



August 15, 2022 E-Mail

Mr. Jeff Pabst
 Education and Outreach Coordinator
 Missouri Local Government
 Employees Retirement System
 P.O. Box 1665
 Jefferson City, Missouri 65102

Re: City of Liberty Public Safety Department Split (#2461)

Dear Jeff:

As you requested, we have performed actuarial valuations as of February 28, 2022 for the active members reported as Public Safety members and the remaining active members of the General department of the City of Liberty. The results of the actuarial valuations follow (contribution rates shown below are uncapped employer contribution rates):

	Public Safety Subdepartment	Other General Subdepartments	Combined
<u>Member Statistics</u>			
Number Active	7	135	142
Payroll	\$420,883	\$8,163,803	\$8,584,686
Average Pay	60,126	60,473	60,456
Accumulated Contributions (Actives)	94,905	1,618,203	1,713,108
Number Deferred	0	73	73
<u>Actuarial Accrued Liabilities (AAL)</u>			
Active AAL	\$1,241,982	\$16,058,084	\$17,300,066
Deferred AAL	0	4,401,491	4,401,491
Increase AAL - Public Safety Provisions and Assumptions	144,212	0	0
Total AAL	\$1,386,194	\$20,459,575	\$21,701,557
<u>Actuarial Value of Assets</u>			
Members Deposit Fund (MDF)	\$94,905	\$1,981,896	\$2,076,801
Employer Accumulation Fund (EAF)*	958,330	15,368,394	16,326,724
Total Assets	\$1,053,235	\$17,350,290	\$18,403,525
Funded Ratio	76.0%	84.8%	84.8%
Unfunded Actuarial Accrued Liability (UAAL)	\$332,959	\$3,109,285	\$3,298,032
<u>Computed Employer Contribution Rate</u>			
Normal Cost Rate	7.90%	7.40%	7.30%
Casualty Rate	0.50	0.50	0.50
Prior Service Cost Rate	6.30	3.20	3.20
Total Employer Contribution Rate (Uncapped)	14.70%	11.10%	11.00%

* Assets allocated to each division are estimated.

The Public Safety subdepartment is valued using public safety benefit provisions (normal retirement and deferred age equal to 55) and public safety assumptions. For members proposed to be covered in the Public Safety subdepartment, the actuarial accrued liability increased by \$144,212 and is amortized over 20 years based on the funding policy for benefit changes.

Please note that the results for the ‘Combined’ department are the same as those reported for the General department in the February 28, 2022 annual actuarial valuation report for the City of Liberty. However, adding the results for the subdepartments shown on the previous page will not match the combined results due to valuing the Public Safety members alone as Public Safety members and combined as General members.

Per LAGERS staff, EAF assets were split between the two subdepartments so that each subdepartment’s funded percent would be the same as the combined General department based upon the General benefit provisions and assumptions as of February 28, 2022. This would require an accounting transfer based on market value, as of February 28, 2022, of \$1,029,385 of EAF assets to the Public Safety department with the remainder staying in the General department.

Deferred members as of February 28, 2022 for each employer were valued with the General subdepartment.

Below are 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. Under the Present Plan, members eligible to be considered Public Safety members are valued using General plan provisions and assumptions. Under the Alternate Plan, these members are valued using Public Safety plan provisions and assumptions. The projections below only include members eligible for the Public Safety subdepartment.

