JOINT COMMITTEE ON PUBLIC EMPLOYEE RETIREMENT
FOURTH QUARTER MEETING
December 2, 2024

The Joint Committee on Public Employee Retirement (JCPER) held its fourth quarter meeting on Monday, December 2, 2024 at 11:00 AM in the Joint Committee Room (Room 117) in the State Capitol. The meeting was livestreamed via the House and Senate websites. Chair Hovis called the meeting to order.

The first order of business on the agenda was the roll call. JCPER member attendance:

Representatives Hovis, Steinhoff and West were present. Senators Bernskoetter, Moon, and Williams as well as Representatives Bosley were not present. Senators Beck, Fitzwater, and McCreery as well as Representatives Richard Brown and Reedy joined the meeting at a later time.

With roll call complete, Chair Hovis turned the hearing over to Executive Director Robert Coleman for the review of the annual watch list. The director made special note of Missouri State Employees' Retirement System (MOSERS), Poplar Bluff, and St. Louis Public Schools Employee Retirement System (STLPERS). MOSERS is below 70% funding ratio, but is increasing the amount of contributions to increase the funding ratio. Poplar Bluff's investments have been over preforming, which has been offsetting the fact the plan is not reaching the recommended contributions. STLPERS has a locked in contribution rate which is below the recommended contribution level. The chair commented, he expects to see a bill to change the contribution level of STLPERS this session.

The Director moved from the watch list to an update on Quarterly Investment reporting. He noted all plans performed over the expected level, including MOSERs, MoDot & Highway Patrol Employees' Retirement System, and St. Louis Public School Employee Retirement System.

The director also delivered an update on 4 plans that are making provision changes. He didn't have any concerns with the outlined changes.

The final order of business was comments from the chair. Chair Hovis thanked Representative Richard Brown for his service and time on the committee. Representative Brown return praise for the chair and the other members of the committee.

With no further business to be presented, the committee adjourned.

Robert Coleman
Executive Director

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JOINT COMMITTEE ON PUBLIC EMPLOYEE RETIREMENT

4th QUARTER MEETING
December 2, 2024
11:00 am—12:00 pm
Joint Committee Room, 117-A, State Capitol

AGENDA

Roll Call

Watch list

Quarterly Investment Report

Plan Updates

Comments of the Chair

A vote may be taken to close the meeting pursuant to section 610.021(3), RSMo and section 610.021(13), RSMo relating to personnel matters.

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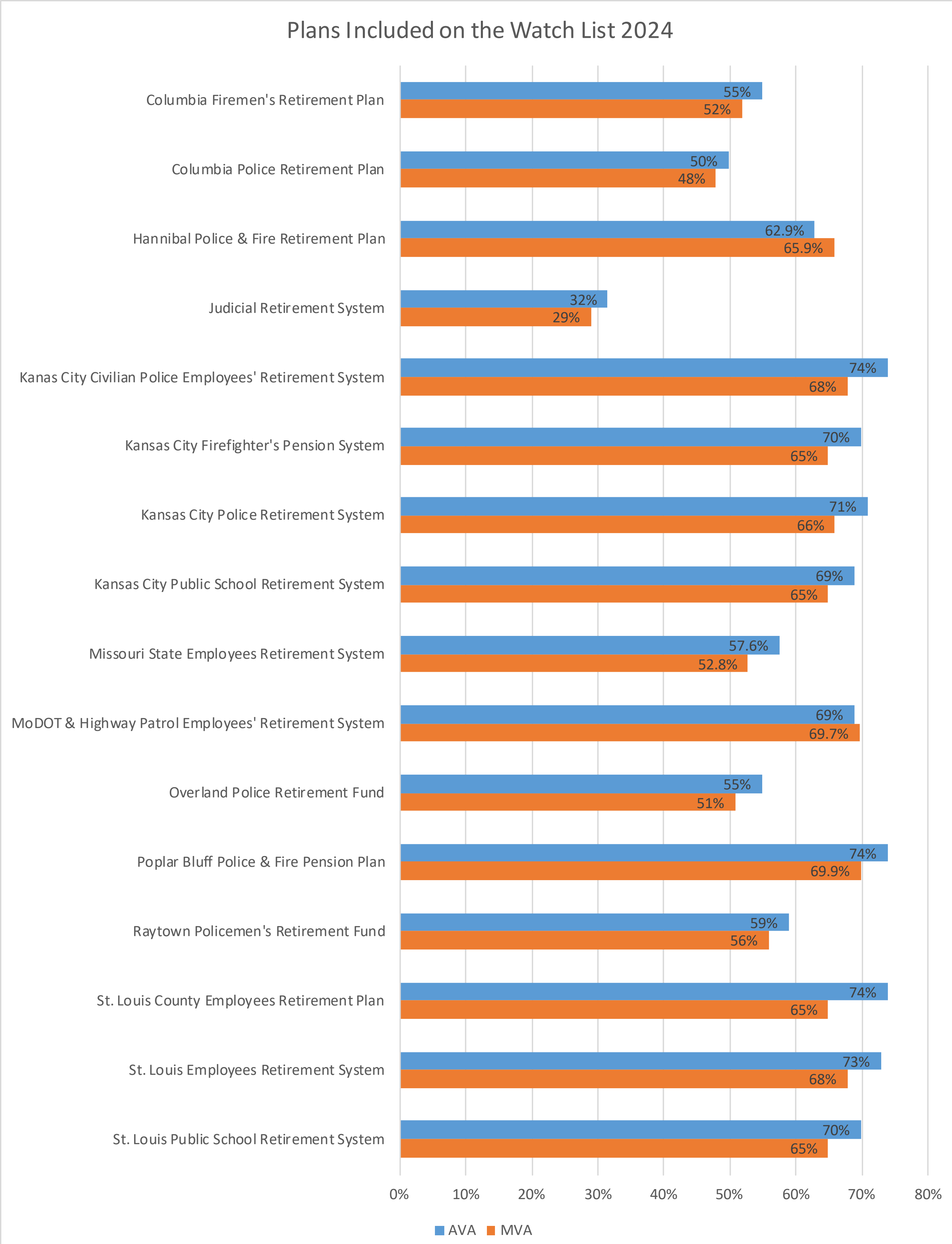
JOINT COMMITTEE ON PUBLIC EMPLOYEE RETIREMENT

2024 ANNUAL WATCH LIST

Presented on December 2, 2024

Please Note: For purposes of the Watch List, the term “inactive” includes terminated vested, retired, surviving beneficiary, disabled members, and for some plans, terminated nonvested members who have not withdrawn employee contributions.


Plans Included on the Watch List 2024
Columbia Firemen's Retirement Plan
55%
52%
Columbia Police Retirement Plan
50%
48%
Hannibal Police & Fire Retirement Plan
62.9%
65.9%
Judicial Retirement System
32%
29%
Kanas City Civilian Police Employees' Retirement System
74%
68%
Kansas City Firefighter's Pension System
70%
65%
Kansas City Police Retirement System
71%
66%
Kansas City Public School Retirement System
69%
65%
Missouri State Employees Retirement System
57.6%
52.8%
MoDOT & Highway Patrol Employees' Retirement System
69%
69.7%
Overland Police Retirement Fund
55%
51%
Poplar Bluff Police & Fire Pension Plan
74%
69.9%
Raytown Policemen's Retirement Fund
59%
56%
St. Louis County Employees Retirement Plan
74%
65%
St. Louis Employees Retirement System
73%
68%
St. Louis Public School Retirement System
70%
65%
0% 10% 20% 30% 40% 50% 60% 70% 80%
AVA MVA

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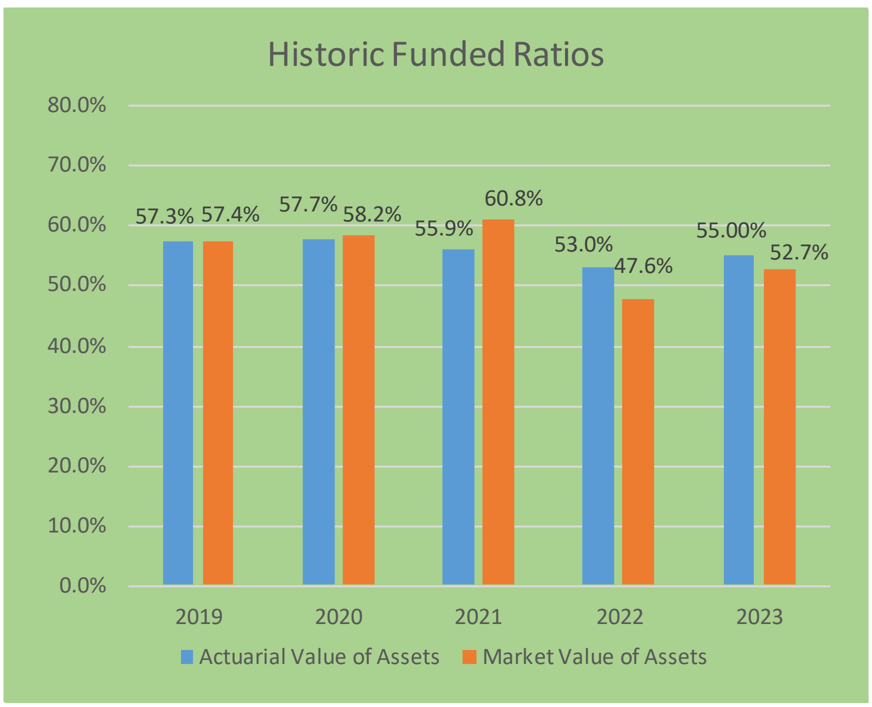
COLUMBIA FIREMEN & POLICE RETIREMENT SYSTEMS

- The Fire and Police plans are commingled for investment purposes. For the year ended 9/30/23, the rate of return on investments was 13.5% (Market) & 5.0% (Actuarial) vs 6.25% assumed rate of 7.0%.
- The employer is meeting or exceed the ADC. The actuary notes that "For the continued well-being of the fund, the fund must receive contributions at least at the levels recommended in the actuarial valuation."
- In last 13 years, the City has reset the amortization period 3 times. In the 2010 valuation, the amortization period was changed from 17 to 29 years. In the 2016 valuation, it was changed from 23 to 30 years. As of the 9/30/23 valuation, 28 years remain. The actuary notes "Periods above 17 to 24 years generally indicate that the UAAL payment is less than the interest in the UAAL." This is called 'negative amortization' and is viewed increasingly as undesirable. The actuary continues "the UAAL is expected to increase until the amortization period becomes approximately 24 years, at which point it would be expected to decline…"
- A new tier of provisions was passed for employees hired on or after October 1, 2012. These provisions include, but are not limited to, modified age and service requirements for retirement eligibility, modified benefit multiplier with no retiree COLA, fire member contribution reduced to 4% of pay, and automatic survivor benefit replaced with a survivor option at retirement with member's reduced benefit. The actuary notes that "the normal cost decreased as more active members came into the post October 1, 2012 benefit plan."
- Fire employees contribute 16.32% of pay (4% for those hired on/after 10/01/12) and do not participate in Social Security. Police employees contribute between 7.45% & 8.35% of pay (4.5% for those hired on/after 10/01/12) & do participate in Social Security.

FIREMEN'S RETIREMENT FUND



Year Ending 9/30,	RECOMMENDED CONTRIBUTION	ACTUAL CONTRIBUTION	PERCENT CONTRIBUTED
2023	$8,101,354	$8,101,354	100%
2022	$6,962,552	$6,962552	100%
2021	$6,619,098	$6,619,098	100%
2020	$5,965,276	$5,965,276	100%
2019	$5,306,842	$5,306,842	100%

Fire as of 9/30/23

Market Value: $106,203,705

Actuarial Value: $110,420,170

Liabilities: $201,248,536

Membership:

Active: 155 **Inactive**: 188

Normal Retirement Formula:

3.5% of compensation for the first 20 years + 2% for the next 5 years. Max of 80% of compensation.

Hired on/after 10/1/12: 2.5% of compensation times years of service. No max benefit.

Normal Retirement Eligibility:

Age 65 or 20 years of service

Hired on/after 10/1/12: Age 55 with 1 year of service. Rule of 80.

COLA Annual Minimum: 2%

Social Security Coverage: No

Assumed Rate of Return: 6.25%

Wage Inflation: 2.75%

COLUMBIA FIREMEN & POLICE RETIREMENT SYSTEMS

POLICE RETIREMENT SYSTEM

Police as of 9/30/23

Market Value:	$61,545,181	**Membership**:		**Assumed Rate of Return**: 6.25%	
Actuarial Value:	$63,988,628	**Active**:	134	**Salary**:	2.75%
Liabilities:	$128,063,935	**Inactive**:	254	**Social Security Coverage**: Yes	

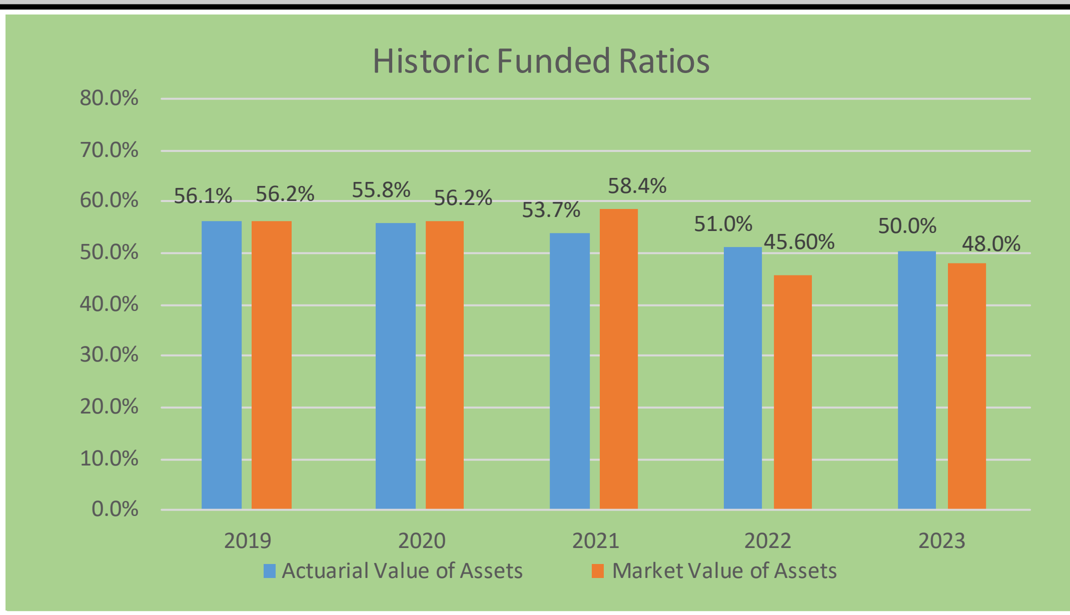
Normal Retirement Formula: 3% of Compensation for the first 20 years of service plus 2% of compensation for the next 5 years of service. Max: 70% of compensation with 25 years of service.

