



# **Table of Contents**

Page
Actuary's Certification Letter1
Alternate Plans Available
Employer Contribution Rates
Regular Eligibility: Contributory Plan4
Non-Contributory Plan6
Rule of 80 Eligibility: Contributory Plan
Non-Contributory Plan10
Employer Contribution Dollars12
Appendix I
Unfunded Actuarial Accrued Liability15
Appendix II
Summary of Financial Assumptions17
Appendix III
Summary of LAGERS Provisions21
Appendix IV
Benefit Illustrations
Appendix V
Age & Service Characteristics of Employees



#### Page



April 13, 2018

Central Taney Fire Protection District Kirbyville, 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 - 106.685 RSMo).

The contribution requirement for benefits likely to accrue as a result of the future service of your employees is described on pages 4 thru 11 as the current cost plus the disability cost. 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 11 as the prior service cost. 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 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 current cost, disability cost, and prior service cost (the total employer cost as shown on pages 4 thru 11). These contributions are mandatory after official action has been taken to join the System.

The total annual dollar costs shown on pages 12 and 13 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, 2017.

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. 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, 2018. The valuation was based on data furnished from your records concerning individual employees (see Appendix V).

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

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,

Mite Drazilor

Mita D. Drazilov, ASA, FCA, MAAA



# Alternate Plan Provisions Affecting Employer Contribution Rates

The law governing LAGERS provides for either a contributory plan or a non-contributory plan, with benefits based on either a 5 year or 3 year Final Average Salary (FAS).

**Contributory Plan.** Under the contributory plan, each covered member contributes 4% 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.

**Non-Contributory Plan.** Under the non-contributory 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.

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 72 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 (Contributory Plan - 5 Year FAS) (4% member contributions are additional)

		Percents of Active Member Payroll			
Benefit	Employee	Prior Service	Current	Disability	Total Employer Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	General	3.60%	4.30%	0.20%	8.10%
	Fire	1.30	5.30	0.60	7.20
L-3	General	4.50	5.80	0.30	10.60
	Fire	1.70	7.40	0.70	9.80
LT-4(65)	General	3.60	4.30	0.20	8.10
	Fire	1.70	7.40	0.60	9.70
LT-5(65)	General	4.50	5.80	0.30	10.60
	Fire	1.90	8.90	0.70	11.50
L-7	General	5.40	7.40	0.30	13.10
	Fire	2.00	9.40	0.80	12.20
LT-8(65)	General	5.40	7.40	0.30	13.10
	Fire	2.20	10.40	0.80	13.40
L-12	General	6.40	9.00	0.40	15.80
	Fire	2.30	11.50	0.90	14.70
LT-14(65)	General	6.40	9.00	0.40	15.80
	Fire	2.40	11.90	0.90	15.20
L-6	General	7.30	10.50	0.50	18.30
	Fire	2.70	13.40	1.00	17.10

## **Regular Retirement Eligibility**



## Employer Contribution Rates (Contributory Plan - 3 Year FAS) (4% member contributions are additional)

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	3.70%	4.50%	0.20%	8.40%
	Fire	1.40	5.60	0.60	7.60
L-3	General	4.70	6.10	0.30	11.10
	Fire	1.70	7.70	0.70	10.10
LT-4(65)	General	3.70	4.50	0.20	8.40
	Fire	1.70	7.80	0.60	10.10
LT-5(65)	General	4.70	6.10	0.30	11.10
	Fire	2.00	9.30	0.70	12.00
L-7	General	5.60	7.70	0.30	13.60
	Fire	2.10	9.80	0.80	12.70
LT-8(65)	General	5.60	7.70	0.30	13.60
	Fire	2.30	10.90	0.80	14.00
L-12	General	6.60	9.30	0.40	16.30
	Fire	2.40	11.90	0.90	15.20
LT-14(65)	General	6.60	9.30	0.40	16.30
	Fire	2.50	12.40	0.90	15.80
L-6	General	7.50	10.90	0.50	18.90
	Fire	2.80	14.00	1.00	17.80

## **Regular Retirement Eligibility**



## Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS) (No member contributions)

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	3.70%	7.10%	0.20%	11.00%
	Fire	1.40	9.00	0.60	11.00
L-3	General	4.60	8.70	0.30	13.60
	Fire	1.80	11.10	0.70	13.60
LT-4(65)	General	3.70	7.10	0.20	11.00
	Fire	1.80	11.10	0.60	13.50
LT-5(65)	General	4.60	8.70	0.30	13.60
	Fire	2.00	12.60	0.70	15.30
L-7	General	5.50	10.20	0.30	16.00
	Fire	2.10	13.10	0.80	16.00
LT-8(65)	General	5.50	10.20	0.30	16.00
	Fire	2.30	14.20	0.80	17.30
L-12	General	6.50	11.80	0.40	18.70
	Fire	2.50	15.20	0.90	18.60
LT-14(65)	General	6.50	11.80	0.40	18.70
	Fire	2.50	15.70	0.90	19.10
L-6	General	7.40	13.30	0.50	21.20
	Fire	2.80	17.20	1.00	21.00

### **Regular Retirement Eligibility**



## Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS) (No member contributions)

		Percents of Active Member Payroll			
Benefit	Employee	Prior Service	Current	Disability	Total Employer Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-1	General	3.80%	7.30%	0.20%	11.30%
	Fire	1.40	9.30	0.60	11.30
L-3	General	4.80	8.90	0.30	14.00
	Fire	1.80	11.40	0.70	13.90
LT-4(65)	General	3.80	7.30	0.20	11.30
	Fire	1.80	11.50	0.60	13.90
LT-5(65)	General	4.80	8.90	0.30	14.00
	Fire	2.10	13.00	0.70	15.80
L-7	General	5.70	10.50	0.30	16.50
	Fire	2.20	13.50	0.80	16.50
LT-8(65)	General	5.70	10.50	0.30	16.50
	Fire	2.40	14.60	0.80	17.80
L-12	General	6.70	12.10	0.40	19.20
	Fire	2.50	15.60	0.90	19.00
LT-14(65)	General	6.70	12.10	0.40	19.20
	Fire	2.60	16.20	0.90	19.70
L-6	General	7.60	13.70	0.50	21.80
	Fire	2.90	17.70	1.00	21.60

### **Regular Retirement Eligibility**



## Employer Contribution Rates (Contributory Plan - 5 Year FAS) (4% member contributions are additional)

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	3.60%	4.30%	0.20%	8.10%
	Fire	1.30	5.30	0.60	7.20
L-3	General	4.50	5.80	0.30	10.60
	Fire	1.70	7.40	0.70	9.80
LT-4(65)	General	3.60	4.30	0.20	8.10
	Fire	1.70	7.30	0.60	9.60
LT-5(65)	General	4.50	5.80	0.30	10.60
	Fire	1.90	8.90	0.70	11.50
L-7	General	5.40	7.40	0.30	13.10
	Fire	2.00	9.40	0.80	12.20
LT-8(65)	General	5.40	7.40	0.30	13.10
	Fire	2.20	10.40	0.80	13.40
L-12	General	6.40	9.00	0.40	15.80
	Fire	2.30	11.50	0.90	14.70
LT-14(65)	General	6.40	9.00	0.40	15.80
	Fire	2.40	11.90	0.90	15.20
L-6	General	7.30	10.50	0.50	18.30
	Fire	2.70	13.40	1.00	17.10

## Rule of 80 Retirement Eligibility#

# 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.



## Employer Contribution Rates (Contributory Plan - 3 Year FAS) (4% member contributions are additional)

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	3.70%	4.50%	0.20%	8.40%
	Fire	1.40	5.60	0.60	7.60
L-3	General	4.70	6.10	0.30	11.10
	Fire	1.70	7.70	0.70	10.10
LT-4(65)	General	3.70	4.50	0.20	8.40
	Fire	1.70	7.80	0.60	10.10
LT-5(65)	General	4.70	6.10	0.30	11.10
	Fire	2.00	9.30	0.70	12.00
L-7	General	5.60	7.70	0.30	13.60
	Fire	2.10	9.80	0.80	12.70
LT-8(65)	General	5.60	7.70	0.30	13.60
	Fire	2.30	10.90	0.80	14.00
L-12	General	6.60	9.30	0.40	16.30
	Fire	2.40	11.90	0.90	15.20
LT-14(65)	General	6.60	9.30	0.40	16.30
	Fire	2.50	12.40	0.90	15.80
L-6	General	7.50	10.90	0.50	18.90
	Fire	2.80	14.00	1.00	17.80

## Rule of 80 Retirement Eligibility#

# 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.



## Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS) (No member contributions)

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	3.70%	7.10%	0.20%	11.00%
	Fire	1.40	9.00	0.60	11.00
L-3	General	4.60	8.70	0.30	13.60
	Fire	1.80	11.10	0.70	13.60
LT-4(65)	General	3.70	7.10	0.20	11.00
	Fire	1.80	11.10	0.60	13.50
LT-5(65)	General	4.60	8.70	0.30	13.60
	Fire	2.00	12.60	0.70	15.30
L-7	General	5.50	10.20	0.30	16.00
	Fire	2.10	13.10	0.80	16.00
LT-8(65)	General	5.50	10.20	0.30	16.00
	Fire	2.30	14.20	0.80	17.30
L-12	General	6.50	11.80	0.40	18.70
	Fire	2.50	15.20	0.90	18.60
LT-14(65)	General	6.50	11.80	0.40	18.70
	Fire	2.50	15.70	0.90	19.10
L-6	General	7.40	13.30	0.50	21.20
	Fire	2.80	17.20	1.00	21.00

## Rule of 80 Retirement Eligibility#

- # 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. If the governing body wishes to elect one of the lesser percents allowed by law
  -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.



## Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS) (No member contributions)

		Percents of Active Member Payroll			
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	3.80%	7.30%	0.20%	11.30%
	Fire	1.40	9.30	0.60	11.30
L-3	General	4.80	8.90	0.30	14.00
	Fire	1.80	11.40	0.70	13.90
LT-4(65)	General	3.80	7.30	0.20	11.30
	Fire	1.80	11.50	0.60	13.90
LT-5(65)	General	4.80	8.90	0.30	14.00
	Fire	2.10	13.00	0.70	15.80
L-7	General	5.70	10.50	0.30	16.50
	Fire	2.20	13.50	0.80	16.50
LT-8(65)	General	5.70	10.50	0.30	16.50
	Fire	2.40	14.60	0.80	17.80
L-12	General	6.70	12.10	0.40	19.20
	Fire	2.50	15.60	0.90	19.00
LT-14(65)	General	6.70	12.10	0.40	19.20
	Fire	2.60	16.20	0.90	19.70
L-6	General	7.60	13.70	0.50	21.80
	Fire	2.90	17.70	1.00	21.60

### Rule of 80 Retirement Eligibility#

# 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.



### Employer Contribution Dollars Regular Retirement Eligibility

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:

	3 Year FAS				
Benefit					
Program	General	Fire			
L-1	\$ 1,542	\$ 5,031			
L-3	2,038	6,686			
LT-4(65)	1,542	6,686			
LT-5(65)	2,038	7,944			
L-7	2,497	8,407			
LT-8(65)	2,497	9,268			
L-12	2,993	10,062			
LT-14(65)	2,993	10,460			
L-6	3,470	11,784			

#### **Contributory Plan**

#### **Non-Contributory Plan**

	3 Year FAS				
Benefit					
Program	General	Fire			
L-1	\$ 2,075	\$ 7,481			
L-3	2,570	9,202			
LT-4(65)	2,075	9,202			
LT-5(65)	2,570	10,460			
L-7	3,029	10,923			
LT-8(65)	3,029	11,784			
L-12	3,525	12,578			
LT-14(65)	3,525	13,041			
L-6	4,002	14,299			

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



### **Employer Contribution Dollars** Rule of 80 Retirement Eligibility

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:

	3 Year FAS				
Benefit					
Program	General	Fire			
L-1	\$ 1,542	\$ 5,031			
L-3	2,038	6,686			
LT-4(65)	1,542	6,686			
LT-5(65)	2,038	7,944			
L-7	2,497	8,407			
LT-8(65)	2,497	9,268			
L-12	2,993	10,062			
LT-14(65)	2,993	10,460			
L-6	3,470	11,784			

#### **Contributory Plan**

#### **Non-Contributory Plan**

	3 Year FAS					
Benefit						
Program	General	Fire				
L-1	\$ 2,075	\$ 7,481				
L-3	2,570	9,202				
LT-4(65)	2,075	9,202				
LT-5(65)	2,570	10,460				
L-7	3,029	10,923				
LT-8(65)	3,029	11,784				
L-12	3,525	12,578				
LT-14(65)	3,525	13,041				
L-6	4,002	14,299				

