

June 30, 2017

Clearwater Ambulance District Clearwater, 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 May 31, 2017 Initial Valuation for the Clearwater Ambulance District dated June 30, 2017.

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,

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Mita D. Drazilov, ASA, MAAA

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

(4% member contributions are additional)

## Regular Retirement Eligibility

		L-1 Benefit Program			L-3	Benefit Prog	gram	LT-4(65) Benefit Program			
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2017	\$ 396,297	4.8%	\$19,022	\$ 141,691	6.8%	\$26,948	\$ 181,682	5.7%	\$22,589	\$ 163,244	
2018	409,176	4.8	19,640	143,632	6.8	27,824	184,171	5.7	23,323	165,480	
2019	422,474	4.8	20,279	145,443	6.8	28,728	186,493	5.7	24,081	167,567	
2020	436,204	4.8	20,938	147,106	6.8	29,662	188,625	5.7	24,864	169,483	
2021	450,381	4.8	21,618	148,601	6.8	30,626	190,542	5.7	25,672	171,205	
2022	465,018	4.8	22,321	149,906	6.8	31,621	192,215	5.7	26,506	172,709	
2023	480,131	4.8	23,046	150,998	6.8	32,649	193,615	5.7	27,367	173,967	
2024	495,735	4.8	23,795	151,851	6.8	33,710	194,709	5.7	28,257	174,950	
2025	511,846	4.8	24,569	152,438	6.8	34,806	195,462	5.7	29,175	175,627	
2026	528,481	4.8	25,367	152,729	6.8	35,937	195,835	5.7	30,123	175,962	

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated Employ Estimated Contribution		1 3	Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2017	\$ 396,297	7.4%	\$29,326	\$ 197,853	8.7%	\$34,478	\$ 221,611	9.1%	\$36,063	\$ 232,383	
2018	409,176	7.4	30,279	200,564	8.7	35,598	224,647	9.1	37,235	235,567	
2019	422,474	7.4	31,263	203,093	8.7	36,755	227,480	9.1	38,445	238,537	
2020	436,204	7.4	32,279	205,415	8.7	37,950	230,081	9.1	39,695	241,264	
2021	450,381	7.4	33,328	207,502	8.7	39,183	232,419	9.1	40,985	243,715	
2022	465,018	7.4	34,411	209,324	8.7	40,457	234,460	9.1	42,317	245,855	
2023	480,131	7.4	35,530	210,849	8.7	41,771	236,168	9.1	43,692	247,646	
2024	495,735	7.4	36,684	212,041	8.7	43,129	237,503	9.1	45,112	249,046	
2025	511,846	7.4	37,877	212,861	8.7	44,531	238,421	9.1	46,578	250,009	
2026	528,481	7.4	39,108	213,267	8.7	45,978	238,876	9.1	48,092	250,486	

		L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		1 J		Unfunded	Estimated	Employer	Unfunded	Estimated Employe		Unfunded
	Estimated	Contri	Contribution		Contribution		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
2017	\$ 396,297	10.7%	\$42,404	\$ 261,655	10.8%	\$42,800	\$ 267,037	12.6%	\$49,933	\$ 301,530
2018	409,176	10.7	43,782	265,240	10.8	44,191	270,695	12.6	51,556	305,661
2019	422,474	10.7	45,205	268,585	10.8	45,627	274,108	12.6	53,232	309,515
2020	436,204	10.7	46,674	271,656	10.8	47,110	277,242	12.6	54,962	313,054
2021	450,381	10.7	48,191	274,416	10.8	48,641	280,059	12.6	56,748	316,235
2022	465,018	10.7	49,757	276,826	10.8	50,222	282,519	12.6	58,592	319,012
2023	480,131	10.7	51,374	278,842	10.8	51,854	284,577	12.6	60,497	321,336
2024	495,735	10.7	53,044	280,418	10.8	53,539	286,185	12.6	62,463	323,152
2025	511,846	10.7	54,768	281,502	10.8	55,279	287,292	12.6	64,493	324,402
2026	528,481	10.7	56,547	282,040	10.8	57,076	287,841	12.6	66,589	325,021
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- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

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

(4% member contributions are additional)

