

THE INITIAL ACTUARIAL VALUATION FOR
MID-COUNTY FIRE PROTECTION DISTRICT
AS OF APRIL 30, 2016

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October 28, 2016

Mid-County Fire Protection District St. Louis, 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 29, 2016.

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 April 30, 2016. 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 opinion herein.

Respectfully submitted,

Mita D. Drazilov, ASA, MAAA

Arra Vestina



October 28, 2016 E-Mail

Mr. Jeff Kempker Manager of Member Services Missouri Local Government Employees Retirement System P.O. Box 1665 Jefferson City, Missouri 65102

Re: Mid-County Fire Protection District - Lump Sum Payment

Dear Jeff:

It is our understanding that the Mid-County Fire Protection District is considering making a lump sum payment to cover a portion of its unfunded actuarial accrued liability. By paying off a portion of its unfunded actuarial accrued liability, the prior service cost component of the computed employer contribution rate becomes smaller. The calculations are computed as of April 30, 2016 which is the date of the initial valuation. A lump sum contribution of \$25,000 for the General division would reduce the computed employer contribution rate by 2.80% of payroll. A lump sum contribution of \$475,000 for the Fire division would reduce the computed employer contribution rate by 1.60% of payroll.

Active member data included in the April 30, 2016 actuarial valuation is shown below:

Active Members as of April 30, 2016

					Avg. benefit	Avg. vesung
Division	<u>Number</u>	Payroll	Avg. Payroll	Avg. Age	Service	Service
General	1	\$ 51,459	\$51,459	40.1 years	10.6 years	10.6 years
Fire	18	1,720,532	95,585	46.4 years	15.1 years	15.1 years

The methods and assumptions used were the same as those used in the annual actuarial valuations as of February 29, 2016. In particular, the assumed rate of investment return was 7.25% and the assumed rate of payroll growth was 3.25%. The amortization period used for the April 30, 2016 initial actuarial valuation was a closed 30-year period.

Mita Drazilov is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the Academy of Actuaries to render the actuarial opinion herein.

Please call if you have any questions.

Sincerely,

Mita D. Drazilov, ASA, MAAA

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MDD:rmg

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 I		e Member Pa	yroll
		Prior			Total Employer
Benefit	Employee	Service	Current	Disability	Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-7	General	6.90 %	5.70 %	0.30 %	12.90 %
	Fire	13.70	7.90	0.80	22.40
LT-8(65)	General	7.20	5.90	0.30	13.40
	Fire	14.90	8.80	0.80	24.50
L-12	General	8.10	7.10	0.40	15.60
	Fire	16.00	9.60	0.90	26.50
LT-14(65)	General	8.20	7.20	0.40	15.80
	Fire	16.60	10.10	0.90	27.60
L-6	General	9.30	8.40	0.50	18.20
	Fire	18.30	11.30	1.00	30.60

^{*} 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 (Contributory Plan - 3 Year FAS) (4% member contributions are additional)

		Percents of Active Member Payroll			yroll
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-7	General	7.20 %	5.90 %	0.30 %	13.40 %
	Fire	14.20	8.10	0.80	23.10
LT-8(65)	General	7.40	6.20	0.30	13.90
	Fire	15.50	9.10	0.80	25.40
L-12	General	8.40	7.40	0.40	16.20
	Fire	16.50	10.10	0.90	27.50
LT-14(65)	General	8.50	7.50	0.40	16.40
	Fire	17.20	10.50	0.90	28.60
L-6	General	9.60	8.90	0.50	19.00
	Fire	18.90	12.00	1.00	31.90

^{*} 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 - 5 Year FAS) (No member contributions)

		Percents of Active Member I			yroll
		D-3			Total
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Employer Contribution Rate
L-7	General	7.70 %	8.80 %	0.30 %	16.80 %
	Fire	13.80	11.70	0.80	26.30
LT-8(65)	General	8.00	9.00	0.30	17.30
	Fire	15.00	12.60	0.80	28.40
L-12	General	9.00	10.10	0.40	19.50
	Fire	16.00	13.50	0.90	30.40
LT-14(65)	General	9.10	10.20	0.40	19.70
	Fire	16.70	13.90	0.90	31.50
L-6	General	10.20	11.40	0.50	22.10
	Fire	18.30	15.20	1.00	34.50

^{*} 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)

		Per	Percents of Active Member Pa		
		Prior			Total Employer
Benefit	Employee	Service	Current	Disability	Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-7	General	7.90 %	9.10 %	0.30 %	17.30 %
	Fire	14.20	12.00	0.80	27.00
LT-8(65)	General	8.20	9.30	0.30	17.80
	Fire	15.50	13.00	0.80	29.30
L-12	General	9.30	10.40	0.40	20.10
	Fire	16.60	13.90	0.90	31.40
LT-14(65)	General	9.40	10.50	0.40	20.30
	Fire	17.20	14.40	0.90	32.50
L-6	General	10.60	11.80	0.50	22.90
	Fire	19.00	15.80	1.00	35.80

^{*} 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 (Contributory Plan - 5 Year FAS) (4% member contributions are additional)

		Percents of Active Member Pay			yroll
		Prior			Total Employer
Benefit	Employee	Service	Current	Disability	Contribution
Program	Groups	Cost *	Cost	Cost	Rate
L-7	General	7.90 %	6.60 %	0.30 %	14.80 %
	Fire	14.70	8.30	0.80	23.80
LT-8(65)	General	8.60	7.20	0.30	16.10
	Fire	16.40	9.50	0.80	26.70
L-12	General	9.30	8.00	0.40	17.70
	Fire	17.20	10.10	0.90	28.20
LT-14(65)	General	9.60	8.50	0.40	18.50
	Fire	18.00	10.80	0.90	29.70
L-6	General	10.70	9.60	0.50	20.80
	Fire	19.60	12.10	1.00	32.70

- # The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.
- * Assumes that credit is granted for 100% of service rendered prior to the membership date. 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 (Contributory Plan - 3 Year FAS) (4% member contributions are additional)

		Percents of Active Member Pa			yroll
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-7	General	8.20 %	6.90 %	0.30 %	15.40 %
	Fire	15.20	8.70	0.80	24.70
LT-8(65)	General	9.00	7.50	0.30	16.80
	Fire	17.00	10.00	0.80	27.80
L-12	General	9.60	8.50	0.40	18.50
	Fire	17.80	10.60	0.90	29.30
LT-14(65)	General	10.00	8.80	0.40	19.20
	Fire	18.70	11.20	0.90	30.80
L-6	General	11.10	10.00	0.50	21.60
	Fire	20.30	12.60	1.00	33.90

- # 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 - 5 Year FAS) (No member contributions)

		Per	Percents of Active Member Pa		
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-7	General	8.70 %	9.70 %	0.30 %	18.70 %
	Fire	14.80	12.10	0.80	27.70
LT-8(65)	General	9.40	10.30	0.30	20.00
	Fire	16.50	13.30	0.80	30.60
L-12	General	10.10	11.10	0.40	21.60
	Fire	17.20	14.00	0.90	32.10
LT-14(65)	General	10.50	11.50	0.40	22.40
	Fire	18.10	14.60	0.90	33.60
L-6	General	11.60	12.60	0.50	24.70
	Fire	19.70	15.90	1.00	36.60

- # The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.
- * Assumes that credit is granted for 100% of service rendered prior to the membership date. 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 Payrol			yroll
Benefit Program	Employee Groups	Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-7	General	9.00 %	10.00 %	0.30 %	19.30 %
	Fire	15.30	12.50	0.80	28.60
LT-8(65)	General	9.70	10.70	0.30	20.70
	Fire	17.10	13.80	0.80	31.70
L-12	General	10.50	11.50	0.40	22.40
	Fire	17.80	14.50	0.90	33.20
LT-14(65)	General	10.90	11.80	0.40	23.10
	Fire	18.70	15.10	0.90	34.70
L-6	General	12.00	13.00	0.50	25.50
	Fire	20.40	16.40	1.00	37.80

- # 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 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. <u>If payroll during your first year of LAGERS participation equals the annual payroll reported for this valuation</u>, the approximate employer dollar contribution for the year would be as follows:

Contributory Plan

5 Year FAS					
Benefit					
Program	General	Fire			
L-7	\$ 6,638	\$ 385,399			
LT-8(65)	6,896	421,530			
L-12	8,028	455,941			
LT-14(65)	8,131	474,867			
L-6	9,366	526,483			

3 Year FAS					
Benefit					
Program	General	Fire			
L-7	\$ 6,896	\$ 397,443			
LT-8(65)	7,153	437,015			
L-12	8,336	473,146			
LT-14(65)	8,439	492,072			
L-6	9,777	548,850			

Non-Contributory Plan

5 Year FAS					
Benefit					
Program	General	Fire			
L-7	\$ 8,645	\$ 452,500			
LT-8(65)	8,902	488,631			
L-12	10,035	523,042			
LT-14(65)	10,137	541,968			
L-6	11,372	593,583			

3 Year FAS					
Benefit					
Program	General	Fire			
L-7	\$ 8,902	\$ 464,544			
LT-8(65)	9,160	504,116			
L-12	10,343	540,247			
LT-14(65)	10,446	559,173			
L-6	11,784	615,950			

