

May 23, 2016

Cooper County Board of Sheltered Services Boonville, 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 Cooper County Board of Sheltered Services dated May 23, 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 28, 2015.

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-1	Benefit Prog	gram	L-3	Benefit Prog	gram	LT-4(	rogram	
		Estimated Employer		Unfunded	Estimated Employer		Unfunded	Estimated	l Employer	Unfunded
	Estimated	Contr	ibution	Actuarial	Contr	ibution Actuarial		Contri	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2016	\$ 238,878	5.9%	\$14,094	\$ 98,428	8.0%	\$19,110	\$ 126,139	7.0%	\$16,721	\$ 111,578
2017	247,239	5.9	14,587	99,939	8.0	19,779	128,076	7.0	17,307	113,291
2018	255,892	5.9	15,098	101,363	8.0	20,471	129,901	7.0	17,912	114,905
2019	264,848	5.9	15,626	102,686	8.0	21,188	131,597	7.0	18,539	116,405
2020	274,118	5.9	16,173	103,894	8.0	21,929	133,146	7.0	19,188	117,775
2021	283,712	5.9	16,739	104,972	8.0	22,697	134,527	7.0	19,860	118,997
2022	293,642	5.9	17,325	105,902	8.0	23,491	135,719	7.0	20,555	120,051
2023	303,919	5.9	17,931	106,666	8.0	24,314	136,698	7.0	21,274	120,917
2024	314,556	5.9	18,559	107,243	8.0	25,164	137,437	7.0	22,019	121,571
2025	325,565	5.9	19,208	107,611	8.0	26,045	137,909	7.0	22,790	121,989

		LT-5(65) Benefit Program			L-7	Benefit Prog	gram	LT-8(65) Benefit Program		
	Estimated		Estimated Employer Contribution			Employer ibution	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
2016	\$ 238,878	8.8%	\$21,021	\$ 135,981	10.3%	\$24,604	\$ 153,575	10.8%	\$25,799	\$ 160,132
2017	247,239	8.8	21,757	138,069	10.3	25,466	155,933	10.8	26,702	162,591
2018	255,892	8.8	22,518	140,036	10.3	26,357	158,155	10.8	27,636	164,908
2019	264,848	8.8	23,307	141,864	10.3	27,279	160,220	10.8	28,604	167,061
2020	274,118	8.8	24,122	143,534	10.3	28,234	162,106	10.8	29,605	169,027
2021	283,712	8.8	24,967	145,023	10.3	29,222	163,788	10.8	30,641	170,781
2022	293,642	8.8	25,840	146,308	10.3	30,245	165,239	10.8	31,713	172,294
2023	303,919	8.8	26,745	147,363	10.3	31,304	166,431	10.8	32,823	173,536
2024	314,556	8.8	27,681	148,160	10.3	32,399	167,331	10.8	33,972	174,475
2025	325,565	8.8	28,650	148,669	10.3	33,533	167,906	10.8	35,161	175,074

		L-12	2 Benefit Pro	gram	LT-14(65) Benefit Program			L-6 Benefit Program			
		Estimated Employer		Unfunded		Employer	Unfunded	Estimated		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	\$ 238,878	12.6%	\$30,099	\$ 180,884	12.9%	\$30,815	\$ 184,185	14.7%	\$35,115	\$ 208,135	
2017	247,239	12.6	31,152	183,661	12.9	31,894	187,013	14.7	36,344	211,331	
2018	255,892	12.6	32,242	186,278	12.9	33,010	189,678	14.7	37,616	214,342	
2019	264,848	12.6	33,371	188,710	12.9	34,165	192,154	14.7	38,933	217,140	
2020	274,118	12.6	34,539	190,931	12.9	35,361	194,415	14.7	40,295	219,695	
2021	283,712	12.6	35,748	192,912	12.9	36,599	196,432	14.7	41,706	221,974	
2022	293,642	12.6	36,999	194,621	12.9	37,880	198,172	14.7	43,165	223,941	
2023	303,919	12.6	38,294	196,024	12.9	39,206	199,601	14.7	44,676	225,556	
2024	314,556	12.6	39,634	197,084	12.9	40,578	200,681	14.7	46,240	226,776	
2025	325,565	12.6	41,021	197,761	12.9	41,998	201,370	14.7	47,858	227,555	