Hired on/after 10/1/12: 2% of compensation for the first 25 years of service plus 1.5% of compensation for each year over 25. Max of 57.5% of compensation.

Normal Retirement Eligibility: 20 years of service or age 65. **Hired on/after 10/1/12**: 25 years of service or age 65.

COLA: Annual min. increase of 0.6%. **Social Security:** Yes

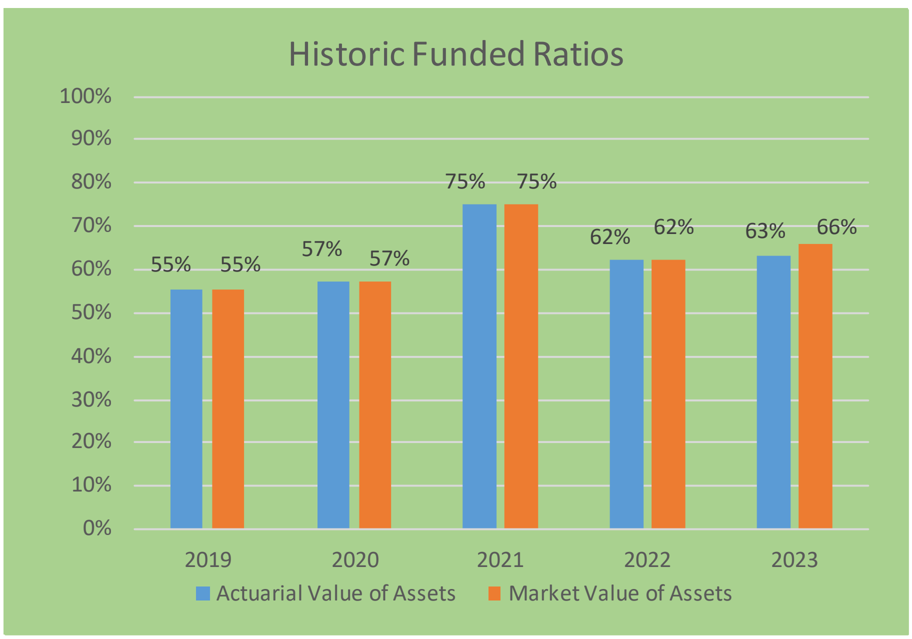
Wage Inflation: 2.5%



Year ending 9/30,	RECOMMENDED CONTRIBUTION	ACTUAL CONTRIBUTION	PERCENT CONTRIBUTED
2023	$4,999,944	$4,999,944	100%
2022	$4,345,411	$4,345,411	100%
2021	$4,280,243	$4,280,243	100%
2020	$4,159,256	$4,159,256	100%
2019	$4,019,648	$4,019,648	100%

HANNIBAL POLICE & FIRE RETIREMENT PLAN

- The rate of return on investments was 11.4% (Market) vs. 7% assumed.
- Mortality Table: Public Safety 2010 using scale MP-2021
- Per the actuary "The Plan's annualized investment return over the year preceding the valuation was 11.4%, producing a gain of almost $950,000 thousand compared to our assumption that the assets will return 7%. A loss in the measurement of liabilities partially offset the asset gains, making the net actuarial gain $745,721."
- Also per the actuary "Since the 2011-12 fiscal year, the city has consistently contributed in excess of the recommended contribution, and the funded ratio of the plan has gradually increased. Asset gains from the prior year caused the funded ratio to increase to 66.0%. The plan document requires contributions to remain at a level percentage of covered compensation until the plan reaches a funded ratio of 80%."



Year ended 12/31,	RECOMMENDED CONTRIBUTION*	ACTUAL CONTRIBUTION*	PERCENT CONTRIBUTED
2023	$1,238,383	$1,482,564	120%
2022	$1,242,940	$1,520,789	122%
2021	$1,286,444	$1,492,927	116%
2020	$1,331,470	$1,424,566	107%
2019	$1,378,071	$1,364,514	99%

As of 9/30/23

Market Value: $23,942,187

Actuarial Value: 22,718,608

Liabilities: $36,291,987

Membership:

Active: 69 Inactive: 76

Normal Retirement Formula: 65% of compensation for first 25 years of service + 1% for next 5 years of service. Maximum: 70% of compensation.

Normal Retirement Eligibility: 25 years of service. If hired on/after 7/1/07: 25 years of service with a minimum age of 55.

Social Security Coverage: No

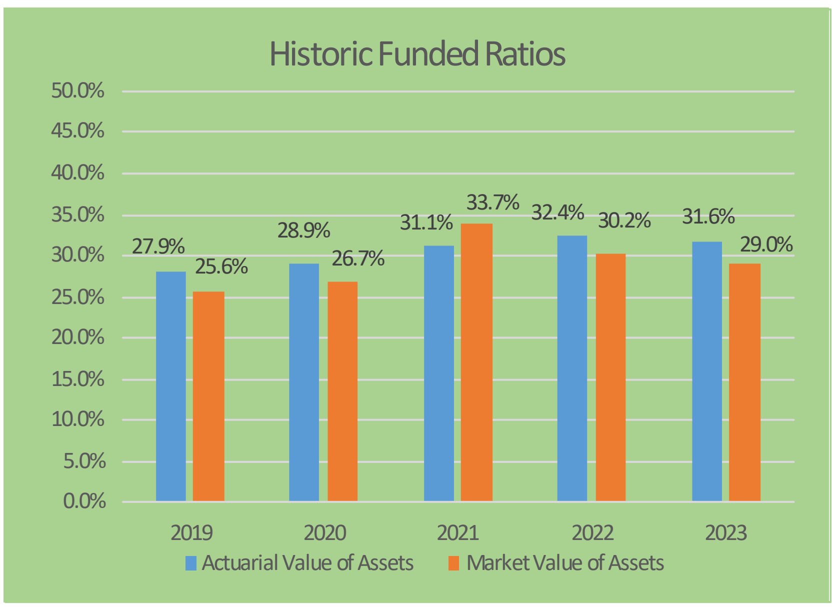
COLA: Eliminated, 13th check may be issued if plan is at least 70% funded.

Assumed rate of return: 7.0%

Wage Inflation: 3.5%

JUDICIAL RETIREMENT PLAN

- For the year ending 6/30/23, investment returns were 2.5% (Market) and 3.7% (Actuarial) vs. 6.95% assumed.
- The actuary completed a five-year experience study for the period 7/1/15—6/30/20. The Board adopted changes to actuarial assumptions and methods including, but not limited to: changing the individual salary increase assumption from age-based to 3%, updating mortality tables to Pub-2010 General Employees with a 75% generational projection, updating retirement and termination assumptions, eliminating the disability assumption, and modifying the length of future layers used to amortize actuarial gains/losses from 30 years to 25 years.
- New tier provisions were passed in 2010 requiring increased age and service requirements as well as employee contributions of 4% for judges serving for the first time on or after 1/01/11.
- The number of active members covered by the 2011 Plan increased from 263 in the 2022 valuation to 302 in the 2023 valuation, and the percentage of total active members in 2011 Plan increased from 63% to 73%. The normal cost rate decreased by 0.29% and the effective member contribution rate increased by 0.36% which both served to reduce the employer contribution rate.
- Prior to 1998, the plan was funded on a pay-as-you-go basis so no pre-funding occurred. When funding on an actuarial basis began, the funded ratio was at 0%.



FY Ending 6/30,	RECOMMENDED CONTRIBUTION	ACTUAL CONTRIBUTION	PERCENT CONTRIBUTED
2023	$39,064,758	$39,064,758	100%
2022	$39,228,848	$39,228,848	100%
2021	$39,996,509	$39,996,509	100%
2020	$39,174,515	$39,174,515	100%
2019	$38,604,668	$38,604,668	100%

As of 6/30/23

Market Value: $190,226,755

Actuarial Value: $207,085,203

Liabilities: $654,242,323

Membership:

Active: 415 **Inactive**: 651

Normal Retirement Formula:

50% of compensation. Less than service requirement=pro-rated benefit based on service

Normal Retirement Eligibility:

Age 62 with 12 years of service

Age 60 with 15 years of service

Age 55 with 20 years of service

Serving for the first time on/after 1/1/11:

Age 67 with 12 years of service

Age 62 with 20 years of service

Social Security Coverage: Yes

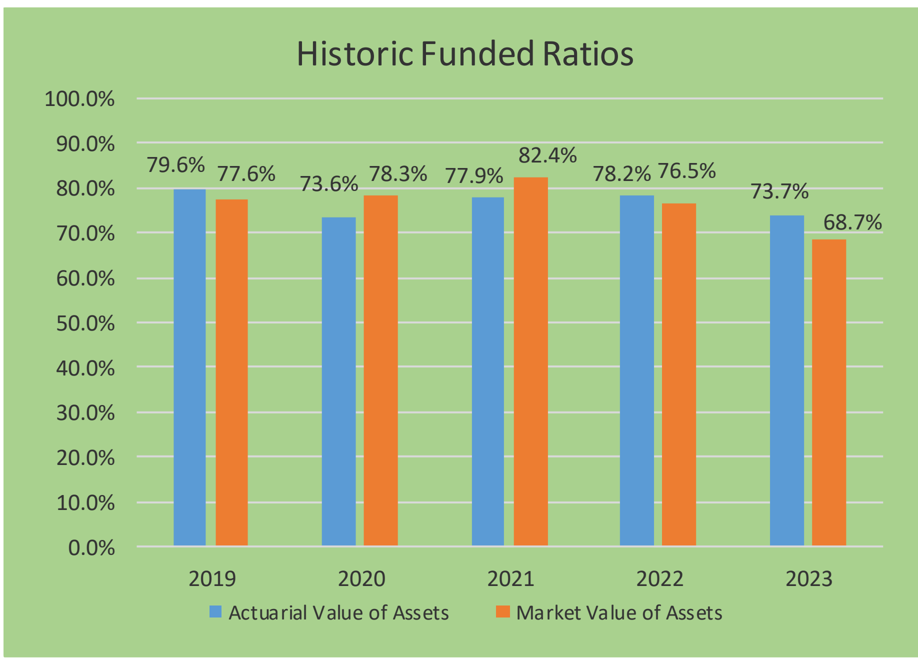
COLA: Annual max 5%, 80% CPI

Assumed rate of return: 6.95%

Salary: 3%

Kansas City Civilian Police Employees' Retirement System

- Rate of return on investments was -.03% (market) and 4.6% (actuarial) vs. 6.95% assumed.
- The plan used Pub-2010, on a generational projection Scale MP-2021, mortality tables. (Previously on RP-2000Healthy projected 2017 with Scale AA)
- The actuary writes that " There were several changes to the actuarial assumptions used in this valuation as a result of the completion of the an experience study in the first half of 2023. The net impact of the changes to the actuarial assumptions increased the actuarial accrued liability by $5.2 million and a lead to a decrease in the employer contribution of $80,000 for the fiscal year ending in April 30, 2025.
- The plan utilizes a closed 30-year period for amortization of unfunded actuarial accrued liabilities that began in 2017.
- This is a contributory plan for the employees (5%).
- The plan has adjusted its assumed return to 6.95% in 2023 from 7.05% in 2022.



Year ended 4/30,	RECOMMENDED CONTRIBUTION*	ACTUAL CONTRIBUTION*	PERCENT CONTRIBUTED
2023	$6,441,244	$6,441,244	100%
2022	$5,800,468	$5,800,468	100%
2021	$5,358,552	$5,358,552	100%
2020	$4,849,708	$4,849,708	100%
2019	$4,778,854	$4,778,854	100%

As of 4/30/23

Market Value: $165,793,843

Actuarial Value: $177,749,624

Liabilities: $241,181,842

Membership:

Active: 492 **Inactive**: 378

Normal Retirement Formula:

2% of compensation x years of creditable service Supplemental Benefit: $160 per month with 15 years of service

Normal Retirement Eligibility:

Tier 1: Age 65 with 10 years of service Rule of 80

Tier 2: Age 67 with 20 years of service Tier 2: Rule of 85

Social Security Coverage: Yes

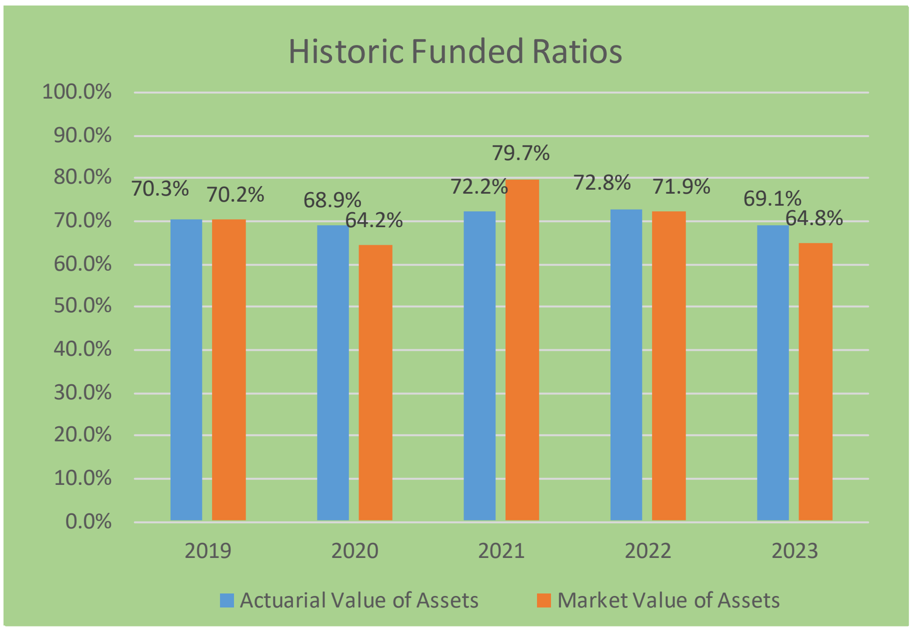
COLA: Ad Hoc. 3% Max

Assumed Rate of Return: 6.95%

Salary: 3%

Kansas City Firefighter's Pension System

- The plan did not reach the recommended contribution in 2022. This loss has not been offsite by any additional contributions the following year.
- The plans investment did not generate the assumed returns at the rate predicted for 2023, with Market ROR of –1.45% and Actuarial ROR of 4.60%. These values are weighted against the assumed ROR of 7%. This lead to an increase in liability of $15.1 million dollars. The actuary cites this as one of two major factors in the increase of unfunded actuarial liability.
- Salary change increased unfunded liability of the system by $22.5 million. This was marked as the second major factor in the increase of the unfunded actuarial liability.
- The plan is moving to a new amortization period. It takes effect and increase the recommended contributions in 2023. The current period is a 30 year period, which started in May 2014 that has been combined with a new closed period of 20 years, which will end in April 2043.