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. <u>If payroll during your first year of LAGERS participation equals the annual payroll reported for this valuation</u>, the approximate employer dollar contribution for the year would be as follows:

Contributory Plan

5 Year FAS					
Benefit					
Program	General	Fire			
L-7	\$ 7,616	\$ 409,487			
LT-8(65)	8,285	459,382			
L-12	9,108	485,190			
LT-14(65)	9,520	510,998			
L-6	10,704	562,614			

3 Year FAS					
Benefit					
Program	General	Fire			
L-7	\$ 7,925	\$ 424,971			
LT-8(65)	8,645	478,308			
L-12	9,520	504,116			
LT-14(65)	9,880	529,924			
L-6	11,115	583,260			

Non-Contributory Plan

5 Year FAS					
Benefit					
Program	General	Fire			
L-7	\$ 9,623	\$ 476,587			
LT-8(65)	10,292	526,483			
L-12	11,115	552,291			
LT-14(65)	11,527	578,099			
L-6	12,710	629,715			

3 Year FAS					
Benefit					
Program	General	Fire			
L-7	\$ 9,932	\$ 492,072			
LT-8(65)	10,652	545,409			
L-12	11,527	571,217			
LT-14(65)	11,887	597,025			
L-6	13,122	650,361			

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	18
Annual Payroll	\$ 51,459	\$ 1,720,532

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:

Mid-County Fire Protection District

		Contri	butory	Non-Cor	tributory
Benefit	Employee	UAAL	UAAL	UAAL	UAAL
Group	Group	(5 Year FAS)	(3 Year FAS)	(5 Year FAS)	(3 Year FAS)
L-7	General	\$ 62,541	\$ 64,829	\$ 69,566	\$ 72,034
	Fire	4,150,384	4,293,318	4,167,689	4,309,581
LT-8(65)	General	65,143	67,519	72,149	74,718
	Fire	4,526,838	4,683,196	4,542,397	4,697,615
L-12	General	73,417	76,080	81,170	84,047
	Fire	4,848,602	5,015,304	4,862,291	5,027,817
LT-14(65)	General	74,724	77,425	82,468	85,382
	Fire	5,036,831	5,210,252	5,049,665	5,221,859
L-6	General	84,304	87,360	92,767	96,055
	Fire	5,546,518	5,737,010	5,556,862	5,746,112

UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)

		Contri	ibutory	Non-Con	ntributory	
Benefit	Employee	UAAL	UAAL	UAAL	UAAL	
Group	Group	(5 Year FAS)	(3 Year FAS)	(5 Year FAS)	(3 Year FAS)	
L-7	General	\$ 71,854	\$ 74,532	\$ 78,859	\$ 81,714	
	Fire	4,456,682	4,613,944	4,475,419	4,631,812	
LT-8(65)	General	78,238	81,155	85,226	88,309	
	Fire	4,978,876	5,155,046	4,995,565	5,170,795	
L-12	General	84,254	87,368	91,986	95,319	
	Fire	5,205,314	5,388,669	5,221,272	5,403,787	
LT-14(65)	General	87,451	90,679	95,181	98,627	
	Fire	5,466,396	5,659,240	5,481,364	5,673,301	
L-6	General	96,668	100,231	105,149	108,925	
	Fire	5,953,684	6,163,183	5,967,144	6,175,766	

APPENDIX II

SUMMARY OF FINANCIAL ASSUMPTIONS

Summary of Assumptions Used in Actuarial Valuations Assumptions Adopted by Board of Trustees After Consulting With Actuary

- 1. The investment return rate used in making the valuations was 7.25% 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 7.25% 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 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 3.25% 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.

Withdrawal From Active Employment Before Age & Service Retirement and Individual Pay Increase Assumptions

			Percent of Acti eparating With			Percent Increase in Individual's Pay
Sample	Years of	General 1	Members			During Next Year
Ages	Service	Men	Women	Police	Fire	Excluding Fire
A 11	0	10.000/	22.000/	10.000/	10.000/	
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	7.30	10.80	9.80	5.00	6.6%
30		6.50	8.90	7.80	4.00	5.8
35		5.00	7.40	6.10	2.80	5.3
40		3.70	5.70	4.40	2.20	4.8
45		3.00	4.20	3.20	1.80	4.3
50		2.40	3.30	1.80	1.00	3.9
55		1.80	2.50	1.00	0.50	3.7
60		1.00	1.20	0.00	0.00	3.6
65		0.00	0.00	0.00	0.00	3.3

	Percent Increase in					
	Individual's Pay					
Sample	le During Next Year					
Ages	Fire					
25	7.2%					
30	6.1					
35	5.2					
40	4.5					
45	4.2					
50	3.9					
55	3.7					
60	3.3					
65	3.3					

Schedule 2.

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

Early Retirement

Retirement _	Retirement General Members		Seneral 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%

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	25	25	60	10	15
66	25	25	61	10	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

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

Schedule 2. (Continued)

Retirement	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 29, 2016

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

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

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

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

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

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

(L-1 Benefit Program is Years of Credited Service times: 1.00% of FAS I)

Final		Estimated	Estin	nated
Average	LAGERS	Social	Monthly Total	
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service	ce:			
\$1,500	\$ 525	\$ 882	\$1,407	94%
2,000	700	1,028	1,728	86%
2,500	875	1,174	2,049	82%
3,000	1,050	1,320	2,370	79%
3,500	1,225	1,465	2,690	77%
4,000	1,400	1,611	3,011	75%
25 Years of Service	ce:			
\$1,500	\$ 375	\$ 882	\$1,257	84%
2,000	500	1,028	1,528	76%
2,500	625	1,174	1,799	72%
3,000	750	1,320	2,070	69%
3,500	875	1,465	2,340	67%
4,000	1,000	1,611	2,611	65%
15 Years of Service	ce:			
\$1,500	\$225	\$ 882	\$1,107	74%
2,000	300	1,028	1,328	66%
2,500	375	1,174	1,549	62%
3,000	450	1,320	1,770	59%
3,500	525	1,465	1,990	57%
4,000	600	1,611	2,211	55%

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

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

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

(L-3 Benefit Program is Years of Credited Service times: 1.25% of FAS I)

Final		Estimated	Estimated Monthly Total	
Average	LAGERS	Social		
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service	ce:			
\$1,500	\$ 656	\$ 882	\$1,538	103%
2,000	875	1,028	1,903	95%
2,500	1,094	1,174	2,268	91%
3,000	1,313	1,320	2,633	88%
3,500	1,531	1,465	2,996	86%
4,000	1,750	1,611	3,361	84%
25 Years of Service	ce:			
\$1,500	\$ 469	\$ 882	\$1,351	90%
2,000	625	1,028	1,653	83%
2,500	781	1,174	1,955	78%
3,000	938	1,320	2,258	75%
3,500	1,094	1,465	2,559	73%
4,000	1,250	1,611	2,861	72%
15 Years of Service	ce:			
\$1,500	\$281	\$ 882	\$1,163	78%
2,000	375	1,028	1,403	70%
2,500	469	1,174	1,643	66%
3,000	563	1,320	1,883	63%
3,500	656	1,465	2,121	61%
4,000	750	1,611	2,361	59%

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

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

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

(L-7 Benefit Program is Years of Credited Service times: 1.50% of FAS I)

Final	Estimated Estimated		nated	
Average	LAGERS	Social	Month	ly Total
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Servi	ce:			
\$1,500	\$ 788	\$ 882	\$1,670	111%
2,000	1,050	1,028	2,078	104%
2,500	1,313	1,174	2,487	99%
3,000	1,575	1,320	2,895	97%
3,500	1,838	1,465	3,303	94%
4,000	2,100	1,611	3,711	93%
25 Years of Service	ce:			
\$1,500	\$ 563	\$ 882	\$1,445	96%
2,000	750	1,028	1,778	89%
2,500	938	1,174	2,112	84%
3,000	1,125	1,320	2,445	82%
3,500	1,313	1,465	2,778	79%
4,000	1,500	1,611	3,111	78%
15 Years of Service	ce:			
\$1,500	\$338	\$ 882	\$1,220	81%
2,000	450	1,028	1,478	74%
2,500	563	1,174	1,737	69%
3,000	675	1,320	1,995	67%
3,500	788	1,465	2,253	64%
4,000	900	1,611	2,511	63%

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

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

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

(L-12 Benefit Program is Years of Credited Service times: 1.75% of FAS I)

Final		Estimated	Estin	nated
Average	LAGERS	Social	Month	ly Total
Salary (FAS) ¹	BENEFIT ³	Security ²	\$	% of FAS
35 Years of Service	ee:			
\$1,500	\$ 919	\$ 882	\$1,801	120%
2,000	1,225	1,028	2,253	113%
2,500	1,531	1,174	2,705	108%
3,000	1,838	1,320	3,158	105%
3,500	2,144	1,465	3,609	103%
4,000	2,450	1,611	4,061	102%
25 Years of Service	ee:			
\$1,500	\$ 656	\$ 882	\$1,538	103%
2,000	875	1,028	1,903	95%
2,500	1,094	1,174	2,268	91%
3,000	1,313	1,320	2,633	88%
3,500	1,531	1,465	2,996	86%
4,000	1,750	1,611	3,361	84%
15 Years of Service	e:			
\$1,500	\$ 394	\$ 882	\$1,276	85%
2,000	525	1,028	1,553	78%
2,500	656	1,174	1,830	73%
3,000	788	1,320	2,108	70%
3,500	919	1,465	2,384	68%
4,000	1,050	1,611	2,661	67%