- 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 3.50%.
- 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 P	rogram
		Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded
	Estimated Contribution		ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2016	\$ 238,878	6.2%	\$14,810	\$ 102,568	8.4%	\$20,066	\$ 131,226	7.3%	\$17,438	\$ 116,206
2017	247,239	6.2	15,329	104,143	8.4	20,768	133,241	7.3	18,048	117,990
2018	255,892	6.2	15,865	105,627	8.4	21,495	135,139	7.3	18,680	119,671
2019	264,848	6.2	16,421	107,006	8.4	22,247	136,903	7.3	19,334	121,233
2020	274,118	6.2	16,995	108,265	8.4	23,026	138,514	7.3	20,011	122,660
2021	283,712	6.2	17,590	109,388	8.4	23,832	139,951	7.3	20,711	123,932
2022	293,642	6.2	18,206	110,357	8.4	24,666	141,191	7.3	21,436	125,030
2023	303,919	6.2	18,843	111,153	8.4	25,529	142,209	7.3	22,186	125,932
2024	314,556	6.2	19,502	111,754	8.4	26,423	142,978	7.3	22,963	126,613
2025	325,565	6.2	20,185	112,138	8.4	27.347	143,469	7.3	23,766	127.048

		LT-5(	65) Benefit P	rogram	L-7	Benefit Prog	gram	LT-8(	rogram	
	Estimated			Unfunded Actuarial		Employer bution	Unfunded Actuarial		Employer bution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2016	\$ 238,878	9.3%	\$22,216	\$ 141,461	10.7%	\$25,560	\$ 159,613	11.3%	\$26,993	\$ 166,439
2017	247,239	9.3	22,993	143,633	10.7	26,455	162,064	11.3	27,938	168,994
2018	255,892	9.3	23,798	145,679	10.7	27,380	164,373	11.3	28,916	171,402
2019	264,848	9.3	24,631	147,581	10.7	28,339	166,519	11.3	29,928	173,640
2020	274,118	9.3	25,493	149,318	10.7	29,331	168,479	11.3	30,975	175,683
2021	283,712	9.3	26,385	150,867	10.7	30,357	170,227	11.3	32,059	177,506
2022	293,642	9.3	27,309	152,204	10.7	31,420	171,735	11.3	33,182	179,079
2023	303,919	9.3	28,264	153,302	10.7	32,519	172,973	11.3	34,343	180,370
2024	314,556	9.3	29,254	154,131	10.7	33,657	173,909	11.3	35,545	181,346
2025	325,565	9.3	30,278	154,660	10.7	34,835	174,506	11.3	36,789	181,969

		L-12	2 Benefit Pro	gram	LT-14(	65) Benefit F	Program	L-6	gram	
		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	\$ 238,878	13.2%	\$31,532	\$ 187,926	13.4%	\$32,010	\$ 191,349	15.4%	\$36,787	\$ 216,129
2017	247,239	13.2	32,636	190,811	13.4	33,130	194,287	15.4	38,075	219,447
2018	255,892	13.2	33,778	193,530	13.4	34,290	197,055	15.4	39,407	222,574
2019	264,848	13.2	34,960	196,057	13.4	35,490	199,628	15.4	40,787	225,480
2020	274,118	13.2	36,184	198,364	13.4	36,732	201,977	15.4	42,214	228,134
2021	283,712	13.2	37,450	200,422	13.4	38,017	204,072	15.4	43,692	230,501
2022	293,642	13.2	38,761	202,198	13.4	39,348	205,880	15.4	45,221	232,543
2023	303,919	13.2	40,117	203,656	13.4	40,725	207,365	15.4	46,804	234,220
2024	314,556	13.2	41,521	204,758	13.4	42,151	208,487	15.4	48,442	235,487
2025	325,565	13.2	42,975	205,461	13.4	43,626	209,203	15.4	50,137	236,296