Year ended 9/30	RECOMMENDED CONTRIBUTION*	ACTUAL CONTRIBUTION*	PERCENT CONTRIBUTED
2023	$27,301,916	$27,335,443	100%
2022	$28,803,906	$26,813,483	93%
2021	$23,981,922	$24,258,707	101%
2020	$21,562,471	$21,728,336	101%
2019	$19,747,524	$20,015,327	101%

As of 4/30/23

Market Value: $602,383,893

Actuarial Value: $652,247,594

Liabilities: $929,542,451

Membership:

Active:1,004 **Inactive**: 1,060

Normal Retirement Formula:

2.5% of compensation x the number of years of credited service. Cap of 80% of compensation.

Normal Retirement Eligibility:

25 years of service.

New Tier:

27 years of service.

Social Security Coverage: Yes

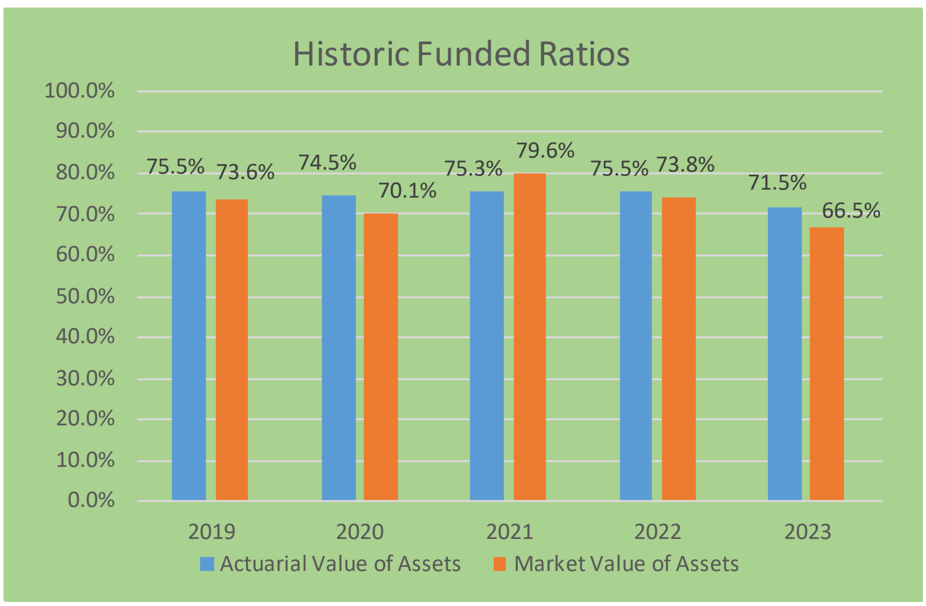
COLA: 2.5% Max and only if funding ratio is above 80%

Assumed Rate of Return: 7.0%

Salary: 3%

Kansas City Police Retirement System

- Based on market value ROR was –0.3%. The auditor believe this is due to general market trends from April 2022 to April 2023. This lost is reflected in the actuarial value of the assets returning 4.6% on the investments, which is under the expect rate of return of 7.20%. In recent years the actuarial ROR has been below the assumed ROR (with the exception of 2021).
- The plan has been stable above a 70% funding ratio, on a market base, for the last few years, but the funding ratio has not been increasing. This is despite contributions being over the recommended level.
- The plan is changing a number of the actuarial assumptions this year. These all unfavorably effect the plan. This alone reduced the funding ratio by 3% on an actuarial base. However, these changes will lead to better long term performance, if recommended contributions continue to be met.
- The changes to the actuarial assumptions were: decreasing the assumed ROR from 7.2% to 6.95%, increasing assumed administrative cost expenses by 0.4%, increasing salary merit assumptions, adjusting retirement and termination rates, and shift to a more preferred mortality table in the Pub-2010 safety - scale MP-2021.



Year ended 9/30	RECOMMENDED CONTRIBUTION*	ACTUAL CONTRIBUTION*	PERCENT CONTRIBUTED
2023	$35,231,206	$38,821,206	107%
2022	$34,741,680	$38,233,480	110%
2021	$32,797,288	$36,166,888	110%
2020	$30,157,170	$33,432,570	111%
2019	$29,083,743	$32,280,943	111%

As of 9/30/23

Market Value: $953,586,876

Actuarial Value:$1,025,449,242

Liabilities: $1,434,214,565

Membership:

Active:1091 **Inactive**: 1,566

Normal Retirement Formula:

2.5% of compensation per year to a max of 80%. With a supplemental benefit of $420 a month for Tier 1 and $200 a month of Tier 2

Normal Retirement Eligibility:

Age 60 with 10 years of service.

New Tier:

Age 60 with 15 years of service.

Social Security Coverage: Yes

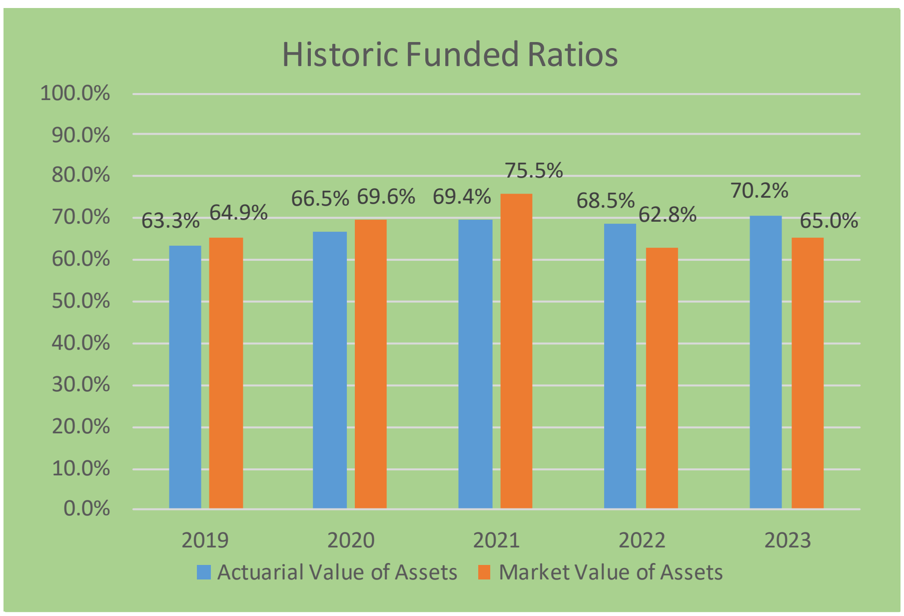
COLA: 2.5% Max 3% of CPI

Assumed Rate of Return: 6.95%

Salary: 3.0%

Kansas City Public School Retirement

- Market returns were 10.1%, which is over the expect ROR of 7.25%. This allowed the plan to gain ground over last year. However, the increase in the value of the assets did not offset the losses from the previous year.
- The actuarial value of assets are still below targets, this lead the actuary to increase the recommended contributions (as a percentage of payroll) to 19.12% from 17.85% .
- The actuaries noted a large portion of actuarial gains were do to the termination of non-vested members leaving the plan. These participants are no longer a liability on the plan.
- The plan has been locked into a minimum contribution of 12% of payroll or the actuarially recommendation contribution which is greater since July 1 of 2021. This will remain the case until the system is fully funded (funded ratio of 100% at validation date).
- The current contribution rate is 21% (employee 9% and 12% employer). This is over the actuarial recommended 10.22% These additional contributions will be available to fund the Unfunded Actuarial Accrued Liability.



Year ended 9/30	RECOMMENDED CONTRIBUTION*	ACTUAL CONTRIBUTION*	PERCENT CONTRIBUTED
2023	$47,514,000	$52,655,000	111%
2022	$45,864,000	$49,414,000	108%
2021	$23,926,078	$26,717,489	112%
2020	$25,636,126	$25,771,854	100%
2019	$21,998,207	$21,488,838	98%

As of 9/30/23

Market Value: $652,945,771

Actuarial Value: $702,224,863

Liabilities: $1,016,027,955

Membership:

Active: 4,407 **Inactive**: 7,781

Normal Retirement Formula:

2% of compensation per year.

Normal Retirement Eligibility:

Age 60 with 5 years of service.

New Tier:

Age 62 with 5 years of service.

Social Security Coverage: Yes

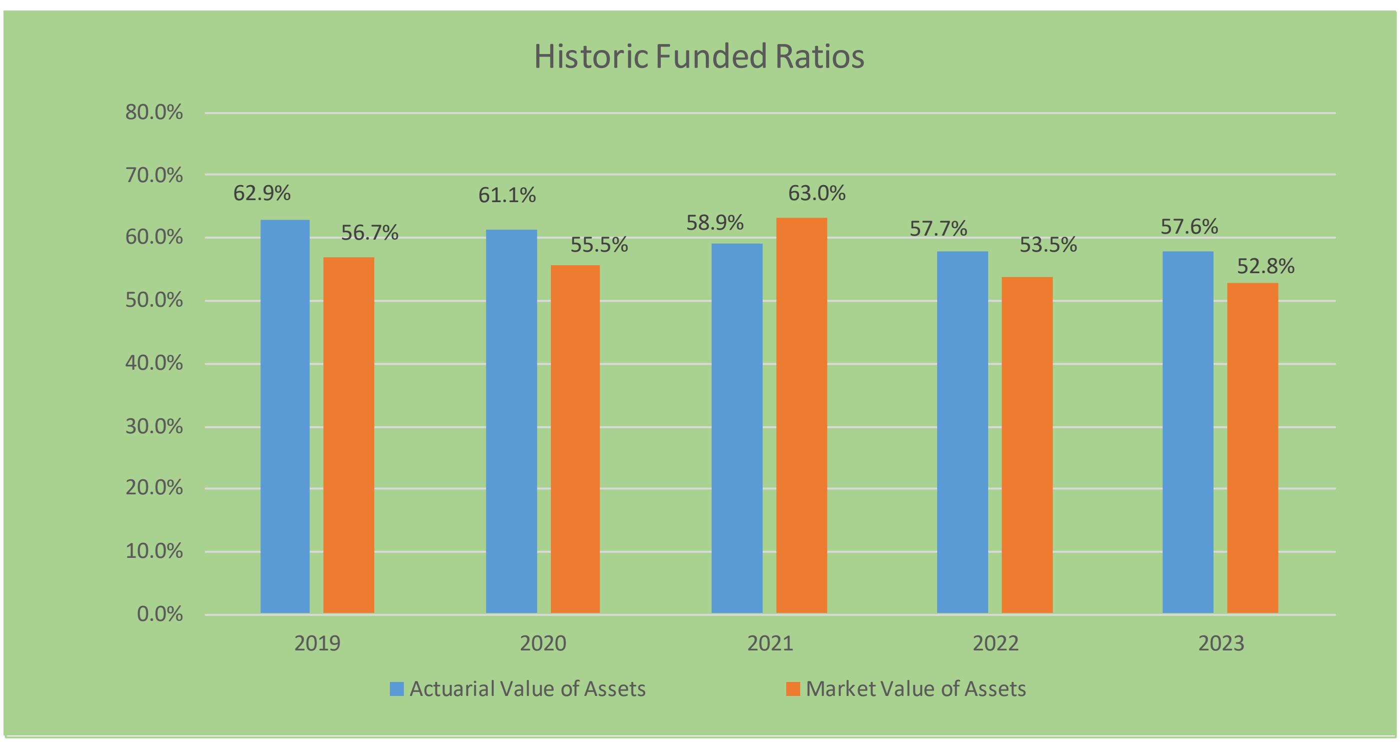
COLA: The lessor of 3% or 100% of CPI

Assumed Rate of Return: 7.25%

Salary: 2.85%

MISSOURI STATE EMPLOYEES' RETIREMENT SYSTEM

- For the year ending June 30, 2022, the rate of return on investments was 2.5% (market) and 3.4% (actuarial) vs. 6.95% assumed.
- The actuary completed a five-year experience study for the period 7/1/15—6/30/20. The board adopted changes to actuarial assumptions and methods including, but not limited to: increasing the individual salary growth assumption to partially reflect higher merit salary increases, updating mortality tables to Pub-2010 General Employees with a 75% generational projection, updating the retirement and termination assumptions, and modifying the length of future layers used to amortize actuarial gains/losses from 30 years to 25 years.
- The employer contribution rate as a percent of payroll increased from 28.75% for FY25 to 30.25% for FY26 and 32.00% of pay thereafter.
- One factor that affected the actuarially determined contribution rate was an increase in active membership of 3.6% from 41,595 as of 6/30/22 to 43,088 as of 6/30/23. This increase resulted in covered payroll increasing compared to the prior year. Active membership has declined about 23% over 19 years from 55,914 actives in 2004 to 43,088 in 2023.
- In 2018, the Board adopted a new investment portfolio asset allocation with a planned 36 month transition period. The board completed the transition ten months ahead of schedule in February 2021.
- Effective 6/30/18, the Board modified the asset smoothing method from an open five-year period to a closed five-year period. Existing unrecognized investment experience as of 6/30/18 will be recognized over a closed seven-year transition period beginning 6/30/18.
- New tier provisions were passed in 2010 requiring increased age and service requirements, as well as employee contributions of 4% for employees hired for the first time on or after 01/01/11. The number of active members covered by the 2011 tier increased from 23,304 (6/30/22) to 26,511 (6/30/23) and the percentage of members covered by MSEP 2011 increased from 56% to 62%. The actuary writes that "Because the benefit structure is different for MSEP 2011 members...the ongoing cost of the System declines as a larger percentage of active members are covered by MSEP 2011."



Year Ending 6/30	RECOMMENDED CONTRIBUTION	ACTUAL CONTRIBUTION	PERCENT CONTRIBUTED
2023	$580,661,379	$1,080,661,379	186%
2022	$471,302,256	$471,302,256	100%
2021	$463,293,368	$463,293,368	100%
2020	$436,895,653	$436,895,653	100%
2019	$394,150,042	$394,150,042	100%

As of 6/30/23

Market Value:	$8,557,793,248
Actuarial Value:	$9,331,207,050
Liabilities:	$16,190,813,686
Active Members:	43,088
Inactive Members:	72,908

Normal Retirement Formula:

MSEP 2000: 1.7% of compensation times years of service plus 0.8% to age 62 (temp benefit under Rule of 80 or Rule of 90 for the 2011 Tier).

Normal Retirement Eligibility: Age 62 with 5 years of service or Rule of 80. 2011 Tier: Age 67 with 5 years of service or Rule of 90 with minimum age of 55.