## Regular Retirement Eligibility

		L-1	Benefit Prog	gram	L-3	Benefit Prog	gram	LT-4(65) Benefit Program			
	Estimated		Estimated Employer Contribution			l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2017	\$ 396,297	5.1%	\$20,211	\$ 147,345	7.1%	\$28,137	\$ 188,700	6.0%	\$23,778	\$ 169,620	
2018	409,176	5.1	20,868	149,364	7.1	29,051	191,285	6.0	24,551	171,944	
2019	422,474	5.1	21,546	151,247	7.1	29,996	193,697	6.0	25,348	174,112	
2020	436,204	5.1	22,246	152,976	7.1	30,970	195,912	6.0	26,172	176,103	
2021	450,381	5.1	22,969	154,530	7.1	31,977	197,903	6.0	27,023	177,892	
2022	465,018	5.1	23,716	155,887	7.1	33,016	199,641	6.0	27,901	179,454	
2023	480,131	5.1	24,487	157,023	7.1	34,089	201,095	6.0	28,808	180,761	
2024	495,735	5.1	25,282	157,910	7.1	35,197	202,232	6.0	29,744	181,783	
2025	511,846	5.1	26,104	158,521	7.1	36,341	203,014	6.0	30,711	182,486	
2026	528,481	5.1	26,953	158,824	7.1	37,522	203,402	6.0	31,709	182,834	

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Estimated Employer		1 0	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
2017	\$ 396,297	7.8%	\$30,911	\$ 205,436	9.1%	\$36,063	\$ 230,100	9.5%	\$37,648	\$ 241,264
2018	409,176	7.8	31,916	208,250	9.1	37,235	233,252	9.5	38,872	244,569
2019	422,474	7.8	32,953	210,876	9.1	38,445	236,193	9.5	40,135	247,653
2020	436,204	7.8	34,024	213,287	9.1	39,695	238,893	9.5	41,439	250,484
2021	450,381	7.8	35,130	215,454	9.1	40,985	241,320	9.5	42,786	253,029
2022	465,018	7.8	36,271	217,346	9.1	42,317	243,439	9.5	44,177	255,251
2023	480,131	7.8	37,450	218,929	9.1	43,692	245,212	9.5	45,612	257,110
2024	495,735	7.8	38,667	220,166	9.1	45,112	246,598	9.5	47,095	258,563
2025	511,846	7.8	39,924	221,017	9.1	46,578	247,552	9.5	48,625	259,563
2026	528,481	7.8	41,222	221,439	9.1	48,092	248,025	9.5	50,206	260,059

		L-12 Benefit Program			LT-14(	65) Benefit H	rogram	L-6 Benefit Program		
		Estimated Employer Unfunded Contribution Actuarial		Unfunded	Estimated	Employer	Unfunded	<b>Estimated Employer</b>		Unfunded
	Estimated	Contri	Contribution		Contribution		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
2017	\$ 396,297	11.1%	\$43,989	\$ 271,483	11.4%	\$45,178	\$ 277,045	13.1%	\$51,915	\$ 312,734
2018	409,176	11.1	45,419	275,202	11.4	46,646	280,840	13.1	53,602	317,018
2019	422,474	11.1	46,895	278,672	11.4	48,162	284,381	13.1	55,344	321,015
2020	436,204	11.1	48,419	281,858	11.4	49,727	287,632	13.1	57,143	324,685
2021	450,381	11.1	49,992	284,722	11.4	51,343	290,555	13.1	59,000	327,984
2022	465,018	11.1	51,617	287,223	11.4	53,012	293,107	13.1	60,917	330,864
2023	480,131	11.1	53,295	289,315	11.4	54,735	295,242	13.1	62,897	333,274
2024	495,735	11.1	55,027	290,950	11.4	56,514	296,911	13.1	64,941	335,158
2025	511,846	11.1	56,815	292,075	11.4	58,350	298,059	13.1	67,052	336,454
2026	528,481	11.1	58,661	292,633	11.4	60,247	298,628	13.1	69,231	337,096
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- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

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

(0% member contributions are additional)