- 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 3.50%.
- 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	LT-4(	65) Benefit P	(5) Benefit Program	
		Estimated Employer		Unfunded Estimated Emplo		l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contr	ibution	Actuarial	Contr	ibution	Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2016	\$ 238,878	9.7%	\$23,171	\$ 111,240	11.9%	\$28,426	\$ 138,983	10.8%	\$25,799	\$ 124,306	
2017	247,239	9.7	23,982	112,948	11.9	29,421	141,117	10.8	26,702	126,215	
2018	255,892	9.7	24,822	114,557	11.9	30,451	143,128	10.8	27,636	128,013	
2019	264,848	9.7	25,690	116,053	11.9	31,517	144,997	10.8	28,604	129,684	
2020	274,118	9.7	26,589	117,419	11.9	32,620	146,703	10.8	29,605	131,210	
2021	283,712	9.7	27,520	118,637	11.9	33,762	148,225	10.8	30,641	132,571	
2022	293,642	9.7	28,483	119,688	11.9	34,943	149,538	10.8	31,713	133,746	
2023	303,919	9.7	29,480	120,551	11.9	36,166	150,616	10.8	32,823	134,710	
2024	314,556	9.7	30,512	121,203	11.9	37,432	151,431	10.8	33,972	135,439	
2025	325,565	9.7	31,580	121,619	11.9	38,742	151,951	10.8	35,161	135,904	

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated		Estimated Employer Contribution			Employer bution	Unfunded Actuarial		Employer bution	Unfunded Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2016	\$ 238,878	12.7%	\$30,338	\$ 148,785	14.2%	\$33,921	\$ 166,799	14.7%	\$35,115	\$ 173,327	
2017	247,239	12.7	31,399	151,069	14.2	35,108	169,360	14.7	36,344	175,988	
2018	255,892	12.7	32,498	153,221	14.2	36,337	171,773	14.7	37,616	178,495	
2019	264,848	12.7	33,636	155,221	14.2	37,608	174,016	14.7	38,933	180,825	
2020	274,118	12.7	34,813	157,048	14.2	38,925	176,064	14.7	40,295	182,953	
2021	283,712	12.7	36,031	158,677	14.2	40,287	177,891	14.7	41,706	184,851	
2022	293,642	12.7	37,293	160,083	14.2	41,697	179,467	14.7	43,165	186,489	
2023	303,919	12.7	38,598	161,237	14.2	43,156	180,761	14.7	44,676	187,834	
2024	314,556	12.7	39,949	162,109	14.2	44,667	181,739	14.7	46,240	188,850	
2025	325,565	12.7	41,347	162,666	14.2	46,230	182,363	14.7	47,858	189,499	

		L-12	2 Benefit Pro	gram	LT-14(	65) Benefit F	Program	L-6 Benefit Program		
	-		Estimated Employer Unfunded Contribution Actuarial			Employer	Unfunded	Estimated Employer Contribution		Unfunded
¥7 1 4						bution	Actuarial			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	\$ 238,878	16.5%	\$39,415	\$ 194,609	16.8%	\$40,132	\$ 197,841	18.6%	\$44,431	\$ 222,389
2017	247,239	16.5	40,794	197,597	16.8	41,536	200,879	18.6	45,986	225,804
2018	255,892	16.5	42,222	200,412	16.8	42,990	203,741	18.6	47,596	229,021
2019	264,848	16.5	43,700	203,029	16.8	44,494	206,401	18.6	49,262	232,011
2020	274,118	16.5	45,229	205,418	16.8	46,052	208,830	18.6	50,986	234,741
2021	283,712	16.5	46,812	207,549	16.8	47,664	210,996	18.6	52,770	237,176
2022	293,642	16.5	48,451	209,388	16.8	49,332	212,865	18.6	54,617	239,277
2023	303,919	16.5	50,147	210,898	16.8	51,058	214,400	18.6	56,529	241,002
2024	314,556	16.5	51,902	212,039	16.8	52,845	215,560	18.6	58,507	242,306
2025	325,565	16.5	53,718	212,767	16.8	54,695	216,300	18.6	60,555	243,138