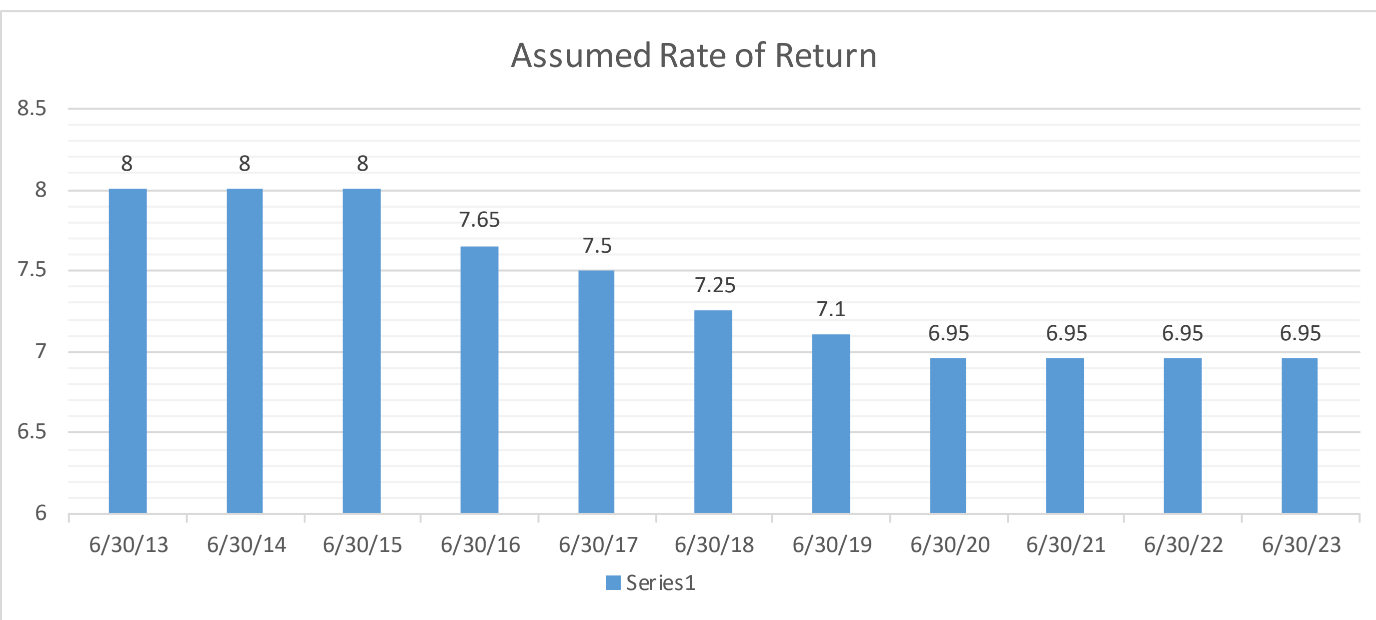
Social Security Coverage: Yes

COLA: Annual Max 5%, 80% of CPI

Assumed Rate of Return: 6.95%

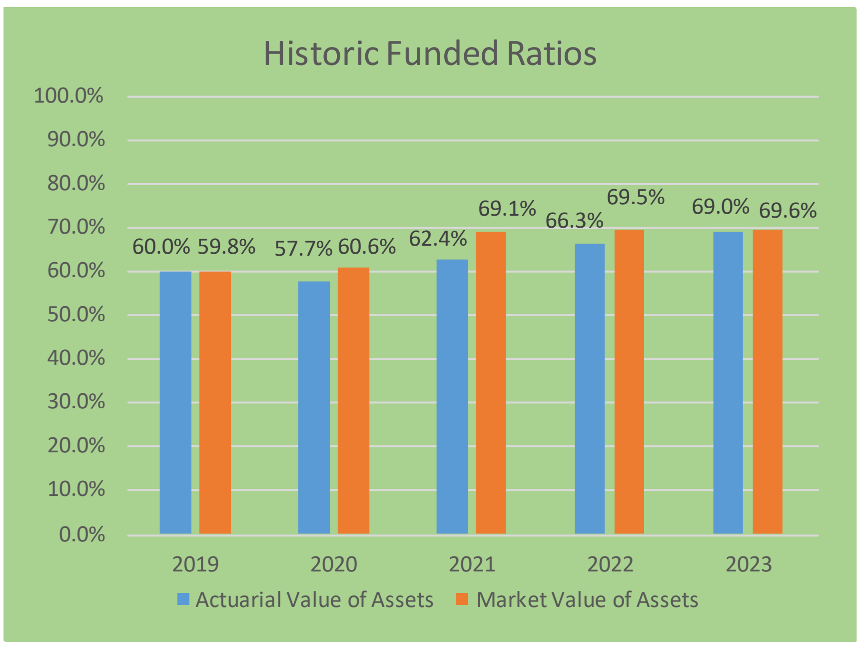
Salary: 2.75-10.00%

The actuary writes that the "actuarial assumptions have been changed eight times in the last ten years, resulting in an ultimate reduction in the investment return assumption from 8.5% in the 2011 valuation to 6.95% in the 2020 valuation." In addition, the unfunded portion of the actuarial accrued liability has increased during this time. These changes in assumptions have had the general effect of decreasing the plan's funded ratio.



MoDOT & HIGHWAY PATROL EMPLOYEES' RETIREMENT SYSTEM (MPERS)

- Rate of return on investments was 8.9% (Market) and 12.85% (Actuarial) vs. 6.5% assumed.
- The Board of Trustees' actuary performed a review of economic assumptions (between experience studies) and lowered the assumed rate of return for investments from 7% to 6.5%.
- The actuary continues to recommend that economic assumptions be reviewed annually in light of changes in actuarial standards and changes in forecasts of future economic conditions.
- New tier provisions were passed in 2010 requiring increased age and service requirements and an employee contribution rate of 4% of pay for employees hired for the first time on or after 01/01/11. As of 6/30/22, 3,331 active members were covered under the 2011 tier (an increase from 3,280 as of 6/30/21).
- In 2009, the actuary presented a temporary accelerated amortization schedule in accordance with section 105.684. As of 6/30/22 valuation, the plan uses a closed 2-year amortization period for unfunded retiree liabilities and a closed 13-year amortization period for the remaining unfunded liabilities (for the plan year beginning 7/1/23).
- In September 2014, the Board established a "rate stabilization reserve fund" from experience gains to attempt to maintain the employer contribution rate at or close to its current level (58% of covered payroll).
- As of June 30th of 2024, the plan is funded at 74.1% on a market base, this will appear in the 2026 annual report.



Year Ending June 30,	RECOMMENDED CONTRIBUTION	ACTUAL CONTRIBUTION	PERCENT CONTRIBUTED
2023	$232,813,995	$232,813,995	100%
2022	$212,711,117	$212,711,117	100%
2021	$208,212,848	$208,212,848	100%
2020	$210,871,852	$210,871,852	100%
2019	$210,166,927	$210,166,927	100%

As of 6/30/23

Market Value: $3,281,627,844

Actuarial Value: $3,247,983,333

Liabilities: $4,709,391,407

Membership:

Active: 6,621 Inactive: 11,843

Normal Retirement Formula:

Year 2000 Plan: 1.7% of compensation times years of service plus 0.8% to age 62 (temporary benefit under rule of 80 or rule of 90 for the 2011 Tier)

Normal Retirement Eligibility:

Age 62 with 5 years of service or rule of 80. Uniformed Patrol: Mandatory retirement at age 60. Rule of 80 with minimum age of 48.

Hired for the first time on/after 1/1/11: Age 67 with 5 years of service or Rule of 90 (age 55). Uniformed Patrol: Age 55 with 5 years of service. Mandatory retirement at age 60.

Social Security Coverage: Yes

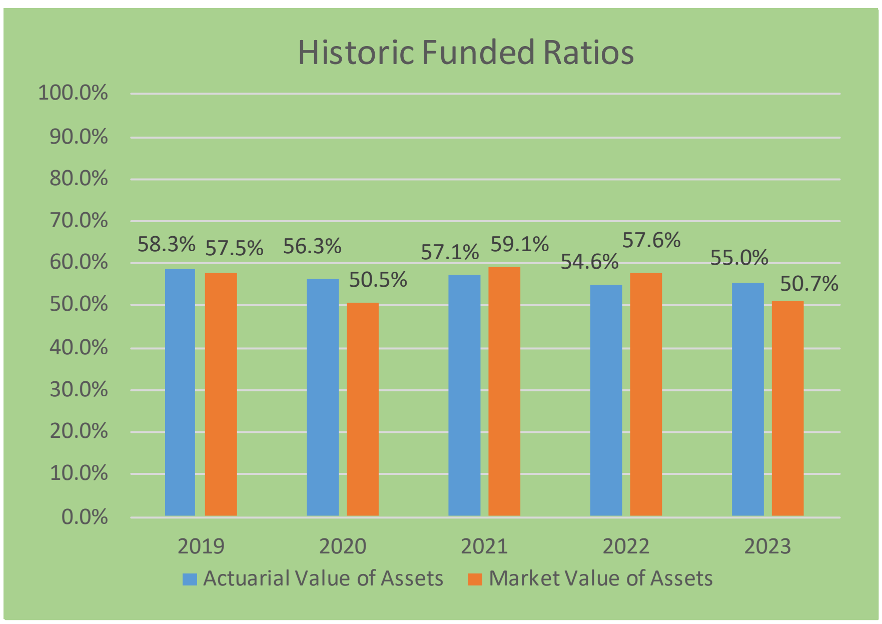
COLA: Annual Max 5%; 80% of CPI

Assumed rate of return: 6.5%

Wage Inflation: 3%

OVERLAND POLICE RETIREMENT FUND

- Rate of return on investments was -8.3% (Market) and 4.9% (Actuarial) vs. 6.75% assumed.
- The mortality tables have been updated to Pub-2010 Safety.
- In November 2020, the City Council increased employee contributions for lieutenants and captains to 8.5%.
- As part of the collective bargaining agreement approved in November 2018, the employee contribution rate for sergeants, corporals and police officers is now 9.4%.
- The City Council adopted three changes to the plan in 2017: increased employee contributions from 5% to 7.5%, phased out a retroactive COLA for certain members, and changed the refund of employee contributions upon retirement provision so employee contributions made after April 1, 2017 will not be refunded upon retirement.
- The employer contribution was supported by a tax levy of $0.12 that had been insufficient to meet the ADC since 2008. In August 2017, the voters approved a tax levy increase. The current City tax rates are $0.24 residential, $0.3 commercial, $0.36 personal. The actuary writes “These were recently increased...but are still below the actuarially determined rate.” The actuarially determined tax rate increased from $0.512 as of 4/20/22 to $0.513 as of 4/1/23.
- The City made multiple changes to actuarial assumptions in 2014 based on the results of a five-year experience study, including lowering the assumed rate of return from 7.5 to 7.0 and again lower to 6.75 in 2021 as well as updating mortality tables. This plan is currently working on moving over to LAGERS.



Year Ending 3/31,	RECOMMENDED CONTRIBUTION	ACTUAL CONTRIBUTION	PERCENT CONTRIBUTED
2023	$1,354,542	$798,213	59%
2022	$1,353,069	$774,329	57%
2021	$1,232,850	$683,592	55%
2020	$1,203,306	$712,577	59%
2019	$1,117,425	$680,159	61%
2018	$1,091,236	$553,559	51%

As of 4/1/23

Market Value: $13,357,004

Actuarial Value: $14,479,416

Liabilities: $26,330,607

Membership:

Active: 39 Inactive: 44

Normal Retirement Formula:

2.5% of compensation for the first 20 years of service plus 1.5% of compensation for each of the next 10 years of service.

Normal Retirement Eligibility:

20 years of service or Age 62 with 18 years of service or SSA full retirement age with 5 years of service.

Social Security Coverage: Yes

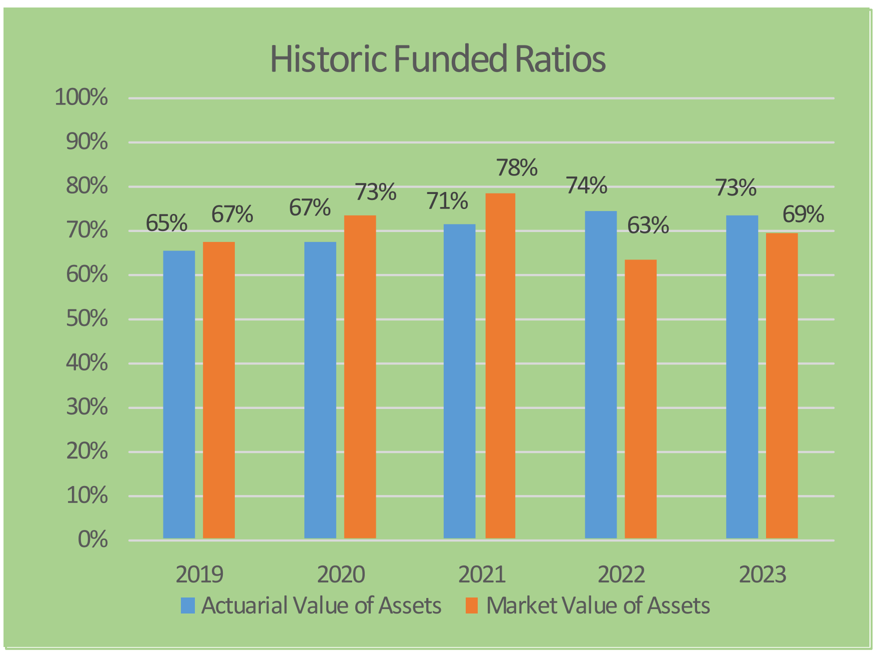
COLA: Annual Max 3%; 60% of CPI. If funded ratio is below 60% only 20% of CPI.

Assumed Rate of Return: 6.75%

Salary: 3.5%

Poplar Bluff Police & Fire Pension Plan

- Rate of return on investments was 11.30% (market) vs. 5.5% assumed rate of return.
- Per the actuary "During the last year, the plan experienced an actuarial loss of $561,959. This loss was due to plan contributions for the prior year being less than the 2023 actuarial determined contribution.
- The City has not contributed 100% of the ADC beginning with plan year 2012. The actuary comments that "Over the years, the plan sponsor has been contributing 30-50% of the ADC. This contribution policy will likely not be enough to cover future benefit obligations and ADC is likely to increase with each year the contribution is under 100%."
- Prior to the 1/1/19 valuation, the plan's actuary conducted a comprehensive review of assumptions. Effective with the 1/1/19 valuation, the following assumptions were changed: increased the assumed rate of return from 5 to 5.25, increased inflation assumption from 2 to 2.25, and updated mortality tables.
- Effective with the January 1, 2015 actuarial valuation, the cost method was changed from the Aggregate method to the Entry Age Normal cost method with a 20-year amortization period for unfunded liabilities. Initial UAAL as of 1/1/15 will be amortized over a closed 20 year period. Subsequent gains and losses are amortized over 15 year periods.