Valuation Date	Estimated Projected Payroll	Present Plan			Alternate Plan			Change due to Proposed Provisions		
		Estimated Employer Contribution		Estimated Difference Between AAL and AVA	Estimated Employer Contribution		Estimated Difference Between AAL and AVA	Estimated Employer Contribution		Estimated Difference Between AAL and AVA
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	\$ 420,883	10.10%	\$ 42,509	\$ 188,747	14.70%	\$ 61,870	\$ 332,959	4.60%	\$ 19,361	\$ 144,212
2023	432,457	10.10%	43,678	185,255	14.70%	63,571	328,527	4.60%	19,893	143,272
2024	444,350	10.10%	44,879	181,316	14.70%	65,319	323,278	4.60%	20,440	141,962
2025	456,570	10.20%	46,570	176,424	14.80%	67,572	316,673	4.60%	21,002	140,249
2026	469,126	10.20%	47,851	170,499	14.80%	69,431	308,595	4.60%	21,580	138,096
2027	482,027	10.30%	49,649	163,455	14.90%	71,822	298,918	4.60%	22,173	135,463
2028	495,283	10.30%	51,014	155,197	14.90%	73,797	287,504	4.60%	22,783	132,307
2029	508,903	10.30%	52,417	145,627	14.90%	75,827	274,210	4.60%	23,410	128,583
2030	522,898	10.40%	54,381	134,636	15.00%	78,435	258,877	4.60%	24,054	124,241
2031	537,278	10.40%	55,877	122,109	15.00%	80,592	241,337	4.60%	24,715	119,228

The results shown for each employer only include active members reported to LAGERS as of the valuation date, February 28, 2022. The methods and assumptions used in the actuarial valuations were the same as those used in the annual actuarial valuations as of February 28, 2022. In particular, the assumed rate of investment return was 7.00% and the assumed rate of payroll growth was 2.75%.



The actuarial valuation results presented on the previous pages are based upon the employer's benefit provisions as of February 28, 2022. A summary follows:

Provisions	ER #2461
Benefit Program	L-6
Final Average Salary	5 Years
Member Contribution Rate	4%
Retirement Eligibility	Regular

The long-term cost (C) of providing retirement benefits depends only on the benefits (B) that are paid to participants, the expenses (E) of administering the plan, and the investment return (I) generated on invested assets: $C = B + E - I$. For a given level of benefits, the cost of providing those benefits is lowered if administrative expenses are lowered or investment income is increased.

The long-term costs are financed by a series of employer and member contributions. The series of contributions is flexible. If more is contributed in early years, less has to be contributed in later years, and vice-versa. Over time the series of contributions has to have the same value as benefits and expenses. The actuary determines each year's contribution based on a funding method and a set of actuarial assumptions. The chosen funding method and assumptions do not affect the long term cost of providing retirement benefits, but have a strong impact on the series of contributions made to fund the benefits.

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.



The computed employer contribution rates for the City of Liberty including the changes associated with the Public Safety split with the following benefit provisions as of February 28, 2022 are shown below:

Provisions	ER #2461
Benefit Program	L-6
Final Average Salary	5 Years
Member Contribution Rate	2%
Retirement Eligibility	Regular

Computed Employer Contribution Rate	Public Safety Subdepartment	Other General Subdepartments
Normal Cost Rate	9.60%	9.10%
Casualty Rate	0.50	0.50
Prior Service Cost Rate	<u>6.40</u>	<u>3.40</u>
Total Employer Contribution Rate (Uncapped)	16.50%	13.00%
Change in Computed Employer Contribution Rate	6.40%	1.90%

Below are projections under the proposed benefit provisions needed to comply with Missouri state disclosure requirements (Section 105.665 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision.

Public Safety Subdepartment:

Valuation Date	Estimated Projected Payroll	Present Plan			Alternate Plan			Change due to Proposed Provisions		
		Estimated Employer Contribution		Estimated Difference Between AAL and AVA	Estimated Employer Contribution		Estimated Difference Between AAL and AVA	Estimated Employer Contribution		Estimated Difference Between AAL and AVA
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	\$ 420,883	10.10%	\$ 42,509	\$ 188,747	16.50%	\$ 69,446	\$ 340,409	6.40%	\$ 26,937	\$ 151,662
2023	432,457	10.10%	43,678	185,255	16.50%	71,355	336,349	6.40%	27,677	151,094
2024	444,350	10.10%	44,879	181,316	16.50%	73,318	331,455	6.40%	28,439	150,139
2025	456,570	10.20%	46,570	176,424	16.60%	75,791	325,185	6.40%	29,221	148,761
2026	469,126	10.20%	47,851	170,499	16.60%	77,875	317,423	6.40%	30,024	146,924
2027	482,027	10.30%	49,649	163,455	16.70%	80,499	308,039	6.40%	30,850	144,584
2028	495,283	10.30%	51,014	155,197	16.70%	82,712	296,895	6.40%	31,698	141,698
2029	508,903	10.30%	52,417	145,627	16.70%	84,987	283,843	6.40%	32,570	138,216
2030	522,898	10.40%	54,381	134,636	16.80%	87,847	268,725	6.40%	33,466	134,089
2031	537,278	10.40%	55,877	122,109	16.80%	90,263	251,369	6.40%	34,386	129,260

Other General Subdepartments:

Valuation Date	Estimated Projected Payroll	Present Plan			Alternate Plan			Change due to Proposed Provisions		
		Estimated Employer Contribution		Estimated Difference Between AAL and AVA	Estimated Employer Contribution		Estimated Difference Between AAL and AVA	Estimated Employer Contribution		Estimated Difference Between AAL and AVA
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2022	\$ 8,163,803	11.10%	\$ 906,182	\$ 3,109,285	13.00%	\$ 1,061,294	\$ 3,340,747	1.90%	\$ 155,112	\$ 231,462
2023	8,388,308	11.10%	931,102	3,058,697	13.00%	1,090,480	3,280,486	1.90%	159,378	221,789
2024	8,618,986	11.20%	965,326	2,993,645	13.10%	1,129,087	3,205,134	1.90%	163,761	211,489
2025	8,856,008	11.20%	991,873	2,912,901	13.10%	1,160,137	3,113,403	1.90%	168,264	200,502
2026	9,099,548	11.20%	1,019,149	2,815,140	13.10%	1,192,041	3,003,903	1.90%	172,892	188,763
2027	9,349,786	11.30%	1,056,526	2,698,937	13.20%	1,234,172	2,875,139	1.90%	177,646	176,202
2028	9,606,905	11.30%	1,085,580	2,562,759	13.20%	1,268,111	2,725,507	1.90%	182,531	162,748
2029	9,871,095	11.30%	1,115,434	2,404,958	13.20%	1,302,985	2,553,277	1.90%	187,551	148,319
2030	10,142,550	11.40%	1,156,251	2,223,760	13.30%	1,348,959	2,356,592	1.90%	192,708	132,832
2031	10,421,470	11.40%	1,188,048	2,017,261	13.30%	1,386,056	2,133,456	1.90%	198,008	116,195



The computed employer contribution rates for the City of Liberty including the changes associated with the Public Safety split with the following benefit provisions as of February 28, 2022 are shown below:

Provisions	ER #2461
Benefit Program	L-6
Final Average Salary	5 Years
Member Contribution Rate	0%
Retirement Eligibility	Regular

Computed Employer Contribution Rate	Public Safety Subdepartment	Other General Subdepartments
Normal Cost Rate	11.50%	10.80%
Casualty Rate	0.50	0.50
Prior Service Cost Rate	<u>6.50</u>	<u>3.60</u>
Total Employer Contribution Rate (Uncapped)	18.40%	14.90%
Change in Computed Employer Contribution Rate	8.30%	3.80%

Below are projections under the proposed benefit provisions needed to comply with Missouri state disclosure requirements (Section 105.665 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision.