- 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 3.50%.
- 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	LT-4(65) Benefit Progra		rogram
		Estimated	l Employer	Unfunded	Estimated	Employer	Unfunded	Estimated	Employer	Unfunded
	Estimated Contri		ibution	Actuarial	Contribution		Actuarial	Contri	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2016	\$ 238,878	10.0%	\$23,888	\$ 115,344	12.3%	\$29,382	\$ 144,162	11.1%	\$26,515	\$ 128,891
2017	247,239	10.0	24,724	117,115	12.3	30,410	146,375	11.1	27,444	130,870
2018	255,892	10.0	25,589	118,784	12.3	31,475	148,461	11.1	28,404	132,735
2019	264,848	10.0	26,485	120,335	12.3	32,576	150,399	11.1	29,398	134,468
2020	274,118	10.0	27,412	121,751	12.3	33,717	152,169	11.1	30,427	136,050
2021	283,712	10.0	28,371	123,014	12.3	34,897	153,748	11.1	31,492	137,461
2022	293,642	10.0	29,364	124,104	12.3	36,118	155,110	11.1	32,594	138,679
2023	303,919	10.0	30,392	124,999	12.3	37,382	156,228	11.1	33,735	139,679
2024	314,556	10.0	31,456	125,675	12.3	38,690	157,073	11.1	34,916	140,435
2025	325,565	10.0	32,557	126,107	12.3	40,044	157,613	11.1	36,138	140,917

		LT-5(	65) Benefit P	rogram	L-7	Benefit Prog	gram	LT-8(	65) Benefit P	rogram
	Estimated	Estimated Employer Contribution		Unfunded Actuarial		Employer ibution	Unfunded Actuarial		l Employer ibution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2016	\$ 238,878	13.2%	\$31,532	\$ 154,317	14.6%	\$34,876	\$ 172,976	15.2%	\$36,309	\$ 179,753
2017	247,239	13.2	32,636	156,686	14.6	36,097	175,632	15.2	37,580	182,513
2018	255,892	13.2	33,778	158,918	14.6	37,360	178,134	15.2	38,896	185,113
2019	264,848	13.2	34,960	160,993	14.6	38,668	180,460	15.2	40,257	187,530
2020	274,118	13.2	36,184	162,888	14.6	40,021	182,584	15.2	41,666	189,737
2021	283,712	13.2	37,450	164,578	14.6	41,422	184,478	15.2	43,124	191,705
2022	293,642	13.2	38,761	166,036	14.6	42,872	186,112	15.2	44,634	193,403
2023	303,919	13.2	40,117	167,233	14.6	44,372	187,454	15.2	46,196	194,798
2024	314,556	13.2	41,521	168,138	14.6	45,925	188,468	15.2	47,813	195,852
2025	325,565	13.2	42,975	168,716	14.6	47,532	189,115	15.2	49,486	196,525

		L-12	2 Benefit Pro	gram	LT-14(	65) Benefit F	rogram	L-6	Benefit Prog	gram
			Employer	Unfunded		Employer	Unfunded		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
2016	\$ 238,878	17.1%	\$40,848	\$ 201,829	17.3%	\$41,326	\$ 205,229	19.3%	\$46,103	\$ 230,677
2017	247,239	17.1	42,278	204,928	17.3	42,772	208,380	19.3	47,717	234,219
2018	255,892	17.1	43,758	207,848	17.3	44,269	211,349	19.3	49,387	237,556
2019	264,848	17.1	45,289	210,562	17.3	45,819	214,108	19.3	51,116	240,658
2020	274,118	17.1	46,874	213,040	17.3	47,422	216,628	19.3	52,905	243,490
2021	283,712	17.1	48,515	215,250	17.3	49,082	218,875	19.3	54,756	246,016
2022	293,642	17.1	50,213	217,157	17.3	50,800	220,814	19.3	56,673	248,196
2023	303,919	17.1	51,970	218,723	17.3	52,578	222,406	19.3	58,656	249,986
2024	314,556	17.1	53,789	219,906	17.3	54,418	223,609	19.3	60,709	251,338
2025	325,565	17.1	55,672	220,661	17.3	56,323	224,377	19.3	62,834	252,201