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

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

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

(L-6 Benefit Program is Years of Credited Service times: 2.00% of FAS I)

Final Estimated E		Estin	Estimated	
LAGERS	Social	Monthly Total		
BENEFIT ³	Security ²	\$	% of FAS	
ee:				
\$1,050	\$ 882	\$1,932	129%	
1,400	1,028	2,428	121%	
1,750	1,174	2,924	117%	
2,100	1,320	3,420	114%	
2,450	1,465	3,915	112%	
2,800	1,611	4,411	110%	
ee:				
\$ 750	\$ 882	\$1,632	109%	
1,000	1,028	2,028	101%	
1,250	1,174	2,424	97%	
1,500	1,320	2,820	94%	
1,750	1,465	3,215	92%	
2,000	1,611	3,611	90%	
ee:				
\$ 450	\$ 882	\$1,332	89%	
600	1,028	1,628	81%	
750	1,174	1,924	77%	
900	1,320	2,220	74%	
1,050	1,465	2,515	72%	
1,200	1,611	2,811	70%	
	## SENEFIT 3 ##	LAGERS BENEFIT 3 Security 2 Tee: \$1,050 \$882 1,400 1,028 1,750 1,174 2,100 1,320 2,450 1,465 2,800 1,611 Tee: \$750 \$882 1,000 1,028 1,250 1,174 1,500 1,320 1,750 1,465 2,000 1,611 Tee: \$450 \$882 600 1,028 750 1,174 900 1,320 1,050 1,320 1,050 1,320	LAGERS BENEFIT 3 Social Security 2 Month see: \$1,050 \$ 882 \$1,932 1,400 1,028 2,428 1,750 1,174 2,924 2,100 1,320 3,420 2,450 1,465 3,915 2,800 1,611 4,411 see: \$ 750 \$ 882 \$1,632 1,000 1,028 2,028 1,250 1,174 2,424 1,500 1,320 2,820 1,750 1,465 3,215 2,000 1,611 3,611 see: \$ 450 \$ 882 \$1,332 600 1,028 1,628 750 1,174 1,924 900 1,320 2,220 1,050 1,465 2,515	

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

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

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

(LT-4(65) Benefit Program is Years of Credited Service times: 2.00% of FAS I to age 65) 1.00% of FAS I at age 65)

Final	LAGERS BENEFIT ³		Estimated		Estimated		Percent	
Average	BEN	EFIT *	_ Social	Montl	nly Total	of I	FAS	
Salary (FAS) ¹	To 65	At 65	Security ²	To 65	At 65	To 65	At 65	
35 Years of Serv	rice:							
\$1,500	\$1,050	\$ 525	\$ 882	\$1,050	\$1,407	70%	94%	
2,000	1,400	700	1,028	1,400	1,728	70%	86%	
2,500	1,750	875	1,174	1,750	2,049	70%	82%	
3,000	2,100	1,050	1,320	2,100	2,370	70%	79%	
3,500	2,450	1,225	1,465	2,450	2,690	70%	77%	
4,000	2,800	1,400	1,611	2,800	3,011	70%	75%	
25 Years of Serv	rice:							
\$1,500	\$ 750	\$ 375	\$ 882	\$ 750	\$1,257	50%	84%	
2,000	1,000	500	1,028	1,000	1,528	50%	76%	
2,500	1,250	625	1,174	1,250	1,799	50%	72%	
3,000	1,500	750	1,320	1,500	2,070	50%	69%	
3,500	1,750	875	1,465	1,750	2,340	50%	67%	
4,000	2,000	1,000	1,611	2,000	2,611	50%	65%	
15 Years of Serv	rice:							
\$1,500	\$ 450	\$225	\$ 882	\$ 450	\$1,107	30%	74%	
2,000	600	300	1,028	600	1,328	30%	66%	
2,500	750	375	1,174	750	1,549	30%	62%	
3,000	900	450	1,320	900	1,770	30%	59%	
3,500	1,050	525	1,465	1,050	1,990	30%	57%	
4,000	1,200	600	1,611	1,200	2,211	30%	55%	
1	á			<u>,</u>				

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

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

(LT-5(65) Benefit Program is Years of Credited Service times: 2.00% of FAS ¹ to age 65)
1.25% of FAS ¹ at age 65)

Final	LAC	GERS	Estimated	Esti	mated	Per	cent
Average	BEN	EFIT ³	Social	Montl	aly Total	of l	FAS
Salary (FAS) ¹	To 65	At 65	Security ²	To 65	At 65	To 65	At 65
35 Years of Serv	ice:						
\$1,500	\$1,050	\$ 656	\$ 882	\$1,050	\$1,538	70%	103%
2,000	1,400	875	1,028	1,400	1,903	70%	95%
2,500	1,750	1,094	1,174	1,750	2,268	70%	91%
3,000	2,100	1,313	1,320	2,100	2,633	70%	88%
3,500	2,450	1,531	1,465	2,450	2,996	70%	86%
4,000	2,800	1,750	1,611	2,800	3,361	70%	84%
25 Years of Serv	ice:						
\$1,500	\$ 750	\$ 469	\$ 882	\$ 750	\$1,351	50%	90%
2,000	1,000	625	1,028	1,000	1,653	50%	83%
2,500	1,250	781	1,174	1,250	1,955	50%	78%
3,000	1,500	938	1,320	1,500	2,258	50%	75%
3,500	1,750	1,094	1,465	1,750	2,559	50%	73%
4,000	2,000	1,250	1,611	2,000	2,861	50%	72%
15 Years of Serv	ice:						
\$1,500	\$ 450	\$281	\$ 882	\$ 450	\$1,163	30%	78%
2,000	600	375	1,028	600	1,403	30%	70%
2,500	750	469	1,174	750	1,643	30%	66%
3,000	900	563	1,320	900	1,883	30%	63%
3,500	1,050	656	1,465	1,050	2,121	30%	61%
4,000	1,200	750	1,611	1,200	2,361	30%	59%

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

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

(LT-8(65) Benefit Program is Years of Credited Service times: 2.00% of FAS I to age 65) 1.50% of FAS I at age 65)

Final	LAC	GERS	Estimated	Esti	mated	Per	cent
Average	BEN	EFIT ³	Social	Montl	ıly Total	of l	FAS
Salary (FAS) ¹	To 65	At 65	Security ²	To 65	At 65	To 65	At 65
35 Years of Serv	ice:						
\$1,500	\$1,050	\$ 788	\$ 882	\$1,050	\$1,670	70%	111%
2,000	1,400	1,050	1,028	1,400	2,078	70%	104%
2,500	1,750	1,313	1,174	1,750	2,487	70%	99%
3,000	2,100	1,575	1,320	2,100	2,895	70%	97%
3,500	2,450	1,838	1,465	2,450	3,303	70%	94%
4,000	2,800	2,100	1,611	2,800	3,711	70%	93%
25 Years of Serv	ice:						
\$1,500	\$ 750	\$ 563	\$ 882	\$ 750	\$1,445	50%	96%
2,000	1,000	750	1,028	1,000	1,778	50%	89%
2,500	1,250	938	1,174	1,250	2,112	50%	84%
3,000	1,500	1,125	1,320	1,500	2,445	50%	82%
3,500	1,750	1,313	1,465	1,750	2,778	50%	79%
4,000	2,000	1,500	1,611	2,000	3,111	50%	78%
15 Years of Serv	ice:						
\$1,500	\$ 450	\$338	\$ 882	\$ 450	\$1,220	30%	81%
2,000	600	450	1,028	600	1,478	30%	74%
2,500	750	563	1,174	750	1,737	30%	69%
3,000	900	675	1,320	900	1,995	30%	67%
3,500	1,050	788	1,465	1,050	2,253	30%	64%
4,000	1,200	900	1,611	1,200	2,511	30%	63%

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

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

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

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

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

Final	LAGERS Estimated Estimated BENEFIT ³ Social Monthly Total			Percent of FAS			
Average	BEN	EFIT ³	Social	Montl	ıly Total	of l	FAS
Salary (FAS) ¹	To 65	At 65	Security ²	To 65	At 65	To 65	At 65
35 Years of Servi	ice:						
\$1,500	\$1,050	\$ 919	\$ 882	\$1,050	\$1,801	70%	120%
2,000	1,400	1,225	1,028	1,400	2,253	70%	113%
2,500	1,750	1,531	1,174	1,750	2,705	70%	108%
3,000	2,100	1,838	1,320	2,100	3,158	70%	105%
3,500	2,450	2,144	1,465	2,450	3,609	70%	103%
4,000	2,800	2,450	1,611	2,800	4,061	70%	102%
25 Years of Servi	ce:						
\$1,500	\$ 750	\$ 656	\$ 882	\$ 750	\$1,538	50%	103%
2,000	1,000	875	1,028	1,000	1,903	50%	95%
2,500	1,250	1,094	1,174	1,250	2,268	50%	91%
3,000	1,500	1,313	1,320	1,500	2,633	50%	88%
3,500	1,750	1,531	1,465	1,750	2,996	50%	86%
4,000	2,000	1,750	1,611	2,000	3,361	50%	84%
15 Years of Servi	ice:						
\$1,500	\$ 450	\$ 394	\$ 882	\$ 450	\$1,276	30%	85%
2,000	600	525	1,028	600	1,553	30%	78%
2,500	750	656	1,174	750	1,830	30%	73%
3,000	900	788	1,320	900	2,108	30%	70%
3,500	1,050	919	1,465	1,050	2,384	30%	68%
4,000	1,200	1,050	1,611	1,200	2,661	30%	67%

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

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

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

APPENDIX V

AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

April 30, 2016

By Attained Age and Years of Service

		Year	s of Sei	rvice to	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			1					1	\$ 51,459
45-49									
50-54									
55-59									
60-64									
65-69									
70 & Over									
Totals			1					1	\$ 51,459

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

Age: 40.1 years.