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



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

	General	Fire
Number of Employees	1	2
Annual Payroll	\$ 18,360	\$ 66,200

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 11 as the "Prior Service Cost" 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:

## **Central Taney Fire Protection District**

		Contri	butory	Non-Con	tributory
Benefit	Employee	UAAL	UAAL	UAAL	UAAL
Group	Group	(5 Year FAS)	(3 Year FAS)	(5 Year FAS)	(3 Year FAS)
L-1	General	\$ 11,621	\$ 12,002	\$ 11,934	\$ 12,313
	Fire	15,202	15,764	16,329	16,872
L-3	General	\$ 14,620	\$ 15,094	\$ 14,922	\$ 15,396
	Fire	19,258	19,945	20,427	21,108
LT-4(65)	General	11,621	12,002	11,934	12,313
	Fire	19,308	20,004	20,422	21,112
LT-5(65)	General	14,620	15,094	14,922	15,396
	Fire	22,348	23,148	23,481	24,277
L-7	General	17,614	18,186	17,904	18,472
	Fire	23,323	24,151	24,496	25,340
LT-8(65)	General	17,614	18,186	17,904	18,472
	Fire	25,384	26,286	26,538	27,441
L-12	General	20,611	21,276	20,887	21,550
	Fire	27,393	28,351	28,587	29,542
LT-14(65)	General	20,611	21,276	20,887	21,550
	Fire	28,425	29,412	29,606	30,604
L-6	General	23,607	24,369	23,873	24,632
	Fire	31,438	32,561	32,670	33,780

### **Regular Retirement Eligibility**



### Unfunded Actuarial Accrued Liability (UAAL)

		Contri	butory	Non-Con	tributory
Benefit	Employee	UAAL	UAAL	UAAL	UAAL
Group	Group	(5 Year FAS)	(3 Year FAS)	(5 Year FAS)	(3 Year FAS)
L-1	General	\$ 11,621	\$ 12,002	\$ 11,934	\$ 12,313
	Fire	15,202	15,764	16,329	16,872
L-3	General	\$ 14,620	\$ 15,094	\$ 14,922	\$ 15,396
	Fire	19,258	19,945	20,427	21,108
LT-4(65)	General	11,621	12,002	11,934	12,313
	Fire	19,308	20,004	20,422	21,112
LT-5(65)	General	14,620	15,094	14,922	15,396
	Fire	22,348	23,148	23,481	24,277
L-7	General	17,614	18,186	17,904	18,472
	Fire	23,323	24,151	24,496	25,340
LT-8(65)	General	17,614	18,186	17,904	18,472
	Fire	25,384	26,286	26,538	27,441
L-12	General	20,611	21,276	20,887	21,550
	Fire	27,393	28,351	28,587	29,542
LT-14(65)	General	20,611	21,276	20,887	21,550
	Fire	28,425	29,412	29,606	30,604
L-6	General	23,607	24,369	23,873	24,632
	Fire	31,438	32,561	32,670	33,780

## **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

- The investment return rate used in making the valuations was 7.25% 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 2.50% and the wage inflation rate used in making the valuations was 3.25%. The investment return rate translates to an assumed real rate of return over price inflation of 4.75% and over wage inflation of 4.00%. Adopted 2011 and 2016.
- 2. The healthy retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were the RP-2014 Healthy Annuitant mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The disabled retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were the RP-2014 disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The pre-retirement mortality tables used were the RP-2014 employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. For both the post-retirement and pre-retirement tables, the base year for males was then established to be 2017. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to the above described tables. Adopted 2016.
- 3. The probabilities of withdrawal and disability from service, together with individual pay increase assumptions, are shown in Schedule 1. Adopted 2016.
- 4. The probabilities of retirement with an age and service allowance are shown in Schedule 2. Adopted 2016.
- 5. Post-retirement cost of living allowances are assumed to be 2.50% per year. Adopted 2016.
- 6. Total active member payroll is assumed to increase 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 2016.
- 7. An individual entry-age actuarial cost method of valuation was used in determining age and service allowance actuarial liabilities and normal cost. Adopted 1986.
- 8. The data about persons now covered was furnished by the political subdivision. Although examined for general reasonableness, the data was not audited by us.



### Schedule 1.

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

		Percent of Active Members Separating Within Next Year							
		General Members					cui		
Sample	Years of	Ν	/len	W	omen	P	olice	1	Fire
Ages	Service	Disability	Withdrawal	Disability	Withdrawal	Disability	Withdrawal	Disability	Withdrawal
All	0		19.00%		22.00%		18.00%		10.00%
	1		17.00		20.00		17.00		8.00
	2		15.00		17.00		16.00		7.00
	3		13.00		14.00		13.00		6.00
	4		11.00		13.00		12.00		6.00
25	5 & Over	0.09%	7.30	0.02%	10.80	0.10%	9.80	0.06%	5.00
30		0.12	6.50	0.03	8.90	0.11	7.80	0.10	4.00
35		0.15	5.00	0.06	7.40	0.16	6.10	0.23	2.80
40		0.21	3.70	0.10	5.70	0.22	4.40	0.35	2.20
45		0.30	3.00	0.16	4.20	0.34	3.20	0.56	1.80
50		0.44	2.40	0.24	3.30	0.53	1.80	0.85	1.00
55		0.68	1.80	0.34	2.50	0.88	1.00	1.31	0.50
60		1.02	1.00	0.48	1.20		0.00		0.00
65			0.00		0.00		0.00		0.00

Percent	Increase in
Individ	lual's Pav

		individual S Pay					
	Sample	During Next	Year				
_	Ages	General & Police	Fire				
	25	6.55%	7.15%				
	30	5.75	6.05				
	35	5.25	5.15				
	40	4.75	4.45				
	45	4.25	4.15				
	50	3.85	3.85				
	55	3.65	3.65				
	60	3.55	3.25				
	65	3.25	3.25				



## Schedule 2.

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

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

#### **Early Retirement**

### **Normal Retirement**

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



# Schedule 2. (Continued)

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

Retirement	General	General Members		
Ages	Men	Women	Police	Fire
50	15%	15%	25%	25%
51	15	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	30	15	30	45
63	30	15	30	45
64	30	20	30	45
65	30	25	100	100
66	30	25		
67	30	25		
68	30	25		
69	30	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, 2017 (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 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 Program	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 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 4% of compensation beginning after completion of sufficient employment for 6 months of credited service.

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 non-contributory plan in which the full cost of LAGERS participation is paid by the employer. Adoption of the non-contributory provisions may be done at the time of membership or a later date; however, a change from contributory to non-contributory or vice-versa may not be made more frequently than every 2 years. Under the non-contributory provisions there is no individual account maintained for each employee and no refund of contributions if an employee terminates before being eligible for a benefit.

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



**APPENDIX IV** 

**BENEFIT ILLUSTRATIONS** 

## **Missouri LAGERS**

**Illustrations of Age and Service Allowance Amounts** 

For Sample Combinations of Service & Salary

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

Final		Estimated	Estim	ated
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	\$ 875	\$1,400	93%
2,000	700	1,016	1,716	86%
2,500	875	1,157	2,032	81%
3,000	1,050	1,297	2,347	78%
3,500	1,225	1,438	2,663	76%
4,000	1,400	1,579	2,979	74%
25 Years of Service:				
\$1,500	\$ 375	\$ 875	\$1,250	83%
2,000	500	1,016	1,516	76%
2,500	625	1,157	1,782	71%
3,000	750	1,297	2,047	68%
3,500	875	1,438	2,313	66%
4,000	1,000	1,579	2,579	64%
15 Years of Service:				
\$1,500	\$225	\$ 875	\$1,100	73%
2,000	300	1,016	1,316	66%
2,500	375	1,157	1,532	61%
3,000	450	1,297	1,747	58%
3,500	525	1,438	1,963	56%
4,000	600	1,579	2,179	54%

<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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.



## Missouri LAGERS Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary (L-3 Benefit Program is Years of Credited Service

times: 1.25% of FAS<sup>1</sup>)

Final	Estimated Estimated			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	\$ 656	\$ 875	\$1,531	102%
2,000	875	1,016	1,891	95%
2,500	1,094	1,157	2,251	90%
3,000	1,313	1,297	2,610	87%
3,500	1,531	1,438	2,969	85%
4,000	1,750	1,579	3,329	83%
25 Years of Service:				
\$1,500	\$ 469	\$ 875	\$1,344	90%
2,000	625	1,016	1,641	82%
2,500	781	1,157	1,938	78%
3,000	938	1,297	2,235	75%
3,500	1,094	1,438	2,532	72%
4,000	1,250	1,579	2,829	71%
15 Years of Service:				
\$1,500	\$281	\$ 875	\$1,156	77%
2,000	375	1,016	1,391	70%
2,500	469	1,157	1,626	65%
3,000	563	1,297	1,860	62%
3,500	656	1,438	2,094	60%
4,000	750	1,579	2,329	58%

<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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.



# Missouri LAGERS Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary

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

Final		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	\$ 788	\$ 875	\$1,663	111%	
2,000	1,050	1,016	2,066	103%	
2,500	1,313	1,157	2,470	99%	
3,000	1,575	1,297	2,872	96%	
3,500	1,838	1,438	3,276	94%	
4,000	2,100	1,579	3,679	92%	
25 Years of Service:					
\$1,500	\$ 563	\$ 875	\$1,438	96%	
2,000	750	1,016	1,766	88%	
2,500	938	1,157	2,095	84%	
3,000	1,125	1,297	2,422	81%	
3,500	1,313	1,438	2,751	79%	
4,000	1,500	1,579	3,079	77%	
15 Years of Service:					
\$1,500	\$338	\$ 875	\$1,213	81%	
2,000	450	1,016	1,466	73%	
2,500	563	1,157	1,720	69%	
3,000	675	1,297	1,972	66%	
3,500	788	1,438	2,226	64%	
4,000	900	1,579	2,479	62%	

<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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.



## Missouri LAGERS Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary (L-12 Benefit Program is Years of Credited Service

times: 1.75% of FAS  $^1$  )

Final		Estimated	Estimated		
Average	LAGERS	Social	Monthly Total		
Salary (FAS) <sup>1</sup>	BENEFIT <sup>3</sup>	Security <sup>2</sup>	\$	% of FAS	
35 Years of Service:					
\$1,500	\$ 919	\$ 875	\$1,794	120%	
2,000	1,225	1,016	2,241	112%	
2,500	1,531	1,157	2,688	108%	
3,000	1,838	1,297	3,135	105%	
3,500	2,144	1,438	3,582	102%	
4,000	2,450	1,579	4,029	101%	
25 Years of Service:					
\$1,500	\$ 656	\$ 875	\$1,531	102%	
2,000	875	1,016	1,891	95%	
2,500	1,094	1,157	2,251	90%	
3,000	1,313	1,297	2,610	87%	
3,500	1,531	1,438	2,969	85%	
4,000	1,750	1,579	3,329	83%	
15 Years of Service:					
\$1,500	\$ 394	\$ 875	\$1,269	85%	
2,000	525	1,016	1,541	77%	
2,500	656	1,157	1,813	73%	
3,000	788	1,297	2,085	70%	
3,500	919	1,438	2,357	67%	
4,000	1,050	1,579	2,629	66%	

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

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2017 - it does not include any amounts which might be payable to an eligible spouse or children.



## Missouri LAGERS Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary (L-6 Benefit Program is Years of Credited Service

times: 2.00% of FAS<sup>1</sup>)

Final		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	\$1,050	\$ 875	\$1,925	128%	
2,000	1,400	1,016	2,416	121%	
2,500	1,750	1,157	2,907	116%	
3,000	2,100	1,297	3,397	113%	
3,500	2,450	1,438	3,888	111%	
4,000	2,800	1,579	4,379	109%	
25 Years of Service:					
\$1,500	\$ 750	\$ 875	\$1,625	108%	
2,000	1,000	1,016	2,016	101%	
2,500	1,250	1,157	2,407	96%	
3,000	1,500	1,297	2,797	93%	
3,500	1,750	1,438	3,188	91%	
4,000	2,000	1,579	3,579	89%	
15 Years of Service:					
\$1,500	\$ 450	\$ 875	\$1,325	88%	
2,000	600	1,016	1,616	81%	
2,500	750	1,157	1,907	76%	
3,000	900	1,297	2,197	73%	
3,500	1,050	1,438	2,488	71%	
4,000	1,200	1,579	2,779	69%	

<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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.