- 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 3.50%.
- 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	Estimated Employer		Estimated	l Employer	Unfunded	Estimated Employer		Unfunded
	Estimated	Contribution		Actuarial	Contr	ibution	Actuarial	Contri	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2016	\$ 238,878	6.3%	\$15,049	\$ 104,119	8.6%	\$20,544	\$ 133,176	7.9%	\$18,871	\$ 123,803
2017	247,239	6.3	15,576	105,718	8.6	21,263	135,221	7.9	19,532	125,704
2018	255,892	6.3	16,121	107,224	8.6	22,007	137,148	7.9	20,215	127,495
2019	264,848	6.3	16,685	108,624	8.6	22,777	138,939	7.9	20,923	129,160
2020	274,118	6.3	17,269	109,902	8.6	23,574	140,574	7.9	21,655	130,680
2021	283,712	6.3	17,874	111,042	8.6	24,399	142,032	7.9	22,413	132,036
2022	293,642	6.3	18,499	112,026	8.6	25,253	143,290	7.9	23,198	133,206
2023	303,919	6.3	19,147	112,834	8.6	26,137	144,323	7.9	24,010	134,167
2024	314,556	6.3	19,817	113,444	8.6	27,052	145,104	7.9	24,850	134,893
2025	325,565	6.3	20,511	113,834	8.6	27,999	145,602	7.9	25,720	135,356

		LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
	Estimated		Estimated Employer Contribution		Estimated Employer Contribution		Unfunded Actuarial		Employer bution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2016	\$ 238,878	9.7%	\$23,171	\$ 147,953	10.8%	\$25,799	\$ 161,984	11.7%	\$27,949	\$ 171,832
2017	247,239	9.7	23,982	150,225	10.8	26,702	164,471	11.7	28,927	174,470
2018	255,892	9.7	24,822	152,365	10.8	27,636	166,814	11.7	29,939	176,956
2019	264,848	9.7	25,690	154,354	10.8	28,604	168,992	11.7	30,987	179,266
2020	274,118	9.7	26,589	156,171	10.8	29,605	170,981	11.7	32,072	181,376
2021	283,712	9.7	27,520	157,791	10.8	30,641	172,755	11.7	33,194	183,258
2022	293,642	9.7	28,483	159,189	10.8	31,713	174,286	11.7	34,356	184,882
2023	303,919	9.7	29,480	160,337	10.8	32,823	175,543	11.7	35,559	186,215
2024	314,556	9.7	30,512	161,204	10.8	33,972	176,493	11.7	36,803	187,222
2025	325,565	9.7	31,580	161,758	10.8	35,161	177,099	11.7	38,091	187,865

		L-12	2 Benefit Pro	gram	LT-14(65) Benefit I		Program	L-6 Benefit Program		
	Estimated		Estimated Employer Contribution		Estimated		Unfunded		Employer	Unfunded
				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	\$ 238,878	13.3%	\$31,771	\$ 190,664	13.7%	\$32,726	\$ 195,591	15.6%	\$37,265	\$ 219,300
2017	247,239	13.3	32,883	193,591	13.7	33,872	198,594	15.6	38,569	222,667
2018	255,892	13.3	34,034	196,349	13.7	35,057	201,424	15.6	39,919	225,840
2019	264,848	13.3	35,225	198,913	13.7	36,284	204,054	15.6	41,316	228,789
2020	274,118	13.3	36,458	201,254	13.7	37,554	206,455	15.6	42,762	231,482
2021	283,712	13.3	37,734	203,342	13.7	38,869	208,597	15.6	44,259	233,883
2022	293,642	13.3	39,054	205,144	13.7	40,229	210,445	15.6	45,808	235,955
2023	303,919	13.3	40,421	206,623	13.7	41,637	211,963	15.6	47,411	237,656
2024	314,556	13.3	41,836	207,741	13.7	43,094	213,110	15.6	49,071	238,942
2025	325,565	13.3	43,300	208,455	13.7	44,602	213,842	15.6	50,788	239,763

