14,533	17,539	12.1	18,511	21,921	11.9	18,205	21,191
2028	157,188	9.5	14,933	17,622	12.1	19,020	22,025	11.9	18,705	21,292
2029	161,511	9.5	15,344	17,680	12.1	19,543	22,097	11.9	19,220	21,362
2030	165,953	9.5	15,766	17,709	12.1	20,080	22,134	11.9	19,748	21,398
2031	170,517	9.5	16,199	17,707	12.1	20,633	22,132	11.9	20,292	21,396
2032	175,206	9.5	16,645	17,671	12.1	21,200	22,087	11.9	20,850	21,353

#### **Regular Retirement Eligibility**

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2023	\$ 137,250	13.8%	\$18,941	\$ 23,893	14.7%	\$20,176	\$ 25,500	15.9%	\$21,823	\$ 27,265	
2024	141,024	13.8	19,461	24,122	14.7	20,731	25,745	15.9	22,423	27,527	
2025	144,902	13.8	19,996	24,328	14.7	21,301	25,964	15.9	23,039	27,762	
2026	148,887	13.8	20,546	24,507	14.7	21,886	26,155	15.9	23,673	27,966	
2027	152,981	13.8	21,111	24,657	14.7	22,488	26,315	15.9	24,324	28,137	
2028	157,188	13.8	21,692	24,774	14.7	23,107	26,440	15.9	24,993	28,271	
2029	161,511	13.8	22,289	24,855	14.7	23,742	26,527	15.9	25,680	28,364	
2030	165,953	13.8	22,902	24,896	14.7	24,395	26,571	15.9	26,387	28,411	
2031	170,517	13.8	23,531	24,894	14.7	25,066	26,568	15.9	27,112	28,408	
2032	175,206	13.8	24,178	24,843	14.7	25,755	26,514	15.9	27,858	28,350	

		L-:	L2 Benefit Pro	ogram	LT-14	1(65) Benefit I	Program	Ŀ	6 Benefit Pro	gram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	17.3%	\$23,744	\$ 29,753	17.8%	\$24,431	\$ 30,623	19.8%	\$27,176	\$ 33,999
2024	141,024	17.3	24,397	30,038	17.8	25,102	30,917	19.8	27,923	34,325
2025	144,902	17.3	25,068	30,294	17.8	25,793	31,180	19.8	28,691	34,617
2026	148,887	17.3	25,757	30,517	17.8	26,502	31,410	19.8	29,480	34,872
2027	152,981	17.3	26,466	30,704	17.8	27,231	31,602	19.8	30,290	35,085
2028	157,188	17.3	27,194	30,850	17.8	27,979	31,752	19.8	31,123	35,252
2029	161,511	17.3	27,941	30,951	17.8	28,749	31,856	19.8	31,979	35,368
2030	165,953	17.3	28,710	31,003	17.8	29,540	31,909	19.8	32,859	35,427
2031	170,517	17.3	29,499	31,000	17.8	30,352	31,906	19.8	33,762	35,424
2032	175,206	17.3	30,311	30,937	17.8	31,187	31,841	19.8	34,691	35,352

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

(Member contributions are additional)

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	am LT-4(65) Benefi		rogram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		Employer	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	7.6%	\$10,431	\$ 16,996	10.2%	\$14,000	\$ 21,242	10.0%	\$13,725	\$ 20,534
2024	141,024	7.6	10,718	17,159	10.2	14,384	21,446	10.0	14,102	20,731
2025	144,902	7.6	11,013	17,305	10.2	14,780	21,629	10.0	14,490	20,908
2026	148,887	7.6	11,315	17,432	10.2	15,186	21,788	10.0	14,889	21,062
2027	152,981	7.6	11,627	17,539	10.2	15,604	21,921	10.0	15,298	21,191
2028	157,188	7.6	11,946	17,622	10.2	16,033	22,025	10.0	15,719	21,292
2029	161,511	7.6	12,275	17,680	10.2	16,474	22,097	10.0	16,151	21,362
2030	165,953	7.6	12,612	17,709	10.2	16,927	22,134	10.0	16,595	21,398
2031	170,517	7.6	12,959	17,707	10.2	17,393	22,132	10.0	17,052	21,396
2032	175,206	7.6	13,316	17,671	10.2	17,871	22,087	10.0	17,521	21,353

#### **Regular Retirement Eligibility**

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8(65) Benefit Program		
		Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded	Estimated	d Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2023	\$ 137,250	11.9%	\$16,333	\$ 23,893	12.8%	\$17,568	\$ 25,500	14.0%	\$19,215	\$ 27,265
2024	141,024	11.9	16,782	24,122	12.8	18,051	25,745	14.0	19,743	27,527
2025	144,902	11.9	17,243	24,328	12.8	18,547	25,964	14.0	20,286	27,762
2026	148,887	11.9	17,718	24,507	12.8	19,058	26,155	14.0	20,844	27,966
2027	152,981	11.9	18,205	24,657	12.8	19,582	26,315	14.0	21,417	28,137
2028	157,188	11.9	18,705	24,774	12.8	20,120	26,440	14.0	22,006	28,271
2029	161,511	11.9	19,220	24,855	12.8	20,673	26,527	14.0	22,612	28,364
2030	165,953	11.9	19,748	24,896	12.8	21,242	26,571	14.0	23,233	28,411
2031	170,517	11.9	20,292	24,894	12.8	21,826	26,568	14.0	23,872	28,408
2032	175,206	11.9	20,850	24,843	12.8	22,426	26,514	14.0	24,529	28,350

		L-:	L2 Benefit Pro	ogram LT-14(65) Benefit Pro		rogram L-6 Benefit F		6 Benefit Pro	gram	
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	15.4%	\$21,137	\$ 29,753	15.9%	\$21,823	\$ 30,623	17.9%	\$24,568	\$ 33,999
2024	141,024	15.4	21,718	30,038	15.9	22,423	30,917	17.9	25,243	34,325
2025	144,902	15.4	22,315	30,294	15.9	23,039	31,180	17.9	25,937	34,617
2026	148,887	15.4	22,929	30,517	15.9	23,673	31,410	17.9	26,651	34,872
2027	152,981	15.4	23,559	30,704	15.9	24,324	31,602	17.9	27,384	35,085
2028	157,188	15.4	24,207	30,850	15.9	24,993	31,752	17.9	28,137	35,252
2029	161,511	15.4	24,873	30,951	15.9	25,680	31,856	17.9	28,910	35,368
2030	165,953	15.4	25,557	31,003	15.9	26,387	31,909	17.9	29,706	35,427
2031	170,517	15.4	26,260	31,000	15.9	27,112	31,906	17.9	30,523	35,424
2032	175,206	15.4	26,982	30,937	15.9	27,858	31,841	17.9	31,362	35,352

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

(Member contributions are additional)