Benefit Service: 10.6 years.

Annual Pay: \$51,459.

April 30, 2016

By Attained Age and Years of Service

		Year	s of Sei	vice to	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	3							3	\$ 260,299
35-39				1				1	\$ 86,991
40-44	1	1		1				3	\$ 295,689
45-49					4			4	\$ 425,100
50-54		1		1		1		3	\$ 275,277
55-59		1			1	1		3	\$ 273,810
60-64						1		1	\$ 103,366
65-69									
70 & Over									
Totals	4	3		3	5	3		18	\$ 1,720,532

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

Age: 46.4 years.

Benefit Service: 15.1 years.

Annual Pay: \$95,585.



October 28, 2016 E-mail

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

Dear Keith:

Enclosed is the report of the April 30, 2016 Initial Actuarial Valuation of LAGERS benefits for the employees of

Mid-County Fire Protection District

Sincerely,

Mita D. Drazilov

MDD:adh



October 28, 2016

Mid-County Fire Protection District St. Louis, 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 April 30, 2016 Initial Valuation for the Mid-County Fire Protection District dated October 28, 2016.

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 29, 2016.

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 opinion herein.

Respectfully submitted,

Mita D. Drazilov, ASA, MAAA

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit P	rogram	L-12 Benefit Program		
	Estimated.		Estimated Employer Contribution		Estimated Employer Contribution		Unfunded	Estimated Employers Contribution		Unfunded
Valuation	Estimated Projected	As a % of	Annual	Actuarial Accrued	As a % of	Annual	Actuarial Accrued	As a % of	Annual	Actuarial Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2016	\$ 51,459	12.9%	\$6,638	\$ 62,541	13.4%	\$6,896	\$ 65,143	15.6%	\$8,028	\$ 73,417
2017	53,132	12.9	6,854	63,398	13.4	7,120	66,035	15.6	8,289	74,423
2018	54,859	12.9	7,077	64,197	13.4	7,351	66,868	15.6	8,558	75,361
2019	56,642	12.9	7,307	64,931	13.4	7,590	67,632	15.6	8,836	76,223
2020	58,483	12.9	7,544	65,591	13.4	7,837	68,319	15.6	9,123	76,997
2021	60,384	12.9	7,790	66,167	13.4	8,091	68,919	15.6	9,420	77,673
2022	62,346	12.9	8,043	66,649	13.4	8,354	69,421	15.6	9,726	78,239
2023	64,372	12.9	8,304	67,026	13.4	8,626	69,813	15.6	10,042	78,681
2024	66,464	12.9	8,574	67,285	13.4	8,906	70,083	15.6	10,368	78,985
2025	68,624	12.9	8,852	67,413	13.4	9,196	70,217	15.6	10,705	79,136

		LT-14((65) Benefit H	Program	L-6 Benefit Program				
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded		
	Estimated	Contribution		Actuarial	Contri	bution	Actuarial		
Valuation	Projected	As a % of	As a % of Annual		As a % of Annual		Accrued		
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability		
2016	\$ 51,459	15.8%	\$8,131	\$ 74,724	18.2%	\$9,366	\$ 84,304		
2017	53,132	15.8	8,395	75,748	18.2	9,670	85,459		
2018	54,859	15.8	8,668	76,703	18.2	9,984	86,537		
2019	56,642	15.8	8,949	77,580	18.2	10,309	87,526		
2020	58,483	15.8	9,240	78,368	18.2	10,644	88,415		
2021	60,384	15.8	9,541	79,056	18.2	10,990	89,191		
2022	62,346	15.8	9,851	79,632	18.2	11,347	89,841		
2023	64,372	15.8	10,171	80,082	18.2	11,716	90,349		
2024	66,464	15.8	10,501	80,392	18.2	12,096	90,698		
2025	68,624	15.8	10,843	80,546	18.2	12,490	90,871		

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

Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit P	rogram	L-12 Benefit Program		
		Estimated Employer Unfund		Unfunded	Estimated Employer		Unfunded	Estimated	Employer	Unfunded
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	Contribution	
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
2016	\$ 51,459	13.4%	\$6,896	\$ 64,829	13.9%	\$7,153	\$ 67,519	16.2%	\$8,336	\$ 76,080
2017	53,132	13.4	7,120	65,717	13.9	7,385	68,444	16.2	8,607	77,122
2018	54,859	13.4	7,351	66,546	13.9	7,625	69,307	16.2	8,887	78,094
2019	56,642	13.4	7,590	67,307	13.9	7,873	70,099	16.2	9,176	78,987
2020	58,483	13.4	7,837	67,991	13.9	8,129	70,811	16.2	9,474	79,790
2021	60,384	13.4	8,091	68,588	13.9	8,393	71,433	16.2	9,782	80,491
2022	62,346	13.4	8,354	69,088	13.9	8,666	71,953	16.2	10,100	81,077
2023	64,372	13.4	8,626	69,478	13.9	8,948	72,360	16.2	10,428	81,535
2024	66,464	13.4	8,906	69,747	13.9	9,238	72,640	16.2	10,767	81,850
2025	68,624	13.4	9,196	69,880	13.9	9,539	72,779	16.2	11,117	82,006

		LT-14((65) Benefit H	rogram	L-6 Benefit Program			
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	
	Estimated	Contribution		Actuarial	Contri	bution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2016	\$ 51,459	16.4%	\$8,439	\$ 77,425	19.0%	\$9,777	\$ 87,360	
2017	53,132	16.4	8,714	78,486	19.0	10,095	88,557	
2018	54,859	16.4	8,997	79,476	19.0	10,423	89,674	
2019	56,642	16.4	9,289	80,385	19.0	10,762	90,699	
2020	58,483	16.4	9,591	81,202	19.0	11,112	91,621	
2021	60,384	16.4	9,903	81,915	19.0	11,473	92,426	
2022	62,346	16.4	10,225	82,512	19.0	11,846	93,099	
2023	64,372	16.4	10,557	82,978	19.0	12,231	93,625	
2024	66,464	16.4	10,900	83,299	19.0	12,628	93,987	
2025	68,624	16.4	11,254	83,458	19.0	13,039	94,166	

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

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

(0% member contributions are additional)

Regular Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit P	rogram	L-12 Benefit Program		
	E-d		Estimated Employer Contribution			Employer	Unfunded	Estimated Employer		Unfunded
	Estimated			Actuarial		bution	Actuarial		bution	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
2016	\$ 51,459	16.8%	\$8,645	\$ 69,566	17.3%	\$8,902	\$ 72,149	19.5%	\$10,035	\$ 81,170
2017	53,132	16.8	8,926	70,519	17.3	9,192	73,137	19.5	10,361	82,282
2018	54,859	16.8	9,216	71,408	17.3	9,491	74,059	19.5	10,698	83,320
2019	56,642	16.8	9,516	72,224	17.3	9,799	74,906	19.5	11,045	84,273
2020	58,483	16.8	9,825	72,958	17.3	10,118	75,667	19.5	11,404	85,129
2021	60,384	16.8	10,145	73,599	17.3	10,446	76,332	19.5	11,775	85,877
2022	62,346	16.8	10,474	74,135	17.3	10,786	76,888	19.5	12,157	86,503
2023	64,372	16.8	10,814	74,554	17.3	11,136	77,323	19.5	12,553	86,992
2024	66,464	16.8	11,166	74,842	17.3	11,498	77,622	19.5	12,960	87,328
2025	68,624	16.8	11,529	74,985	17.3	11,872	77,770	19.5	13,382	87,495