- 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 3.50%.
- 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 Prog	gram	L-3	Benefit Prog	gram	LT-4(	LT-4(65) Benefit Program	
		Estimated	l Employer	Unfunded	Estimated Employer		Unfunded	Estimated	Employer	Unfunded
	Estimated	nated Contribution		Actuarial	Contri	bution	Actuarial	Contr	bution	Actuarial
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2016	\$ 238,878	6.6%	\$15,766	\$ 108,511	9.0%	\$21,499	\$ 138,586	8.3%	\$19,827	\$ 128,938
2017	247,239	6.6	16,318	110,177	9.0	22,252	140,714	8.3	20,521	130,918
2018	255,892	6.6	16,889	111,747	9.0	23,030	142,719	8.3	21,239	132,783
2019	264,848	6.6	17,480	113,206	9.0	23,836	144,582	8.3	21,982	134,517
2020	274,118	6.6	18,092	114,538	9.0	24,671	146,284	8.3	22,752	136,100
2021	283,712	6.6	18,725	115,726	9.0	25,534	147,802	8.3	23,548	137,512
2022	293,642	6.6	19,380	116,751	9.0	26,428	149,112	8.3	24,372	138,730
2023	303,919	6.6	20,059	117,593	9.0	27,353	150,187	8.3	25,225	139,730
2024	314,556	6.6	20,761	118,229	9.0	28,310	150,999	8.3	26,108	140,486
2025	325,565	6.6	21,487	118,635	9.0	29,301	151,518	8.3	27,022	140,969

		LT-5(	65) Benefit P	rogram	L-7 Benefit Program			LT-8(65) Benefit Program			
	Estimated			Unfunded Actuarial		Employer ibution	Unfunded Actuarial		Employer bution	Unfunded Actuarial	
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued	
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability	
2016	\$ 238,878	10.3%	\$24,604	\$ 153,921	11.4%	\$27,232	\$ 168,409	12.2%	\$29,143	\$ 178,641	
2017	247,239	10.3	25,466	156,284	11.4	28,185	170,995	12.2	30,163	181,384	
2018	255,892	10.3	26,357	158,511	11.4	29,172	173,431	12.2	31,219	183,968	
2019	264,848	10.3	27,279	160,581	11.4	30,193	175,695	12.2	32,311	186,370	
2020	274,118	10.3	28,234	162,471	11.4	31,249	177,763	12.2	33,442	188,563	
2021	283,712	10.3	29,222	164,156	11.4	32,343	179,607	12.2	34,613	190,519	
2022	293,642	10.3	30,245	165,610	11.4	33,475	181,198	12.2	35,824	192,207	
2023	303,919	10.3	31,304	166,804	11.4	34,647	182,505	12.2	37,078	193,593	
2024	314,556	10.3	32,399	167,706	11.4	35,859	183,492	12.2	38,376	194,640	
2025	325,565	10.3	33,533	168,282	11.4	37,114	184,122	12.2	39,719	195,309	

		L-12	2 Benefit Pro	gram	LT-14(	65) Benefit F	Program	L-6	Benefit Prog	gram
	Estimated		Employer	Unfunded		Employer	Unfunded		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
2016	\$ 238,878	13.9%	\$33,204	\$ 198,119	14.3%	\$34,160	\$ 203,240	16.3%	\$38,937	\$ 227,768
2017	247,239	13.9	34,366	201,161	14.3	35,355	206,361	16.3	40,300	231,265
2018	255,892	13.9	35,569	204,027	14.3	36,593	209,301	16.3	41,710	234,560
2019	264,848	13.9	36,814	206,691	14.3	37,873	212,034	16.3	43,170	237,622
2020	274,118	13.9	38,102	209,123	14.3	39,199	214,529	16.3	44,681	240,418
2021	283,712	13.9	39,436	211,292	14.3	40,571	216,755	16.3	46,245	242,912
2022	293,642	13.9	40,816	213,164	14.3	41,991	218,675	16.3	47,864	245,064
2023	303,919	13.9	42,245	214,701	14.3	43,460	220,252	16.3	49,539	246,831
2024	314,556	13.9	43,723	215,862	14.3	44,982	221,443	16.3	51,273	248,166
2025	325,565	13.9	45,254	216,604	14.3	46,556	222,204	16.3	53,067	249,018