		L-	1 Benefit Pro	gram	L-3 Benefit Program			LT-4(65) Benefit Program		
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	5.7%	\$7 <i>,</i> 823	\$ 16,996	8.3%	\$11,392	\$ 21,242	8.1%	\$11,117	\$ 20,534
2024	141,024	5.7	8,038	17,159	8.3	11,705	21,446	8.1	11,423	20,731
2025	144,902	5.7	8,259	17,305	8.3	12,027	21,629	8.1	11,737	20,908
2026	148,887	5.7	8,487	17,432	8.3	12,358	21,788	8.1	12,060	21,062
2027	152,981	5.7	8,720	17,539	8.3	12,697	21,921	8.1	12,391	21,191
2028	157,188	5.7	8,960	17,622	8.3	13,047	22,025	8.1	12,732	21,292
2029	161,511	5.7	9,206	17,680	8.3	13,405	22,097	8.1	13,082	21,362
2030	165,953	5.7	9,459	17,709	8.3	13,774	22,134	8.1	13,442	21,398
2031	170,517	5.7	9,719	17,707	8.3	14,153	22,132	8.1	13,812	21,396
2032	175,206	5.7	9,987	17,671	8.3	14,542	22,087	8.1	14,192	21,353

#### **Regular Retirement Eligibility**

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2023	\$ 137,250	10.0%	\$13,725	\$ 23,893	10.9%	\$14,960	\$ 25,500	12.1%	\$16,607	\$ 27,265
2024	141,024	10.0	14,102	24,122	10.9	15,372	25,745	12.1	17,064	27,527
2025	144,902	10.0	14,490	24,328	10.9	15,794	25,964	12.1	17,533	27,762
2026	148,887	10.0	14,889	24,507	10.9	16,229	26,155	12.1	18,015	27,966
2027	152,981	10.0	15,298	24,657	10.9	16,675	26,315	12.1	18,511	28,137
2028	157,188	10.0	15,719	24,774	10.9	17,133	26,440	12.1	19,020	28,271
2029	161,511	10.0	16,151	24,855	10.9	17,605	26,527	12.1	19,543	28,364
2030	165,953	10.0	16,595	24,896	10.9	18,089	26,571	12.1	20,080	28,411
2031	170,517	10.0	17,052	24,894	10.9	18,586	26,568	12.1	20,633	28,408
2032	175,206	10.0	17,521	24,843	10.9	19,097	26,514	12.1	21,200	28,350

		L-3	12 Benefit Pro	ogram	LT-1	4(65) Benefit I	Program	<u> </u>		gram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	13.5%	\$18,529	\$ 29,753	14.0%	\$19,215	\$ 30,623	16.0%	\$21,960	\$ 33,999
2024	141,024	13.5	19,038	30,038	14.0	19,743	30,917	16.0	22,564	34,325
2025	144,902	13.5	19,562	30,294	14.0	20,286	31,180	16.0	23,184	34,617
2026	148,887	13.5	20,100	30,517	14.0	20,844	31,410	16.0	23,822	34,872
2027	152,981	13.5	20,652	30,704	14.0	21,417	31,602	16.0	24,477	35,085
2028	157,188	13.5	21,220	30,850	14.0	22,006	31,752	16.0	25,150	35,252
2029	161,511	13.5	21,804	30,951	14.0	22,612	31,856	16.0	25,842	35,368
2030	165,953	13.5	22,404	31,003	14.0	23,233	31,909	16.0	26,552	35,427
2031	170,517	13.5	23,020	31,000	14.0	23,872	31,906	16.0	27,283	35,424
2032	175,206	13.5	23,653	30,937	14.0	24,529	31,841	16.0	28,033	35,352

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

		L-	L-1 Benefit Program			3 Benefit Pro	gram	LT-4(65) Benefit Program			
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2023	\$ 137,250	11.7%	\$16,058	\$ 17,493	14.3%	\$19,627	\$ 21,853	14.2%	\$19,490	\$ 21,126	
2024	141,024	11.7	16,500	17,661	14.3	20,166	22,063	14.2	20,025	21,329	
2025	144,902	11.7	16,954	17,811	14.3	20,721	22,251	14.2	20,576	21,511	
2026	148,887	11.7	17,420	17,942	14.3	21,291	22,415	14.2	21,142	21,669	
2027	152,981	11.7	17,899	18,052	14.3	21,876	22,552	14.2	21,723	21,801	
2028	157,188	11.7	18,391	18,138	14.3	22,478	22,659	14.2	22,321	21,905	
2029	161,511	11.7	18,897	18,197	14.3	23,096	22,733	14.2	22,935	21,977	
2030	165,953	11.7	19,417	18,227	14.3	23,731	22,771	14.2	23,565	22,014	
2031	170,517	11.7	19,950	18,225	14.3	24,384	22,769	14.2	24,213	22,012	
2032	175,206	11.7	20,499	18,188	14.3	25,054	22,723	14.2	24,879	21,967	

#### **Regular Retirement Eligibility**

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2023	\$ 137,250	16.1%	\$22,097	\$ 24,587	17.0%	\$23 <i>,</i> 333	\$ 26,234	18.2%	\$24 <i>,</i> 980	\$ 28,049
2024	141,024	16.1	22,705	24,823	17.0	23,974	26,486	18.2	25,666	28,318
2025	144,902	16.1	23,329	25,035	17.0	24,633	26,712	18.2	26,372	28,559
2026	148,887	16.1	23,971	25,219	17.0	25,311	26,909	18.2	27,097	28,769
2027	152,981	16.1	24,630	25,373	17.0	26,007	27,073	18.2	27,843	28,945
2028	157,188	16.1	25,307	25,494	17.0	26,722	27,202	18.2	28,608	29,083
2029	161,511	16.1	26,003	25,578	17.0	27,457	27,291	18.2	29,395	29,178
2030	165,953	16.1	26,718	25,621	17.0	28,212	27,336	18.2	30,203	29,227
2031	170,517	16.1	27,453	25,619	17.0	28 <i>,</i> 988	27,333	18.2	31,034	29,224
2032	175,206	16.1	28,208	25,567	17.0	29,785	27,277	18.2	31,887	29,165

		L-3	12 Benefit Pro	ogram	LT-14	1(65) Benefit I	Program	Ŀ	6 Benefit Pro	gram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	19.7%	\$27,038	\$ 30,597	20.2%	\$27,725	\$ 31,500	22.3%	\$30,607	\$ 34,959
2024	141,024	19.7	27,782	30,891	20.2	28,487	31,802	22.3	31,448	35,294
2025	144,902	19.7	28,546	31,154	20.2	29,270	32,073	22.3	32,313	35,595
2026	148,887	19.7	29,331	31,383	20.2	30,075	32,309	22.3	33,202	35,857
2027	152,981	19.7	30,137	31,575	20.2	30,902	32,506	22.3	34,115	36,076
2028	157,188	19.7	30,966	31,725	20.2	31,752	32,661	22.3	35,053	36,248
2029	161,511	19.7	31,818	31,829	20.2	32,625	32,768	22.3	36,017	36,367
2030	165,953	19.7	32,693	31,882	20.2	33,523	32,823	22.3	37,008	36,428
2031	170,517	19.7	33,592	31,879	20.2	34,444	32,820	22.3	38,025	36,424
2032	175,206	19.7	34,516	31,814	20.2	35,392	32,753	22.3	39,071	36,350