## **Missouri LAGERS**

Illustrations of Age and Service Allowance Amounts

For Sample Combinations of Service & Salary

(LT-4(65) Benefit Program is Years of Credited Service

times: 2.00% of FAS<sup>1</sup> to age 65)

1.00% of FAS <sup>1</sup> at age 65)

Final Average	LAG BENI	ERS EFIT <sup>3</sup>	Estimated Social	Estimated Monthly Total		Percent 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	9:						
\$1,500	\$1,050	\$ 525	\$ 875	\$1,050	\$1,400	70%	93%
2,000	1,400	700	1,016	1,400	1,716	70%	86%
2,500	1,750	875	1,157	1,750	2,032	70%	81%
3,000	2,100	1,050	1,297	2,100	2,347	70%	78%
3,500	2,450	1,225	1,438	2,450	2,663	70%	76%
4,000	2,800	1,400	1,579	2,800	2,979	70%	74%
25 Years of Service	e:						
\$1,500	\$ 750	\$ 375	\$ 875	\$ 750	\$1,250	50%	83%
2,000	1,000	500	1,016	1,000	1,516	50%	76%
2,500	1,250	625	1,157	1,250	1,782	50%	71%
3,000	1,500	750	1,297	1,500	2,047	50%	68%
3,500	1,750	875	1,438	1,750	2,313	50%	66%
4,000	2,000	1,000	1,579	2,000	2,579	50%	64%
15 Years of Service	2:						
\$1,500	\$ 450	\$225	\$ 875	\$ 450	\$1,100	30%	73%
2,000	600	300	1,016	600	1,316	30%	66%
2,500	750	375	1,157	750	1,532	30%	61%
3,000	900	450	1,297	900	1,747	30%	58%
3,500	1,050	525	1,438	1,050	1,963	30%	56%
4,000	1,200	600	1,579	1,200	2,179	30%	54%

<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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.



## **Missouri LAGERS**

Illustrations of Age and Service Allowance Amounts

For Sample Combinations of Service & Salary

(LT-5(65) Benefit Program is Years of Credited Service

times: 2.00% of FAS<sup>1</sup> to age 65)

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

Final Average	LAG	ERS EFIT <sup>3</sup>	Estimated Social	Estimated Monthly Total		Percent 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	\$ 656	\$ 875	\$1,050	\$1,531	70%	102%
2,000	1,400	875	1,016	1,400	1,891	70%	95%
2,500	1,750	1,094	1,157	1,750	2,251	70%	90%
3,000	2,100	1,313	1,297	2,100	2,610	70%	87%
3,500	2,450	1,531	1,438	2,450	2,969	70%	85%
4,000	2,800	1,750	1,579	2,800	3,329	70%	83%
25 Years of Service	2:						
\$1,500	\$ 750	\$ 469	\$ 875	\$ 750	\$1,344	50%	90%
2,000	1,000	625	1,016	1,000	1,641	50%	82%
2,500	1,250	781	1,157	1,250	1,938	50%	78%
3,000	1,500	938	1,297	1,500	2,235	50%	75%
3,500	1,750	1,094	1,438	1,750	2,532	50%	72%
4,000	2,000	1,250	1,579	2,000	2,829	50%	71%
15 Years of Service	e:						
\$1,500	\$ 450	\$281	\$ 875	\$ 450	\$1,156	30%	77%
2,000	600	375	1,016	600	1,391	30%	70%
2,500	750	469	1,157	750	1,626	30%	65%
3,000	900	563	1,297	900	1,860	30%	62%
3,500	1,050	656	1,438	1,050	2,094	30%	60%
4,000	1,200	750	1,579	1,200	2,329	30%	58%

<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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.



## **Missouri LAGERS**

Illustrations of Age and Service Allowance Amounts

For Sample Combinations of Service & Salary

(LT-8(65) Benefit Program is Years of Credited Service

times: 2.00% of FAS<sup>1</sup> to age 65)

1.50% of FAS <sup>1</sup> at age 65)

Final	LAG		Estimated	Estim	ated	Perc	ent
Average	BENI	EFIT <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	2:						
\$1,500	\$1,050	\$ 788	\$ 875	\$1,050	\$1,663	70%	111%
2,000	1,400	1,050	1,016	1,400	2,066	70%	103%
2,500	1,750	1,313	1,157	1,750	2,470	70%	99%
3,000	2,100	1,575	1,297	2,100	2,872	70%	96%
3,500	2,450	1,838	1,438	2,450	3,276	70%	94%
4,000	2,800	2,100	1,579	2,800	3,679	70%	92%
25 Years of Service	2:						
\$1,500	\$ 750	\$ 563	\$ 875	\$ 750	\$1,438	50%	96%
2,000	1,000	750	1,016	1,000	1,766	50%	88%
2,500	1,250	938	1,157	1,250	2,095	50%	84%
3,000	1,500	1,125	1,297	1,500	2,422	50%	81%
3,500	1,750	1,313	1,438	1,750	2,751	50%	79%
4,000	2,000	1,500	1,579	2,000	3,079	50%	77%
15 Years of Service	2:						
\$1,500	\$ 450	\$338	\$ 875	\$ 450	\$1,213	30%	81%
2,000	600	450	1,016	600	1,466	30%	73%
2,500	750	563	1,157	750	1,720	30%	69%
3,000	900	675	1,297	900	1,972	30%	66%
3,500	1,050	788	1,438	1,050	2,226	30%	64%
4,000	1,200	900	1,579	1,200	2,479	30%	62%

<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 2017 - it does not include any amounts which might be payable to an eligible spouse or children.

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



## **Missouri LAGERS**

Illustrations of Age and Service Allowance Amounts

For Sample Combinations of Service & Salary

(LT-14(65) Benefit Program is Years of Credited Service

times: 2.00% of FAS<sup>1</sup> to age 65)

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

Final	LAG		Estimated	Estim		Perc		
Average	BENE	FIT <sup>3</sup>	Social	Month	y Total	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	::							
\$1,500	\$1,050	\$ 919	\$ 875	\$1,050	\$1,794	70%	120%	
2,000	1,400	1,225	1,016	1,400	2,241	70%	112%	
2,500	1,750	1,531	1,157	1,750	2,688	70%	108%	
3,000	2,100	1,838	1,297	2,100	3,135	70%	105%	
3,500	2,450	2,144	1,438	2,450	3,582	70%	102%	
4,000	2,800	2,450	1,579	2,800	4,029	70%	101%	
25 Years of Service	:							
\$1,500	\$ 750	\$ 656	\$ 875	\$ 750	\$1,531	50%	102%	
2,000	1,000	875	1,016	1,000	1,891	50%	95%	
2,500	1,250	1,094	1,157	1,250	2,251	50%	90%	
3,000	1,500	1,313	1,297	1,500	2,610	50%	87%	
3,500	1,750	1,531	1,438	1,750	2,969	50%	85%	
4,000	2,000	1,750	1,579	2,000	3,329	50%	83%	
15 Years of Service	:							
\$1,500	\$ 450	\$ 394	\$ 875	\$ 450	\$1,269	30%	85%	
2,000	600	525	1,016	600	1,541	30%	77%	
2,500	750	656	1,157	750	1,813	30%	73%	
3,000	900	788	1,297	900	2,085	30%	70%	
3,500	1,050	919	1,438	1,050	2,357	30%	67%	
4,000	1,200	1,050	1,579	1,200	2,629	30%	66%	

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

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2017 - it does not include any amounts which might be payable to an eligible spouse or children.

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



**APPENDIX V** 

AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

### February 28, 2018

		Years	s of Ser	vice to <b>`</b>	Valuatio	n 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										
45-49										
50-54										
55-59										
60-64										
65-69		1						1	\$ 18,360	
70 & Over										
Totals		1						1	\$ 18,360	

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

Age: 67.6 years. Benefit Service: 5.5 years. Annual Pay: \$18,360.



### February 28, 2018

### By Attained Age and Years of Service

		Yea	ars of Se	rvice to \	/aluatior	n 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	\$ 31,200
45-49									
50-54	1							1	\$ 35,000
55-59									
60-64									
65-69									
70 & Over									
Totals	2							2	\$ 66,200

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

Age: 47.1 years. Benefit Service: 1.8 years. Annual Pay: \$33,100.





April 13, 2018 E-mail

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

Dear Bob:

Enclosed is the report of the February 28, 2018 Initial Actuarial Valuation of LAGERS benefits for the employees of

**Central Taney Fire Protection District** 

Sincerely,

Mite Drazilor

Mita D. Drazilov, ASA, FCA, MAAA

MDD:wp



April 13, 2018

Central Taney Fire Protection District Kirbyville, Missouri

Ladies and Gentlemen:

This report contains projections needed to comply with Missouri state disclosure requirements (Section 105.660 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, 2018 Initial Valuation for the Central Taney Fire Protection District dated April 13, 2018.

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, 2017.

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,

Mita Drazilov, ASA, FCA, MAAA

#### Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

		L-1 Benefit Program			L-3	Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contribution		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
2018	\$ 18,360	8.1%	\$1,487	\$ 11,621	10.6%	\$1,946	\$ 14,620	8.1%	\$1,487	\$ 11,621
2019	18,957	8.1	1,536	11,780	10.6	2,009	14,820	8.1	1,536	11,780
2020	19,573	8.1	1,585	11,929	10.6	2,075	15,007	8.1	1,585	11,929
2021	20,209	8.1	1,637	12,065	10.6	2,142	15,179	8.1	1,637	12,065
2022	20,866	8.1	1,690	12,188	10.6	2,212	15,333	8.1	1,690	12,188
2023	21,544	8.1	1,745	12,295	10.6	2,284	15,468	8.1	1,745	12,295
2024	22,244	8.1	1,802	12,385	10.6	2,358	15,581	8.1	1,802	12,385
2025	22,967	8.1	1,860	12,455	10.6	2,435	15,669	8.1	1,860	12,455
2026	23,713	8.1	1,921	12,503	10.6	2,514	15,730	8.1	1,921	12,503
2027	24,484	8.1	1,983	12,527	10.6	2,595	15,760	8.1	1,983	12,527

### **Regular Retirement Eligibility**

		LT-5(65) Benefit Program			L-3	7 Benefit Pro	gram	LT-8(65) Benefit Program		
	Estimated		Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 18,360	10.6%	\$1,946	\$ 14,620	13.1%	\$2,405	\$ 17,614	13.1%	\$2,405	\$ 17,614
2019	18,957	10.6	2,009	14,820	13.1	2,483	17,855	13.1	2,483	17,855
2020	19,573	10.6	2,075	15,007	13.1	2,564	18,080	13.1	2,564	18,080
2021	20,209	10.6	2,142	15,179	13.1	2,647	18,287	13.1	2,647	18,287
2022	20,866	10.6	2,212	15,333	13.1	2,733	18,473	13.1	2,733	18,473
2023	21,544	10.6	2,284	15,468	13.1	2,822	18,635	13.1	2,822	18,635
2024	22,244	10.6	2,358	15,581	13.1	2,914	18,771	13.1	2,914	18,771
2025	22,967	10.6	2,435	15,669	13.1	3,009	18,877	13.1	3,009	18,877
2026	23,713	10.6	2,514	15,730	13.1	3,106	18,950	13.1	3,106	18,950
2027	24,484	10.6	2,595	15,760	13.1	3,207	18,986	13.1	3,207	18,986

	Estimated	L-12 Benefit Program			LT-14	(65) Benefit I	Program	L-6 Benefit Program		
		Estimated Employer mated Contribution		Unfunded Actuarial		Employer bution	Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
•	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
2018	\$ 18,360	15.8%	\$2,901	\$ 20,611	15.8%	\$2,901	\$ 20,611	18.3%	\$3,360	\$ 23,607
2019	18,957	15.8	2,995	20,893	15.8	2,995	20,893	18.3	3,469	23,930
2020	19,573	15.8	3,093	21,156	15.8	3,093	21,156	18.3	3,582	24,232
2021	20,209	15.8	3,193	21,398	15.8	3,193	21,398	18.3	3,698	24,509
2022	20,866	15.8	3,297	21,615	15.8	3,297	21,615	18.3	3,818	24,758
2023	21,544	15.8	3,404	21,805	15.8	3,404	21,805	18.3	3,943	24,975
2024	22,244	15.8	3,515	21,964	15.8	3,515	21,964	18.3	4,071	25,157
2025	22,967	15.8	3,629	22,088	15.8	3,629	22,088	18.3	4,203	25,299
2026	23,713	15.8	3,747	22,173	15.8	3,747	22,173	18.3	4,339	25,397
2027	24,484	15.8	3,868	22,215	15.8	3,868	22,215	18.3	4,481	25,445