Year ended 12/31,	RECOMMENDED CONTRIBUTION*	ACTUAL CONTRIBUTION*	PERCENT CONTRIBUTED
2023	$859,094	$295,840	34%
2022	$918,351	$242,767	26%
2021	$972,802	$287,067	30%
2020	$938,667	$289,861	31%
2019	$912,881	$201,001	22%

As of 12/31/23

Market Value: $14,018,631

Actuarial Value: $14,742,066

Liabilities: $20,057,769

Membership:

Active: 78 Inactive: 85

Normal Retirement Formula:

2% of compensation for the first 20 years of service + 1.5% for each additional year of service.

Maximum Benefit: $1,650 per month.

Normal Retirement Eligibility:

Age 55 with 5 years of service

Social Security Coverage: Yes

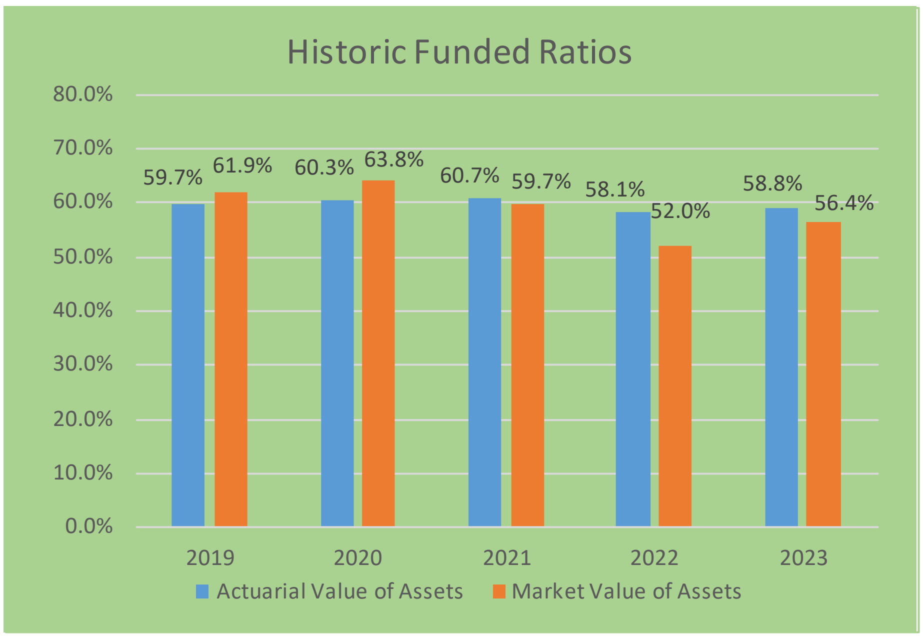
COLA: No COLA

Assumed Rate of Return: 5.50%

Salary: 3.0%

RAYTOWN POLICE OFFICERS' RETIREMENT FUND

- Rate of return on investments was 16.33% (market) and 7.90% (actuarial) vs. 7.0% assumed.
- Updated mortality tables with the most recent projection scale, MP-2024.
- The actuary writes that "The plan's asset return in 2023 was 16.34% on a market value basis, compared to the valuation's long-term expected return of 7.00%, resulting in asset gains of over $1.45 million. For purposes of calculating the contribution, asset gains and losses are smoothed over five years. This measure of assets produced a return of 7.9% on an actuarial basis, producing asset gains of about $38 thousand."
- Effective with the 1/1/16 valuation, the plan implemented five year smoothing of investment gains and losses. This is designed to reduce volatility of market returns and produce more stability in contribution rates.
- The plan utilizes a closed 30-year period for amortization of unfunded actuarial accrued liabilities that began 1/1/14.
- An employee contribution of 3% of pay was ceased in 2000 when the Plan was 101% funded.
- The plan was frozen as of December 31, 2013 with members moving to LAGERS.



Year ended 12/31,	RECOMMENDED CONTRIBUTION*	ACTUAL CONTRIBUTION*	PERCENT CONTRIBUTED
2023	$697,221	$697,222	100%
2022	$660,896	$660,896	100%
2021	$648,688	$648,688	100%
2020	$635,147	$635,147	100%
2019	$590,127	$590,127	100%

As of 1/1/24

Market Value: $9,966,137

Actuarial Value: $10,390,059

Liabilities: $17,668,283

Membership:

Active: 12 **Inactive**: 69

Normal Retirement Formula:

2.5% of compensation for the first 20 years of service plus 1% for each of the next 10 years of service. Benefits frozen as of 12/31/13.

Normal Retirement Eligibility:

Age 55 with 20 years of service

Social Security Coverage: Yes

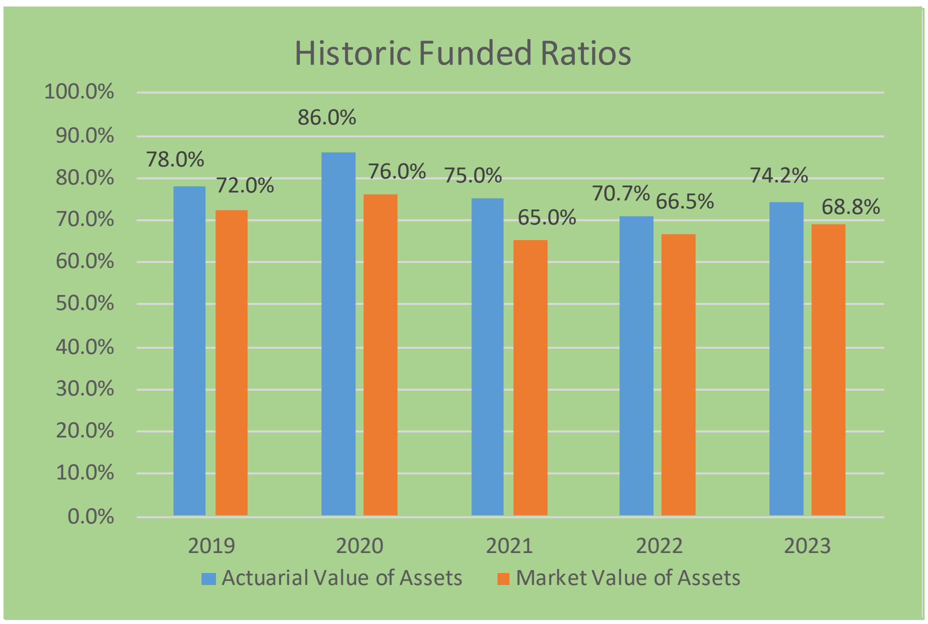
COLA: No COLA

Assumed Rate of Return: 7.0%

Salary: 4%

ST. LOUIS COUNTY EMPLOYEES RETIREMENT PLAN

- Rate of return on investments was 12.58% (market) and 5.16% (actuarial) vs. 7.25% assumed.
- The actuary indicates rate of return on investment is below the assumed return of 7.25 (on an actuarial level). This is cited as the primary cause for increased recommend contributions.
- Plan A uses Blended 85% PubG-2021, Plan B uses PubS-2010 Scale MP-2021.
- The salary increases that unfavorably effected the plan last year have not occurred again this year, with salary increases more closely matching the assumptions.
- The plan utilizes a closed 25-year period for amortization of unfunded actuarial accrued liabilities that began 1/1/2023.
- An employee contribution of 4% is in place for participants hired prior to February 1, 2018.



Year ended 12/31,	RECOMMENDED CONTRIBUTION*	ACTUAL CONTRIBUTION*	PERCENT CONTRIBUTED
2023	$46,336,419	$46,336,419	100%
2022	$44,627,335	$44,627,335	100%
2021	$46,803,767	$46,803,767	100%
2020	$48,635,850	$48,635,850	100%
2019	$43,165,955	$43,173,263	100%

As of 12/31/23

Market Value: $840,746,779

Actuarial Value: $906,249,236

Liabilities: $1,221,200,084

Membership:

Active: 3,765 **Inactive**: 5,899

Normal Retirement Formula:

Civilian: 1.3-1.5% of comp x years of service + $15 per month x years of service.

Police: 1.4-1.6 x years of service x + $30 per month x years of service to age 65 then $5 per month x years of service.

Normal Retirement Eligibility:

Civilian: Before 2/1/18 Age 65 w/ 3 years of service. Rule of 80. After 2/1/2018 Age 67 w/ 3 years of service . Rule of 85

Police: Before 2/1/18 Age 60 w/ 10 years of service. Age 65 w/ 3 years of service. Rule 80. After 2/1/18 Rule 85.

Social Security Coverage: Yes

COLA: Ad HOC

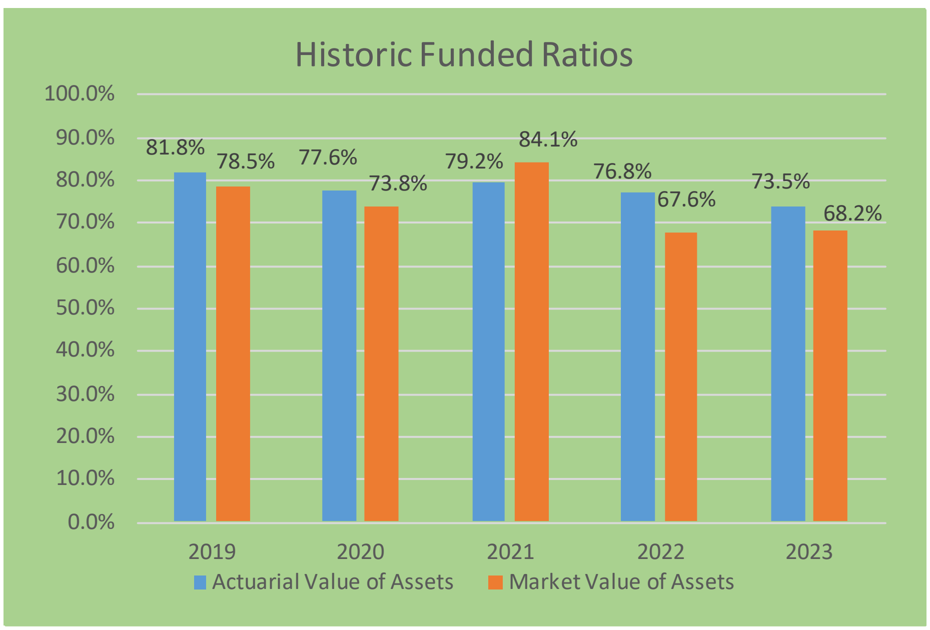
Rate of Return: 7.25%

Salary: Police 3.25%

Civilian 3.75%

St. Louis Employees Retirement System

- Rate of return on investments equaled 9.36% (market) and 3.20% (actuarial) vs. 7.25% assumed.
- The plan used is Pub-2010, generational projection on a Scale MP-2019, mortality table.
- The actuary writes that “The System’s funded ratio, the ratio of actuarial asset value over liabilities, decreased from 76.9% as of October 1, 2022 to 73.5% as of October 1, 2023. The system experienced a total loss of $20.3 million. Notable losses were $19.6 million due to salary increases being greater than expected,$3.9 million from the COLA increase for retiree benefits being greater than expected, and $2.2 million due to active members retiring earlier than expected. In short liabilities increased and investment losses were taken. The unfunded actuarial liability as of October 1, 2015, is amortized over a fixed 20-year period as a level percentage of payroll. Future gains and losses and changes in actuarial assumptions will be amortized in layers over separate 20 year periods
- Employees can participate in a Deferred Retirement Option Program (DROP). This is a non-contributory factor.



Year ended 9/30	RECOMMENDED CONTRIBUTION*	ACTUAL CONTRIBUTION*	PERCENT CONTRIBUTED
2023	$37,806,868	$39,337,287	104%
2022	$34,501,974	$37,951,463	110%
2021	$35,133,462	$32,804,416	93%
2020	$30,122,002	$30,581,795	101%
2019	$27,958,439	$29,629,568	106%

As of 9/30/23

Market Value: $786,143,848

Actuarial Value: $847,397,718

Liabilities: $1,153,001,981

Membership:

Active:4,602 **Inactive**: 7,782

Normal Retirement Formula:

1.3% of compensation below $83,244 per year + 2.05% of compensation above $83,244 x years of credited service Minimum benefit of $200 per month for retirees with 12 or more years of creditable service

Normal Retirement Eligibility:

Age 65 with 5 years of service Rule of 85

Social Security Coverage: Yes

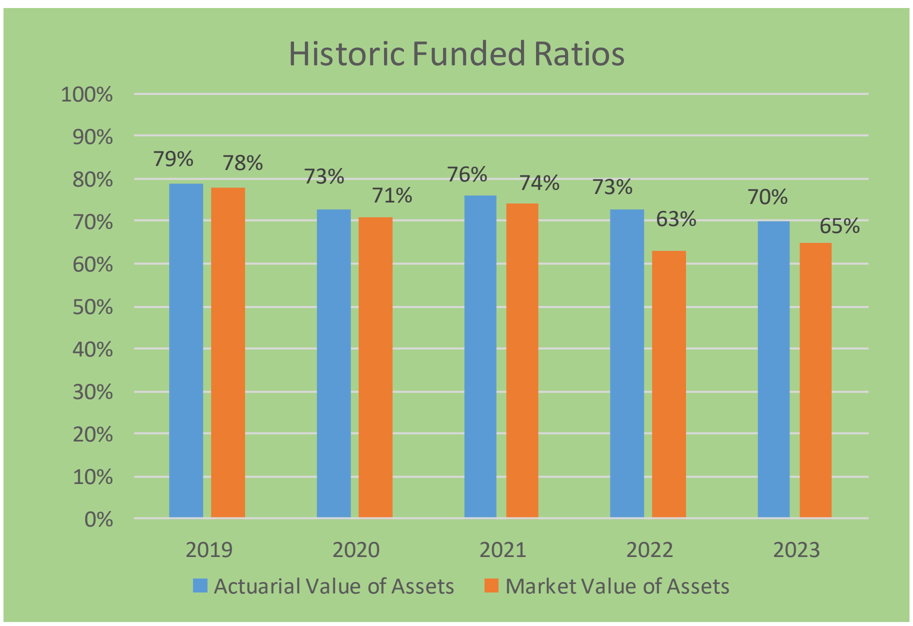
COLA: 5% Max, 100% of CPI

Assumed Rate of Return: 7.25%

Salary: 2.50-4.55%

St. Louis Public School Retirement System

- Rate of return on investments came in 10.29% (market) and 2.91% (actuarial) vs. 7.0% assumed.
- The plan uses PubG-2010 mortality tables.
- The actuary writes that “Approximately $39.8 million loss is attributable to the System’s actuarial value of assets (AVA) rate of return on assets, which was 2.91% for plan year 2023, or 4.09% lower than the assumed rate of return of 7.0%. The loss resulted from returns being lower than expected. Even though the Plan saw a market value return of 10.29% during 2023, the large 2022 loss is still being recognized, resulting in the AVA return being below the expected 7.0%.”
- The plan utilizes a closed 15-year period for amortization of unfunded actuarial accrued liabilities that began 1/1/21.
- An employee contribution of 8.0% is in place with a 9% contribution for employees hired after 1/1/2018.
- The number of active members increased from 4,940 to 5,000 for the period. The average service of active members decreased from 7.7 to 7.9, the average age decreased slightly, and the average covered payroll increased by $3,737 (6.5%).