Public Safety Subdepartment:

Valuation Date	Estimated Projected Payroll	Present Plan			Alternate Plan			Change due to Proposed Provisions		
		Estimated Employer Contribution		Estimated Difference	Estimated Employer Contribution		Estimated Difference	Estimated Employer Contribution		Estimated Difference
		As a % of Payroll	Annual Dollars	Between AAL and AVA	As a % of Payroll	Annual Dollars	Between AAL and AVA	As a % of Payroll	Annual Dollars	Between AAL and AVA
2022	\$ 420,883	10.10%	\$ 42,509	\$ 188,747	18.40%	\$ 77,442	\$ 343,139	8.30%	\$ 34,933	\$ 154,392
2023	432,457	10.10%	43,678	185,255	18.40%	79,572	338,640	8.30%	35,894	153,385
2024	444,350	10.10%	44,879	181,316	18.40%	81,760	333,299	8.30%	36,881	151,983
2025	456,570	10.20%	46,570	176,424	18.50%	84,465	326,573	8.30%	37,895	150,149
2026	469,126	10.20%	47,851	170,499	18.50%	86,788	318,343	8.30%	38,937	147,844
2027	482,027	10.30%	49,649	163,455	18.60%	89,657	308,480	8.30%	40,008	145,025
2028	495,283	10.30%	51,014	155,197	18.60%	92,123	296,843	8.30%	41,109	141,646
2029	508,903	10.30%	52,417	145,627	18.60%	94,656	283,286	8.30%	42,239	137,659
2030	522,898	10.40%	54,381	134,636	18.70%	97,782	267,646	8.30%	43,401	133,010
2031	537,278	10.40%	55,877	122,109	18.70%	100,471	249,752	8.30%	44,594	127,643

Other General Subdepartments:

Valuation Date	Estimated Projected Payroll	Present Plan			Alternate Plan			Change due to Proposed Provisions		
		Estimated Employer Contribution		Estimated Difference	Estimated Employer Contribution		Estimated Difference	Estimated Employer Contribution		Estimated Difference
		As a % of Payroll	Annual Dollars	Between AAL and AVA	As a % of Payroll	Annual Dollars	Between AAL and AVA	As a % of Payroll	Annual Dollars	Between AAL and AVA
2022	\$ 8,163,803	11.10%	\$ 906,182	\$ 3,109,285	14.90%	\$ 1,216,407	\$ 3,569,500	3.80%	\$ 310,225	\$ 460,215
2023	8,388,308	11.10%	931,102	3,058,697	14.90%	1,249,858	3,507,747	3.80%	318,756	449,050
2024	8,618,986	11.20%	965,326	2,993,645	15.00%	1,292,848	3,430,318	3.80%	327,522	436,673
2025	8,856,008	11.20%	991,873	2,912,901	15.00%	1,328,401	3,335,869	3.80%	336,528	422,968
2026	9,099,548	11.20%	1,019,149	2,815,140	15.00%	1,364,932	3,222,953	3.80%	345,783	407,813
2027	9,349,786	11.30%	1,056,526	2,698,937	15.10%	1,411,818	3,090,012	3.80%	355,292	391,075
2028	9,606,905	11.30%	1,085,580	2,562,759	15.10%	1,450,643	2,935,374	3.80%	365,063	372,615
2029	9,871,095	11.30%	1,115,434	2,404,958	15.10%	1,490,535	2,757,237	3.80%	375,101	352,279
2030	10,142,550	11.40%	1,156,251	2,223,760	15.20%	1,541,668	2,553,664	3.80%	385,417	329,904
2031	10,421,470	11.40%	1,188,048	2,017,261	15.20%	1,584,063	2,322,576	3.80%	396,015	305,315



Mr. Jeff Pabst
August 15, 2022 E-Mail
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Mita Drazilov is a Member of the American Academy of Actuaries, and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Please call if you have any questions.

Sincerely,
Gabriel, Roeder, Smith & Company

A handwritten signature in black ink that reads "Mita Drazilov". The signature is written in a cursive, flowing style.

Mita D. Drazilov, ASA, FCA, MAAA

MDD:dj

cc: Judith Kermans (GRS)
Michael Gano (GRS)