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

(Member contributions are additional)

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	9.8%	\$13,451	\$ 17,493	12.4%	\$17,019	\$ 21,853	12.3%	\$16,882	\$ 21,126
2024	141,024	9.8	13,820	17,661	12.4	17,487	22,063	12.3	17,346	21,329
2025	144,902	9.8	14,200	17,811	12.4	17,968	22,251	12.3	17,823	21,511
2026	148,887	9.8	14,591	17,942	12.4	18,462	22,415	12.3	18,313	21,669
2027	152,981	9.8	14,992	18,052	12.4	18,970	22,552	12.3	18,817	21,801
2028	157,188	9.8	15,404	18,138	12.4	19,491	22,659	12.3	19,334	21,905
2029	161,511	9.8	15,828	18,197	12.4	20,027	22,733	12.3	19,866	21,977
2030	165,953	9.8	16,263	18,227	12.4	20,578	22,771	12.3	20,412	22,014
2031	170,517	9.8	16,711	18,225	12.4	21,144	22,769	12.3	20,974	22,012
2032	175,206	9.8	17,170	18,188	12.4	21,726	22,723	12.3	21,550	21,967

#### **Regular Retirement Eligibility**

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded
	Estimated	Contr	bution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2023	\$ 137,250	14.2%	\$19,490	\$ 24,587	15.1%	\$20,725	\$ 26,234	16.3%	\$22,372	\$ 28,049
2024	141,024	14.2	20,025	24,823	15.1	21,295	26,486	16.3	22,987	28,318
2025	144,902	14.2	20,576	25,035	15.1	21,880	26,712	16.3	23,619	28,559
2026	148,887	14.2	21,142	25,219	15.1	22,482	26,909	16.3	24,269	28,769
2027	152,981	14.2	21,723	25,373	15.1	23,100	27,073	16.3	24,936	28,945
2028	157,188	14.2	22,321	25,494	15.1	23,735	27,202	16.3	25,622	29,083
2029	161,511	14.2	22,935	25,578	15.1	24,388	27,291	16.3	26,326	29,178
2030	165 <i>,</i> 953	14.2	23,565	25,621	15.1	25,059	27,336	16.3	27,050	29,227
2031	170,517	14.2	24,213	25,619	15.1	25,748	27,333	16.3	27,794	29,224
2032	175,206	14.2	24,879	25,567	15.1	26,456	27,277	16.3	28,559	29,165

		L-:	L2 Benefit Pro	ogram	LT-14	4(65) Benefit I	Program	Ŀ	6 Benefit Pro	gram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	17.8%	\$24,431	\$ 30,597	18.3%	\$25,117	\$ 31,500	20.4%	\$27,999	\$ 34,959
2024	141,024	17.8	25,102	30,891	18.3	25,807	31,802	20.4	28,769	35,294
2025	144,902	17.8	25,793	31,154	18.3	26,517	32,073	20.4	29,560	35,595
2026	148,887	17.8	26,502	31,383	18.3	27,246	32,309	20.4	30,373	35,857
2027	152,981	17.8	27,231	31,575	18.3	27,996	32,506	20.4	31,208	36,076
2028	157,188	17.8	27,979	31,725	18.3	28,765	32,661	20.4	32,066	36,248
2029	161,511	17.8	28,749	31,829	18.3	29,557	32,768	20.4	32,948	36,367
2030	165,953	17.8	29,540	31,882	18.3	30,369	32,823	20.4	33,854	36,428
2031	170,517	17.8	30,352	31,879	18.3	31,205	32,820	20.4	34,785	36,424
2032	175,206	17.8	31,187	31,814	18.3	32,063	32,753	20.4	35,742	36,350

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

(Member contributions are additional)

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	7.9%	\$10,843	\$ 17,493	10.5%	\$14,411	\$ 21,853	10.4%	\$14,274	\$ 21,126
2024	141,024	7.9	11,141	17,661	10.5	14,808	22,063	10.4	14,666	21,329
2025	144,902	7.9	11,447	17,811	10.5	15,215	22,251	10.4	15,070	21,511
2026	148,887	7.9	11,762	17,942	10.5	15,633	22,415	10.4	15,484	21,669
2027	152,981	7.9	12,085	18,052	10.5	16,063	22,552	10.4	15,910	21,801
2028	157,188	7.9	12,418	18,138	10.5	16,505	22,659	10.4	16,348	21,905
2029	161,511	7.9	12,759	18,197	10.5	16,959	22,733	10.4	16,797	21,977
2030	165,953	7.9	13,110	18,227	10.5	17,425	22,771	10.4	17,259	22,014
2031	170,517	7.9	13,471	18,225	10.5	17,904	22,769	10.4	17,734	22,012
2032	175,206	7.9	13,841	18,188	10.5	18,397	22,723	10.4	18,221	21,967

#### **Regular Retirement Eligibility**

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded	Estimated	d Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2023	\$ 137,250	12.3%	\$16,882	\$ 24,587	13.2%	\$18,117	\$ 26,234	14.4%	\$19,764	\$ 28,049
2024	141,024	12.3	17,346	24,823	13.2	18,615	26,486	14.4	20,307	28,318
2025	144,902	12.3	17,823	25,035	13.2	19,127	26,712	14.4	20,866	28,559
2026	148,887	12.3	18,313	25,219	13.2	19,653	26,909	14.4	21,440	28,769
2027	152,981	12.3	18,817	25,373	13.2	20,193	27,073	14.4	22,029	28,945
2028	157,188	12.3	19,334	25,494	13.2	20,749	27,202	14.4	22,635	29,083
2029	161,511	12.3	19,866	25,578	13.2	21,319	27,291	14.4	23,258	29,178
2030	165,953	12.3	20,412	25,621	13.2	21,906	27,336	14.4	23,897	29,227
2031	170,517	12.3	20,974	25,619	13.2	22,508	27,333	14.4	24,554	29,224
2032	175,206	12.3	21,550	25,567	13.2	23,127	27,277	14.4	25,230	29,165