Year ended 12/31,	RECOMMENDED CONTRIBUTION*	ACTUAL CONTRIBUTION*	PERCENT CONTRIBUTED
2023	$42,954,102	$37,930,116	88%
2022	$38,336,585	$41,034,190	107%
2021	$37,037,171	$41,226,981	111%
2020	$49,622,726	$41,822,334	84%
2019	$49,429,863	$43,902,706	89%

As of 1/1/24

Market Value: $848,169,915

Actuarial Value: $916,023,414

Liabilities: $1,298,589,905

Membership:

Active: 5,000 **Inactive**: 9,061

Normal Retirement Formula:

2% of compensation x years of service. Hired after 1/1/18 1.75% of compensation x years of credit service. Max Benefit is 60% of final average salary.

Normal Retirement Eligibility:

Age 65 with 5 years of service

Social Security Coverage: Yes

COLA: Ad Hoc

Assumed Rate of Return: 7.0%

Salary: 5%

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Joint Committee on Public Employee Retirement
Quarterly Reports

2024 Third Quarter 11/26/2024

Pers Name	Beg. Mkt Value	End Mkt Value	ROR 12 mos.	ROR 36 mos.	ROR 60 mos.	ROR for Inv	Price Inf. Assump	Sal/Wage Assump	Comments
Affton FPD Retirement Plan	$18,687,898	$19,802,863	23.5% Net	5.8% Net	10.0% Net	6.5%	0%	see comment s%	5-9 5%, 10-14 3.5%, 15+ 2.5%
Arnold Police Pension Plan	$21,088,897	$23,039,560	23.82% Gross	4.65% Gross	7.49% Gross	6.0%	2.32%	4.5%	1. Plan return is gross of plan expenses and calculated using the Modified Dietz method.2. Salary Increases= average, including inflation.3. Rate of Return= net of pension plan investment expense, including inflation.
Black Jack FPD Retirement Plan	$24,837,745	$25,818,261	17.55% Net	0.57% Net	4.71% Net	7.00%	2.75%	4.50%	
Brentwood Police & Firemen's Retirement Fund	$50,893,379	$53,297,908	19.71% Net	4.07% Net	7.65% Net	7.00%	2.75%	4.50%	
Bridgeton Employees Retirement Plan	$41,390,962	$43,336,607	15.86% Net	-2.62% Net	9.76% Net	7.25%	2.50%	3.50%	"Net of fees includes all earnings, disbursements, fees and deposits. The Plan completed an experience study in October 2022. In January 2023, the Plan Trustees approved to adopt the recommended assumptions and methods to be effective beginning January 1, 2023. The City issued 2021B Taxable Special Obligation Bonds on May 20, 2021 to fund the net pension liability. The net pension payment after discounts and fees was $13,374,322."
Carthage Policemen's & Firemen's Pension Plan	$10,785,801	$11,378,057	16.34% Net	5.59% Net	8.97% Net	7.0%	2.2%	4.25%	
Central County Fire & Rescue Pension Plan	$44,717,782	$46,589,170	24.31% Net	7.09% Net	na% Net	6.75%	2.5%	4%	
Columbia Police and Firemens' Retirement Plan	$192,815,111	$204,680,592	22.41% Gross	5.41% Gross	8.53% Gross	6.25%	2.5%	2.75%	
Community FPD Retirement Plan	$42,938,230	$43,466,586	18.05% Net	4.88% Net	10.17% Net	7.5%	2.5%	4%	
Cottleville Community Fire Protection District Defined Benefit Pension Plan	$33,879,872	$35,688,199	20.19% Net	10.95% Net	24.57% Net	6.5%	0%	4%	Rolling 60 months return is from plan inception of 2/1/2021.
County Employees Retirement Fund	$783,321,000	$827,954,000	18.66% Gross	5.01% Gross	9.16% Gross	7.25%	2.5%	2.5%	
Creve Coeur FPD Retirement Plan	$19,596,785	$20,345,114	23.7% Net	14.44% Net	n/a% Net	6%	3%	4%	jladlie@retirementplanadvisors.com
Eureka FPD Retirement Plan	$18,371,006	$18,830,714	15.39% Net	4.22% Net	8.22% Net	7.00%	2.75%	4.50%	
Fenton FPD Retirement Plan	$41,071,195	$45,246,331	24.29% Net	4.94% Net	9.28% Net	6.5%	2.5%	3.5%	
Florissant Employees Pension Plan	$8,020,546	$8,306,353	19.95% Net	4.10% Net	8.15% Net	6.00%	2.50%	3.00%	
Florissant Valley FPD Retirement Plan	$38,651,194	$41,687,034	17.16% Net	-0.26% Net	3.76% Net	6.50%	2.50%	1.90%	

Pers Name	Beg. Mkt Value	End Mkt Value	ROR 12 mos.	ROR 36 mos.	ROR 60 mos.	ROR for Inv	Price Inf. Assump	Sal/Wage Assump	Comments
Hannibal Police & Fire Retirement Plan	$26,696,351	$27,741,683	22.5% Gross	5.6% Gross	10.9% Gross	7.0%	2.5%	3.5%	
Hazelwood City Council Retirement Plan	$49,099,373	$50,807,383	31.92% Net	6.99% Net	9.67% Net	7.5%	2.75%	4.5%	
High Ridge Fire Protection District Pension Plan	$7,443,901	$7,828,720	20.5% Net	4.3% Net	8.2% Net	6.5%	0%	0%	
Joplin Police & Fire Pension Plan	$69,933,629	$75,472,044	18.05% Net	6.07% Net	8.64% Net	5.75%	2.5%	2.5%	
Kansas City Civilian Police Employees' Retirement System	$177,929,000	$185,449,000	14.45% Net	2.82% Net	6.31% Net	6.85%	2.50%	3.00%	
Kansas City Employees' Retirement System	$1,225,342,744	$1,273,636,719	17.95% Net	3.16% Net	6.38% Net	7.0%	2.5%	2.75 to 5.0%	
Kansas City Firefighter's Pension System	$661,623,000	$692,730,000	18.88% Gross	3.20% Gross	7.43% Gross	7.0%	2.5%	3.0 to 9.5%	
Kansas City Police Retirement System	$1,008,328,000	$1,043,453,000	14.50% Net	2.84% Net	6.30% Net	6.85%	2.50%	3.00%	
KC Area Transportation Authority Salaried Employees Pension Plan	$23,559,396	$25,191,992	21.91% Gross	5.37% Gross	8.90% Gross	7%	2.5%	4%	
KC Trans. Auth. Union Employees Pension Plan	$58,290,145	$61,859,893	23.0% Net	4.6% Net	6.9% Net	6.5%	2.5%	5.66%	
LAGERS Staff Retirement Plan	$30,507,697	$33,251,526	24.37% Net	3.35% Net	6.44% Net	5.5%	2.5%	3.25%	
Little River Drainage Dist Retirement Plan	$2,320,493	$2,456,045	0% Gross	0% Gross	0% Gross	5.0%	0%	3.5%	Assets recently switched to Schwab so no 12 month, 36 month or 60 months are available.
Local Government Employees Retirement System	$10,774,026,806	$11,052,521,111	11.19% Net	4.36% Net	8.24% Net	7.25%	2.5%	3.25%	
Metro North FPD Retirement Plan	$5,034,471	$5,775,041	14.10% Net	4.27% Net	8.33% Net	7%	2%	4%	
Metro West FPD Retirement Plan	$81,232,444	$86,290,750	23.97% Net	5.21% Net	9.60% Net	0%	0%	0%	
Mid-County FPD Retirement Plan	$5,422,208	$6,510,454	25.74% Net	5.39% Net	7.93% Net	6.00%	2.75%	4.50%	
Missouri Higher Education Loan Authority Pension Plan	$85,521,474	$91,143,053	25.04% Net	3.82% Net	7.76% Net	6.75%	2.25%	4.5%	
Missouri State Employees Retirement System	$8,956,495,183	$9,728,176,173	18.60% Net	1.51% Net	6.45% Net	6.95%	2.25%	2.75%	
MoDOT & Highway Patrol Employees' Retirement System	$3,667,853,950	$3,829,084,750	19.01% Net	9.40% Net	11.50% Net	6.50%	2.25%	3.00%	
North Kansas City Policemen's & Firemen's Retirement Fund	$70,041,399	$73,432,420	20.8% Gross	4.3% Gross	8.8% Gross	6.5%	4.0%	1.2%	
O'Fallon FPD Retirement Plan	$25,662,720	$26,718,404	22.5% Net	n/a% Net	n/a% Net	7%	2.5%	4%	Plan started 1/1/22. No ROR for 36 or 60 months. jladlie@retirementplanadvisors.com
Olivette Salaried Employees' Retirement Plan	$22,864,435	$233,432,462	19.4% Net	4.0% Net	7.8% Net	7.0%	5.93%	4.0%	
Overland Non-uniform Pension Fund	$13,311,000	$14,133,000	22.11% Net	4.23% Net	7.77% Net	6.75%	2.5%	3.5%	
Overland Police Retirement Fund	$14,552,000	$15,453,000	23.10% Net	4.65% Net	8.35% Net	6.75%	2.5%	3.5%	

Pers Name	Beg. Mkt Value	End Mkt Value	ROR 12 mos.	ROR 36 mos.	ROR 60 mos.	ROR for Inv	Price Inf. Assump	Sal/Wage Assump	Comments
Pattonville Fire Protection District	$58,779,205	$59,142,626	15.49% Net	5.6% Net	10.64% Net	7.75%	2.5%	2.5%	
Prosecuting Attorneys' Retirement System	$58,023,549	$60,743,607	20.56% Net	4.98% Net	6.98% Net	7.00%	2.00%	3.50%	Equity markets had a strong third quarter. The S&P 500 had a total return of 5.9%, bringing its year-to-date return to 22.1%. Bond yieldsmoved lower as the Federal Reserve began to cut U.S. rates and bonds returned 5.2% for the third quarter. Small and mid-sized companies had the strongest gains in the third quarter at 8.7%, underscoring the importance of maintaining a diversified portfolio. The broadening of market leadership is a positive development as market returns earlier in the year were very narrow, concentrated in a handful of megacap tech stocks benefiting from optimism about artificial intelligence. Macro risk is high with political and geopolitical uncertainty elevated. Wars continue in the Middle East and Ukraine.The U.S. election in November is a toss-up and could result in important policy changes with market implications. Overall, we see greater macro and market volatility leading to a higher dispersion of returns across geographies and sectors, which creates an opportunity for active portfolio management.
Public Education Employees' Retirement System	$6,917,258,241	$7,118,904,827	16.8% Net	5.5% Net	9.5% Net	7.3%	2%	2.5%	Note: Time-weighted RoR's are partially "Net of Fees." The System is concerned about providing quarterly asset value information without corresponding liability information, which is not possible to provide on a quarterly basis. PSRS will not have liability information except annually following the completion of actuarial valuations at the close of systems' fiscal year. Though the valuations are dated effective June 30 each year, they are not finalized until fall. The Systems normally have our actuarial valuations completed and the valuation reports presented by the end of October each year.
Public School Retirement System	$51,800,689,765	$53,164,573,694	16.8% Net	5.5% Net	9.5% Net	7.3%	2%	2.25%	Note: Time-weighted RoR's are partially "Net of Fees." The System is concerned about providing quarterly asset value information without corresponding liability information, which is not possible to provide on a quarterly basis. PSRS will not have liability information except annually following the completion of actuarial valuations at the close of systems' fiscal year. Though the valuations are dated effective June 30 each year, they are not finalized until fall. The Systems normally have our actuarial valuations completed and the valuation reports presented by the end of October each year.

Pers Name	Beg. Mkt Value	End Mkt Value	ROR 12 mos.	ROR 36 mos.	ROR 60 mos.	ROR for Inv	Price Inf. Assump	Sal/Wage Assump	Comments
Raytown Policemen's Retirement Fund	$10,199,189	$10,485,857	22.74% Gross	6.43% Gross	9.65% Gross	7.0%	2.5%	N/A	
Richmond Heights Police & Fire Retirement Plan	$74,030,204	$78,342,961	24.97% Net	6.32% Net	8.90% Net	6%	2.5%	4.0%	
Rock Community FPD Retirement Plan	$28,733,428	$30,399,680	22.4% Net	6.2% Net	9.3% Net	7.0%	0%	3%	
Saline Valley Fire Protection District Retirement Plan	$6,279,145	$6,619,232	22.2% Gross	6.2% Gross	9.2% Gross	7%	2.5%	2.5%	The above information was provided by EPIC Retirement Plan Services, the Plan's discretionary investment provider. EPIC (formerly known as ABG) began providing investment provider services for the plan as of August 2017.
Sedalia Firemen's Retirement Fund	$7,771,333	$7,879,899	20.4% Gross	5.8% Gross	10.0% Gross	7.0%	2.0%	3.0%	
Sheriff's Retirement System	$42,366,935	$42,849,991	13.75% Net	4.74% Net	7.55% Net	7%	2.5%	2.5%	
St. Joseph Policemen's Pension Fund	$39,659,616	$41,233,539	14.51% Gross	14.59% Gross	22.95% Gross	5%	2%	3%	
St. Louis County Employees Retirement Plan	$858,376,976	$895,292,831	18.8% Net	2.76% Net	8.49% Net	7.25%	2.5%	5.0%	Salary/Wage Inflation Assumption: The County has separate salary/wage assumptions for civilian/police. Given the form requires a single number we used 5% (approximate average). Contact E-Mail: cvehlewald@stlouiscountymo.gov (Note that the contact e-mail box below does not allow for full e-mail address to be provided).Ending Quarterly Market Value: The number was obtained from the County's internal financial statements for the period ended. These numbers are unaudited.
St. Louis County Library Dist Empl Pension Plan	$66,946,487	$69,645,966	23.45% Net	4.52% Net	8.71% Net	6.75%	2.3%	3.5%	
St. Louis Firemen's Retirement System	$419,566,000	$432,684,000	17.65% Gross	3.85% Gross	7.52% Gross	6.75%	2.5%	2.75%	
St. Louis Police Retirement System	$876,638,568	$915,062,852	18.5% Net	4.9% Net	8.3% Net	7.00%	3.00%	3.00%	
St. Louis Public School Retirement System	$846,599,592	$867,413,265	17.73% Net	4.23% Net	7.80% Net	7.0%	2.5%	3.5% /5.0%	
University City Non-uniformed Retirement Plan	$32,999,344	$34,514,735	26.5% Gross	8.9% Gross	10.3% Gross	6.8%	3.0%	3.75%	
University City Police & Fire Retirement Fund	$29,379,300	$30,505,988	26.4% Gross	8.8% Gross	10.5% Gross	6.8%	3.0%	3.75%	
University of Mo Retirement, Disability & Death Benefit Plan	$4,527,192,266	$4,628,128,181	16.08% Net	4.77% Net	8.61% Net	7%	NA%	NA%	none
Valley Park FPD Retirement Plan	$9,863,940	$10,943,582	12.01% Net	3.68% Net	9.55% Net	7%	2%	4%	

Pers Name	Beg. Mkt Value	End Mkt Value	ROR 12 mos.	ROR 36 mos.	ROR 60 mos.	ROR for Inv	Price Inf. Assump	Sal/Wage Assump	Comments
Wentzville Fire Protection District Pension Plan	$18,868,581	$19,913,564	11.2% Net	1.3% Net	3.8% Net	5.25%	2%	4%	Market Value information from Fidelity Statements 7/1/2024-9/30/2024. AI not included in totals.12-month time-weighted rate of return is as of January 1, 2024, based on 2023 market value. 36-month time-weighted rate of return is as of January 1, 2024, based on 2021-2023 market value. 60-month time-weighted rate of return is as of January 1, 2024, based on 2019-2023 market value. Assumed Rate of Return is for current time period Q2 2024. Inflation Assumptions per GASB 67 &68 Report provided by Nyhart.
Records Count: 61	**$95,184,380,886**	**$98,637,296,849**							

Community Fire Protection District Defined Benefit Pension Plan

Cost Statement of Proposed Plan Changes

November 15, 2024

Statement Outline

- Certification
- Proposed Change
- Reasons and Requirements
- Current and Projected Financial Impacts
- Assumptions
- Required Statements

Certification

This cost statement was prepared for the Community Fire Protection District to document impacts of implementing proposed pension plan changes under current consideration. The information contained in this document was prepared to meet the requirements of Missouri Statute 105.665 and 105.684.