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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 (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

		L-1 Benefit Program			L-3	Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	Employer	Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contribution		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
2018	\$ 18,360	8.4%	\$1,542	\$ 12,002	11.1%	\$2,038	\$ 15,094	8.4%	\$1,542	\$ 12,002
2019	18,957	8.4	1,592	12,166	11.1	2,104	15,301	8.4	1,592	12,166
2020	19,573	8.4	1,644	12,319	11.1	2,173	15,494	8.4	1,644	12,319
2021	20,209	8.4	1,698	12,460	11.1	2,243	15,671	8.4	1,698	12,460
2022	20,866	8.4	1,753	12,587	11.1	2,316	15,830	8.4	1,753	12,587
2023	21,544	8.4	1,810	12,698	11.1	2,391	15,969	8.4	1,810	12,698
2024	22,244	8.4	1,868	12,790	11.1	2,469	16,085	8.4	1,868	12,790
2025	22,967	8.4	1,929	12,862	11.1	2,549	16,176	8.4	1,929	12,862
2026	23,713	8.4	1,992	12,912	11.1	2,632	16,239	8.4	1,992	12,912
2027	24,484	8.4	2,057	12,937	11.1	2,718	16,270	8.4	2,057	12,937

### **Regular Retirement Eligibility**

		LT-5(65) Benefit Program			L-3	7 Benefit Pro	gram	LT-8(65) Benefit Program		
	Estimated		Employer	Unfunded Actuarial		l Employer bution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 18,360	11.1%	\$2,038	\$ 15,094	13.6%	\$2,497	\$ 18,186	13.6%	\$2,497	\$ 18,186
2019	18,957	11.1	2,104	15,301	13.6	2,578	18,435	13.6	2,578	18,435
2020	19,573	11.1	2,173	15,494	13.6	2,662	18,667	13.6	2,662	18,667
2021	20,209	11.1	2,243	15,671	13.6	2,748	18,880	13.6	2,748	18,880
2022	20,866	11.1	2,316	15,830	13.6	2,838	19,072	13.6	2,838	19,072
2023	21,544	11.1	2,391	15,969	13.6	2,930	19,239	13.6	2,930	19,239
2024	22,244	11.1	2,469	16,085	13.6	3,025	19,379	13.6	3,025	19,379
2025	22,967	11.1	2,549	16,176	13.6	3,124	19,489	13.6	3,124	19,489
2026	23,713	11.1	2,632	16,239	13.6	3,225	19,564	13.6	3,225	19,564
2027	24,484	11.1	2,718	16,270	13.6	3,330	19,601	13.6	3,330	19,601

	Estimated	L-12 Benefit Program			LT-14	(65) Benefit I	Program	L-6 Benefit Program		
			Estimated Employer L Contribution			Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial
	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
2018	\$ 18,360	16.3%	\$2,993	\$ 21,276	16.3%	\$2,993	\$ 21,276	18.9%	\$3,470	\$ 24,369
2019	18,957	16.3	3,090	21,567	16.3	3,090	21,567	18.9	3,583	24,703
2020	19,573	16.3	3,190	21,839	16.3	3,190	21,839	18.9	3,699	25,014
2021	20,209	16.3	3,294	22,089	16.3	3,294	22,089	18.9	3,820	25,300
2022	20,866	16.3	3,401	22,313	16.3	3,401	22,313	18.9	3,944	25,557
2023	21,544	16.3	3,512	22,509	16.3	3,512	22,509	18.9	4,072	25,781
2024	22,244	16.3	3,626	22,673	16.3	3,626	22,673	18.9	4,204	25,969
2025	22,967	16.3	3,744	22,801	16.3	3,744	22,801	18.9	4,341	26,116
2026	23,713	16.3	3,865	22,889	16.3	3 <i>,</i> 865	22,889	18.9	4,482	26,217
2027	24,484	16.3	3,991	22,933	16.3	3,991	22,933	18.9	4,627	26,267

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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 (Non-Contributory Plan - 5 Year FAS)

(0% member contributions are additional)

		L-1 Benefit Program			L-3	Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated	Employer	Unfunded	Estimated	Estimated Employer		Estimated Employer		Unfunded
	Estimated		Contribution		Contribution		Actuarial	Contribution		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
2018	\$ 18,360	11.0%	\$2,020	\$ 11,934	13.6%	\$2,497	\$ 14,922	11.0%	\$2 <i>,</i> 020	\$ 11,934
2019	18,957	11.0	2,085	12,097	13.6	2,578	15,126	11.0	2,085	12,097
2020	19,573	11.0	2,153	12,250	13.6	2,662	15,317	11.0	2,153	12,250
2021	20,209	11.0	2,223	12,390	13.6	2,748	15,492	11.0	2,223	12,390
2022	20,866	11.0	2,295	12,516	13.6	2,838	15,649	11.0	2,295	12,516
2023	21,544	11.0	2,370	12,626	13.6	2,930	15,786	11.0	2,370	12,626
2024	22,244	11.0	2,447	12,718	13.6	3,025	15,901	11.0	2,447	12,718
2025	22,967	11.0	2,526	12,790	13.6	3,124	15,991	11.0	2,526	12,790
2026	23,713	11.0	2,608	12,839	13.6	3,225	16,053	11.0	2,608	12,839
2027	24,484	11.0	2,693	12,864	13.6	3,330	16,084	11.0	2,693	12,864

### **Regular Retirement Eligibility**

		LT-5(	65) Benefit P	Program L-7 Benefit Program		gram	ram LT-8(65) Benefit Program			
	Estimated		Employer bution	Unfunded Actuarial		l Employer bution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 18,360	13.6%	\$2,497	\$ 14,922	16.0%	\$2,938	\$ 17,904	16.0%	\$2,938	\$ 17,904
2019	18,957	13.6	2,578	15,126	16.0	3,033	18,149	16.0	3,033	18,149
2020	19,573	13.6	2,662	15,317	16.0	3,132	18,378	16.0	3,132	18,378
2021	20,209	13.6	2,748	15,492	16.0	3,233	18,588	16.0	3,233	18,588
2022	20,866	13.6	2,838	15,649	16.0	3,339	18,777	16.0	3,339	18,777
2023	21,544	13.6	2,930	15,786	16.0	3,447	18,942	16.0	3,447	18,942
2024	22,244	13.6	3,025	15,901	16.0	3,559	19,080	16.0	3,559	19,080
2025	22,967	13.6	3,124	15,991	16.0	3,675	19,188	16.0	3,675	19,188
2026	23,713	13.6	3,225	16,053	16.0	3,794	19,262	16.0	3,794	19,262
2027	24,484	13.6	3,330	16,084	16.0	3,917	19,299	16.0	3,917	19,299

		L-1	2 Benefit Pro	ram LT-14(65) Benefit I			Program L-6 Benefit Program			gram
	Estimated		Employer	Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial		Employer bution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 18,360	18.7%	\$3,433	\$ 20,887	18.7%	\$3 <i>,</i> 433	\$ 20,887	21.2%	\$3 <i>,</i> 892	\$ 23,873
2019	18,957	18.7	3,545	21,173	18.7	3,545	21,173	21.2	4,019	24,200
2020	19,573	18.7	3,660	21,440	18.7	3,660	21,440	21.2	4,149	24,505
2021	20,209	18.7	3,779	21,685	18.7	3,779	21,685	21.2	4,284	24,785
2022	20,866	18.7	3,902	21,905	18.7	3,902	21,905	21.2	4,424	25,037
2023	21,544	18.7	4,029	22,097	18.7	4,029	22,097	21.2	4,567	25,257
2024	22,244	18.7	4,160	22,258	18.7	4,160	22,258	21.2	4,716	25,441
2025	22,967	18.7	4,295	22,384	18.7	4,295	22,384	21.2	4,869	25,585
2026	23,713	18.7	4,434	22,471	18.7	4,434	22,471	21.2	5,027	25,684
2027	24,484	18.7	4,579	22,514	18.7	4,579	22,514	21.2	5,191	25,733

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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 (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

		L-1	1 Benefit Pro	gram	L-3 Benefit Program			LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	bution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2018	\$ 18,360	11.3%	\$2,075	\$ 12,313	14.0%	\$2,570	\$ 15,396	11.3%	\$2 <i>,</i> 075	\$ 12,313	
2019	18,957	11.3	2,142	12,482	14.0	2,654	15,607	11.3	2,142	12,482	
2020	19,573	11.3	2,212	12,639	14.0	2,740	15,804	11.3	2,212	12,639	
2021	20,209	11.3	2,284	12,784	14.0	2,829	15,985	11.3	2,284	12,784	
2022	20,866	11.3	2,358	12,914	14.0	2,921	16,147	11.3	2,358	12,914	
2023	21,544	11.3	2,434	13,027	14.0	3,016	16,289	11.3	2,434	13,027	
2024	22,244	11.3	2,514	13,122	14.0	3,114	16,408	11.3	2,514	13,122	
2025	22,967	11.3	2,595	13,196	14.0	3,215	16,501	11.3	2,595	13,196	
2026	23,713	11.3	2,680	13,247	14.0	3,320	16,565	11.3	2,680	13,247	
2027	24,484	11.3	2,767	13,272	14.0	3,428	16,597	11.3	2,767	13,272	

### **Regular Retirement Eligibility**

		LT-5(	65) Benefit P	rogram	L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		Employer bution	Unfunded Actuarial		l Employer bution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2018	\$ 18,360	14.0%	\$2,570	\$ 15,396	16.5%	\$3,029	\$ 18,472	16.5%	\$3,029	\$ 18,472	
2019	18,957	14.0	2,654	15,607	16.5	3,128	18,725	16.5	3,128	18,725	
2020	19,573	14.0	2,740	15,804	16.5	3,230	18,961	16.5	3,230	18,961	
2021	20,209	14.0	2,829	15,985	16.5	3,334	19,178	16.5	3,334	19,178	
2022	20,866	14.0	2,921	16,147	16.5	3,443	19,373	16.5	3,443	19,373	
2023	21,544	14.0	3,016	16,289	16.5	3,555	19,543	16.5	3,555	19,543	
2024	22,244	14.0	3,114	16,408	16.5	3,670	19,685	16.5	3,670	19,685	
2025	22,967	14.0	3,215	16,501	16.5	3,790	19,796	16.5	3,790	19,796	
2026	23,713	14.0	3,320	16,565	16.5	3,913	19,873	16.5	3,913	19,873	
2027	24,484	14.0	3,428	16,597	16.5	4,040	19,911	16.5	4,040	19,911	

		L-1	2 Benefit Pro	ogram	LT-14(65) Benefit Program			L-6 Benefit Program			
	Estimated		Employer	Unfunded Actuarial		Employer bution	Unfunded Actuarial		Employer bution	Unfunded Actuarial	
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	
2018	\$ 18,360	19.2%	\$3,525	\$ 21,550	19.2%	\$3,525	\$ 21,550	21.8%	\$4,002	\$ 24,632	
2019	18,957	19.2	3,640	21,845	19.2	3,640	21,845	21.8	4,133	24,969	
2020	19,573	19.2	3,758	22,120	19.2	3,758	22,120	21.8	4,267	25,284	
2021	20,209	19.2	3,880	22,373	19.2	3,880	22,373	21.8	4,406	25 <i>,</i> 573	
2022	20,866	19.2	4,006	22,600	19.2	4,006	22,600	21.8	4,549	25,833	
2023	21,544	19.2	4,136	22,798	19.2	4,136	22,798	21.8	4,697	26,060	
2024	22,244	19.2	4,271	22,964	19.2	4,271	22,964	21.8	4,849	26,250	
2025	22,967	19.2	4,410	23,094	19.2	4,410	23,094	21.8	5,007	26,398	
2026	23,713	19.2	4,553	23,183	19.2	4,553	23,183	21.8	5,169	26,500	
2027	24,484	19.2	4,701	23,227	19.2	4,701	23,227	21.8	5,338	26,551	

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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 (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