- 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 3.50%.
- 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 Prog	gram	L-3	Benefit Prog	gram	LT-4(	65) Benefit P	efit Program	
		Estimated Employ		Unfunded	Estimated	l Employer	Unfunded	Estimated	l Employer	Unfunded	
	Estimated	Contribution		Actuarial	Contribution		Actuarial	Contr	ibution	Actuarial	
Valuation	Projected	As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued	
Year	Payroll	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	
2016	\$ 238,878	10.1%	\$24,127	\$ 116,762	12.4%	\$29,621	\$ 145,942	11.6%	\$27,710	\$ 136,356	
2017	247,239	10.1	24,971	118,555	12.4	30,658	148,183	11.6	28,680	138,450	
2018	255,892	10.1	25,845	120,244	12.4	31,731	150,294	11.6	29,683	140,423	
2019	264,848	10.1	26,750	121,814	12.4	32,841	152,256	11.6	30,722	142,256	
2020	274,118	10.1	27,686	123,248	12.4	33,991	154,048	11.6	31,798	143,930	
2021	283,712	10.1	28,655	124,527	12.4	35,180	155,646	11.6	32,911	145,423	
2022	293,642	10.1	29,658	125,630	12.4	36,412	157,025	11.6	34,062	146,711	
2023	303,919	10.1	30,696	126,536	12.4	37,686	158,157	11.6	35,255	147,769	
2024	314,556	10.1	31,770	127,221	12.4	39,005	159,013	11.6	36,488	148,568	
2025	325,565	10.1	32,882	127,658	12.4	40,370	159,559	11.6	37,766	149,078	

		LT-5(	65) Benefit P	rogram	L-7 Benefit Prog		gram	LT-8(65) Benefit Prog		rogram
	Estimated			Unfunded Actuarial		Employer bution	Unfunded Actuarial		Employer bution	Unfunded Actuarial
Valuation	Projected	As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2016	\$ 238,878	13.6%	\$32,487	\$ 160,646	14.7%	\$35,115	\$ 175,127	15.6%	\$37,265	\$ 184,905
2017	247,239	13.6	33,625	163,113	14.7	36,344	177,816	15.6	38,569	187,744
2018	255,892	13.6	34,801	165,437	14.7	37,616	180,350	15.6	39,919	190,419
2019	264,848	13.6	36,019	167,597	14.7	38,933	182,705	15.6	41,316	192,905
2020	274,118	13.6	37,280	169,569	14.7	40,295	184,855	15.6	42,762	195,175
2021	283,712	13.6	38,585	171,328	14.7	41,706	186,773	15.6	44,259	197,200
2022	293,642	13.6	39,935	172,846	14.7	43,165	188,428	15.6	45,808	198,947
2023	303,919	13.6	41,333	174,092	14.7	44,676	189,787	15.6	47,411	200,382
2024	314,556	13.6	42,780	175,034	14.7	46,240	190,814	15.6	49,071	201,466
2025	325,565	13.6	44,277	175,635	14.7	47,858	191,469	15.6	50,788	202,158

		L-12	2 Benefit Pro	gram	LT-14(	65) Benefit F	Program	L-6 Benefit Program		
	Estimated		Estimated Employer Contribution			Employer	Unfunded		Employer	Unfunded
Valuation	Projected	As a % of	Annual	Actuarial Accrued	As a % of	bution Annual	Actuarial Accrued	As a % of	bution Annual	Actuarial Accrued
Year	Payroll	Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2016	\$ 238,878	17.2%	\$41,087	\$ 204,332	17.6%	\$42,043	\$ 209,227	19.5%	\$46,581	\$ 233,533
2017	247,239	17.2	42,525	207,469	17.6	43,514	212,439	19.5	48,212	237,119
2018	255,892	17.2	44,013	210,425	17.6	45,037	215,466	19.5	49,899	240,497
2019	264,848	17.2	45,554	213,172	17.6	46,613	218,279	19.5	51,645	243,637
2020	274,118	17.2	47,148	215,681	17.6	48,245	220,848	19.5	53,453	246,504
2021	283,712	17.2	48,798	217,919	17.6	49,933	223,139	19.5	55,324	249,061
2022	293,642	17.2	50,506	219,850	17.6	51,681	225,116	19.5	57,260	251,268
2023	303,919	17.2	52,274	221,435	17.6	53,490	226,739	19.5	59,264	253,080
2024	314,556	17.2	54,104	222,633	17.6	55,362	227,966	19.5	61,338	254,449
2025	325,565	17.2	55,997	223,398	17.6	57,299	228,749	19.5	63,485	255,323