		LT-14((65) Benefit I	rogram	L-6 Benefit Program				
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded		
	Estimated	Contribution		Actuarial	Contri	bution	Actuarial		
Valuation	Projected	As a % of	Annual	Accrued	As a % of Annual		Accrued		
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability		
2016	\$ 51,459	19.7%	\$10,137	\$ 82,468	22.1%	\$11,372	\$ 92,767		
2017	53,132	19.7	10,467	83,598	22.1	11,742	94,038		
2018	54,859	19.7	10,807	84,652	22.1	12,124	95,224		
2019	56,642	19.7	11,158	85,620	22.1	12,518	96,313		
2020	58,483	19.7	11,521	86,490	22.1	12,925	97,292		
2021	60,384	19.7	11,896	87,250	22.1	13,345	98,146		
2022	62,346	19.7	12,282	87,886	22.1	13,778	98,861		
2023	64,372	19.7	12,681	88,383	22.1	14,226	99,420		
2024	66,464	19.7	13,093	88,725	22.1	14,689	99,804		
2025	68,624	19.7	13,519	88,894	22.1	15,166	99,995		

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

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

Regular Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit Program			L-12 Benefit Program		
			Estimated Employer			Employer	Unfunded	Estimated Employer		Unfunded Actuarial
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	Contribution	
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
2016	\$ 51,459	17.3%	\$8,902	\$ 72,034	17.8%	\$9,160	\$ 74,718	20.1%	\$10,343	\$ 84,047
2017	53,132	17.3	9,192	73,021	17.8	9,457	75,742	20.1	10,680	85,198
2018	54,859	17.3	9,491	73,942	17.8	9,765	76,697	20.1	11,027	86,272
2019	56,642	17.3	9,799	74,787	17.8	10,082	77,574	20.1	11,385	87,258
2020	58,483	17.3	10,118	75,547	17.8	10,410	78,362	20.1	11,755	88,145
2021	60,384	17.3	10,446	76,210	17.8	10,748	79,050	20.1	12,137	88,919
2022	62,346	17.3	10,786	76,765	17.8	11,098	79,626	20.1	12,532	89,567
2023	64,372	17.3	11,136	77,199	17.8	11,458	80,076	20.1	12,939	90,073
2024	66,464	17.3	11,498	77,498	17.8	11,831	80,386	20.1	13,359	90,421
2025	68,624	17.3	11,872	77,646	17.8	12,215	80,539	20.1	13,793	90,594

		LT-14((65) Benefit H	rogram	L-6 Benefit Program				
		Estimated	Employer	Unfunded	Estimated	Unfunded			
	Estimated	Contri	bution	Actuarial	Contri	Actuarial			
Valuation	Projected	As a % of Annual		Accrued	As a % of	Annual	Accrued		
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability		
2016	\$ 51,459	20.3%	\$10,446	\$ 85,382	22.9%	\$11,784	\$ 96,055		
2017	53,132	20.3	10,786	86,552	22.9	12,167	97,371		
2018	54,859	20.3	11,136	87,643	22.9	12,563	98,599		
2019	56,642	20.3	11,498	88,645	22.9	12,971	99,726		
2020	58,483	20.3	11,872	89,546	22.9	13,393	100,739		
2021	60,384	20.3	12,258	90,332	22.9	13,828	101,624		
2022	62,346	20.3	12,656	90,990	22.9	14,277	102,364		
2023	64,372	20.3	13,068	91,504	22.9	14,741	102,943		
2024	66,464	20.3	13,492	91,858	22.9	15,220	103,341		
2025	68,624	20.3	13,931	92,033	22.9	15,715	103,538		

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

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit P	rogram	L-12 Benefit Program		
	Estimated	Estimated Employer Contribution		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
2016	\$ 51,459	14.8%	\$7,616	\$ 71,854	16.1%	\$8,285	\$ 78,238	17.7%	\$9,108	\$ 84,254
2017	53,132	14.8	7,864	72,838	16.1	8,554	79,310	17.7	9,404	85,408
2018	54,859	14.8	8,119	73,756	16.1	8,832	80,310	17.7	9,710	86,485
2019	56,642	14.8	8,383	74,599	16.1	9,119	81,228	17.7	10,026	87,474
2020	58,483	14.8	8,655	75,357	16.1	9,416	82,053	17.7	10,351	88,363
2021	60,384	14.8	8,937	76,019	16.1	9,722	82,774	17.7	10,688	89,139
2022	62,346	14.8	9,227	76,573	16.1	10,038	83,377	17.7	11,035	89,788
2023	64,372	14.8	9,527	77,006	16.1	10,364	83,848	17.7	11,394	90,295
2024	66,464	14.8	9,837	77,304	16.1	10,701	84,172	17.7	11,764	90,644
2025	68,624	14.8	10,156	77,452	16.1	11,048	84,333	17.7	12,146	90,817

		LT-14((65) Benefit I	Program	L-6 Benefit Program				
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded		
	Estimated	Contribution		Actuarial	Contri	bution	Actuarial		
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued		
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability		
2016	\$ 51,459	18.5%	\$9,520	\$ 87,451	20.8%	\$10,704	\$ 96,668		
2017	53,132	18.5	9,829	88,649	20.8	11,051	97,992		
2018	54,859	18.5	10,149	89,767	20.8	11,411	99,228		
2019	56,642	18.5	10,479	90,793	20.8	11,782	100,362		
2020	58,483	18.5	10,819	91,716	20.8	12,164	101,382		
2021	60,384	18.5	11,171	92,521	20.8	12,560	102,272		
2022	62,346	18.5	11,534	93,195	20.8	12,968	103,017		
2023	64,372	18.5	11,909	93,722	20.8	13,389	103,599		
2024	66,464	18.5	12,296	94,084	20.8	13,825	104,000		
2025	68,624	18.5	12,695	94,264	20.8	14,274	104,199		

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

Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit P	rogram	L-12 Benefit Program		
		Estimated Employer Unfunded Contribution Actuarial			Estimated Employer		Unfunded	Estimated Employer		Unfunded
	Estimated	Contri	Contribution		Contri	bution	Actuarial	Contri	bution	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
2016	\$ 51,459	15.4%	\$7,925	\$ 74,532	16.8%	\$8,645	\$ 81,155	18.5%	\$9,520	\$ 87,368
2017	53,132	15.4	8,182	75,553	16.8	8,926	82,267	18.5	9,829	88,565
2018	54,859	15.4	8,448	76,506	16.8	9,216	83,304	18.5	10,149	89,682
2019	56,642	15.4	8,723	77,381	16.8	9,516	84,256	18.5	10,479	90,707
2020	58,483	15.4	9,006	78,167	16.8	9,825	85,112	18.5	10,819	91,629
2021	60,384	15.4	9,299	78,853	16.8	10,145	85,859	18.5	11,171	92,434
2022	62,346	15.4	9,601	79,427	16.8	10,474	86,484	18.5	11,534	93,107
2023	64,372	15.4	9,913	79,876	16.8	10,814	86,973	18.5	11,909	93,633
2024	66,464	15.4	10,235	80,185	16.8	11,166	87,309	18.5	12,296	93,995
2025	68,624	15.4	10,568	80,338	16.8	11,529	87,476	18.5	12,695	94,174

		LT-14((65) Benefit H	rogram	L-6 Benefit Program				
		Estimated	Employer	Unfunded	Estimated	Estimated Employer			
	Estimated	Contri	bution	Actuarial	Contri	Contribution			
Valuation	Projected	As a % of Annual		Accrued	As a % of	Annual	Accrued		
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability		
2016	\$ 51,459	19.2%	\$9,880	\$ 90,679	21.6%	\$11,115	\$ 100,231		
2017	53,132	19.2	10,201	91,921	21.6	11,477	101,604		
2018	54,859	19.2	10,533	93,080	21.6	11,850	102,885		
2019	56,642	19.2	10,875	94,144	21.6	12,235	104,061		
2020	58,483	19.2	11,229	95,101	21.6	12,632	105,118		
2021	60,384	19.2	11,594	95,936	21.6	13,043	106,041		
2022	62,346	19.2	11,970	96,635	21.6	13,467	106,813		
2023	64,372	19.2	12,359	97,181	21.6	13,904	107,417		
2024	66,464	19.2	12,761	97,557	21.6	14,356	107,832		
2025	68,624	19.2	13,176	97,743	21.6	14,823	108,038		

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

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

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit P	rogram	L-12 Benefit Program		
			Estimated Employer Unfunded Contribution Actuaria		Estimated Employer		Unfunded	Estimated Employer		Unfunded
	Estimated	Contri	Contribution		Contri	bution	Actuarial	Contri	bution	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
2016	\$ 51,459	18.7%	\$9,623	\$ 78,859	20.0%	\$10,292	\$ 85,226	21.6%	\$11,115	\$ 91,986
2017	53,132	18.7	9,936	79,939	20.0	10,626	86,394	21.6	11,477	93,246
2018	54,859	18.7	10,259	80,947	20.0	10,972	87,483	21.6	11,850	94,422
2019	56,642	18.7	10,592	81,872	20.0	11,328	88,483	21.6	12,235	95,502
2020	58,483	18.7	10,936	82,704	20.0	11,697	89,382	21.6	12,632	96,472
2021	60,384	18.7	11,292	83,430	20.0	12,077	90,167	21.6	13,043	97,319
2022	62,346	18.7	11,659	84,038	20.0	12,469	90,824	21.6	13,467	98,028
2023	64,372	18.7	12,038	84,513	20.0	12,874	91,337	21.6	13,904	98,582
2024	66,464	18.7	12,429	84,840	20.0	13,293	91,690	21.6	14,356	98,963
2025	68,624	18.7	12,833	85,002	20.0	13,725	91,865	21.6	14,823	99,152