		L-1	L Benefit Pro	gram	L-3	Benefit Pro	gram	LT-4(65) Benefit Program			
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	bution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2018	\$ 18,360	8.1%	\$1,487	\$ 11,621	10.6%	\$1,946	\$ 14,620	8.1%	\$1,487	\$ 11,621	
2019	18,957	8.1	1,536	11,780	10.6	2,009	14,820	8.1	1,536	11,780	
2020	19,573	8.1	1,585	11,929	10.6	2,075	15,007	8.1	1,585	11,929	
2021	20,209	8.1	1,637	12,065	10.6	2,142	15,179	8.1	1,637	12,065	
2022	20,866	8.1	1,690	12,188	10.6	2,212	15,333	8.1	1,690	12,188	
2023	21,544	8.1	1,745	12,295	10.6	2,284	15,468	8.1	1,745	12,295	
2024	22,244	8.1	1,802	12,385	10.6	2,358	15,581	8.1	1,802	12,385	
2025	22,967	8.1	1,860	12,455	10.6	2,435	15,669	8.1	1,860	12,455	
2026	23,713	8.1	1,921	12,503	10.6	2,514	15,730	8.1	1,921	12,503	
2027	24,484	8.1	1,983	12,527	10.6	2,595	15,760	8.1	1,983	12,527	

### Rule of 80 Retirement Eligibility

		LT-5(	65) Benefit P	rogram	L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		Employer	Unfunded Actuarial		l Employer bution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2018	\$ 18,360	10.6%	\$1,946	\$ 14,620	13.1%	\$2,405	\$ 17,614	13.1%	\$2,405	\$ 17,614	
2019	18,957	10.6	2,009	14,820	13.1	2,483	17,855	13.1	2,483	17,855	
2020	19,573	10.6	2,075	15,007	13.1	2,564	18,080	13.1	2,564	18,080	
2021	20,209	10.6	2,142	15,179	13.1	2,647	18,287	13.1	2,647	18,287	
2022	20,866	10.6	2,212	15,333	13.1	2,733	18,473	13.1	2,733	18,473	
2023	21,544	10.6	2,284	15,468	13.1	2,822	18,635	13.1	2,822	18,635	
2024	22,244	10.6	2,358	15,581	13.1	2,914	18,771	13.1	2,914	18,771	
2025	22,967	10.6	2,435	15,669	13.1	3,009	18,877	13.1	3,009	18,877	
2026	23,713	10.6	2,514	15,730	13.1	3,106	18,950	13.1	3,106	18,950	
2027	24,484	10.6	2 <i>,</i> 595	15,760	13.1	3,207	18,986	13.1	3,207	18,986	

		L-1	ogram	LT-14(65) Benefit Program			L-6 Benefit Program			
	Estimated		Employer	Unfunded Actuarial		Estimated Employer Contribution			Employer bution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 18,360	15.8%	\$2,901	\$ 20,611	15.8%	\$2,901	\$ 20,611	18.3%	\$3,360	\$ 23,607
2019	18,957	15.8	2,995	20,893	15.8	2,995	20,893	18.3	3,469	23,930
2020	19,573	15.8	3,093	21,156	15.8	3,093	21,156	18.3	3,582	24,232
2021	20,209	15.8	3,193	21,398	15.8	3,193	21,398	18.3	3,698	24,509
2022	20,866	15.8	3,297	21,615	15.8	3,297	21,615	18.3	3,818	24,758
2023	21,544	15.8	3,404	21,805	15.8	3,404	21,805	18.3	3,943	24,975
2024	22,244	15.8	3,515	21,964	15.8	3,515	21,964	18.3	4,071	25,157
2025	22,967	15.8	3,629	22,088	15.8	3,629	22,088	18.3	4,203	25,299
2026	23,713	15.8	3,747	22,173	15.8	3,747	22,173	18.3	4,339	25,397
2027	24,484	15.8	3,868	22,215	15.8	3,868	22,215	18.3	4,481	25,445

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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 (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

		L-1	L Benefit Pro	gram	<b></b>			LT-4(65) Benefit Program			
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	bution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2018	\$ 18,360	8.4%	\$1,542	\$ 12,002	11.1%	\$2 <i>,</i> 038	\$ 15,094	8.4%	\$1,542	\$ 12,002	
2019	18,957	8.4	1,592	12,166	11.1	2,104	15,301	8.4	1,592	12,166	
2020	19,573	8.4	1,644	12,319	11.1	2,173	15,494	8.4	1,644	12,319	
2021	20,209	8.4	1,698	12,460	11.1	2,243	15,671	8.4	1,698	12,460	
2022	20,866	8.4	1,753	12,587	11.1	2,316	15,830	8.4	1,753	12,587	
2023	21,544	8.4	1,810	12,698	11.1	2,391	15,969	8.4	1,810	12,698	
2024	22,244	8.4	1,868	12,790	11.1	2,469	16,085	8.4	1,868	12,790	
2025	22,967	8.4	1,929	12,862	11.1	2,549	16,176	8.4	1,929	12,862	
2026	23,713	8.4	1,992	12,912	11.1	2,632	16,239	8.4	1,992	12,912	
2027	24,484	8.4	2,057	12,937	11.1	2,718	16,270	8.4	2,057	12,937	

### Rule of 80 Retirement Eligibility

		LT-5(	65) Benefit P	rogram	L-1	7 Benefit Pro	gram	LT-8(65) Benefit Program			
	Estimated		Employer	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2018	\$ 18,360	11.1%	\$2,038	\$ 15,094	13.6%	\$2,497	\$ 18,186	13.6%	\$2,497	\$ 18,186	
2019	18,957	11.1	2,104	15,301	13.6	2,578	18,435	13.6	2,578	18,435	
2020	19,573	11.1	2,173	15,494	13.6	2,662	18,667	13.6	2,662	18,667	
2021	20,209	11.1	2,243	15,671	13.6	2,748	18,880	13.6	2,748	18 <i>,</i> 880	
2022	20,866	11.1	2,316	15,830	13.6	2,838	19,072	13.6	2,838	19,072	
2023	21,544	11.1	2,391	15,969	13.6	2,930	19,239	13.6	2,930	19,239	
2024	22,244	11.1	2,469	16,085	13.6	3,025	19,379	13.6	3,025	19,379	
2025	22,967	11.1	2,549	16,176	13.6	3,124	19,489	13.6	3,124	19,489	
2026	23,713	11.1	2,632	16,239	13.6	3,225	19,564	13.6	3,225	19,564	
2027	24,484	11.1	2,718	16,270	13.6	3,330	19,601	13.6	3,330	19,601	

		L-1	2 Benefit Pro	<u> </u>			Program L-6 Benefit Program			
	Estimated		Employer	Unfunded Actuarial		Employer	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
2018	\$ 18,360	16.3%	\$2,993	\$ 21,276	16.3%	\$2,993	\$ 21,276	18.9%	\$3,470	\$ 24,369
2019	18,957	16.3	3,090	21,567	16.3	3,090	21,567	18.9	3,583	24,703
2020	19,573	16.3	3,190	21,839	16.3	3,190	21,839	18.9	3,699	25,014
2021	20,209	16.3	3,294	22,089	16.3	3,294	22,089	18.9	3,820	25,300
2022	20,866	16.3	3,401	22,313	16.3	3,401	22,313	18.9	3,944	25,557
2023	21,544	16.3	3,512	22,509	16.3	3,512	22,509	18.9	4,072	25,781
2024	22,244	16.3	3,626	22,673	16.3	3,626	22,673	18.9	4,204	25,969
2025	22,967	16.3	3,744	22,801	16.3	3,744	22,801	18.9	4,341	26,116
2026	23,713	16.3	3,865	22,889	16.3	3,865	22,889	18.9	4,482	26,217
2027	24,484	16.3	3,991	22,933	16.3	3,991	22,933	18.9	4,627	26,267

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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 (Non-Contributory Plan - 5 Year FAS)

(0% member contributions are additional)

		L-1	L Benefit Pro	gram	L-3	Benefit Pro	gram	LT-4(65) Benefit Program			
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	bution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2018	\$ 18,360	11.0%	\$2,020	\$ 11,934	13.6%	\$2,497	\$ 14,922	11.0%	\$2,020	\$ 11,934	
2019	18,957	11.0	2,085	12,097	13.6	2,578	15,126	11.0	2,085	12,097	
2020	19,573	11.0	2,153	12,250	13.6	2,662	15,317	11.0	2,153	12,250	
2021	20,209	11.0	2,223	12,390	13.6	2,748	15,492	11.0	2,223	12,390	
2022	20,866	11.0	2,295	12,516	13.6	2,838	15,649	11.0	2,295	12,516	
2023	21,544	11.0	2,370	12,626	13.6	2,930	15,786	11.0	2,370	12,626	
2024	22,244	11.0	2,447	12,718	13.6	3,025	15,901	11.0	2,447	12,718	
2025	22,967	11.0	2,526	12,790	13.6	3,124	15,991	11.0	2,526	12,790	
2026	23,713	11.0	2,608	12,839	13.6	3,225	16,053	11.0	2,608	12,839	
2027	24,484	11.0	2,693	12,864	13.6	3,330	16,084	11.0	2,693	12,864	

### Rule of 80 Retirement Eligibility

		LT-5(	65) Benefit P	rogram	L-1	7 Benefit Pro	gram	LT-8(	65) Benefit P	rogram
	Estimated		l Employer bution	Unfunded Actuarial		l Employer bution	Unfunded Actuarial		l Employer bution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 18,360	13.6%	\$2,497	\$ 14,922	16.0%	\$2,938	\$ 17,904	16.0%	\$2,938	\$ 17,904
2019	18,957	13.6	2,578	15,126	16.0	3,033	18,149	16.0	3,033	18,149
2020	19,573	13.6	2,662	15,317	16.0	3,132	18,378	16.0	3,132	18,378
2021	20,209	13.6	2,748	15,492	16.0	3,233	18,588	16.0	3,233	18,588
2022	20,866	13.6	2,838	15,649	16.0	3,339	18,777	16.0	3,339	18,777
2023	21,544	13.6	2,930	15,786	16.0	3,447	18,942	16.0	3,447	18,942
2024	22,244	13.6	3,025	15,901	16.0	3,559	19,080	16.0	3,559	19,080
2025	22,967	13.6	3,124	15,991	16.0	3,675	19,188	16.0	3,675	19,188
2026	23,713	13.6	3,225	16,053	16.0	3,794	19,262	16.0	3,794	19,262
2027	24,484	13.6	3,330	16,084	16.0	3,917	19,299	16.0	3,917	19,299

		L-1	2 Benefit Pro	ogram	am LT-14(65) Benefit Program			L-6 Benefit Program			
	Estimated		Employer	Unfunded Actuarial		Employer bution	Unfunded Actuarial		Employer bution	Unfunded Actuarial	
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	
2018	\$ 18,360	18.7%	\$3,433	\$ 20,887	18.7%	\$3 <i>,</i> 433	\$ 20,887	21.2%	\$3 <i>,</i> 892	\$ 23,873	
2019	18,957	18.7	3,545	21,173	18.7	3,545	21,173	21.2	4,019	24,200	
2020	19,573	18.7	3,660	21,440	18.7	3,660	21,440	21.2	4,149	24,505	
2021	20,209	18.7	3,779	21,685	18.7	3,779	21,685	21.2	4,284	24,785	
2022	20,866	18.7	3,902	21,905	18.7	3,902	21,905	21.2	4,424	25,037	
2023	21,544	18.7	4,029	22,097	18.7	4,029	22,097	21.2	4,567	25,257	
2024	22,244	18.7	4,160	22,258	18.7	4,160	22,258	21.2	4,716	25,441	
2025	22,967	18.7	4,295	22,384	18.7	4,295	22,384	21.2	4,869	25,585	
2026	23,713	18.7	4,434	22,471	18.7	4,434	22,471	21.2	5,027	25,684	
2027	24,484	18.7	4,579	22,514	18.7	4,579	22,514	21.2	5,191	25,733	

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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 (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

		L-1	L Benefit Pro	gram	L-3	Benefit Pro	gram	LT-4(65) Benefit Program			
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	bution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2018	\$ 18,360	11.3%	\$2,075	\$ 12,313	14.0%	\$2,570	\$ 15,396	11.3%	\$2,075	\$ 12,313	
2019	18,957	11.3	2,142	12,482	14.0	2,654	15,607	11.3	2,142	12,482	
2020	19,573	11.3	2,212	12,639	14.0	2,740	15,804	11.3	2,212	12,639	
2021	20,209	11.3	2,284	12,784	14.0	2,829	15,985	11.3	2,284	12,784	
2022	20,866	11.3	2,358	12,914	14.0	2,921	16,147	11.3	2,358	12,914	
2023	21,544	11.3	2,434	13,027	14.0	3,016	16,289	11.3	2,434	13,027	
2024	22,244	11.3	2,514	13,122	14.0	3,114	16,408	11.3	2,514	13,122	
2025	22,967	11.3	2,595	13,196	14.0	3,215	16,501	11.3	2,595	13,196	
2026	23,713	11.3	2,680	13,247	14.0	3,320	16,565	11.3	2,680	13,247	
2027	24,484	11.3	2,767	13,272	14.0	3,428	16,597	11.3	2,767	13,272	