Except where indicated otherwise, the results included in this cost statement are based on the same data, assumptions, methods, and provisions as the 1/1/2024 valuation. This cost statement has been prepared in accordance with generally accepted actuarial principles and practice using methods and assumptions we believe to be reasonable.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

- Plan experience differing from that anticipated by the economic or demographic assumptions;
- Changes in economic or demographic assumptions;
- Increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and
- Changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement.

Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report.

The consultants indicated below are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States.

Matthew Branding

Matt Branding, FSA, EA, CERA

Rebecca Brown

Rebecca Brown, FSA, EA, MAAA

November 15, 2024

Proposed Change

Current Early Retirement Structure

- Eligibility: Active employee aged 55 with 30 years of service
- Benefit: 65% of Average Compensation, reduced 3% per year for each year benefits commence prior to normal retirement date
- Bridge Benefit: 20% of Average Compensation payable until age 62, reduced 3% per year for each year benefits commence prior to normal retirement date

Proposed Early Retirement Structure

Additional provision for retirements on or after 1/1/2025:

- Eligibility: Active employee aged 58 with 25 years of service
- Benefit: Unreduced 65% of Average Compensation
- Bridge Benefit: Unreduced 20% of Average Compensation payable until age 62

Current Early Retirement provisions above will apply to any participant who does not meet the eligibility for the proposed provision.

All other plan provisions are the same as those used for the 1/1/2024 valuation and are summarized in the appendix to this study.

Benefit Increase Allowed

Missouri Statute 105.684 requirements for a local public retirement system to increase benefits are met as of the most recent periodic actuarial valuation:

1. The Plan is at least 80% funded <u>prior to</u> adopting the change.
   - The funded ratio of the Plan as of the most recent valuation on January 1, 2024, was 103.5%.
2. The Plan is at least 75% funded <u>after</u> adopting the change.
   - If the design change had been adopted on January 1, 2024, the funded ratio would have been 95.7%.
   - This ratio uses liability based on updated retirement rates to reflect expected behavior change in response to the new early retirement provision.
3. The unfunded liability due to the benefit change is amortized over 20 years at most.
   - The Plan uses a 20-year amortization for new unfunded liability.

2024 Actuarial Determined Contribution

Based on the January 1,2024 valuation for the plan, under the current design:

- The level normal cost of plan benefits currently in effect is $1,062,885 or 13.4% of expected payroll. This amount includes $21,000 in expected administrative expenses to be paid during 2024.

- The contribution for unfunded accrued liabilities currently payable by the plan is $0 or 0% of expected payroll.

- The total contribution rate for 2024 is $1,062,885. With interest to the end of the year, the total actuarial determined contribution is 1,137,287 or 14.3% of payroll.

Reasons and Requirements

Reasons for the Statement

- Required by law (Missouri statute 105.665)
- Document various impacts of making changes to plan benefits
- Uniform information for every legislative body/committee before approving and implementing plan changes

Requirements of the Statement

- Immediate impacts to liabilities, normal costs, contributions and funded levels
- Must use the methods of the most recent valuation
- 10-year projections of similar information
- Assumptions and methods used to calculate the impacts
- Specific statements about the plan's ability to make necessary contributions before and after the proposed changes
- The cost statement must be available as public information for 45 days prior to implementing the changes
- The cost statement must be kept on file by the legislative body/ committee and filed with the joint committee on public employee retirement

Summary of Projection Assumptions

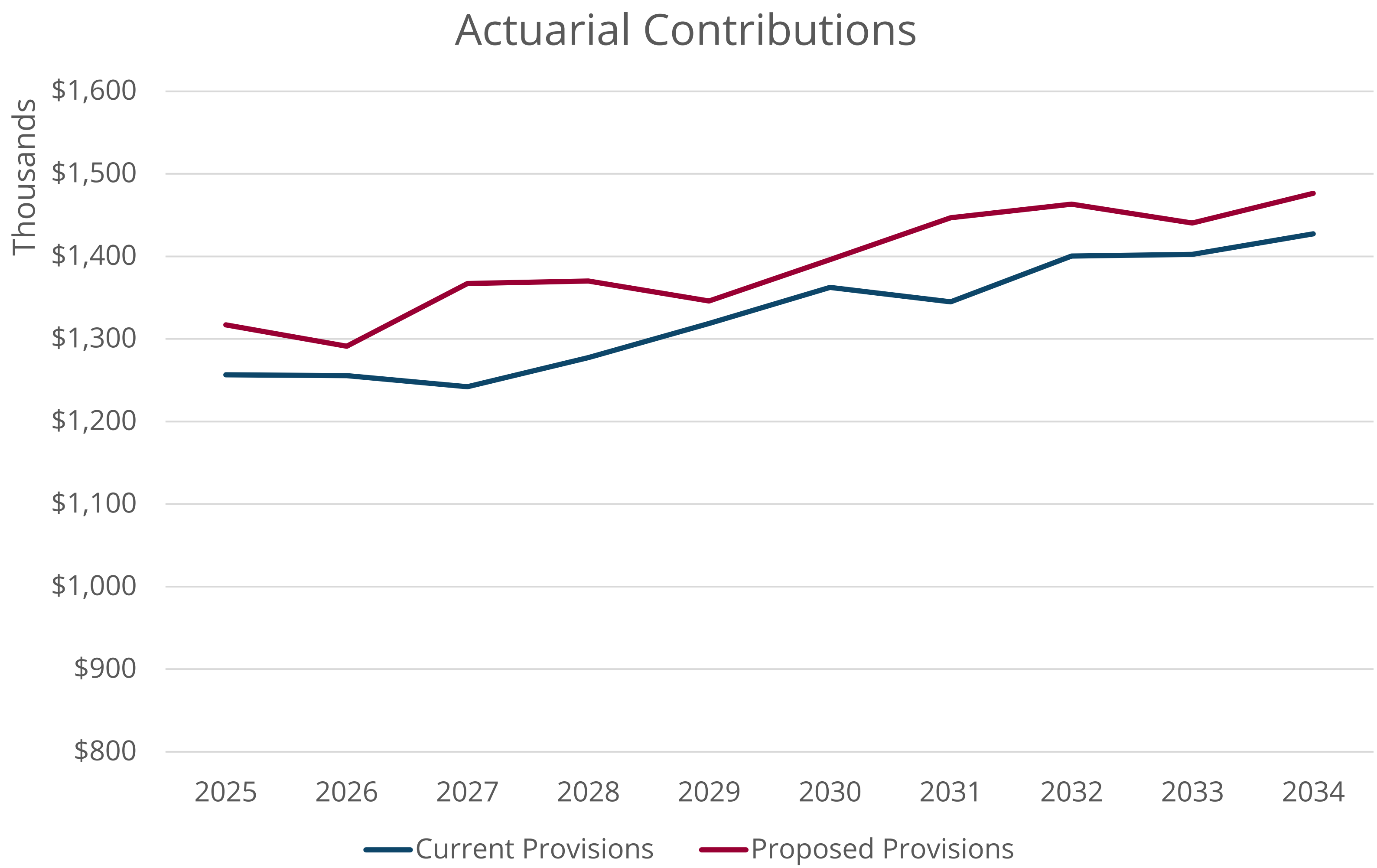
Assumption/Method	Description
Funding Interest Rate	7.00%
Asset Performance	7.00% per year
Asset Method	Spreads actual vs expected investment income over a period of 5 years
District Contributions	Actuarially determined contribution
Population Growth	The working population is projected to remain flat
New Entrants	Based on new hire demographic data in 2024
Annual Pay Increases	4.00%
Administrative Expenses	Increasing 3% annually, rounded to nearest $1,000
Retirement Rates	For the current plan, the retirement rates were updated at 1/1/2025 to 50% at age 55, 25% each year until unreduced retirement age, and 100% at unreduced retirement. For the design change analysis, the 100% retirement assumption was updated to reflect the lower unreduced early retirement benefit.
All other assumptions	Same as January 1, 2024 valuation summarized later in this report

The cost projections contained in this report are based on the January 1, 2024 valuation results. Census data and asset information were provided by the plan sponsor and asset advisor and are summarized in the January 1, 2024 actuarial valuation report. Reasonable actuarial techniques and assumptions were used to produce the cost projections.

Financial Impact: 7.00% return all years

Current Provisions	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Liability	42,720,335	44,504,293	46,222,272	47,768,754	49,484,141	51,432,909	53,587,191	55,596,762	57,835,255	60,143,993
Actuarial Value of Assets	43,428,839	46,052,718	47,444,937	50,274,633	52,175,854	54,322,491	56,688,731	58,926,364	61,409,098	63,978,690
Unfunded Accrued Liability	(708,504)	(1,548,425)	(1,222,665)	(2,505,879)	(2,691,713)	(2,889,582)	(3,101,540)	(3,329,602)	(3,573,843)	(3,834,697)
Funded Percentage	101.66%	103.48%	102.65%	105.25%	105.44%	105.62%	105.79%	105.99%	106.18%	106.38%
Normal Cost	1,152,322	1,151,330	1,137,807	1,169,928	1,208,490	1,248,456	1,230,973	1,281,690	1,283,562	1,305,798
Administative Expenses	22,000	22,000	23,000	24,000	24,000	25,000	26,000	27,000	27,000	28,000
Amortization of UAL	-	-	-	-	-	-	-	-	-	-
Actuarial Contributon BOY	1,174,322	1,173,330	1,160,807	1,193,928	1,232,490	1,273,456	1,256,973	1,308,690	1,310,562	1,333,798
Actuarial Contribution EOY	1,256,525	1,255,463	1,242,063	1,277,503	1,318,764	1,362,598	1,344,961	1,400,298	1,402,301	1,427,164
EOY as % of Payroll	16.0%	16.4%	16.3%	17.0%	17.2%	17.2%	16.4%	17.1%	16.6%	16.6%
Payroll	7,871,182	7,667,019	7,633,678	7,505,209	7,687,976	7,930,969	8,193,047	8,180,730	8,448,985	8,610,769
Expected Disbursements	2,350,162	2,532,983	2,800,094	2,774,742	2,705,303	2,679,892	2,946,520	2,913,691	2,998,844	3,162,728
Proposed Provisions										
Liability	44,157,390	45,581,507	47,147,243	48,872,664	50,815,698	52,689,835	54,739,743	56,997,778	59,350,748	61,607,771
Actuarial Value of Assets	43,428,839	45,662,614	46,800,785	49,732,210	51,745,633	53,694,986	55,825,720	58,170,498	60,616,883	62,973,890
Unfunded Accrued Liability	728,551	(81,107)	346,458	(859,546)	(929,935)	(1,005,151)	(1,085,977)	(1,172,720)	(1,266,135)	(1,366,119)
Funded Percentage	98.35%	100.18%	99.27%	101.76%	101.83%	101.91%	101.98%	102.06%	102.13%	102.22%
Normal Cost	1,144,782	1,184,755	1,224,103	1,256,518	1,233,855	1,279,716	1,326,299	1,340,661	1,319,103	1,351,764
Administative Expenses	22,000	22,000	23,000	24,000	24,000	25,000	26,000	27,000	27,000	28,000
Amortization of UAL	64,271	-	30,564	-	-	-	-	-	-	-
Actuarial Contributon BOY	1,231,053	1,206,755	1,277,667	1,280,518	1,257,855	1,304,716	1,352,299	1,367,661	1,346,103	1,379,764
Actuarial Contribution EOY	1,317,227	1,291,228	1,367,104	1,370,154	1,345,905	1,396,046	1,446,960	1,463,397	1,440,330	1,476,347
EOY as % of Payroll	17.7%	18.0%	18.7%	18.4%	17.5%	18.2%	18.4%	17.9%	17.3%	17.8%
Payroll	7,462,311	7,163,632	7,308,353	7,466,195	7,689,511	7,660,354	7,879,571	8,157,365	8,309,839	8,312,657
Expected Disbursements	2,785,972	2,786,756	2,779,040	2,719,135	2,893,150	2,897,436	2,883,144	2,958,680	3,187,511	3,317,309
Change in Contribution										
Contribution EOY	60,702	35,765	125,040	92,651	27,141	33,448	101,999	63,099	38,029	49,184
% of Payroll	0.8%	0.5%	1.7%	1.2%	0.4%	0.4%	1.3%	0.8%	0.5%	0.6%

Comparisons of Contributions: 7.00% return all years



Additional Comments on Projections

- 10-year projections shows the proposed changes with the expected effective date of January 1, 2025. This analysis relies on the January 1, 2024 census data projected to each future measurement using the demographic assumptions documented in this report. Additional information on the demographics of the population can be found in the January 1, 2024 Valuation Report.

- These projections reflect numerous assumptions, and one should focus on the general trend of the results rather than the absolute dollar amounts.

- The cost projections assume current demographic and economic assumptions are met. Actual results will vary from projections shown in this report, perhaps significantly, due to changes in the assumptions, plan provisions, participant demographics, interest rate movement, actual asset performance, and other actual experience of the plan. Depending on the use of this information, additional cost projections may be necessary to quantify the sensitivity of results.