		L-:	L2 Benefit Pro	ogram	LT-14	1(65) Benefit I	Program	L	6 Benefit Pro	gram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	15.9%	\$21,823	\$ 30,597	16.4%	\$22,509	\$ 31,500	18.5%	\$25,391	\$ 34,959
2024	141,024	15.9	22,423	30,891	16.4	23,128	31,802	18.5	26,089	35,294
2025	144,902	15.9	23,039	31,154	16.4	23,764	32,073	18.5	26,807	35,595
2026	148,887	15.9	23,673	31,383	16.4	24,417	32,309	18.5	27,544	35,857
2027	152,981	15.9	24,324	31,575	16.4	25,089	32,506	18.5	28,301	36,076
2028	157,188	15.9	24,993	31,725	16.4	25,779	32,661	18.5	29,080	36,248
2029	161,511	15.9	25,680	31,829	16.4	26,488	32,768	18.5	29,880	36,367
2030	165,953	15.9	26,387	31,882	16.4	27,216	32,823	18.5	30,701	36,428
2031	170,517	15.9	27,112	31,879	16.4	27,965	32,820	18.5	31,546	36,424
2032	175,206	15.9	27,858	31,814	16.4	28,734	32,753	18.5	32,413	36,350

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

(Member contributions are additional)

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	6.0%	\$8,235	\$ 17,493	8.6%	\$11,804	\$ 21,853	8.5%	\$11,666	\$ 21,126
2024	141,024	6.0	8,461	17,661	8.6	12,128	22,063	8.5	11,987	21,329
2025	144,902	6.0	8,694	17,811	8.6	12,462	22,251	8.5	12,317	21,511
2026	148,887	6.0	8,933	17,942	8.6	12,804	22,415	8.5	12,655	21,669
2027	152,981	6.0	9,179	18,052	8.6	13,156	22,552	8.5	13,003	21,801
2028	157,188	6.0	9,431	18,138	8.6	13,518	22,659	8.5	13,361	21,905
2029	161,511	6.0	9,691	18,197	8.6	13,890	22,733	8.5	13,728	21,977
2030	165,953	6.0	9,957	18,227	8.6	14,272	22,771	8.5	14,106	22,014
2031	170,517	6.0	10,231	18,225	8.6	14,664	22,769	8.5	14,494	22,012
2032	175,206	6.0	10,512	18,188	8.6	15,068	22,723	8.5	14,893	21,967

#### **Regular Retirement Eligibility**

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8(65) Benefit		rogram
		Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded	Estimated	d Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2023	\$ 137,250	10.4%	\$14,274	\$ 24,587	11.3%	\$15,509	\$ 26,234	12.5%	\$17,156	\$ 28,049
2024	141,024	10.4	14,666	24,823	11.3	15,936	26,486	12.5	17,628	28,318
2025	144,902	10.4	15,070	25,035	11.3	16,374	26,712	12.5	18,113	28,559
2026	148,887	10.4	15,484	25,219	11.3	16,824	26,909	12.5	18,611	28,769
2027	152,981	10.4	15,910	25,373	11.3	17,287	27,073	12.5	19,123	28,945
2028	157,188	10.4	16,348	25,494	11.3	17,762	27,202	12.5	19,649	29,083
2029	161,511	10.4	16,797	25,578	11.3	18,251	27,291	12.5	20,189	29,178
2030	165,953	10.4	17,259	25,621	11.3	18,753	27,336	12.5	20,744	29,227
2031	170,517	10.4	17,734	25,619	11.3	19,268	27,333	12.5	21,315	29,224
2032	175,206	10.4	18,221	25,567	11.3	19,798	27,277	12.5	21,901	29,165

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L	6 Benefit Pro	gram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	14.0%	\$19,215	\$ 30,597	14.5%	\$19,901	\$ 31,500	16.6%	\$22,784	\$ 34,959
2024	141,024	14.0	19,743	30,891	14.5	20,448	31,802	16.6	23,410	35,294
2025	144,902	14.0	20,286	31,154	14.5	21,011	32,073	16.6	24,054	35,595
2026	148,887	14.0	20,844	31,383	14.5	21,589	32,309	16.6	24,715	35,857
2027	152,981	14.0	21,417	31,575	14.5	22,182	32,506	16.6	25,395	36,076
2028	157,188	14.0	22,006	31,725	14.5	22,792	32,661	16.6	26,093	36,248
2029	161,511	14.0	22,612	31,829	14.5	23,419	32,768	16.6	26,811	36,367
2030	165,953	14.0	23,233	31,882	14.5	24,063	32,823	16.6	27,548	36,428
2031	170,517	14.0	23,872	31,879	14.5	24,725	32,820	16.6	28,306	36,424
2032	175,206	14.0	24,529	31,814	14.5	25,405	32,753	16.6	29,084	36,350

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4(65) Benefit Program			
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2023	\$ 137,250	11.4%	\$15,647	\$ 16,996	14.0%	\$19,215	\$ 21,242	13.8%	\$18,941	\$ 20,534	
2024	141,024	11.4	16,077	17,159	14.0	19,743	21,446	13.8	19,461	20,731	
2025	144,902	11.4	16,519	17,305	14.0	20,286	21,629	13.8	19,996	20,908	
2026	148,887	11.4	16,973	17,432	14.0	20,844	21,788	13.8	20,546	21,062	
2027	152,981	11.4	17,440	17,539	14.0	21,417	21,921	13.8	21,111	21,191	
2028	157,188	11.4	17,919	17,622	14.0	22,006	22,025	13.8	21,692	21,292	
2029	161,511	11.4	18,412	17,680	14.0	22,612	22,097	13.8	22,289	21,362	
2030	165,953	11.4	18,919	17,709	14.0	23,233	22,134	13.8	22,902	21,398	
2031	170,517	11.4	19,439	17,707	14.0	23,872	22,132	13.8	23,531	21,396	
2032	175,206	11.4	19,973	17,671	14.0	24,529	22,087	13.8	24,178	21,353	

#### Rule of 80 Retirement Eligibility

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8(65) Benefit Program			
		Estimated	d Employer	Unfunded	Estimated	d Employer	Unfunded	Estimated	d Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2023	\$ 137,250	15.7%	\$21,548	\$ 23,893	16.6%	\$22,784	\$ 25,500	17.8%	\$24,431	\$ 27,265	
2024	141,024	15.7	22,141	24,122	16.6	23,410	25,745	17.8	25,102	27,527	
2025	144,902	15.7	22,750	24,328	16.6	24,054	25,964	17.8	25,793	27,762	
2026	148,887	15.7	23,375	24,507	16.6	24,715	26,155	17.8	26,502	27,966	
2027	152,981	15.7	24,018	24,657	16.6	25 <i>,</i> 395	26,315	17.8	27,231	28,137	
2028	157,188	15.7	24,679	24,774	16.6	26,093	26,440	17.8	27,979	28,271	
2029	161,511	15.7	25,357	24,855	16.6	26,811	26,527	17.8	28,749	28,364	
2030	165,953	15.7	26,055	24,896	16.6	27,548	26,571	17.8	29,540	28,411	
2031	170,517	15.7	26,771	24,894	16.6	28,306	26,568	17.8	30,352	28,408	
2032	175,206	15.7	27,507	24,843	16.6	29,084	26,514	17.8	31,187	28,350	