### Rule of 80 Retirement Eligibility

		LT-5(	65) Benefit P	rogram	L-1	7 Benefit Pro	gram	LT-8(65) Benefit Program			
	Estimated		Employer	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2018	\$ 18,360	14.0%	\$2,570	\$ 15,396	16.5%	\$3,029	\$ 18,472	16.5%	\$3,029	\$ 18,472	
2019	18,957	14.0	2,654	15,607	16.5	3,128	18,725	16.5	3,128	18,725	
2020	19,573	14.0	2,740	15,804	16.5	3,230	18,961	16.5	3,230	18,961	
2021	20,209	14.0	2,829	15,985	16.5	3,334	19,178	16.5	3,334	19,178	
2022	20,866	14.0	2,921	16,147	16.5	3,443	19,373	16.5	3,443	19,373	
2023	21,544	14.0	3,016	16,289	16.5	3,555	19,543	16.5	3,555	19,543	
2024	22,244	14.0	3,114	16,408	16.5	3,670	19,685	16.5	3,670	19,685	
2025	22,967	14.0	3,215	16,501	16.5	3,790	19,796	16.5	3,790	19,796	
2026	23,713	14.0	3,320	16,565	16.5	3,913	19,873	16.5	3,913	19,873	
2027	24,484	14.0	3,428	16,597	16.5	4,040	19,911	16.5	4,040	19,911	

		L-1	2 Benefit Pro	ogram	LT-14	(65) Benefit I	Program	L-6 Benefit Program		
	Estimated		Employer	Unfunded Actuarial		Employer bution	Unfunded Actuarial		Employer bution	Unfunded Actuarial
Valuation Year	Projected Payroll	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 18,360	19.2%	\$3,525	\$ 21,550	19.2%	\$3 <i>,</i> 525	\$ 21,550	21.8%	\$4,002	\$ 24,632
2019	18,957	19.2	3,640	21,845	19.2	3,640	21,845	21.8	4,133	24,969
2020	19,573	19.2	3,758	22,120	19.2	3,758	22,120	21.8	4,267	25,284
2021	20,209	19.2	3,880	22,373	19.2	3 <i>,</i> 880	22,373	21.8	4,406	25 <i>,</i> 573
2022	20,866	19.2	4,006	22,600	19.2	4,006	22,600	21.8	4,549	25,833
2023	21,544	19.2	4,136	22,798	19.2	4,136	22,798	21.8	4,697	26,060
2024	22,244	19.2	4,271	22,964	19.2	4,271	22,964	21.8	4,849	26,250
2025	22,967	19.2	4,410	23,094	19.2	4,410	23,094	21.8	5,007	26,398
2026	23,713	19.2	4,553	23,183	19.2	4,553	23,183	21.8	5,169	26,500
2027	24,484	19.2	4,701	23,227	19.2	4,701	23,227	21.8	5,338	26,551

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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 (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

		L-	1 Benefit Pro	gram	Ŀ	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	Contr	ibution	Actuarial	Contri	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 66,200	7.2%	\$4,766	\$ 15,202	9.8%	\$6,488	\$ 19,258	9.7%	\$6,421	\$ 19,308
2019	68,352	7.2	4,921	15,410	9.8	6,698	19,522	9.7	6,630	19,573
2020	70,573	7.2	5,081	15,604	9.8	6,916	19,768	9.7	6,846	19,820
2021	72,867	7.2	5,246	15,782	9.8	7,141	19,994	9.7	7,068	20,047
2022	75,235	7.2	5,417	15,942	9.8	7,373	20,197	9.7	7,298	20,251
2023	77,680	7.2	5,593	16,082	9.8	7,613	20,374	9.7	7,535	20,429
2024	80,205	7.2	5,775	16,199	9.8	7,860	20,522	9.7	7,780	20,578
2025	82,812	7.2	5,962	16,291	9.8	8,116	20,638	9.7	8,033	20,694
2026	85,503	7.2	6,156	16,354	9.8	8,379	20,718	9.7	8,294	20,774
2027	88,282	7.2	6,356	16,385	9.8	8,652	20,758	9.7	8,563	20,814

### **Regular Retirement Eligibility**

		LT-5	(65) Benefit P	rogram	L-7 Benefit Program			LT-8(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	
2018	\$ 66,200	11.4%	\$7,547	\$ 22,348	12.2%	\$8 <i>,</i> 076	\$ 23,323	13.4%	\$8,871	\$ 25,384	
2019	68,352	11.4	7,792	22,654	12.2	8,339	23,643	13.4	9,159	25,732	
2020	70,573	11.4	8,045	22,940	12.2	8,610	23,941	13.4	9,457	26,056	
2021	72,867	11.4	8,307	23,202	12.2	8,890	24,215	13.4	9,764	26,354	
2022	75,235	11.4	8,577	23,438	12.2	9,179	24,461	13.4	10,081	26,622	
2023	77,680	11.4	8,856	23,644	12.2	9,477	24,676	13.4	10,409	26,856	
2024	80,205	11.4	9,143	23,816	12.2	9,785	24,856	13.4	10,747	27,052	
2025	82,812	11.4	9,441	23,951	12.2	10,103	24,996	13.4	11,097	27,205	
2026	85,503	11.4	9,747	24,044	12.2	10,431	25,093	13.4	11,457	27,310	
2027	88,282	11.4	10,064	24,090	12.2	10,770	25,141	13.4	11,830	27,362	

		L-3	12 Benefit Pro	ogram	LT-14	4(65) Benefit I	Program	L-6 Benefit Program			
			l Employer	Unfunded		l Employer	Unfunded		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	
2018	\$ 66,200	14.7%	\$9,731	\$ 27,393	15.2%	\$10,062	\$ 28,425	17.1%	\$11,320	\$ 31,438	
2019	68,352	14.7	10,048	27,768	15.2	10,390	28,814	17.1	11,688	31,869	
2020	70,573	14.7	10,374	28,118	15.2	10,727	29,177	17.1	12,068	32,271	
2021	72,867	14.7	10,711	28,439	15.2	11,076	29,511	17.1	12,460	32,640	
2022	75,235	14.7	11,060	28,728	15.2	11,436	29,811	17.1	12,865	32,972	
2023	77,680	14.7	11,419	28,980	15.2	11,807	30,073	17.1	13,283	33,262	
2024	80,205	14.7	11,790	29,191	15.2	12,191	30,292	17.1	13,715	33,504	
2025	82,812	14.7	12,173	29,356	15.2	12,587	30,463	17.1	14,161	33,693	
2026	85,503	14.7	12,569	29,470	15.2	12,996	30,581	17.1	14,621	33,823	
7 2027	88,282	14.7	12,977	29,526	15.2	13,419	30,639	17.1	15,096	33,888	

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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 (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

		Ŀ	1 Benefit Pro	gram	L-	3 Benefit Pro	gram	LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	bution	Actuarial	Contri	bution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2018	\$ 66,200	7.6%	\$5,031	\$ 15,764	10.1%	\$6,686	\$ 19,945	10.1%	\$6,686	\$ 20,004	
2019	68,352	7.6	5,195	15,980	10.1	6,904	20,218	10.1	6,904	20,278	
2020	70,573	7.6	5,364	16,181	10.1	7,128	20,473	10.1	7,128	20,534	
2021	72,867	7.6	5,538	16,366	10.1	7,360	20,707	10.1	7,360	20,769	
2022	75,235	7.6	5,718	16,532	10.1	7,599	20,917	10.1	7,599	20,980	
2023	77,680	7.6	5,904	16,677	10.1	7,846	21,101	10.1	7,846	21,164	
2024	80,205	7.6	6,096	16,798	10.1	8,101	21,255	10.1	8,101	21,318	
2025	82,812	7.6	6,294	16,893	10.1	8,364	21,375	10.1	8,364	21,438	
2026	85,503	7.6	6,498	16,958	10.1	8,636	21,458	10.1	8,636	21,521	
2027	88,282	7.6	6,709	16,990	10.1	8,916	21,499	10.1	8,916	21,562	

### **Regular Retirement Eligibility**

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8	rogram	
	Estimated		d 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
2018	\$ 66,200	12.0%	\$7,944	\$ 23,148	12.7%	\$8,407	\$ 24,151	14.0%	\$9,268	\$ 26,286
2019	68,352	12.0	8,202	23,465	12.7	8,681	24,482	14.0	9,569	26,646
2020	70,573	12.0	8,469	23,761	12.7	8,963	24,791	14.0	9,880	26,982
2021	72,867	12.0	8,744	24,033	12.7	9,254	25,074	14.0	10,201	27,290
2022	75,235	12.0	9,028	24,277	12.7	9,555	25,329	14.0	10,533	27,567
2023	77,680	12.0	9,322	24,490	12.7	9,865	25,551	14.0	10,875	27,809
2024	80,205	12.0	9,625	24,668	12.7	10,186	25,737	14.0	11,229	28,012
2025	82,812	12.0	9,937	24,807	12.7	10,517	25,882	14.0	11,594	28,170
2026	85,503	12.0	10,260	24,903	12.7	10,859	25,982	14.0	11,970	28,279
2027	88,282	12.0	10,594	24,951	12.7	11,212	26,032	14.0	12,359	28,333

		L-3	12 Benefit Pro	· · · ·		Program	gram L-6 Benefit Pr		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
2018	\$ 66,200	15.2%	\$10,062	\$ 28,351	15.8%	\$10,460	\$ 29,412	17.8%	\$11,784	\$ 32,561
2019	68,352	15.2	10,390	28,739	15.8	10,800	29,815	17.8	12,167	33,007
2020	70,573	15.2	10,727	29,101	15.8	11,151	30,191	17.8	12,562	33,423
2021	72,867	15.2	11,076	29,434	15.8	11,513	30,536	17.8	12,970	33,805
2022	75,235	15.2	11,436	29,733	15.8	11,887	30,846	17.8	13,392	34,148
2023	77,680	15.2	11,807	29,994	15.8	12,273	31,117	17.8	13,827	34,448
2024	80,205	15.2	12,191	30,212	15.8	12,672	31,344	17.8	14,276	34,699
2025	82,812	15.2	12,587	30,383	15.8	13,084	31,521	17.8	14,741	34,895
2026	85,503	15.2	12,996	30,500	15.8	13,509	31,643	17.8	15,220	35,030
2027	88,282	15.2	13,419	30,558	15.8	13,949	31,703	17.8	15,714	35,097

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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 (Non-Contributory Plan - 5 Year FAS)

(0% member contributions are additional)

		L-	1 Benefit Pro	gram	Ŀ	3 Benefit Pro	gram	LT-4(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 %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2018	\$ 66,200	11.0%	\$7,282	\$ 16,329	13.6%	\$9,003	\$ 20,427	13.5%	\$8,937	\$ 20,422	
2019	68,352	11.0	7,519	16,553	13.6	9,296	20,707	13.5	9,228	20,702	
2020	70,573	11.0	7,763	16,762	13.6	9,598	20,968	13.5	9,527	20,963	
2021	72,867	11.0	8,015	16,954	13.6	9,910	21,208	13.5	9,837	21,203	
2022	75,235	11.0	8,276	17,126	13.6	10,232	21,423	13.5	10,157	21,418	
2023	77,680	11.0	8,545	17,276	13.6	10,564	21,611	13.5	10,487	21,606	
2024	80,205	11.0	8,823	17,402	13.6	10,908	21,768	13.5	10,828	21,763	
2025	82,812	11.0	9,109	17,500	13.6	11,262	21,891	13.5	11,180	21,886	
2026	85,503	11.0	9,405	17,568	13.6	11,628	21,976	13.5	11,543	21,971	
2027	88,282	11.0	9,711	17,602	13.6	12,006	22,018	13.5	11,918	22,013	

### **Regular Retirement Eligibility**

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8(65) Benefit Program			
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2018	\$ 66,200	15.3%	\$10,129	\$ 23,481	16.0%	\$10,592	\$ 24,496	17.3%	\$11,453	\$ 26,538	
2019	68,352	15.3	10,458	23,803	16.0	10,936	24,832	17.3	11,825	26,902	
2020	70,573	15.3	10,798	24,103	16.0	11,292	25,145	17.3	12,209	27,241	
2021	72,867	15.3	11,149	24,379	16.0	11,659	25,432	17.3	12,606	27,552	
2022	75,235	15.3	11,511	24,627	16.0	12,038	25,690	17.3	13,016	27,832	
2023	77,680	15.3	11,885	24,843	16.0	12,429	25,916	17.3	13,439	28,076	
2024	80,205	15.3	12,271	25,024	16.0	12,833	26,105	17.3	13,875	28,281	
2025	82,812	15.3	12,670	25,165	16.0	13,250	26,253	17.3	14,326	28,441	
2026	85,503	15.3	13,082	25,262	16.0	13,680	26,355	17.3	14,792	28,551	
2027	88,282	15.3	13,507	25,310	16.0	14,125	26,405	17.3	15,273	28,606	