# Regular Retirement Eligibility

		L-1	Benefit Prog	gram	L-3	Benefit Prog	gram	ram LT-4(65) Benefit Program			
			l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		Employer	Unfunded Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2017	\$ 396,297	8.7%	\$34,478	\$ 165,793	10.7%	\$42,404	\$ 207,159	9.6%	\$38,044	\$ 187,190	
2018	409,176	8.7	35,598	168,064	10.7	43,782	209,997	9.6	39,281	189,754	
2019	422,474	8.7	36,755	170,183	10.7	45,205	212,645	9.6	40,558	192,147	
2020	436,204	8.7	37,950	172,129	10.7	46,674	215,076	9.6	41,876	194,344	
2021	450,381	8.7	39,183	173,878	10.7	48,191	217,261	9.6	43,237	196,319	
2022	465,018	8.7	40,457	175,405	10.7	49,757	219,169	9.6	44,642	198,043	
2023	480,131	8.7	41,771	176,683	10.7	51,374	220,766	9.6	46,093	199,486	
2024	495,735	8.7	43,129	177,682	10.7	53,044	222,014	9.6	47,591	200,613	
2025	511,846	8.7	44,531	178,369	10.7	54,768	222,873	9.6	49,137	201,389	
2026	528,481	8.7	45,978	178,710	10.7	56,547	223,299	9.6	50,734	201,774	

		LT-5(	65) Benefit P	rogram	L-7 Benefit Program			LT-8(65) Benefit Program		
	Estimated	Estimated E		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 396,297	11.3%	\$44,782	\$ 223,253	12.6%	\$49,933	\$ 248,599	13.0%	\$51,519	\$ 259,313
2018	409,176	11.3	46,237	226,312	12.6	51,556	252,005	13.0	53,193	262,866
2019	422,474	11.3	47,740	229,166	12.6	53,232	255,183	13.0	54,922	266,181
2020	436,204	11.3	49,291	231,786	12.6	54,962	258,100	13.0	56,707	269,224
2021	450,381	11.3	50,893	234,141	12.6	56,748	260,723	13.0	58,550	271,960
2022	465,018	11.3	52,547	236,197	12.6	58,592	263,013	13.0	60,452	274,348
2023	480,131	11.3	54,255	237,918	12.6	60,497	264,929	13.0	62,417	276,346
2024	495,735	11.3	56,018	239,263	12.6	62,463	266,426	13.0	64,446	277,908
2025	511,846	11.3	57,839	240,188	12.6	64,493	267,456	13.0	66,540	278,983
2026	528,481	11.3	59,718	240,647	12.6	66,589	267,967	13.0	68,703	279,516

		L-12 Benefit Program		LT-14(65) Benefit Program			L-6 Benefit Program			
		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	Employer	Unfunded
	Estimated	Contribution		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
2017	\$ 396,297	14.6%	\$57,859	\$ 290,063	14.7%	\$58,256	\$ 295,400	16.5%	\$65,389	\$ 331,538
2018	409,176	14.6	59,740	294,037	14.7	60,149	299,447	16.5	67,514	336,080
2019	422,474	14.6	61,681	297,745	14.7	62,104	303,223	16.5	69,708	340,318
2020	436,204	14.6	63,686	301,149	14.7	64,122	306,690	16.5	71,974	344,209
2021	450,381	14.6	65,756	304,209	14.7	66,206	309,806	16.5	74,313	347,706
2022	465,018	14.6	67,893	306,881	14.7	68,358	312,527	16.5	76,728	350,760
2023	480,131	14.6	70,099	309,116	14.7	70,579	314,804	16.5	79,222	353,315
2024	495,735	14.6	72,377	310,863	14.7	72,873	316,583	16.5	81,796	355,312
2025	511,846	14.6	74,730	312,065	14.7	75,241	317,807	16.5	84,455	356,686
2026	528,481	14.6	77,158	312,661	14.7	77,687	318,414	16.5	87,199	357,367
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- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

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

(0% member contributions are additional)