		L-3	12 Benefit Pro	ogram	LT-14	l(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	19.2%	\$26,352	\$ 29,753	19.7%	\$27 <i>,</i> 038	\$ 30,623	21.7%	\$29,783	\$ 33,999
2024	141,024	19.2	27,077	30,038	19.7	27,782	30,917	21.7	30,602	34,325
2025	144,902	19.2	27,821	30,294	19.7	28,546	31,180	21.7	31,444	34,617
2026	148,887	19.2	28,586	30,517	19.7	29,331	31,410	21.7	32,308	34,872
2027	152,981	19.2	29,372	30,704	19.7	30,137	31,602	21.7	33,197	35,085
2028	157,188	19.2	30,180	30,850	19.7	30,966	31,752	21.7	34,110	35,252
2029	161,511	19.2	31,010	30,951	19.7	31,818	31,856	21.7	35,048	35,368
2030	165,953	19.2	31,863	31,003	19.7	32,693	31,909	21.7	36,012	35,427
2031	170,517	19.2	32,739	31,000	19.7	33,592	31,906	21.7	37,002	35,424
2032	175,206	19.2	33,640	30,937	19.7	34,516	31,841	21.7	38,020	35,352

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

(Member contributions are additional)

		L-	1 Benefit Pro	gram	L-3 Benefit Prog		gram	LT-4(65) Benefit		rogram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	9.5%	\$13,039	\$ 16,996	12.1%	\$16,607	\$ 21,242	11.9%	\$16,333	\$ 20,534
2024	141,024	9.5	13,397	17,159	12.1	17,064	21,446	11.9	16,782	20,731
2025	144,902	9.5	13,766	17,305	12.1	17,533	21,629	11.9	17,243	20,908
2026	148,887	9.5	14,144	17,432	12.1	18,015	21,788	11.9	17,718	21,062
2027	152,981	9.5	14,533	17,539	12.1	18,511	21,921	11.9	18,205	21,191
2028	157,188	9.5	14,933	17,622	12.1	19,020	22,025	11.9	18,705	21,292
2029	161,511	9.5	15,344	17,680	12.1	19,543	22,097	11.9	19,220	21,362
2030	165,953	9.5	15,766	17,709	12.1	20,080	22,134	11.9	19,748	21,398
2031	170,517	9.5	16,199	17,707	12.1	20,633	22,132	11.9	20,292	21,396
2032	175,206	9.5	16,645	17,671	12.1	21,200	22,087	11.9	20,850	21,353

#### Rule of 80 Retirement Eligibility

		LT-5	(65) Benefit P	rogram	L	7 Benefit Pro	gram	LT-8(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2023	\$ 137,250	13.8%	\$18,941	\$ 23,893	14.7%	\$20,176	\$ 25,500	15.9%	\$21,823	\$ 27,265	
2024	141,024	13.8	19,461	24,122	14.7	20,731	25,745	15.9	22,423	27,527	
2025	144,902	13.8	19,996	24,328	14.7	21,301	25,964	15.9	23,039	27,762	
2026	148,887	13.8	20,546	24,507	14.7	21,886	26,155	15.9	23,673	27,966	
2027	152,981	13.8	21,111	24,657	14.7	22,488	26,315	15.9	24,324	28,137	
2028	157,188	13.8	21,692	24,774	14.7	23,107	26,440	15.9	24,993	28,271	
2029	161,511	13.8	22,289	24,855	14.7	23,742	26,527	15.9	25,680	28,364	
2030	165,953	13.8	22,902	24,896	14.7	24,395	26,571	15.9	26,387	28,411	
2031	170,517	13.8	23,531	24,894	14.7	25,066	26,568	15.9	27,112	28,408	
2032	175,206	13.8	24,178	24,843	14.7	25,755	26,514	15.9	27,858	28,350	

		L-:	12 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L	6 Benefit Pro	gram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	17.3%	\$23,744	\$ 29,753	17.8%	\$24,431	\$ 30,623	19.8%	\$27,176	\$ 33,999
2024	141,024	17.3	24,397	30,038	17.8	25,102	30,917	19.8	27,923	34,325
2025	144,902	17.3	25,068	30,294	17.8	25,793	31,180	19.8	28,691	34,617
2026	148,887	17.3	25,757	30,517	17.8	26,502	31,410	19.8	29,480	34,872
2027	152,981	17.3	26,466	30,704	17.8	27,231	31,602	19.8	30,290	35,085
2028	157,188	17.3	27,194	30,850	17.8	27,979	31,752	19.8	31,123	35,252
2029	161,511	17.3	27,941	30,951	17.8	28,749	31,856	19.8	31,979	35,368
2030	165,953	17.3	28,710	31,003	17.8	29,540	31,909	19.8	32,859	35,427
2031	170,517	17.3	29,499	31,000	17.8	30,352	31,906	19.8	33,762	35,424
2032	175,206	17.3	30,311	30,937	17.8	31,187	31,841	19.8	34,691	35,352

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

(Member contributions are additional)

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	7.6%	\$10,431	\$ 16,996	10.2%	\$14,000	\$ 21,242	10.0%	\$13,725	\$ 20,534
2024	141,024	7.6	10,718	17,159	10.2	14,384	21,446	10.0	14,102	20,731
2025	144,902	7.6	11,013	17,305	10.2	14,780	21,629	10.0	14,490	20,908
2026	148,887	7.6	11,315	17,432	10.2	15,186	21,788	10.0	14,889	21,062
2027	152,981	7.6	11,627	17,539	10.2	15,604	21,921	10.0	15,298	21,191
2028	157,188	7.6	11,946	17,622	10.2	16,033	22,025	10.0	15,719	21,292
2029	161,511	7.6	12,275	17,680	10.2	16,474	22,097	10.0	16,151	21,362
2030	165,953	7.6	12,612	17,709	10.2	16,927	22,134	10.0	16,595	21,398
2031	170,517	7.6	12,959	17,707	10.2	17,393	22,132	10.0	17,052	21,396
2032	175,206	7.6	13,316	17,671	10.2	17,871	22,087	10.0	17,521	21,353

#### Rule of 80 Retirement Eligibility

		LT-5	(65) Benefit P	rogram	L	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2023	\$ 137,250	11.9%	\$16,333	\$ 23 <i>,</i> 893	12.8%	\$17,568	\$ 25,500	14.0%	\$19,215	\$ 27,265
2024	141,024	11.9	16,782	24,122	12.8	18,051	25,745	14.0	19,743	27,527
2025	144,902	11.9	17,243	24,328	12.8	18,547	25,964	14.0	20,286	27,762
2026	148,887	11.9	17,718	24,507	12.8	19,058	26,155	14.0	20,844	27,966
2027	152,981	11.9	18,205	24,657	12.8	19,582	26,315	14.0	21,417	28,137
2028	157,188	11.9	18,705	24,774	12.8	20,120	26,440	14.0	22,006	28,271
2029	161,511	11.9	19,220	24,855	12.8	20,673	26,527	14.0	22,612	28,364
2030	165,953	11.9	19,748	24,896	12.8	21,242	26,571	14.0	23,233	28,411
2031	170,517	11.9	20,292	24,894	12.8	21,826	26,568	14.0	23,872	28,408
2032	175,206	11.9	20,850	24,843	12.8	22,426	26,514	14.0	24,529	28,350