		LT-14((65) Benefit I	Program	L-6 Benefit Program				
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded		
	Estimated	Contri	bution	Actuarial	Contri	Actuarial			
Valuation	Projected	As a % of Annual		Accrued	As a % of	Annual	Accrued		
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability		
2016	\$ 51,459	22.4%	\$11,527	\$ 95,181	24.7%	\$12,710	\$ 105,149		
2017	53,132	22.4	11,902	96,485	24.7	13,124	106,590		
2018	54,859	22.4	12,288	97,702	24.7	13,550	107,934		
2019	56,642	22.4	12,688	98,819	24.7	13,991	109,168		
2020	58,483	22.4	13,100	99,823	24.7	14,445	110,277		
2021	60,384	22.4	13,526	100,700	24.7	14,915	111,245		
2022	62,346	22.4	13,966	101,434	24.7	15,399	112,055		
2023	64,372	22.4	14,419	102,007	24.7	15,900	112,688		
2024	66,464	22.4	14,888	102,401	24.7	16,417	113,124		
2025	68,624	22.4	15,372	102,597	24.7	16,950	113,340		

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

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit P	rogram	L-12 Benefit Program		
		Estimated Employer Unfunded			Estimated Employer Unfu		Estimated	Employer	Unfunded	
	Estimated	Contri	bution	Actuarial	Contri	bution	Actuarial	Contri	bution	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
2016	\$ 51,459	19.3%	\$9,932	\$ 81,714	20.7%	\$10,652	\$ 88,309	22.4%	\$11,527	\$ 95,319
2017	53,132	19.3	10,254	82,833	20.7	10,998	89,519	22.4	11,902	96,625
2018	54,859	19.3	10,588	83,877	20.7	11,356	90,648	22.4	12,288	97,843
2019	56,642	19.3	10,932	84,836	20.7	11,725	91,684	22.4	12,688	98,962
2020	58,483	19.3	11,287	85,698	20.7	12,106	92,616	22.4	13,100	99,968
2021	60,384	19.3	11,654	86,451	20.7	12,499	93,429	22.4	13,526	100,846
2022	62,346	19.3	12,033	87,081	20.7	12,906	94,110	22.4	13,966	101,581
2023	64,372	19.3	12,424	87,573	20.7	13,325	94,642	22.4	14,419	102,155
2024	66,464	19.3	12,828	87,912	20.7	13,758	95,008	22.4	14,888	102,550
2025	68,624	19.3	13,244	88,080	20.7	14,205	95,189	22.4	15,372	102,746

		LT-14((65) Benefit I	Program	L-6 Benefit Program				
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded		
	Estimated	Contri	bution	Actuarial	Contri	Contribution			
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued		
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability		
2016	\$ 51,459	23.1%	\$11,887	\$ 98,627	25.5%	\$13,122	\$ 108,925		
2017	53,132	23.1	12,273	99,978	25.5	13,549	110,417		
2018	54,859	23.1	12,672	101,239	25.5	13,989	111,809		
2019	56,642	23.1	13,084	102,396	25.5	14,444	113,087		
2020	58,483	23.1	13,510	103,436	25.5	14,913	114,236		
2021	60,384	23.1	13,949	104,344	25.5	15,398	115,239		
2022	62,346	23.1	14,402	105,104	25.5	15,898	116,078		
2023	64,372	23.1	14,870	105,698	25.5	16,415	116,734		
2024	66,464	23.1	15,353	106,107	25.5	16,948	117,185		
2025	68,624	23.1	15,852	106,310	25.5	17,499	117,409		

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

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit Program			L-12 Benefit Program		
	Estimated	Estimated Employer Contribution		Unfunded Actuarial		Estimated Employer Contribution			Estimated Employer Contribution	
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
2016	\$ 1,720,532	22.4%	\$385,399	\$ 4,150,384	24.5%	\$421,530	\$ 4,526,838	26.5%	\$455,941	\$ 4,848,602
2017	1,776,449	22.4	397,925	4,207,244	24.5	435,230	4,588,855	26.5	470,759	4,915,027
2018	1,834,184	22.4	410,857	4,260,295	24.5	449,375	4,646,718	26.5	486,059	4,977,002
2019	1,893,795	22.4	424,210	4,309,003	24.5	463,980	4,699,844	26.5	501,856	5,033,904
2020	1,955,343	22.4	437,997	4,352,786	24.5	479,059	4,747,599	26.5	518,166	5,085,053
2021	2,018,892	22.4	452,232	4,391,014	24.5	494,629	4,789,294	26.5	535,006	5,129,712
2022	2,084,506	22.4	466,929	4,423,000	24.5	510,704	4,824,181	26.5	552,394	5,167,079
2023	2,152,252	22.4	482,104	4,447,997	24.5	527,302	4,851,446	26.5	570,347	5,196,282
2024	2,222,200	22.4	497,773	4,465,198	24.5	544,439	4,870,207	26.5	588,883	5,216,376
2025	2.294.422	22.4	513,951	4,473,724	24.5	562,133	4.879.507	26.5	608.022	5.226.337

		LT-14((65) Benefit H	Program	L-6 Benefit Program				
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded		
	Estimated	Contribution		Actuarial	Contri	bution	Actuarial		
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued		
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability		
2016	\$ 1,720,532	27.6%	\$474,867	\$ 5,036,831	30.6%	\$526,483	\$ 5,546,518		
2017	1,776,449	27.6	490,300	5,105,835	30.6	543,593	5,622,504		
2018	1,834,184	27.6	506,235	5,170,216	30.6	561,260	5,693,400		
2019	1,893,795	27.6	522,687	5,229,327	30.6	579,501	5,758,492		
2020	1,955,343	27.6	539,675	5,282,462	30.6	598,335	5,817,004		
2021	2,018,892	27.6	557,214	5,328,854	30.6	617,781	5,868,091		
2022	2,084,506	27.6	575,324	5,367,671	30.6	637,859	5,910,836		
2023	2,152,252	27.6	594,022	5,398,007	30.6	658,589	5,944,242		
2024	2,222,200	27.6	613,327	5,418,881	30.6	679,993	5,967,229		
2025	2,294,422	27.6	633,260	5,429,228	30.6	702,093	5,978,623		

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

Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit P	rogram	L-12 Benefit Program		
		Estimated	Estimated Employer Unfunded		Estimated	Estimated Employer		Estimated	Employer	Unfunded
	Estimated	Contri	Contribution		Contri	bution	Actuarial	Contribution		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
2016	\$ 1,720,532	23.1%	\$397,443	\$ 4,293,318	25.4%	\$437,015	\$ 4,683,196	27.5%	\$473,146	\$ 5,015,304
2017	1,776,449	23.1	410,360	4,352,136	25.4	451,218	4,747,355	27.5	488,523	5,084,013
2018	1,834,184	23.1	423,697	4,407,014	25.4	465,883	4,807,216	27.5	504,401	5,148,119
2019	1,893,795	23.1	437,467	4,457,399	25.4	481,024	4,862,177	27.5	520,794	5,206,977
2020	1,955,343	23.1	451,684	4,502,690	25.4	496,657	4,911,581	27.5	537,719	5,259,885
2021	2,018,892	23.1	466,364	4,542,234	25.4	512,799	4,954,716	27.5	555,195	5,306,079
2022	2,084,506	23.1	481,521	4,575,321	25.4	529,465	4,990,808	27.5	573,239	5,344,730
2023	2,152,252	23.1	497,170	4,601,179	25.4	546,672	5,019,014	27.5	591,869	5,374,937
2024	2,222,200	23.1	513,328	4,618,972	25.4	564,439	5,038,423	27.5	611,105	5,395,722
2025	2,294,422	23.1	530,011	4,627,792	25.4	582,783	5,048,044	27.5	630,966	5,406,025

		LT-14(65) Benefit I	rogram	L-6 Benefit Program			
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	
	Estimated	Contribution		Actuarial	Contri	Actuarial		
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2016	\$ 1,720,532	28.6%	\$492,072	\$ 5,210,252	31.9%	\$548,850	\$ 5,737,010	
2017	1,776,449	28.6	508,064	5,281,632	31.9	566,687	5,815,606	
2018	1,834,184	28.6	524,577	5,348,230	31.9	585,105	5,888,937	
2019	1,893,795	28.6	541,625	5,409,376	31.9	604,121	5,956,265	
2020	1,955,343	28.6	559,228	5,464,340	31.9	623,754	6,016,786	
2021	2,018,892	28.6	577,403	5,512,330	31.9	644,027	6,069,628	
2022	2,084,506	28.6	596,169	5,552,484	31.9	664,957	6,113,841	
2023	2,152,252	28.6	615,544	5,583,865	31.9	686,568	6,148,394	
2024	2,222,200	28.6	635,549	5,605,458	31.9	708,882	6,172,170	
2025	2,294,422	28.6	656,205	5,616,161	31.9	731,921	6,183,956	