## Regular Retirement Eligibility

		L-1	Benefit Prog	gram	L-3	Benefit Prog	gram	m LT-4(65) Benefit Program				
	Estimated	1 5						l Employer ibution	Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued		
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability		
2017	\$ 396,297	9.0%	\$35,667	\$ 171,622	11.0%	\$43,593	\$ 214,571	9.9%	\$39,233	\$ 193,817		
2018	409,176	9.0	36,826	173,973	11.0	45,009	217,511	9.9	40,508	196,472		
2019	422,474	9.0	38,023	176,167	11.0	46,472	220,254	9.9	41,825	198,949		
2020	436,204	9.0	39,258	178,181	11.0	47,982	222,772	9.9	43,184	201,224		
2021	450,381	9.0	40,534	179,991	11.0	49,542	225,036	9.9	44,588	203,269		
2022	465,018	9.0	41,852	181,572	11.0	51,152	227,012	9.9	46,037	205,054		
2023	480,131	9.0	43,212	182,895	11.0	52,814	228,666	9.9	47,533	206,548		
2024	495,735	9.0	44,616	183,929	11.0	54,531	229,958	9.9	49,078	207,715		
2025	511,846	9.0	46,066	184,640	11.0	56,303	230,847	9.9	50,673	208,518		
2026	528,481	9.0	47,563	184,993	11.0	58,133	231,288	9.9	52,320	208,916		

		LT-5(	65) Benefit P	rogram	L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2017	\$ 396,297	11.7%	\$46,367	\$ 231,199	13.0%	\$51,519	\$ 257,430	13.4%	\$53,104	\$ 268,507	
2018	409,176	11.7	47,874	234,366	13.0	53,193	260,957	13.4	54,830	272,186	
2019	422,474	11.7	49,429	237,321	13.0	54,922	264,248	13.4	56,612	275,618	
2020	436,204	11.7	51,036	240,034	13.0	56,707	267,269	13.4	58,451	278,769	
2021	450,381	11.7	52,695	242,473	13.0	58,550	269,985	13.4	60,351	281,602	
2022	465,018	11.7	54,407	244,602	13.0	60,452	272,356	13.4	62,312	284,075	
2023	480,131	11.7	56,175	246,384	13.0	62,417	274,340	13.4	64,338	286,144	
2024	495,735	11.7	58,001	247,776	13.0	64,446	275,890	13.4	66,428	287,761	
2025	511,846	11.7	59,886	248,734	13.0	66,540	276,957	13.4	68,587	288,874	
2026	528,481	11.7	61,832	249,209	13.0	68,703	277,486	13.4	70,816	289,426	

		L-12 Benefit Program			LT-14	LT-14(65) Benefit Program			L-6 Benefit Program		
			Employer	Unfunded		l Employer	Unfunded		Employer	Unfunded	
	Estimated	Contribution		Actuarial	Contri	ibution	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	
2017	\$ 396,297	15.0%	\$59,444	\$ 300,401	15.3%	\$60,633	\$ 305,951	17.0%	\$67,370	\$ 343,302	
2018	409,176	15.0	61,376	304,516	15.3	62,604	310,142	17.0	69,560	348,005	
2019	422,474	15.0	63,371	308,356	15.3	64,639	314,053	17.0	71,821	352,393	
2020	436,204	15.0	65,431	311,881	15.3	66,739	317,644	17.0	74,155	356,422	
2021	450,381	15.0	67,557	315,050	15.3	68,908	320,872	17.0	76,565	360,044	
2022	465,018	15.0	69,753	317,817	15.3	71,148	323,690	17.0	79,053	363,206	
2023	480,131	15.0	72,020	320,132	15.3	73,460	326,048	17.0	81,622	365,852	
2024	495,735	15.0	74,360	321,941	15.3	75,847	327,891	17.0	84,275	367,920	
2025	511,846	15.0	76,777	323,186	15.3	78,312	329,159	17.0	87,014	369,343	
2026	528,481	15.0	79,272	323,803	15.3	80,858	329,788	17.0	89,842	370,048	
Mater area											

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

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

(4% member contributions are additional)