		L-:	L2 Benefit Pro	gram	LT-14	1(65) Benefit I	Program	L	6 Benefit Pro	gram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	15.4%	\$21,137	\$ 29,753	15.9%	\$21,823	\$ 30,623	17.9%	\$24,568	\$ 33,999
2024	141,024	15.4	21,718	30,038	15.9	22,423	30,917	17.9	25,243	34,325
2025	144,902	15.4	22,315	30,294	15.9	23,039	31,180	17.9	25,937	34,617
2026	148,887	15.4	22,929	30,517	15.9	23,673	31,410	17.9	26,651	34,872
2027	152,981	15.4	23,559	30,704	15.9	24,324	31,602	17.9	27,384	35,085
2028	157,188	15.4	24,207	30,850	15.9	24,993	31,752	17.9	28,137	35,252
2029	161,511	15.4	24,873	30,951	15.9	25,680	31,856	17.9	28,910	35,368
2030	165,953	15.4	25,557	31,003	15.9	26,387	31,909	17.9	29,706	35,427
2031	170,517	15.4	26,260	31,000	15.9	27,112	31,906	17.9	30,523	35,424
2032	175,206	15.4	26,982	30,937	15.9	27,858	31,841	17.9	31,362	35,352

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

(Member contributions are additional)

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram LT-4		(65) Benefit P	rogram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	5.7%	\$7,823	\$ 16,996	8.3%	\$11,392	\$ 21,242	8.1%	\$11,117	\$ 20,534
2024	141,024	5.7	8,038	17,159	8.3	11,705	21,446	8.1	11,423	20,731
2025	144,902	5.7	8,259	17,305	8.3	12,027	21,629	8.1	11,737	20,908
2026	148,887	5.7	8,487	17,432	8.3	12,358	21,788	8.1	12,060	21,062
2027	152,981	5.7	8,720	17,539	8.3	12,697	21,921	8.1	12,391	21,191
2028	157,188	5.7	8,960	17,622	8.3	13,047	22,025	8.1	12,732	21,292
2029	161,511	5.7	9,206	17,680	8.3	13,405	22,097	8.1	13,082	21,362
2030	165,953	5.7	9,459	17,709	8.3	13,774	22,134	8.1	13,442	21,398
2031	170,517	5.7	9,719	17,707	8.3	14,153	22,132	8.1	13,812	21,396
2032	175,206	5.7	9,987	17,671	8.3	14,542	22,087	8.1	14,192	21,353

#### Rule of 80 Retirement Eligibility

		LT-5	(65) Benefit P	rogram	L	7 Benefit Pro	gram	LT-8(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2023	\$ 137,250	10.0%	\$13,725	\$ 23 <i>,</i> 893	10.9%	\$14,960	\$ 25,500	12.1%	\$16,607	\$ 27,265	
2024	141,024	10.0	14,102	24,122	10.9	15,372	25,745	12.1	17,064	27,527	
2025	144,902	10.0	14,490	24,328	10.9	15,794	25,964	12.1	17,533	27,762	
2026	148,887	10.0	14,889	24,507	10.9	16,229	26,155	12.1	18,015	27,966	
2027	152,981	10.0	15,298	24,657	10.9	16,675	26,315	12.1	18,511	28,137	
2028	157,188	10.0	15,719	24,774	10.9	17,133	26,440	12.1	19,020	28,271	
2029	161,511	10.0	16,151	24,855	10.9	17,605	26,527	12.1	19,543	28,364	
2030	165,953	10.0	16,595	24,896	10.9	18,089	26,571	12.1	20,080	28,411	
2031	170,517	10.0	17,052	24,894	10.9	18,586	26,568	12.1	20,633	28,408	
2032	175,206	10.0	17,521	24,843	10.9	19,097	26,514	12.1	21,200	28,350	

		L-:	12 Benefit Pro	<u> </u>		Program	L-6 Benefit Program		gram	
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	13.5%	\$18,529	\$ 29,753	14.0%	\$19,215	\$ 30,623	16.0%	\$21,960	\$ 33,999
2024	141,024	13.5	19,038	30,038	14.0	19,743	30,917	16.0	22,564	34,325
2025	144,902	13.5	19,562	30,294	14.0	20,286	31,180	16.0	23,184	34,617
2026	148,887	13.5	20,100	30,517	14.0	20,844	31,410	16.0	23,822	34,872
2027	152,981	13.5	20,652	30,704	14.0	21,417	31,602	16.0	24,477	35,085
2028	157,188	13.5	21,220	30,850	14.0	22,006	31,752	16.0	25,150	35,252
2029	161,511	13.5	21,804	30,951	14.0	22,612	31,856	16.0	25,842	35,368
2030	165,953	13.5	22,404	31,003	14.0	23,233	31,909	16.0	26,552	35,427
2031	170,517	13.5	23,020	31,000	14.0	23,872	31,906	16.0	27,283	35,424
2032	175,206	13.5	23,653	30,937	14.0	24,529	31,841	16.0	28,033	35,352

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

		L-	1 Benefit Pro	<u> </u>		gram	LT-4(65) Benefit		rogram	
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2023	\$ 137,250	11.7%	\$16,058	\$ 17,493	14.3%	\$19,627	\$ 21,853	14.2%	\$19,490	\$ 21,126
2024	141,024	11.7	16,500	17,661	14.3	20,166	22,063	14.2	20,025	21,329
2025	144,902	11.7	16,954	17,811	14.3	20,721	22,251	14.2	20,576	21,511
2026	148,887	11.7	17,420	17,942	14.3	21,291	22,415	14.2	21,142	21,669
2027	152,981	11.7	17,899	18,052	14.3	21,876	22,552	14.2	21,723	21,801
2028	157,188	11.7	18,391	18,138	14.3	22,478	22,659	14.2	22,321	21,905
2029	161,511	11.7	18,897	18,197	14.3	23,096	22,733	14.2	22,935	21,977
2030	165,953	11.7	19,417	18,227	14.3	23,731	22,771	14.2	23,565	22,014
2031	170,517	11.7	19,950	18,225	14.3	24,384	22,769	14.2	24,213	22,012
2032	175,206	11.7	20,499	18,188	14.3	25,054	22,723	14.2	24,879	21,967