- 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 3.50%.
- 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)

# Rule of 80 Retirement Eligibility

		L-1 Benefit Program			L-3	Benefit Prog	gram	LT-4(65) Benefit Program		
	Estimated.	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded	Estimated Employer Contribution		Unfunded
** *	Estimated			Actuarial			Actuarial			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
2016	\$ 238,878	10.4%	\$24,843	\$ 121,133	12.8%	\$30,576	\$ 151,405	12.1%	\$28,904	\$ 141,475
2017	247,239	10.4	25,713	122,993	12.8	31,647	153,730	12.1	29,916	143,647
2018	255,892	10.4	26,613	124,745	12.8	32,754	155,920	12.1	30,963	145,694
2019	264,848	10.4	27,544	126,374	12.8	33,901	157,956	12.1	32,047	147,596
2020	274,118	10.4	28,508	127,861	12.8	35,087	159,815	12.1	33,168	149,333
2021	283,712	10.4	29,506	129,187	12.8	36,315	161,473	12.1	34,329	150,882
2022	293,642	10.4	30,539	130,332	12.8	37,586	162,904	12.1	35,531	152,219
2023	303,919	10.4	31,608	131,272	12.8	38,902	164,079	12.1	36,774	153,317
2024	314,556	10.4	32,714	131,982	12.8	40,263	164,967	12.1	38,061	154,146
2025	325,565	10.4	33,859	132,435	12.8	41,672	165,534	12.1	39,393	154,676

		LT-5(65) Benefit Program			L-7	Benefit Prog	gram	LT-8(65) Benefit Program			
		Estimated Employer		Unfunded Estimated En		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	
2016	\$ 238,878	14.0%	\$33,443	\$ 166,657	15.3%	\$36,548	\$ 181,662	16.1%	\$38,459	\$ 191,857	
2017	247,239	14.0	34,613	169,216	15.3	37,828	184,451	16.1	39,805	194,803	
2018	255,892	14.0	35,825	171,627	15.3	39,151	187,079	16.1	41,199	197,579	
2019	264,848	14.0	37,079	173,868	15.3	40,522	189,522	16.1	42,641	200,159	
2020	274,118	14.0	38,377	175,914	15.3	41,940	191,752	16.1	44,133	202,515	
2021	283,712	14.0	39,720	177,739	15.3	43,408	193,741	16.1	45,678	204,616	
2022	293,642	14.0	41,110	179,314	15.3	44,927	195,458	16.1	47,276	206,429	
2023	303,919	14.0	42,549	180,607	15.3	46,500	196,867	16.1	48,931	207,918	
2024	314,556	14.0	44,038	181,584	15.3	48,127	197,932	16.1	50,644	209,043	
2025	325,565	14.0	45,579	182,208	15.3	49,811	198,612	16.1	52,416	209,761	

		L-12 Benefit Program			LT-14(	65) Benefit F	Program	L-6 Benefit Program			
	Estimated Er		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	
2016	\$ 238,878	17.8%	\$42,520	\$ 211,974	18.2%	\$43,476	\$ 217,076	20.2%	\$48,253	\$ 242,255	
2017	247,239	17.8	44,009	215,229	18.2	44,997	220,409	20.2	49,942	245,975	
2018	255,892	17.8	45,549	218,296	18.2	46,572	223,549	20.2	51,690	249,480	
2019	264,848	17.8	47,143	221,146	18.2	48,202	226,468	20.2	53,499	252,737	
2020	274,118	17.8	48,793	223,749	18.2	49,889	229,133	20.2	55,372	255,711	
2021	283,712	17.8	50,501	226,070	18.2	51,636	231,510	20.2	57,310	258,364	
2022	293,642	17.8	52,268	228,073	18.2	53,443	233,561	20.2	59,316	260,653	
2023	303,919	17.8	54,098	229,718	18.2	55,313	235,245	20.2	61,392	262,533	
2024	314,556	17.8	55,991	230,961	18.2	57,249	236,518	20.2	63,540	263,953	
2025	325,565	17.8	57,951	231,754	18.2	59,253	237,330	20.2	65,764	264,860	

- 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 3.50%.
- 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.