# Rule of 80 Retirement Eligibility

		L-1 Benefit Program			L-3	Benefit Prog	gram	LT-4(65) Benefit Program			
	Estimated		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2017	\$ 396,297	5.7%	\$22,589	\$ 158,172	7.8%	\$30,911	\$ 202,140	7.6%	\$30,119	\$ 198,999	
2018	409,176	5.7	23,323	160,339	7.8	31,916	204,909	7.6	31,097	201,725	
2019	422,474	5.7	24,081	162,361	7.8	32,953	207,493	7.6	32,108	204,269	
2020	436,204	5.7	24,864	164,217	7.8	34,024	209,865	7.6	33,152	206,604	
2021	450,381	5.7	25,672	165,886	7.8	35,130	211,997	7.6	34,229	208,703	
2022	465,018	5.7	26,506	167,343	7.8	36,271	213,859	7.6	35,341	210,536	
2023	480,131	5.7	27,367	168,562	7.8	37,450	215,417	7.6	36,490	212,070	
2024	495,735	5.7	28,257	169,515	7.8	38,667	216,634	7.6	37,676	213,269	
2025	511,846	5.7	29,175	170,171	7.8	39,924	217,472	7.6	38,900	214,094	
2026	528,481	5.7	30,123	170,496	7.8	41,222	217,887	7.6	40,165	214,503	

		LT-5(	65) Benefit P	rogram	L-7	Benefit Prog	gram	gram LT-8(65) Benefit Pro		
	Estimated	Estimated Contri	Employer bution	Unfunded Actuarial		Employer bution	Unfunded Actuarial		Employer	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 396,297	9.2%	\$36,459	\$ 232,775	9.9%	\$39,233	\$ 246,095	10.8%	\$42,800	\$ 266,502
2018	409,176	9.2	37,644	235,964	9.9	40,508	249,466	10.8	44,191	270,153
2019	422,474	9.2	38,868	238,939	9.9	41,825	252,612	10.8	45,627	273,559
2020	436,204	9.2	40,131	241,671	9.9	43,184	255,500	10.8	47,110	276,687
2021	450,381	9.2	41,435	244,127	9.9	44,588	258,096	10.8	48,641	279,498
2022	465,018	9.2	42,782	246,271	9.9	46,037	260,363	10.8	50,222	281,953
2023	480,131	9.2	44,172	248,065	9.9	47,533	262,260	10.8	51,854	284,007
2024	495,735	9.2	45,608	249,467	9.9	49,078	263,742	10.8	53,539	285,612
2025	511,846	9.2	47,090	250,432	9.9	50,673	264,762	10.8	55,279	286,716
2026	528,481	9.2	48,620	250,910	9.9	52,320	265,268	10.8	57,076	287,263

		L-12 Benefit Program LT-14(65) Benefit Pro Estimated Employer Unfunded Estimated Employer			Program						
		Estimated	r r r r r r r r r r r r r r r r r r r		Estimated	Employer	Unfunded	Estimated	Employer	1	
	Estimated	Contribution		Actuarial	ial Contribution		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	
2017	\$ 396,297	12.1%	\$47,952	\$ 290,039	12.5%	\$49,537	\$ 300,241	14.2%	\$56,274	\$ 333,950	
2018	409,176	12.1	49,510	294,012	12.5	51,147	304,354	14.2	58,103	338,525	
2019	422,474	12.1	51,119	297,719	12.5	52,809	308,192	14.2	59,991	342,794	
2020	436,204	12.1	52,781	301,123	12.5	54,526	311,716	14.2	61,941	346,713	
2021	450,381	12.1	54,496	304,183	12.5	56,298	314,883	14.2	63,954	350,236	
2022	465,018	12.1	56,267	306,854	12.5	58,127	317,648	14.2	66,033	353,312	
2023	480,131	12.1	58,096	309,089	12.5	60,016	319,962	14.2	68,179	355,886	
2024	495,735	12.1	59,984	310,836	12.5	61,967	321,770	14.2	70,394	357,897	
2025	511,846	12.1	61,933	312,038	12.5	63,981	323,014	14.2	72,682	359,281	
2026	528,481	12.1	63,946	312,634	12.5	66,060	323,631	14.2	75,044	359,967	
Mater area											

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

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

(4% member contributions are additional)