#### Rule of 80 Retirement Eligibility

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded	Estimated	d Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2023	\$ 137,250	16.1%	\$22,097	\$ 24,587	17.0%	\$23 <i>,</i> 333	\$ 26,234	18.2%	\$24 <i>,</i> 980	\$ 28,049	
2024	141,024	16.1	22,705	24,823	17.0	23,974	26,486	18.2	25,666	28,318	
2025	144,902	16.1	23,329	25,035	17.0	24,633	26,712	18.2	26,372	28,559	
2026	148,887	16.1	23,971	25,219	17.0	25,311	26,909	18.2	27,097	28,769	
2027	152,981	16.1	24,630	25,373	17.0	26,007	27,073	18.2	27,843	28,945	
2028	157,188	16.1	25,307	25,494	17.0	26,722	27,202	18.2	28,608	29,083	
2029	161,511	16.1	26,003	25,578	17.0	27,457	27,291	18.2	29,395	29,178	
2030	165,953	16.1	26,718	25,621	17.0	28,212	27,336	18.2	30,203	29,227	
2031	170,517	16.1	27,453	25,619	17.0	28,988	27,333	18.2	31,034	29,224	
2032	175,206	16.1	28,208	25,567	17.0	29,785	27,277	18.2	31,887	29,165	

		L-:	12 Benefit Pro	· · · · ·		Program	L-6 Benefit Pro		gram	
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	19.7%	\$27,038	\$ 30,597	20.2%	\$27,725	\$ 31,500	22.3%	\$30,607	\$ 34,959
2024	141,024	19.7	27,782	30,891	20.2	28,487	31,802	22.3	31,448	35,294
2025	144,902	19.7	28,546	31,154	20.2	29,270	32,073	22.3	32,313	35,595
2026	148,887	19.7	29,331	31,383	20.2	30,075	32,309	22.3	33,202	35,857
2027	152,981	19.7	30,137	31,575	20.2	30,902	32,506	22.3	34,115	36,076
2028	157,188	19.7	30,966	31,725	20.2	31,752	32,661	22.3	35,053	36,248
2029	161,511	19.7	31,818	31,829	20.2	32,625	32,768	22.3	36,017	36,367
2030	165,953	19.7	32,693	31,882	20.2	33,523	32,823	22.3	37,008	36,428
2031	170,517	19.7	33,592	31,879	20.2	34,444	32,820	22.3	38,025	36,424
2032	175,206	19.7	34,516	31,814	20.2	35,392	32,753	22.3	39,071	36,350

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

(Member contributions are additional)

		L-	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4	(65) Benefit P	rogram
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contri	ibution	Actuarial	Contri	ibution	Actuarial	Contri	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2023	\$ 137,250	9.8%	\$13,451	\$ 17,493	12.4%	\$17,019	\$ 21,853	12.3%	\$16,882	\$ 21,126
2024	141,024	9.8	13,820	17,661	12.4	17,487	22,063	12.3	17,346	21,329
2025	144,902	9.8	14,200	17,811	12.4	17,968	22,251	12.3	17,823	21,511
2026	148,887	9.8	14,591	17,942	12.4	18,462	22,415	12.3	18,313	21,669
2027	152,981	9.8	14,992	18,052	12.4	18,970	22,552	12.3	18,817	21,801
2028	157,188	9.8	15,404	18,138	12.4	19,491	22,659	12.3	19,334	21,905
2029	161,511	9.8	15,828	18,197	12.4	20,027	22,733	12.3	19,866	21,977
2030	165,953	9.8	16,263	18,227	12.4	20,578	22,771	12.3	20,412	22,014
2031	170,517	9.8	16,711	18,225	12.4	21,144	22,769	12.3	20,974	22,012
2032	175,206	9.8	17,170	18,188	12.4	21,726	22,723	12.3	21,550	21,967

#### Rule of 80 Retirement Eligibility

			(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2023	\$ 137,250	14.2%	\$19,490	\$ 24,587	15.1%	\$20,725	\$ 26,234	16.3%	\$22,372	\$ 28,049	
2024	141,024	14.2	20,025	24,823	15.1	21,295	26,486	16.3	22,987	28,318	
2025	144,902	14.2	20,576	25,035	15.1	21,880	26,712	16.3	23,619	28,559	
2026	148,887	14.2	21,142	25,219	15.1	22,482	26,909	16.3	24,269	28,769	
2027	152,981	14.2	21,723	25,373	15.1	23,100	27,073	16.3	24,936	28,945	
2028	157,188	14.2	22,321	25,494	15.1	23,735	27,202	16.3	25,622	29,083	
2029	161,511	14.2	22,935	25,578	15.1	24,388	27,291	16.3	26,326	29,178	
2030	165,953	14.2	23,565	25,621	15.1	25,059	27,336	16.3	27,050	29,227	
2031	170,517	14.2	24,213	25,619	15.1	25,748	27,333	16.3	27,794	29,224	
2032	175,206	14.2	24,879	25,567	15.1	26,456	27,277	16.3	28,559	29,165	

		L-:	12 Benefit Pro			Program	L-6 Benefit Pr		gram	
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	17.8%	\$24,431	\$ 30,597	18.3%	\$25,117	\$ 31,500	20.4%	\$27,999	\$ 34,959
2024	141,024	17.8	25,102	30,891	18.3	25,807	31,802	20.4	28,769	35,294
2025	144,902	17.8	25,793	31,154	18.3	26,517	32,073	20.4	29,560	35,595
2026	148,887	17.8	26,502	31,383	18.3	27,246	32,309	20.4	30,373	35,857
2027	152,981	17.8	27,231	31,575	18.3	27,996	32,506	20.4	31,208	36,076
2028	157,188	17.8	27,979	31,725	18.3	28,765	32,661	20.4	32,066	36,248
2029	161,511	17.8	28,749	31,829	18.3	29,557	32,768	20.4	32,948	36,367
2030	165,953	17.8	29,540	31,882	18.3	30,369	32,823	20.4	33,854	36,428
2031	170,517	17.8	30,352	31,879	18.3	31,205	32,820	20.4	34,785	36,424
2032	175,206	17.8	31,187	31,814	18.3	32,063	32,753	20.4	35,742	36,350

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

(Member contributions are additional)

		L-	1 Benefit Pro	gram	L-3 Benefit Program			LT-4(65) Benefit Program		
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	7.9%	\$10,843	\$ 17,493	10.5%	\$14,411	\$ 21,853	10.4%	\$14,274	\$ 21,126
2024	141,024	7.9	11,141	17,661	10.5	14,808	22,063	10.4	14,666	21,329
2025	144,902	7.9	11,447	17,811	10.5	15,215	22,251	10.4	15,070	21,511
2026	148,887	7.9	11,762	17,942	10.5	15,633	22,415	10.4	15,484	21,669
2027	152,981	7.9	12,085	18,052	10.5	16,063	22,552	10.4	15,910	21,801
2028	157,188	7.9	12,418	18,138	10.5	16,505	22,659	10.4	16,348	21,905
2029	161,511	7.9	12,759	18,197	10.5	16,959	22,733	10.4	16,797	21,977
2030	165,953	7.9	13,110	18,227	10.5	17,425	22,771	10.4	17,259	22,014
2031	170,517	7.9	13,471	18,225	10.5	17,904	22,769	10.4	17,734	22,012
2032	175,206	7.9	13,841	18,188	10.5	18,397	22,723	10.4	18,221	21,967