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

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

(0% member contributions are additional)

Regular Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit Program			L-12 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 % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2016	\$ 1,720,532	26.3%	\$452,500	\$ 4,167,689	28.4%	\$488,631	\$ 4,542,397	30.4%	\$523,042	\$ 4,862,291
2017	1,776,449	26.3	467,206	4,224,786	28.4	504,512	4,604,627	30.4	540,040	4,928,904
2018	1,834,184	26.3	482,390	4,278,058	28.4	520,908	4,662,688	30.4	557,592	4,991,054
2019	1,893,795	26.3	498,068	4,326,969	28.4	537,838	4,715,996	30.4	575,714	5,048,116
2020	1,955,343	26.3	514,255	4,370,935	28.4	555,317	4,763,915	30.4	594,424	5,099,409
2021	2,018,892	26.3	530,969	4,409,322	28.4	573,365	4,805,753	30.4	613,743	5,144,194
2022	2,084,506	26.3	548,225	4,441,441	28.4	592,000	4,840,760	30.4	633,690	5,181,666
2023	2,152,252	26.3	566,042	4,466,543	28.4	611,240	4,868,118	30.4	654,285	5,210,951
2024	2,222,200	26.3	584,439	4,483,815	28.4	631,105	4,886,943	30.4	675,549	5,231,102
2025	2,294,422	26.3	603,433	4,492,377	28.4	651,616	4,896,274	30.4	697,504	5,241,091

		LT-14((65) Benefit I	Program	L-6 Benefit Program			
		Estimated	Estimated Employer Un		Estimated	Employer	Unfunded	
	Estimated	Contri	Contribution		Contri	bution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2016	\$ 1,720,532	31.5%	\$541,968	\$ 5,049,665	34.5%	\$593,583	\$ 5,556,862	
2017	1,776,449	31.5	559,581	5,118,845	34.5	612,875	5,632,990	
2018	1,834,184	31.5	577,768	5,183,390	34.5	632,793	5,704,018	
2019	1,893,795	31.5	596,545	5,242,651	34.5	653,359	5,769,232	
2020	1,955,343	31.5	615,933	5,295,921	34.5	674,593	5,827,853	
2021	2,018,892	31.5	635,951	5,342,432	34.5	696,518	5,879,035	
2022	2,084,506	31.5	656,619	5,381,348	34.5	719,155	5,921,860	
2023	2,152,252	31.5	677,959	5,411,762	34.5	742,527	5,955,328	
2024	2,222,200	31.5	699,993	5,432,690	34.5	766,659	5,978,358	
2025	2,294,422	31.5	722,743	5,443,064	34.5	791,576	5,989,774	

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

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

Regular Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit Program			L-12 Benefit Program		
		Estimated Employer		Unfunded Actuarial		Employer	Unfunded	Estimated	1 - 3	Unfunded
	Estimated	Contri	Contribution		Contri	bution	Actuarial	Contri	bution	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
2016	\$ 1,720,532	27.0%	\$464,544	\$ 4,309,581	29.3%	\$504,116	\$ 4,697,615	31.4%	\$540,247	\$ 5,027,817
2017	1,776,449	27.0	479,641	4,368,622	29.3	520,500	4,761,972	31.4	557,805	5,096,697
2018	1,834,184	27.0	495,230	4,423,708	29.3	537,416	4,822,017	31.4	575,934	5,160,963
2019	1,893,795	27.0	511,325	4,474,284	29.3	554,882	4,877,147	31.4	594,652	5,219,968
2020	1,955,343	27.0	527,943	4,519,747	29.3	572,915	4,926,703	31.4	613,978	5,273,008
2021	2,018,892	27.0	545,101	4,559,441	29.3	591,535	4,969,971	31.4	633,932	5,319,317
2022	2,084,506	27.0	562,817	4,592,654	29.3	610,760	5,006,174	31.4	654,535	5,358,065
2023	2,152,252	27.0	581,108	4,618,610	29.3	630,610	5,034,467	31.4	675,807	5,388,347
2024	2,222,200	27.0	599,994	4,636,470	29.3	651,105	5,053,935	31.4	697,771	5,409,184
2025	2,294,422	27.0	619,494	4,645,323	29.3	672,266	5,063,585	31.4	720,449	5,419,513

		LT-14((65) Benefit I	Program	L-6 Benefit Program			
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	
	Estimated	Contri	Contribution		Contri	Contribution		
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2016	\$ 1,720,532	32.5%	\$559,173	\$ 5,221,859	35.8%	\$615,950	\$ 5,746,112	
2017	1,776,449	32.5	577,346	5,293,398	35.8	635,969	5,824,833	
2018	1,834,184	32.5	596,110	5,360,144	35.8	656,638	5,898,280	
2019	1,893,795	32.5	615,483	5,421,426	35.8	677,979	5,965,715	
2020	1,955,343	32.5	635,486	5,476,513	35.8	700,013	6,026,332	
2021	2,018,892	32.5	656,140	5,524,610	35.8	722,763	6,079,257	
2022	2,084,506	32.5	677,464	5,564,853	35.8	746,253	6,123,540	
2023	2,152,252	32.5	699,482	5,596,304	35.8	770,506	6,158,148	
2024	2,222,200	32.5	722,215	5,617,945	35.8	795,548	6,181,962	
2025	2,294,422	32.5	745,687	5,628,672	35.8	821,403	6,193,766	

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

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit Program			L-12 Benefit Program		
		Estimated	Estimated Employer U		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded
	Estimated	Contri	Contribution		Contri	bution	Actuarial	Contri	bution	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
2016	\$ 1,720,532	23.7%	\$407,766	\$ 4,456,682	26.7%	\$459,382	\$4,978,876	28.2%	\$485,190	\$ 5,205,314
2017	1,776,449	23.7	421,018	4,517,738	26.7	474,312	5,047,086	28.2	500,959	5,276,626
2018	1,834,184	23.7	434,702	4,574,704	26.7	489,727	5,110,727	28.2	517,240	5,343,161
2019	1,893,795	23.7	448,829	4,627,006	26.7	505,643	5,169,158	28.2	534,050	5,404,249
2020	1,955,343	23.7	463,416	4,674,021	26.7	522,077	5,221,681	28.2	551,407	5,459,161
2021	2,018,892	23.7	478,477	4,715,070	26.7	539,044	5,267,540	28.2	569,328	5,507,105
2022	2,084,506	23.7	494,028	4,749,416	26.7	556,563	5,305,911	28.2	587,831	5,547,221
2023	2,152,252	23.7	510,084	4,776,258	26.7	574,651	5,335,898	28.2	606,935	5,578,572
2024	2,222,200	23.7	526,661	4,794,728	26.7	593,327	5,356,532	28.2	626,660	5,600,145
2025	2,294,422	23.7	543,778	4,803,883	26.7	612,611	5,366,760	28.2	647,027	5,610,838

		LT-14((65) Benefit H	rogram	L-6 Benefit Program			
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	
	Estimated	Contribution		Actuarial	Contri	bution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2016	\$ 1,720,532	29.7%	\$510,998	\$ 5,466,396	32.7%	\$562,614	\$ 5,953,684	
2017	1,776,449	29.7	527,605	5,541,285	32.7	580,899	6,035,249	
2018	1,834,184	29.7	544,753	5,611,157	32.7	599,778	6,111,350	
2019	1,893,795	29.7	562,457	5,675,309	32.7	619,271	6,181,221	
2020	1,955,343	29.7	580,737	5,732,975	32.7	639,397	6,244,028	
2021	2,018,892	29.7	599,611	5,783,324	32.7	660,178	6,298,865	
2022	2,084,506	29.7	619,098	5,825,452	32.7	681,633	6,344,748	
2023	2,152,252	29.7	639,219	5,858,376	32.7	703,786	6,380,606	
2024	2,222,200	29.7	659,993	5,881,031	32.7	726,659	6,405,280	
2025	2,294,422	29.7	681,443	5,892,261	32.7	750,276	6,417,511	

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

Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit P	rogram	L-12 Benefit Program		
		Estimated Employer Unfund		Unfunded	Estimated Employer		Unfunded	Estimated	Employer	Unfunded
	Estimated	Contri	Contribution		Contri	bution	Actuarial	Contri	bution	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
2016	\$ 1,720,532	24.7%	\$424,971	\$ 4,613,944	27.8%	\$478,308	\$ 5,155,046	29.3%	\$504,116	\$ 5,388,669
2017	1,776,449	24.7	438,783	4,677,154	27.8	493,853	5,225,669	29.3	520,500	5,462,493
2018	1,834,184	24.7	453,043	4,736,130	27.8	509,903	5,291,561	29.3	537,416	5,531,372
2019	1,893,795	24.7	467,767	4,790,278	27.8	526,475	5,352,059	29.3	554,882	5,594,612
2020	1,955,343	24.7	482,970	4,838,952	27.8	543,585	5,406,441	29.3	572,915	5,651,458
2021	2,018,892	24.7	498,666	4,881,449	27.8	561,252	5,453,922	29.3	591,535	5,701,091
2022	2,084,506	24.7	514,873	4,917,007	27.8	579,493	5,493,650	29.3	610,760	5,742,620
2023	2,152,252	24.7	531,606	4,944,796	27.8	598,326	5,524,698	29.3	630,610	5,775,075
2024	2,222,200	24.7	548,883	4,963,918	27.8	617,772	5,546,062	29.3	651,105	5,797,407
2025	2,294,422	24.7	566,722	4,973,396	27.8	637,849	5,556,652	29.3	672,266	5,808,477