## Rule of 80 Retirement Eligibility

		L-1 Benefit Program			L-3	Benefit Prog	gram	LT-4(65) Benefit Program			
	Estimated	Estimated Emplo Estimated Contribution		Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2017	\$ 396,297	6.0%	\$23,778	\$ 164,522	8.2%	\$32,496	\$ 209,996	8.0%	\$31,704	\$ 206,798	
2018	409,176	6.0	24,551	166,776	8.2	33,552	212,873	8.0	32,734	209,631	
2019	422,474	6.0	25,348	168,879	8.2	34,643	215,557	8.0	33,798	212,274	
2020	436,204	6.0	26,172	170,810	8.2	35,769	218,021	8.0	34,896	214,701	
2021	450,381	6.0	27,023	172,546	8.2	36,931	220,236	8.0	36,030	216,883	
2022	465,018	6.0	27,901	174,061	8.2	38,131	222,170	8.0	37,201	218,788	
2023	480,131	6.0	28,808	175,329	8.2	39,371	223,788	8.0	38,410	220,382	
2024	495,735	6.0	29,744	176,320	8.2	40,650	225,053	8.0	39,659	221,628	
2025	511,846	6.0	30,711	177,002	8.2	41,971	225,923	8.0	40,948	222,485	
2026	528,481	6.0	31,709	177,340	8.2	43,335	226,354	8.0	42,278	222,910	

		LT-5(	65) Benefit P	rogram	L-7	Benefit Prog	gram	LT-8(	65) Benefit P	rogram
	Estimated				Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 396,297	9.6%	\$38,044	\$ 241,700	10.3%	\$40,819	\$ 255,520	11.3%	\$44,782	\$ 276,665
2018	409,176	9.6	39,281	245,011	10.3	42,145	259,021	11.3	46,237	280,455
2019	422,474	9.6	40,558	248,100	10.3	43,515	262,287	11.3	47,740	283,991
2020	436,204	9.6	41,876	250,937	10.3	44,929	265,286	11.3	49,291	287,238
2021	450,381	9.6	43,237	253,487	10.3	46,389	267,982	11.3	50,893	290,157
2022	465,018	9.6	44,642	255,713	10.3	47,897	270,336	11.3	52,547	292,705
2023	480,131	9.6	46,093	257,576	10.3	49,453	272,305	11.3	54,255	294,837
2024	495,735	9.6	47,591	259,032	10.3	51,061	273,844	11.3	56,018	296,503
2025	511,846	9.6	49,137	260,034	10.3	52,720	274,903	11.3	57,839	297,650
2026	528,481	9.6	50,734	260,531	10.3	54,434	275,428	11.3	59,718	298,218

		L-12 Benefit Program		LT-14(	LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer		Unfunded	Estimated	Employer	Unfunded	Estimated	Employer	Unfunded
	Estimated	Contribution		Actuarial	Contribution		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
2017	\$ 396,297	12.6%	\$49,933	\$ 301,061	13.1%	\$51,915	\$ 311,610	14.9%	\$59,048	\$ 346,428
2018	409,176	12.6	51,556	305,185	13.1	53,602	315,879	14.9	60,967	351,174
2019	422,474	12.6	53,232	309,033	13.1	55,344	319,862	14.9	62,949	355,602
2020	436,204	12.6	54,962	312,566	13.1	57,143	323,519	14.9	64,994	359,668
2021	450,381	12.6	56,748	315,742	13.1	59,000	326,806	14.9	67,107	363,323
2022	465,018	12.6	58,592	318,515	13.1	60,917	329,676	14.9	69,288	366,514
2023	480,131	12.6	60,497	320,835	13.1	62,897	332,077	14.9	71,540	369,184
2024	495,735	12.6	62,463	322,648	13.1	64,941	333,954	14.9	73,865	371,271
2025	511,846	12.6	64,493	323,896	13.1	67,052	335,245	14.9	76,265	372,707
2026	528,481	12.6	66,589	324,514	13.1	69,231	335,885	14.9	78,744	373,419
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- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

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

(0% member contributions are additional)