#### Rule of 80 Retirement Eligibility

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2023	\$ 137,250	12.3%	\$16,882	\$ 24,587	13.2%	\$18,117	\$ 26,234	14.4%	\$19,764	\$ 28,049	
2024	141,024	12.3	17,346	24,823	13.2	18,615	26,486	14.4	20,307	28,318	
2025	144,902	12.3	17,823	25,035	13.2	19,127	26,712	14.4	20,866	28,559	
2026	148,887	12.3	18,313	25,219	13.2	19,653	26,909	14.4	21,440	28,769	
2027	152,981	12.3	18,817	25,373	13.2	20,193	27,073	14.4	22,029	28,945	
2028	157,188	12.3	19,334	25,494	13.2	20,749	27,202	14.4	22,635	29,083	
2029	161,511	12.3	19,866	25,578	13.2	21,319	27,291	14.4	23,258	29,178	
2030	165,953	12.3	20,412	25,621	13.2	21,906	27,336	14.4	23,897	29,227	
2031	170,517	12.3	20,974	25,619	13.2	22,508	27,333	14.4	24,554	29,224	
2032	175,206	12.3	21,550	25,567	13.2	23,127	27,277	14.4	25,230	29,165	

		L-:	L2 Benefit Pro	gram	LT-14	1(65) Benefit I	Program	L	6 Benefit Pro	gram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	15.9%	\$21,823	\$ 30,597	16.4%	\$22,509	\$ 31,500	18.5%	\$25,391	\$ 34,959
2024	141,024	15.9	22,423	30,891	16.4	23,128	31,802	18.5	26,089	35,294
2025	144,902	15.9	23,039	31,154	16.4	23,764	32,073	18.5	26,807	35,595
2026	148,887	15.9	23,673	31,383	16.4	24,417	32,309	18.5	27,544	35,857
2027	152,981	15.9	24,324	31,575	16.4	25,089	32,506	18.5	28,301	36,076
2028	157,188	15.9	24,993	31,725	16.4	25,779	32,661	18.5	29,080	36,248
2029	161,511	15.9	25,680	31,829	16.4	26,488	32,768	18.5	29,880	36,367
2030	165,953	15.9	26,387	31,882	16.4	27,216	32,823	18.5	30,701	36,428
2031	170,517	15.9	27,112	31,879	16.4	27,965	32,820	18.5	31,546	36,424
2032	175,206	15.9	27,858	31,814	16.4	28,734	32,753	18.5	32,413	36,350

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



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

(Member contributions are additional)

		L-	1 Benefit Pro	gram	L-3 Benefit Pro		gram	LT-4	(65) Benefit P	rogram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	6.0%	\$8,235	\$ 17,493	8.6%	\$11,804	\$ 21,853	8.5%	\$11,666	\$ 21,126
2024	141,024	6.0	8,461	17,661	8.6	12,128	22,063	8.5	11,987	21,329
2025	144,902	6.0	8,694	17,811	8.6	12,462	22,251	8.5	12,317	21,511
2026	148,887	6.0	8,933	17,942	8.6	12,804	22,415	8.5	12,655	21,669
2027	152,981	6.0	9,179	18,052	8.6	13,156	22,552	8.5	13,003	21,801
2028	157,188	6.0	9,431	18,138	8.6	13,518	22,659	8.5	13,361	21,905
2029	161,511	6.0	9,691	18,197	8.6	13,890	22,733	8.5	13,728	21,977
2030	165,953	6.0	9,957	18,227	8.6	14,272	22,771	8.5	14,106	22,014
2031	170,517	6.0	10,231	18,225	8.6	14,664	22,769	8.5	14,494	22,012
2032	175,206	6.0	10,512	18,188	8.6	15,068	22,723	8.5	14,893	21,967

#### Rule of 80 Retirement Eligibility

		LT-5	(65) Benefit P	rogram	L	7 Benefit Pro	gram	LT-8(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	d Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2023	\$ 137,250	10.4%	\$14,274	\$ 24,587	11.3%	\$15,509	\$ 26,234	12.5%	\$17,156	\$ 28,049	
2024	141,024	10.4	14,666	24,823	11.3	15,936	26,486	12.5	17,628	28,318	
2025	144,902	10.4	15,070	25,035	11.3	16,374	26,712	12.5	18,113	28,559	
2026	148,887	10.4	15,484	25,219	11.3	16,824	26,909	12.5	18,611	28,769	
2027	152,981	10.4	15,910	25,373	11.3	17,287	27,073	12.5	19,123	28,945	
2028	157,188	10.4	16,348	25,494	11.3	17,762	27,202	12.5	19,649	29,083	
2029	161,511	10.4	16,797	25,578	11.3	18,251	27,291	12.5	20,189	29,178	
2030	165,953	10.4	17,259	25,621	11.3	18,753	27,336	12.5	20,744	29,227	
2031	170,517	10.4	17,734	25,619	11.3	19,268	27,333	12.5	21,315	29,224	
2032	175,206	10.4	18,221	25,567	11.3	19,798	27,277	12.5	21,901	29,165	

		L-:	L2 Benefit Pro	gram	LT-14	4(65) Benefit I	Program	L	6 Benefit Pro	gram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2023	\$ 137,250	14.0%	\$19,215	\$ 30,597	14.5%	\$19,901	\$ 31,500	16.6%	\$22,784	\$ 34,959
2024	141,024	14.0	19,743	30,891	14.5	20,448	31,802	16.6	23,410	35,294
2025	144,902	14.0	20,286	31,154	14.5	21,011	32,073	16.6	24,054	35,595
2026	148,887	14.0	20,844	31,383	14.5	21,589	32,309	16.6	24,715	35,857
2027	152,981	14.0	21,417	31,575	14.5	22,182	32,506	16.6	25,395	36,076
2028	157,188	14.0	22,006	31,725	14.5	22,792	32,661	16.6	26,093	36,248
2029	161,511	14.0	22,612	31,829	14.5	23,419	32,768	16.6	26,811	36,367
2030	165,953	14.0	23,233	31,882	14.5	24,063	32,823	16.6	27,548	36,428
2031	170,517	14.0	23,872	31,879	14.5	24,725	32,820	16.6	28,306	36,424
2032	175,206	14.0	24,529	31,814	14.5	25,405	32,753	16.6	29,084	36,350

- 1) The purpose of the above projections is to comply with the requirements of Section 105.665 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 2.75%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