	LT-14((65) Benefit H	Program	L-6 Benefit Program			
	Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	
Estimated	Contri	bution	Actuarial	Contribution		Actuarial	
Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
\$ 1,720,532	30.8%	\$529,924	\$ 5,659,240	33.9%	\$583,260	\$ 6,163,183	
1,776,449	30.8	547,146	5,736,771	33.9	602,216	6,247,618	
1,834,184	30.8	564,929	5,809,108	33.9	621,788	6,326,397	
1,893,795	30.8	583,289	5,875,523	33.9	641,997	6,398,726	
1,955,343	30.8	602,246	5,935,224	33.9	662,861	6,463,743	
2,018,892	30.8	621,819	5,987,349	33.9	684,404	6,520,510	
2,084,506	30.8	642,028	6,030,963	33.9	706,648	6,568,008	
2,152,252	30.8	662,894	6,065,048	33.9	729,613	6,605,128	
2,222,200	30.8	684,438	6,088,502	33.9	753,326	6,630,670	
2,294,422	30.8	706,682	6,100,128	33.9	777,809	6,643,331	
	Projected Payroll \$ 1,720,532 1,776,449 1,834,184 1,893,795 1,955,343 2,018,892 2,084,506 2,152,252 2,222,200	Estimated Contri As a % of Payroll \$1,720,532 30.8% 1,776,449 30.8 1,834,184 30.8 1,955,343 30.8 2,018,892 30.8 2,152,252 30.8 2,222,200 30.8	Estimated Estimated Employer Contribution Projected Payroll As a % of Payroll Annual Dollars \$1,720,532 30.8% \$529,924 1,776,449 30.8 547,146 1,834,184 30.8 564,929 1,893,795 30.8 583,289 1,955,343 30.8 602,246 2,018,892 30.8 621,819 2,084,506 30.8 642,028 2,152,252 30.8 662,894 2,222,200 30.8 684,438	Estimated Projected Payroll Contribution Actuarial Accrued Payroll Payroll Dollars Liability \$1,720,532 30.8% \$529,924 \$5,659,240 1,776,449 30.8 547,146 5,736,771 1,834,184 30.8 564,929 5,809,108 1,893,795 30.8 583,289 5,875,523 1,955,343 30.8 602,246 5,935,224 2,018,892 30.8 621,819 5,987,349 2,084,506 30.8 642,028 6,030,963 2,152,252 30.8 662,894 6,065,048 2,222,200 30.8 684,438 6,088,502	Estimated Projected Payroll Estimated Employer Contribution Unfunded Actuarial Accrued Estimated Estimated Contribution Payroll As a % of Payroll Annual Dollars Liability Payroll \$ 1,720,532 30.8% \$529,924 \$5,659,240 33.9% 1,776,449 30.8 547,146 5,736,771 33.9 1,834,184 30.8 564,929 5,809,108 33.9 1,893,795 30.8 583,289 5,875,523 33.9 1,955,343 30.8 602,246 5,935,224 33.9 2,018,892 30.8 621,819 5,987,349 33.9 2,084,506 30.8 642,028 6,030,963 33.9 2,152,252 30.8 662,894 6,065,048 33.9 2,222,200 30.8 684,438 6,088,502 33.9	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	

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

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

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit Program			L-12 Benefit Program		
		Estimated	Estimated Employer		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded
	Estimated	Contri	Contribution		Contri	bution	Actuarial	Contri	bution	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
2016	\$ 1,720,532	27.6%	\$474,867	\$ 4,461,356	30.6%	\$526,483	\$ 4,995,565	32.1%	\$552,291	\$ 5,221,272
2017	1,776,449	27.6	490,300	4,522,476	30.6	543,593	5,064,003	32.1	570,240	5,292,803
2018	1,834,184	27.6	506,235	4,579,502	30.6	561,260	5,127,857	32.1	588,773	5,359,542
2019	1,893,795	27.6	522,687	4,631,859	30.6	579,501	5,186,483	32.1	607,908	5,420,817
2020	1,955,343	27.6	539,675	4,678,923	30.6	598,335	5,239,182	32.1	627,665	5,475,897
2021	2,018,892	27.6	557,214	4,720,015	30.6	617,781	5,285,194	32.1	648,064	5,523,988
2022	2,084,506	27.6	575,324	4,754,397	30.6	637,859	5,323,693	32.1	669,126	5,564,227
2023	2,152,252	27.6	594,022	4,781,267	30.6	658,589	5,353,781	32.1	690,873	5,595,674
2024	2,222,200	27.6	613,327	4,799,756	30.6	679,993	5,374,484	32.1	713,326	5,617,313
2025	2,294,422	27.6	633,260	4,808,921	30.6	702,093	5,384,746	32.1	736,509	5,628,039

		LT-14((65) Benefit F	Program	L-6 Benefit Program			
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	
	Estimated	Contribution		Actuarial	Contri	bution	Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2016	\$ 1,720,532	33.6%	\$578,099	\$ 5,481,364	36.6%	\$629,715	\$ 5,967,144	
2017	1,776,449	33.6	596,887	5,556,458	36.6	650,180	6,048,893	
2018	1,834,184	33.6	616,286	5,626,521	36.6	671,311	6,125,166	
2019	1,893,795	33.6	636,315	5,690,849	36.6	693,129	6,195,195	
2020	1,955,343	33.6	656,995	5,748,673	36.6	715,656	6,258,144	
2021	2,018,892	33.6	678,348	5,799,160	36.6	738,914	6,313,105	
2022	2,084,506	33.6	700,394	5,841,403	36.6	762,929	6,359,092	
2023	2,152,252	33.6	723,157	5,874,417	36.6	787,724	6,395,032	
2024	2,222,200	33.6	746,659	5,897,134	36.6	813,325	6,419,762	
2025	2,294,422	33.6	770,926	5,908,394	36.6	839,758	6,432,020	

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

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

		L-7 Benefit Program			LT-8(65) Benefit Program			L-12 Benefit Program		
			Estimated Employer		Unfunded Estimated E Actuarial Contribu		1 .		Employer	Unfunded
	Estimated	Contri	Contribution		Contri	bution	Actuarial	Contribution		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
2016	\$ 1,720,532	28.6%	\$492,072	\$ 4,631,812	31.7%	\$545,409	\$ 5,170,795	33.2%	\$571,217	\$ 5,403,787
2017	1,776,449	28.6	508,064	4,695,267	31.7	563,134	5,241,634	33.2	589,781	5,477,818
2018	1,834,184	28.6	524,577	4,754,471	31.7	581,436	5,307,728	33.2	608,949	5,546,890
2019	1,893,795	28.6	541,625	4,808,829	31.7	600,333	5,368,411	33.2	628,740	5,610,307
2020	1,955,343	28.6	559,228	4,857,691	31.7	619,844	5,422,959	33.2	649,174	5,667,313
2021	2,018,892	28.6	577,403	4,900,353	31.7	639,989	5,470,585	33.2	670,272	5,717,085
2022	2,084,506	28.6	596,169	4,936,049	31.7	660,788	5,510,435	33.2	692,056	5,758,730
2023	2,152,252	28.6	615,544	4,963,946	31.7	682,264	5,541,578	33.2	714,548	5,791,276
2024	2,222,200	28.6	635,549	4,983,142	31.7	704,437	5,563,008	33.2	737,770	5,813,671
2025	2,294,422	28.6	656,205	4,992,657	31.7	727,332	5,573,630	33.2	761,748	5,824,772

		LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer		Unfunded	Estimated Employer		Unfunded
	Estimated	Contribution		Actuarial	Contribution		Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2016	\$ 1,720,532	34.7%	\$597,025	\$ 5,673,301	37.8%	\$650,361	\$ 6,175,766
2017	1,776,449	34.7	616,428	5,751,024	37.8	671,498	6,260,373
2018	1,834,184	34.7	636,462	5,823,541	37.8	693,322	6,339,312
2019	1,893,795	34.7	657,147	5,890,121	37.8	715,855	6,411,789
2020	1,955,343	34.7	678,504	5,949,970	37.8	739,120	6,476,939
2021	2,018,892	34.7	700,556	6,002,225	37.8	763,141	6,533,822
2022	2,084,506	34.7	723,324	6,045,947	37.8	787,943	6,581,417
2023	2,152,252	34.7	746,831	6,080,117	37.8	813,551	6,618,613
2024	2,222,200	34.7	771,103	6,103,629	37.8	839,992	6,644,207
2025	2,294,422	34.7	796,164	6,115,284	37.8	867,292	6,656,894

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