# Rule of 80 Retirement Eligibility

		L-1 Benefit Program			L-3	8 Benefit Prog	gram	LT-4(65) Benefit Program			
			l Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial		Employer	Unfunded Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2017	\$ 396,297	9.5%	\$37,648	\$ 181,643	11.7%	\$46,367	\$ 226,997	11.4%	\$45,178	\$ 222,272	
2018	409,176	9.5	38,872	184,131	11.7	47,874	230,107	11.4	46,646	225,317	
2019	422,474	9.5	40,135	186,453	11.7	49,429	233,009	11.4	48,162	228,158	
2020	436,204	9.5	41,439	188,585	11.7	51,036	235,673	11.4	49,727	230,767	
2021	450,381	9.5	42,786	190,501	11.7	52,695	238,068	11.4	51,343	233,112	
2022	465,018	9.5	44,177	192,174	11.7	54,407	240,159	11.4	53,012	235,159	
2023	480,131	9.5	45,612	193,574	11.7	56,175	241,908	11.4	54,735	236,872	
2024	495,735	9.5	47,095	194,668	11.7	58,001	243,275	11.4	56,514	238,211	
2025	511,846	9.5	48,625	195,421	11.7	59,886	244,216	11.4	58,350	239,132	
2026	528,481	9.5	50,206	195,794	11.7	61,832	244,682	11.4	60,247	239,589	

		LT-5(	65) Benefit P	rogram	L-7	<b>Benefit Prog</b>	gram	LT-8(	65) Benefit P	rogram
	Estimated		Estimated Employer Contribution			Employer bution	Unfunded Actuarial		Employer bution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Actuarial Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 396,297	13.1%	\$51,915	\$ 257,508	13.8%	\$54,689	\$ 272,496	14.7%	\$58,256	\$ 292,775
2018	409,176	13.1	53,602	261,036	13.8	56,466	276,229	14.7	60,149	296,786
2019	422,474	13.1	55,344	264,327	13.8	58,301	279,712	14.7	62,104	300,528
2020	436,204	13.1	57,143	267,349	13.8	60,196	282,910	14.7	64,122	303,964
2021	450,381	13.1	59,000	270,066	13.8	62,153	285,785	14.7	66,206	307,053
2022	465,018	13.1	60,917	272,438	13.8	64,172	288,295	14.7	68,358	309,750
2023	480,131	13.1	62,897	274,423	13.8	66,258	290,395	14.7	70,579	312,006
2024	495,735	13.1	64,941	275,974	13.8	68,411	292,036	14.7	72,873	313,769
2025	511,846	13.1	67,052	277,041	13.8	70,635	293,165	14.7	75,241	314,982
2026	528,481	13.1	69,231	277,570	13.8	72,930	293,725	14.7	77,687	315,583

		L-12 Benefit Program Estimated Employer Unfunded			LT-14(	(65) Benefit H	rogram	L-6 Benefit Program		
		Estimated	Estimated Employer		Estimated	Employer	Unfunded	Estimated	Employer	Unfunded
	Estimated	Contribution		Actuarial	rial Contribution		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
2017	\$ 396,297	16.0%	\$63,407	\$ 317,892	16.4%	\$64,993	\$ 328,052	18.1%	\$71,730	\$ 363,279
2018	409,176	16.0	65,468	322,247	16.4	67,105	332,546	18.1	74,061	368,256
2019	422,474	16.0	67,596	326,310	16.4	69,286	336,739	18.1	76,468	372,899
2020	436,204	16.0	69,793	330,041	16.4	71,537	340,589	18.1	78,953	377,162
2021	450,381	16.0	72,061	333,395	16.4	73,862	344,050	18.1	81,519	380,994
2022	465,018	16.0	74,403	336,323	16.4	76,263	347,072	18.1	84,168	384,340
2023	480,131	16.0	76,821	338,773	16.4	78,741	349,600	18.1	86,904	387,140
2024	495,735	16.0	79,318	340,688	16.4	81,301	351,576	18.1	89,728	389,328
2025	511,846	16.0	81,895	342,005	16.4	83,943	352,936	18.1	92,644	390,834
2026	528,481	16.0	84,557	342,658	16.4	86,671	353,610	18.1	95,655	391,580
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- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

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

(0% member contributions are additional)