		L-:	12 Benefit Pro	gram LT-14(65) Benefit I			Program	gram L-6 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	
2018	\$ 66,200	18.6%	\$12,313	\$ 28,587	19.1%	\$12,644	\$ 29,606	21.0%	\$13,902	\$ 32,670	
2019	68,352	18.6	12,713	28,979	19.1	13,055	30,012	21.0	14,354	33,118	
2020	70,573	18.6	13,127	29,344	19.1	13,479	30,390	21.0	14,820	33,536	
2021	72,867	18.6	13,553	29,679	19.1	13,918	30,737	21.0	15,302	33,919	
2022	75,235	18.6	13,994	29,981	19.1	14,370	31,049	21.0	15,799	34,264	
2023	77,680	18.6	14,448	30,244	19.1	14,837	31,322	21.0	16,313	34,565	
2024	80,205	18.6	14,918	30,464	19.1	15,319	31,550	21.0	16,843	34,817	
2025	82,812	18.6	15,403	30,636	19.1	15,817	31,728	21.0	17,391	35,014	
2026	85,503	18.6	15,904	30,754	19.1	16,331	31,851	21.0	17,956	35,149	
2027	88,282	18.6	16,420	30,813	19.1	16,862	31,912	21.0	18,539	35,216	
بمرابع ممريا	+ho ahour										

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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 (Non-Contributory Plan - 3 Year FAS)

(0% 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	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 66,200	11.3%	\$7,481	\$ 16,872	13.9%	\$9,202	\$ 21,108	13.9%	\$9,202	\$ 21,112
2019	68,352	11.3	7,724	17,103	13.9	9,501	21,397	13.9	9,501	21,401
2020	70,573	11.3	7,975	17,319	13.9	9,810	21,667	13.9	9,810	21,671
2021	72,867	11.3	8,234	17,517	13.9	10,129	21,915	13.9	10,129	21,919
2022	75,235	11.3	8,502	17,695	13.9	10,458	22,138	13.9	10,458	22,142
2023	77,680	11.3	8,778	17,850	13.9	10,798	22,332	13.9	10,798	22,336
2024	80,205	11.3	9,063	17,980	13.9	11,148	22,495	13.9	11,148	22,499
2025	82,812	11.3	9,358	18,082	13.9	11,511	22,622	13.9	11,511	22,626
2026	85,503	11.3	9,662	18,152	13.9	11,885	22,709	13.9	11,885	22,713
2027	88,282	11.3	9,976	18,187	13.9	12,271	22,752	13.9	12,271	22,756

### **Regular Retirement Eligibility**

		LT-5(65) Benefit Program			L	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
		Estimated	d Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 66,200	15.8%	\$10,460	\$ 24,277	16.5%	\$10,923	\$ 25,340	17.8%	\$11,784	\$ 27,441
2019	68,352	15.8	10,800	24,610	16.5	11,278	25,687	17.8	12,167	27,817
2020	70,573	15.8	11,151	24,920	16.5	11,645	26,011	17.8	12,562	28,168
2021	72,867	15.8	11,513	25,205	16.5	12,023	26,308	17.8	12,970	28,490
2022	75,235	15.8	11,887	25,461	16.5	12,414	26,575	17.8	13,392	28,779
2023	77,680	15.8	12,273	25,685	16.5	12,817	26,808	17.8	13,827	29,032
2024	80,205	15.8	12,672	25,872	16.5	13,234	27,003	17.8	14,276	29,243
2025	82,812	15.8	13,084	26,018	16.5	13,664	27,156	17.8	14,741	29,408
2026	85,503	15.8	13,509	26,119	16.5	14,108	27,261	17.8	15,220	29,522
2027	88,282	15.8	13,949	26,169	16.5	14,567	27,313	17.8	15,714	29,578

		L-:	12 Benefit Pro	ogram	LT-14	4(65) Benefit I	Program	Ŀ	6 Benefit Pro	Lion      Actuarial        Annual      Accrued        Dollars      Liability        \$14,299      \$ 33,780        14,764      34,243        15,244      34,675		
	Estimated		l Employer ibution	Unfunded Actuarial		d Employer Unfunded Estimated En ribution Actuarial Contribu		• •				
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			
2018	\$ 66,200	19.0%	\$12,578	\$ 29,542	19.7%	\$13,041	\$ 30,604	21.6%	\$14,299	\$ 33,780		
2019	68,352	19.0	12,987	29,947	19.7	13,465	31,023	21.6	14,764	34,243		
2020	70,573	19.0	13,409	30,325	19.7	13,903	31,414	21.6	15,244	34,675		
2021	72,867	19.0	13,845	30,672	19.7	14,355	31,773	21.6	15,739	35,071		
2022	75,235	19.0	14,295	30,984	19.7	14,821	32,096	21.6	16,251	35,427		
2023	77,680	19.0	14,759	31,256	19.7	15,303	32,378	21.6	16,779	35,738		
2024	80,205	19.0	15,239	31,484	19.7	15,800	32,614	21.6	17,324	35,998		
2025	82,812	19.0	15,734	31,662	19.7	16,314	32,798	21.6	17,887	36,201		
2026	85,503	19.0	16,246	31,784	19.7	16,844	32,925	21.6	18,469	36,341		
2027	88,282	19.0	16,774	31,845	19.7	17,392	32,988	21.6	19,069	36,410		

Notes regarding the above projections:

1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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 (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

		L-	1 Benefit Pro	gram	L-3 Benefit Program			LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contri	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2018	\$ 66,200	7.2%	\$4,766	\$ 15,202	9.8%	\$6,488	\$ 19,258	9.7%	\$6,421	\$ 19,308	
2019	68,352	7.2	4,921	15,410	9.8	6,698	19,522	9.7	6,630	19,573	
2020	70,573	7.2	5,081	15,604	9.8	6,916	19,768	9.7	6,846	19,820	
2021	72,867	7.2	5,246	15,782	9.8	7,141	19,994	9.7	7,068	20,047	
2022	75,235	7.2	5,417	15,942	9.8	7,373	20,197	9.7	7,298	20,251	
2023	77,680	7.2	5,593	16,082	9.8	7,613	20,374	9.7	7,535	20,429	
2024	80,205	7.2	5,775	16,199	9.8	7,860	20,522	9.7	7,780	20,578	
2025	82,812	7.2	5,962	16,291	9.8	8,116	20,638	9.7	8,033	20,694	
2026	85 <i>,</i> 503	7.2	6,156	16,354	9.8	8,379	20,718	9.7	8,294	20,774	
2027	88,282	7.2	6,356	16,385	9.8	8,652	20,758	9.7	8,563	20,814	

#### Rule of 80 Retirement Eligibility

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8	(65) Benefit P	rogram
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		d Employer ibution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 66,200	11.5%	\$7,613	\$ 22,348	12.2%	\$8,076	\$ 23,323	13.4%	\$8,871	\$ 25,384
2019	68,352	11.5	7,860	22,654	12.2	8,339	23,643	13.4	9,159	25,732
2020	70,573	11.5	8,116	22,940	12.2	8,610	23,941	13.4	9,457	26,056
2021	72,867	11.5	8,380	23,202	12.2	8,890	24,215	13.4	9,764	26,354
2022	75,235	11.5	8,652	23,438	12.2	9,179	24,461	13.4	10,081	26,622
2023	77,680	11.5	8,933	23,644	12.2	9,477	24,676	13.4	10,409	26,856
2024	80,205	11.5	9,224	23,816	12.2	9,785	24,856	13.4	10,747	27,052
2025	82,812	11.5	9,523	23,951	12.2	10,103	24,996	13.4	11,097	27,205
2026	85,503	11.5	9,833	24,044	12.2	10,431	25,093	13.4	11,457	27,310
2027	88,282	11.5	10,152	24,090	12.2	10,770	25,141	13.4	11,830	27,362

		L-3	12 Benefit Pro	ogram				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	
2018	\$ 66,200	14.7%	\$9,731	\$ 27,393	15.2%	\$10,062	\$ 28,425	17.1%	\$11,320	\$ 31,438	
2019	68,352	14.7	10,048	27,768	15.2	10,390	28,814	17.1	11,688	31,869	
2020	70,573	14.7	10,374	28,118	15.2	10,727	29,177	17.1	12,068	32,271	
2021	72,867	14.7	10,711	28,439	15.2	11,076	29,511	17.1	12,460	32,640	
2022	75,235	14.7	11,060	28,728	15.2	11,436	29,811	17.1	12,865	32,972	
2023	77,680	14.7	11,419	28,980	15.2	11,807	30,073	17.1	13,283	33,262	
2024	80,205	14.7	11,790	29,191	15.2	12,191	30,292	17.1	13,715	33,504	
2025	82,812	14.7	12,173	29,356	15.2	12,587	30,463	17.1	14,161	33,693	
2026	85,503	14.7	12,569	29,470	15.2	12,996	30,581	17.1	14,621	33,823	
2027	88,282	14.7	12,977	29,526	15.2	13,419	30,639	17.1	15,096	33,888	

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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 (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

		L-	1 Benefit Pro	gram	L-3 Benefit Program			LT-4(65) Benefit Program			
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contri	ibution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2018	\$ 66 <i>,</i> 200	7.6%	\$5,031	\$ 15,764	10.1%	\$6 <i>,</i> 686	\$ 19,945	10.1%	\$6 <i>,</i> 686	\$ 20,004	
2019	68,352	7.6	5,195	15,980	10.1	6,904	20,218	10.1	6,904	20,278	
2020	70,573	7.6	5,364	16,181	10.1	7,128	20,473	10.1	7,128	20,534	
2021	72,867	7.6	5,538	16,366	10.1	7,360	20,707	10.1	7,360	20,769	
2022	75,235	7.6	5,718	16,532	10.1	7,599	20,917	10.1	7,599	20,980	
2023	77,680	7.6	5,904	16,677	10.1	7,846	21,101	10.1	7,846	21,164	
2024	80,205	7.6	6,096	16,798	10.1	8,101	21,255	10.1	8,101	21,318	
2025	82,812	7.6	6,294	16,893	10.1	8,364	21,375	10.1	8,364	21,438	
2026	85,503	7.6	6,498	16,958	10.1	8,636	21,458	10.1	8,636	21,521	
2027	88,282	7.6	6,709	16,990	10.1	8,916	21,499	10.1	8,916	21,562	

### Rule of 80 Retirement Eligibility

		LT-5	(65) Benefit P	rogram	Ŀ	7 Benefit Pro	gram	LT-8(65) Benefit Program			
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2018	\$ 66,200	12.0%	\$7,944	\$ 23,148	12.7%	\$8,407	\$ 24,151	14.0%	\$9,268	\$ 26,286	
2019	68,352	12.0	8,202	23,465	12.7	8,681	24,482	14.0	9,569	26,646	
2020	70,573	12.0	8,469	23,761	12.7	8,963	24,791	14.0	9,880	26,982	
2021	72,867	12.0	8,744	24,033	12.7	9,254	25,074	14.0	10,201	27,290	
2022	75,235	12.0	9,028	24,277	12.7	9,555	25,329	14.0	10,533	27,567	
2023	77,680	12.0	9,322	24,490	12.7	9,865	25,551	14.0	10,875	27,809	
2024	80,205	12.0	9,625	24,668	12.7	10,186	25,737	14.0	11,229	28,012	
2025	82,812	12.0	9,937	24,807	12.7	10,517	25,882	14.0	11,594	28,170	
2026	85,503	12.0	10,260	24,903	12.7	10,859	25,982	14.0	11,970	28,279	
2027	88,282	12.0	10,594	24,951	12.7	11,212	26,032	14.0	12,359	28,333	