		L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program			
	Estimate d		Estimated Employer Contribution		Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	
Valuation	Estimated Projected	As a %	Annual	Actuarial Accrued	As a %	Annual	Actuarial Accrued	As a %	Annual	Actuarial Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2017	\$ 396,297	9.8%	\$38,837	\$ 188,188	12.1%	\$47,952	\$ 235,229	11.8%	\$46,763	\$ 230,247	
2018	409,176	9.8	40,099	190,766	12.1	49,510	238,452	11.8	48,283	233,401	
2019	422,474	9.8	41,402	193,171	12.1	51,119	241,459	11.8	49,852	236,344	
2020	436,204	9.8	42,748	195,380	12.1	52,781	244,220	11.8	51,472	239,046	
2021	450,381	9.8	44,137	197,365	12.1	54,496	246,701	11.8	53,145	241,475	
2022	465,018	9.8	45,572	199,098	12.1	56,267	248,868	11.8	54,872	243,596	
2023	480,131	9.8	47,053	200,548	12.1	58,096	250,681	11.8	56,655	245,370	
2024	495,735	9.8	48,582	201,681	12.1	59,984	252,098	11.8	58,497	246,757	
2025	511,846	9.8	50,161	202,461	12.1	61,933	253,073	11.8	60,398	247,711	
2026	528,481	9.8	51,791	202,848	12.1	63,946	253,556	11.8	62,361	248,184	

# Rule of 80 Retirement Eligibility

		LT-5(	65) Benefit P	rogram	L-7	Benefit Prog	gram	LT-8(	65) Benefit P	rogram
	Estimated		Employer	Unfunded		Employer	Unfunded	Estimated	Employer bution	Unfunded
Valuation	Projected	As a % of	bution Annual	Actuarial Accrued	As a % of	bution Annual	Actuarial Accrued	As a % of	Annual	Actuarial Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 396,297	13.5%	\$53,500	\$ 266,790	14.2%	\$56,274	\$ 282,264	15.2%	\$60,237	\$ 303,293
2018	409,176	13.5	55,239	270,445	14.2	58,103	286,131	15.2	62,195	307,448
2019	422,474	13.5	57,034	273,855	14.2	59,991	289,739	15.2	64,216	311,325
2020	436,204	13.5	58,888	276,986	14.2	61,941	293,052	15.2	66,303	314,884
2021	450,381	13.5	60,801	279,800	14.2	63,954	296,030	15.2	68,458	318,084
2022	465,018	13.5	62,777	282,257	14.2	66,033	298,630	15.2	70,683	320,878
2023	480,131	13.5	64,818	284,313	14.2	68,179	300,805	15.2	72,980	323,215
2024	495,735	13.5	66,924	285,920	14.2	70,394	302,505	15.2	75,352	325,042
2025	511,846	13.5	69,099	287,026	14.2	72,682	303,675	15.2	77,801	326,299
2026	528,481	13.5	71,345	287,574	14.2	75,044	304,255	15.2	80,329	326,922

		L-12 Benefit Program Estimated Employer Unfund			LT-14(65) Benefit Program			L-6 Benefit Program		
	Estimated		Estimated Employer Contribution			Employer	Unfunded Actuarial		Employer	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Actuarial Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 396,297	16.5%	\$65,389	\$ 329,322	17.0%	\$67,370	\$ 339,858	18.8%	\$74,504	\$ 376,416
2018	409,176	16.5	67,514	333,834	17.0	69,560	344,514	18.8	76,925	381,573
2019	422,474	16.5	69,708	338,043	17.0	71,821	348,858	18.8	79,425	386,384
2020	436,204	16.5	71,974	341,908	17.0	74,155	352,846	18.8	82,006	390,802
2021	450,381	16.5	74,313	345,382	17.0	76,565	356,431	18.8	84,672	394,773
2022	465,018	16.5	76,728	348,415	17.0	79,053	359,561	18.8	87,423	398,240
2023	480,131	16.5	79,222	350,953	17.0	81,622	362,180	18.8	90,265	401,141
2024	495,735	16.5	81,796	352,936	17.0	84,275	364,227	18.8	93,198	403,408
2025	511,846	16.5	84,455	354,301	17.0	87,014	365,635	18.8	96,227	404,968
2026	528,481	16.5	87,199	354,978	17.0	89,842	366,333	18.8	99,354	405,741

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.