		L-:	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 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	
2018	\$ 66,200	15.2%	\$10,062	\$ 28,351	15.8%	\$10,460	\$ 29,412	17.8%	\$11,784	\$ 32,561	
2019	68,352	15.2	10,390	28,739	15.8	10,800	29,815	17.8	12,167	33,007	
2020	70,573	15.2	10,727	29,101	15.8	11,151	30,191	17.8	12,562	33,423	
2021	72,867	15.2	11,076	29,434	15.8	11,513	30,536	17.8	12,970	33,805	
2022	75,235	15.2	11,436	29,733	15.8	11,887	30,846	17.8	13,392	34,148	
2023	77,680	15.2	11,807	29,994	15.8	12,273	31,117	17.8	13,827	34,448	
2024	80,205	15.2	12,191	30,212	15.8	12,672	31,344	17.8	14,276	34,699	
2025	82,812	15.2	12,587	30,383	15.8	13,084	31,521	17.8	14,741	34,895	
2026	85 <i>,</i> 503	15.2	12,996	30,500	15.8	13,509	31,643	17.8	15,220	35,030	
2027	88,282	15.2	13,419	30,558	15.8	13,949	31,703	17.8	15,714	35,097	

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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 (Non-Contributory Plan - 5 Year FAS)

(0% 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	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 66,200	11.0%	\$7,282	\$ 16,329	13.6%	\$9,003	\$ 20,427	13.5%	\$8,937	\$ 20,422
2019	68,352	11.0	7,519	16,553	13.6	9,296	20,707	13.5	9,228	20,702
2020	70,573	11.0	7,763	16,762	13.6	9 <i>,</i> 598	20,968	13.5	9,527	20,963
2021	72,867	11.0	8,015	16,954	13.6	9,910	21,208	13.5	9,837	21,203
2022	75,235	11.0	8,276	17,126	13.6	10,232	21,423	13.5	10,157	21,418
2023	77,680	11.0	8,545	17,276	13.6	10,564	21,611	13.5	10,487	21,606
2024	80,205	11.0	8,823	17,402	13.6	10,908	21,768	13.5	10,828	21,763
2025	82,812	11.0	9,109	17,500	13.6	11,262	21,891	13.5	11,180	21,886
2026	85,503	11.0	9,405	17,568	13.6	11,628	21,976	13.5	11,543	21,971
2027	88,282	11.0	9,711	17,602	13.6	12,006	22,018	13.5	11,918	22,013

### Rule of 80 Retirement Eligibility

	Estimated	LT-5(65) Benefit Program			Ŀ	7 Benefit Pro	gram	LT-8(65) Benefit Program		
		Estimated Employ ted Contribution			Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 66,200	15.3%	\$10,129	\$ 23,481	16.0%	\$10,592	\$ 24,378	17.3%	\$11,453	\$ 26,538
2019	68,352	15.3	10,458	23,803	16.0	10,936	24,712	17.3	11,825	26,902
2020	70,573	15.3	10,798	24,103	16.0	11,292	25,024	17.3	12,209	27,241
2021	72,867	15.3	11,149	24,379	16.0	11,659	25,310	17.3	12,606	27,552
2022	75,235	15.3	11,511	24,627	16.0	12,038	25,567	17.3	13,016	27,832
2023	77,680	15.3	11,885	24,843	16.0	12,429	25,792	17.3	13,439	28,076
2024	80,205	15.3	12,271	25,024	16.0	12,833	25,980	17.3	13,875	28,281
2025	82,812	15.3	12,670	25,165	16.0	13,250	26,127	17.3	14,326	28,441
2026	85,503	15.3	13,082	25,262	16.0	13,680	26,228	17.3	14,792	28,551
2027	88,282	15.3	13,507	25,310	16.0	14,125	26,278	17.3	15,273	28,606

	Ectimated				l(65) Benefit F	rogram		6 Benefit Prog	31 alli
Estimated Projected Payroll	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
\$ 66,200	18.6%	\$12,313	\$ 28,587	19.1%	\$12,644	\$ 29,606	21.0%	\$13,902	\$ 32 <i>,</i> 670
68,352	18.6	12,713	28,979	19.1	13,055	30,012	21.0	14,354	33,118
70,573	18.6	13,127	29,344	19.1	13,479	30,390	21.0	14,820	33,536
72,867	18.6	13,553	29,679	19.1	13,918	30,737	21.0	15,302	33,919
75,235	18.6	13,994	29,981	19.1	14,370	31,049	21.0	15,799	34,264
77,680	18.6	14,448	30,244	19.1	14,837	31,322	21.0	16,313	34,565
80,205	18.6	14,918	30,464	19.1	15,319	31,550	21.0	16,843	34,817
82,812	18.6	15,403	30,636	19.1	15,817	31,728	21.0	17,391	35,014
85,503	18.6	15,904	30,754	19.1	16,331	31,851	21.0	17,956	35,149
88,282	18.6	16,420	30,813	19.1	16,862	31,912	21.0	18,539	35,216
	Payroll \$ 66,200 68,352 70,573 72,867 75,235 77,680 80,205 82,812 85,503 88,282	Payroll      Payroll        \$ 66,200      18.6%        68,352      18.6        70,573      18.6        72,867      18.6        75,235      18.6        77,680      18.6        80,205      18.6        82,812      18.6        85,503      18.6	PayrollPayrollDollars\$ 66,20018.6%\$12,31368,35218.612,71370,57318.613,12772,86718.613,55375,23518.613,99477,68018.614,44880,20518.614,91882,81218.615,40385,50318.615,90488,28218.616,420	PayrollPayrollDollarsLiability\$ 66,20018.6%\$12,313\$ 28,58768,35218.612,71328,97970,57318.613,12729,34472,86718.613,55329,67975,23518.613,99429,98177,68018.614,44830,24480,20518.614,91830,46482,81218.615,40330,63685,50318.615,90430,75488,28218.616,42030,813	PayrollPayrollDollarsLiabilityPayroll\$ 66,20018.6%\$12,313\$ 28,58719.1%68,35218.612,71328,97919.170,57318.613,12729,34419.172,86718.613,55329,67919.175,23518.613,99429,98119.177,68018.614,44830,24419.180,20518.614,91830,66419.182,81218.615,40330,63619.185,50318.616,42030,81319.1	PayrollPayrollDollarsLiabilityPayrollDollars\$ 66,20018.6%\$12,313\$28,58719.1%\$12,64468,35218.612,71328,97919.113,05570,57318.613,12729,34419.113,47972,86718.613,55329,67919.113,91875,23518.613,99429,98119.114,37077,68018.614,44830,24419.114,83780,20518.615,40330,63619.115,81782,81218.615,90430,75419.116,33188,28218.616,42030,81319.116,862	PayrollPayrollDollarsLiabilityPayrollDollarsLiability\$ 66,20018.6%\$12,313\$28,58719.1%\$12,644\$29,60668,35218.612,71328,97919.113,05530,01270,57318.613,12729,34419.113,47930,39072,86718.613,55329,67919.113,91830,73775,23518.613,99429,98119.114,37031,04977,68018.614,44830,24419.114,83731,32280,20518.614,91830,63619.115,81731,72882,81218.615,40330,63619.115,81731,85188,28218.616,42030,81319.116,86231,912	PayrollPayrollDollarsLiabilityPayrollDollarsLiabilityPayroll\$ 66,20018.6%\$12,313\$ 28,58719.1%\$12,644\$ 29,60621.0%68,35218.612,71328,97919.113,05530,01221.070,57318.613,12729,34419.113,47930,39021.072,86718.613,55329,67919.113,91830,73721.075,23518.613,99429,98119.114,37031,04921.077,68018.614,44830,24419.114,83731,32221.080,20518.614,91830,63619.115,31931,55021.082,81218.615,40330,63619.115,81731,72821.085,50318.615,90430,75419.116,33131,85121.088,28218.616,42030,81319.116,86231,91221.0	PayrollPayrollDollarsLiabilityPayrollDollarsLiabilityPayrollDollars\$ 66,20018.6%\$12,313\$ 28,58719.1%\$12,644\$ 29,60621.0%\$13,90268,35218.612,71328,97919.113,05530,01221.014,35470,57318.613,12729,34419.113,47930,39021.014,82072,86718.613,55329,67919.113,91830,73721.015,30275,23518.613,99429,98119.114,37031,04921.015,79977,68018.614,44830,24419.114,83731,32221.016,31380,20518.614,91830,46419.115,31931,55021.016,84382,81218.615,40330,63619.115,81731,72821.017,39185,50318.615,90430,75419.116,33131,85121.017,95688,28218.616,42030,81319.116,86231,91221.018,539

Notes regarding the above projections:

1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.

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 (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

		L-1 Benefit Program			L-	3 Benefit Pro	gram	LT-4(65) Benefit Program		
		Estimated Employer timated Contribution		Unfunded			Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
	Estimated			Actuarial						
Valuation	Projected Payroll		Annual	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
Year			Dollars							
2018	\$ 66 <i>,</i> 200	11.3%	\$7,481	\$ 16,872	13.9%	\$9,202	\$ 21,108	13.9%	\$9,202	\$ 21,112
2019	68,352	11.3	7,724	17,103	13.9	9,501	21,397	13.9	9,501	21,401
2020	70,573	11.3	7,975	17,319	13.9	9,810	21,667	13.9	9,810	21,671
2021	72,867	11.3	8,234	17,517	13.9	10,129	21,915	13.9	10,129	21,919
2022	75,235	11.3	8,502	17,695	13.9	10,458	22,138	13.9	10,458	22,142
2023	77,680	11.3	8,778	17,850	13.9	10,798	22,332	13.9	10,798	22,336
2024	80,205	11.3	9,063	17,980	13.9	11,148	22,495	13.9	11,148	22,499
2025	82,812	11.3	9,358	18,082	13.9	11,511	22,622	13.9	11,511	22,626
2026	85,503	11.3	9,662	18,152	13.9	11,885	22,709	13.9	11,885	22,713
2027	88,282	11.3	9,976	18,187	13.9	12,271	22,752	13.9	12,271	22,756

### Rule of 80 Retirement Eligibility

	Estimated	LT-5(65) Benefit Program			Ŀ	7 Benefit Pro	gram	LT-8(65) Benefit Program		
		Estimated E	d Employer	Unfunded	Estimated Employer		Unfunded	Estimated Employer		Unfunded
		Contribution		Actuarial Accrued	Contribution		Actuarial	Contribution		Actuarial
Valuation	Valuation Projected		Annual		As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 66,200	15.8%	\$10,460	\$ 24,277	16.5%	\$10,923	\$ 25,340	17.8%	\$11,784	\$ 27,441
2019	68,352	15.8	10,800	24,610	16.5	11,278	25,687	17.8	12,167	27,817
2020	70,573	15.8	11,151	24,920	16.5	11,645	26,011	17.8	12,562	28,168
2021	72,867	15.8	11,513	25,205	16.5	12,023	26,308	17.8	12,970	28,490
2022	75,235	15.8	11,887	25,461	16.5	12,414	26,575	17.8	13,392	28,779
2023	77,680	15.8	12,273	25,685	16.5	12,817	26,808	17.8	13,827	29,032
2024	80,205	15.8	12,672	25,872	16.5	13,234	27,003	17.8	14,276	29,243
2025	82,812	15.8	13,084	26,018	16.5	13,664	27,156	17.8	14,741	29,408
2026	85,503	15.8	13,509	26,119	16.5	14,108	27,261	17.8	15,220	29,522
2027	88,282	15.8	13,949	26,169	16.5	14,567	27,313	17.8	15,714	29,578

	Estimated Projected Payroll	L-12 Benefit Program			LT-14	1(65) Benefit I	Program	L-6 Benefit Program		
Valuation Year		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 66,200	19.0%	\$12,578	\$ 29,542	19.7%	\$13,041	\$ 30,604	21.6%	\$14,299	\$ 33,780
2019	68,352	19.0	12,987	29,947	19.7	13,465	31,023	21.6	14,764	34,243
2020	70,573	19.0	13,409	30,325	19.7	13,903	31,414	21.6	15,244	34,675
2021	72,867	19.0	13,845	30,672	19.7	14,355	31,773	21.6	15,739	35,071
2022	75,235	19.0	14,295	30,984	19.7	14,821	32,096	21.6	16,251	35,427
2023	77,680	19.0	14,759	31,256	19.7	15,303	32,378	21.6	16,779	35,738
2024	80,205	19.0	15,239	31,484	19.7	15,800	32,614	21.6	17,324	35,998
2025	82,812	19.0	15,734	31,662	19.7	16,314	32,798	21.6	17,887	36,201
2026	85,503	19.0	16,246	31,784	19.7	16,844	32,925	21.6	18,469	36,341
2027	88,282	19.0	16,774	31,845	19.7	17,392	32,988	21.6	19,069	36,410
+	ding the che									

Notes regarding the above projections:

1) The purpose of the above projections is to comply with the requirements of Section 105.660 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 3.25%.
- 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.