Summary of Assumptions and Methods

Assumption/Method*	Description
Funding Interest Rate	7.00% (net of investment expenses)
Annual Pay Increases	4.00%
Administrative Expenses	Actual from prior year rounded to nearest $1,000 ($21,000 for 2024 contribution)
Mortality Rates	PubS-2010 Mortality Table with generational improvements using MP-21
Retirement Rates[1]	25% at age 58, 50% at 59, 75% at 60, 25% at 61, and 100% at 62
Withdrawal Rates	Varies by age
Disability	None
Valuation Method	Entry Age Method
Asset Method	Spreads actual vs expected investment income over a period of 5 years
Amortization Method	20-year closed level dollar amortization of Unfunded Actuarial Accrued Liability

[1] Updated retirement rates used for projection and proposed design change analysis.

Required Statements

- Current Contributions
  - The plan sponsor has made and plans to continue to make contributions exceeding the contributions as calculated and recommended under current plan provisions.
- Proposed Contributions
  - To our knowledge, the additional contributions described as part of the proposed benefit changes will be met based on recent contributions levels. These funds will be provided by designated tax revenue and general funds, if needed.
- Assumptions
  - The actuarial assumptions and methods used for the valuation were chosen by the employer. In our opinion, all actuarial assumptions and methods used in both the valuation and projections are individually reasonable, and in aggregate produce results which are reasonable.

Actuarial Funding Method

- The actuarial cost method used in the valuation was the Entry Age Normal cost method.

- Under this method, the normal cost is the sum of the individual normal costs for all participants. For an active participant, the individual normal cost is determined by spreading the present value at the current age of the projected benefit at the assumed retirement age in such a way that produces a level annual cost over expected earnings for the individual between entry age and assumed retirement age. For a non-active participant, the normal cost is zero.

- The actuarial accrued liability is the sum of the individual accrued liabilities for all plan participants. For an active participant, the individual accrued liability is the accumulation of past normal costs up to the valuation date. For non-active participants, the individual accrued liability is the present value at the current age of future benefits. The unfunded actuarial accrued liability equals the actuarial accrued liability less the actuarial value of assets.

- The total annual contribution of the plan is calculated as the normal cost plus an amount to amortize the unfunded actuarial accrued liability. The unfunded liability is recognized using a 20-year layered level dollar amortization schedule. Each year, new sources of gains and losses will be amortized in a separate amortization base over 20 years.

Summary of Plan Provisions

Provisions	Description
Eligibility	1st of the month following hire date
Average Compensation	Highest consecutive 3 years
Accrued Benefit	65% of Average Compensation pro-rated for years of service less than 20
Normal Retirement Age	Age 60 with 20 years or age 62
Early Retirement	Age 55 with 30 years of service; benefit is reduced 3% for each year benefits commence prior to the normal retirement date
Bridge Benefit	20% of Average Monthly Earnings reduced by Years of Service less than 20 years, payable from retirement to age 62 (or death if earlier), reduced 3% for each year the Early Retirement Date precedes the Normal Retirement Date.
Cost-of-Living-Adjustment	None
Employee Contributions	None
Vesting	5 years service
Actuarial Equivalence	7.50%/1994 GAM for males set back 6 years for co-annuitants

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October 11, 2024

Mr. Robert Coleman
Executive Director
Joint Committee on Public Employee Retirement Systems
State Capitol, Room 219A
Jefferson City, Missouri 65101

Re: Cottleville Community Fire Protection District Defined Benefit Pension Plan, Proposed and Tentative Implementation of the Sixth Amendment to the Defined Benefit Pension Plan

Dear Mr. Coleman:

I represent Cottleville Fire Protection District with respect to its employment and employee benefit matters.

The District has recently developed and intends to tentatively approve, at its meeting of its Board of Directors to be held on October 14, 2024, a substantial proposed change, as described at RSMO. §105.660(10), to its defined benefit pension plan, the Cottleville Community Fire Protection District Defined Benefit Pension Plan (the "Pension Plan").

Pursuant to RSMo. §105.665, the District has caused its actuarial consulting firm, MCG Consulting Group, to prepare a Cost Statement of Proposed Changes for the substantial proposed change, i.e., the Sixth Amendment to the Pension Plan.

Consistent with RSMo. §105.675, the Fire Protection District will disclose the attached Cost Statement at its public meeting to be held on October 14, 2024, and will, after that meeting, post this Cost Statement of Proposed Changes and make it available for public inspection and comment.

Assuming that the Board of Directors of the Fire Protection District does not rescind the proposed Sixth Amendment to the Pension Plan (attached) that it will tentatively approve on October 14, the Amendment (and substantial proposed change within it) would become finally effective on December 1, 2024, over 45 days after the enclosed cost statement is posted.

Pursuant to RSMo. §105.675, we have attached the following material for filing with the Missouri Joint Committee on Public Employee Retirement Plans: (1) the proposed Sixth Amendment to the Pension Plan, (2) the Cost Statement of Proposed Changes to the Pension Plan and (3) the projection of funded status and annual required contribution for the Pension Plan reflecting implementation of the Sixth Amendment.

If you have any questions, please do not hesitate to contact me at the above address and number.

Sincerely,

Stanley Schroeder

Cc: Chief Skip Stephens (Via Email)
Traci Christian, MCG Consulting (Via Email)
Neil J. Bruntrager, Esq (Via Email)

RESOLUTION OF THE BOARD OF DIRECTORS
SIXTH AMENDMENT TO THE COTTLEVILLE COMMUNITY FIRE PROTECTION DISTRICT DEFINED BENEFIT PENSION PLAN

This Resolution is adopted, contingent upon satisfaction of the conditions stated within, by unanimous consent of the Board of Directors of the Cottleville Community District (the "District") to be effective as of December 1, 2024.

WHEREAS the District has established, effective February 1, 2021, the Cottleville Community Fire Protection District Defined Benefit Pension Plan (the "Pension Plan"), to provide improved retirement benefits to its eligible employees;

WHEREAS since adoption of the Pension Plan, it has been amended several times to properly state its terms to be consistent with the intent of this Board and negotiations with the collective bargaining representative of District employees and to implement other desired changes;

WHEREAS based upon discussions between District management and the District's collective bargaining representative, the Board of Directors has determined that:

(A) Based upon the age, service, and work characteristics of the District's workforce, it would be appropriate to permit Participants to earn the Pension Plan's maximum possible Normal Retirement and Accrued Benefits after Twenty-Eight (28) Years of Credited Service instead of Thirty (30) Years;

(B) To facilitate Normal Retirement and transition from District employment to either full retirement or other productive activity, it would be appropriate to provide a supplemental monthly retirement benefit, in addition to Participants' Normal Retirement Benefits, that would be a partial financial bridge to the Participant for the period after retirement and before commencement of Social Security Benefits and be payable for a limited period starting commencement of Normal Retirement Benefits and ending at the earlier of a Participant's death, cessation of the Normal Retirement Benefits (e.g., upon rehire) or when the Participant is eligible to commence receipt of unreduced old age Social Security retirement benefits (between ages 66 and 67 for the District's workforce);

WHEREAS the foregoing matters have been discussed with, and evaluated by, the District's, the Pension Plan's actuarial consultant, financial consultant, and counsel as well as collective bargaining representative of District employees;

WHEREAS the collective bargaining representative agrees with the foregoing recitations and with terms of the following amendment to the Pension Plan;

WHEREAS pursuant to Article XIV of the Pension Plan, the District has reserved the right to amend the Pension Plan to make any changes that the District determines to be appropriate;

NOW BE IT RESOLVED that the Board of Directors of the District hereby authorizes and adopts the following as the Sixth Amendment to the Pension Plan contingent upon satisfaction of the conditions stated within this Resolution:

(1) Change to Normal Retirement Benefit Accrual Rate. The Pension Plan's Adoption Agreement ("AA") §6-1(b)(1) is amended effective December 1, 2024, as follows:

(A) AA §6-1(b)(1) is amended to provide that the Uniform Formula used to determine a Participant's Accrued Benefit is 2.68% (instead of 2.5%) of Average Compensation multiplied by Years of Credited Service, with this amendment to apply only to calculate the Accrued Benefit for Participants who are Employees of the Employer on and after December 1, 2024 and, except as provided in AA §6-1(d)(8), will apply to all of their Years of Credited Service;

(B) AA §6-1(b)(1)(ii) is amended to provide that Years of Credited Service used to determine a Participant's Accrued Benefit above 28 (instead of 30) will not be taken into account, with this amendment to apply only to calculate the Accrued Benefit for Participants who are also District Employees on and after December 1, 2024, except as provided in Section 6-1(d)(8);

(C) AA §6-1(d)(8) is amended to add the following terms:

Effective for Plan Participants who: (i) are former Employees of the Employer as of December 1, 2024, (ii) reemploy with the Employer on or after December 1, 2024, (iii) receive credit under his Plan for either an Accrued Benefit and/or Years of Credited Service that were accumulated prior to December 1, 2024 and (iv) begin to accumulate Accrued Benefits under this Plan again as Participants, then the changes made by the Sixth Amendment to the Plan to AA §§6-1(b)(1) shall not apply to Years of Credited Service, and to determine the Accrued Benefits of such Participants, that are accumulated prior to December 1, 2024.

Such reemployed Participants' Accrued Benefits, associated with Years of Credited Service accumulated under the Plan prior to December 1, 2024, will be based upon the Uniform Unit Benefit Formula of 2.5% of Average Compensation (as such Formula existed under AA §6-1(b)(1) prior to effectivity of the Sixth Amendment) multiplied by Years of Credited Service accumulated prior to December 1, 2024.

Any Accrued Benefit associated with Years of Credited Service accumulated prior to December 1, 2024, and the Participant's Average Compensation as determined from time to time pursuant to AA §5-3, will be added to such reemployed Participant's Accrued Benefit determined after reemployment under the provisions of AA §6-1(b) as amended by the Sixth Amendment. Provided, however, such reemployed Participant's total Years of Credited Service (accumulated prior to and after December 1, 2024) in excess of 28 will not be taken into account, as provided in AA §6-1(b)(1)(ii) as amended by the Sixth Amendment.

(2) Change in Normal Retirement Age/Conditions. Pension Plan §AA 7-1(a)(3) is amended effective December 1, 2024, to read as follows to define Normal Retirement Age:

> Prior to December 1, 2024, the date on which the combination of a Participant's full years of age and full Years of Credited Service totals 80, but not later than the attainment of age 55 and 5 Years of Service. With respect to Participants who are, or become, Employees of the Employer on and after December 1, 2024, the earlier of (i) date upon which a Participant accumulates 28 Years of Credited Service or (ii) the date upon which the combination of a Participant's full years of age and full Years of Credited Service totals 78. In any event, Normal Retirement Age will not be later than the attainment of age 55 and 5 Years of Service.

(3) Implementation of Social Security Supplemental Benefit. The following is added as AA§ 6-6 – MONTHLY SOCIAL SECURITY SUPPLEMENT:

6-6 MONTHLY SOCIAL SECURITY SUPPLEMENT

(a) Plan Participants who are Employees on or after December 1, 2024, may receive a Monthly Social Security Supplement (the "Supplement") as described below.

(b) Eligibility for Supplement. The Supplement will be paid to each Participant who: (1) is employed with the Employee on or after December 1, 2024, (2) attains Normal Retirement Age (either while employed by the Employer or after termination of employment), (3) commences receipt of Normal Retirement Benefits (in any form provided by to AA §9 and Plan §8) prior having attained the earlier of: (i) age 67 or (ii) the date on which such Participant attains "retirement age" as defined in the Social Security Act, U.S. Code, Chapter 7, Subchapter II, §§414 et seq., at §416(l)(1).

(c) Amount of Supplement. The amount of a Participant's Supplement will equal eighteen hundreds of one percent (.0018) of such Participant's Average Compensation per Year of Credited Service, with Average Compensation and Years of Credited Service determined at the time of commencement of the Participant's Normal Retirement Benefits.

(d) Forms of Payment of Supplement. The Supplement will be paid in a level monthly amount, as calculated pursuant to paragraph (c) above, and will not be payable in any other form described in AA §9 or otherwise in the Plan including, but not limited to, a life annuity, life annuity with term certain, joint and survivor annuity or lump sum payment or any other form of payment.

(e) Period of Payment. Payment of a Participant's Supplement will commence on the payment of the Participant's Normal Retirement Benefit commences and will end on the first of the month after the earliest of the

Participant's: (i) death, (ii) Normal Retirement Benefit ceasing to be paid for any reason after commencement (e.g., because of reemployment with the Employer), (iii) attaining age 67 or (iv) attaining "retirement age" as defined in the Social Security Act, U. S. Code, Chapter 7, Subchapter II, §§414 et seq., at §416(l)(1).

(f) Death of a Participant.

(i) If a Participant dies while an Employee and prior to commencement of Normal Retirement Benefits, no Supplement will be payable with respect to the Participant.

(ii) If a Participant dies after the date upon which the Supplement has, or should have, commenced to be paid to the Participant, then the Supplement payable to the Participant will immediately cease and not be payable to any person or entity thereafter.

(g) Applicability of Other Terms. The Supplement will be subject to all other terms of the Plan that the Plan Administrator determines should be applicable and that would apply pursuant to applicable law.

(h) Non-Vested Benefit. Notwithstanding anything else in this Plan, the Supplement shall not be considered, at any time or in any amount, to be: (i) part of a Participant's Accrued Benefit, (ii) part of a Participant's Normal Retirement Benefit, (iii) vested pursuant to AA §8 or Plan §7 or (iv) otherwise protected from amendment, change, reduction, termination.

BE IT RESOLVED FURTHER that the effectivity of the foregoing Resolution and the the Sixth Amendment to the Pension Plan are contingent upon completion of all of the following and this Resolution and the Sixth Amendment to the Pension Plan are not considered to have been finally adopted until and unless all of the following have occurred: (1) the District has properly developed of a Cost Statement, as specified in R.S.Mo. §§105.665 and 105.675, (2) the District has properly posted the aforementioned Cost Statement, as specified in R.S.Mo. §105.675, for public review, (3) the aforementioned Cost Statement has been posted for a period of forty-five (45) days following execution of this Resolution, and (4) this Board of Directors has not taken any action during the period between the date of execution of this Resolution and its effective date scheduled for December 1, 2024 to set aside and/or revoke this Resolution;

BE IT RESOLVED FURTHER that if the above-described conditions precedent to adoption of this Resolution and the Sixth Amendment to the Pension Plan have been satisfied and completed, then this Resolution and the Sixth Amendment to the Pension Plan will be adopted and implemented effective December 1, 2024;

BE IT RESOLVED FURTHER that if the above-described conditions are not satisfied and completed by December 1, 2024, this Resolution and the proposed Sixth Amendment to the Pension Plan shall be null and void and the proposed Sixth Amendment to the Pension Plan shall be of no effect;

BE IT RESOLVED FURTHER that if this Resolution becomes finally effective as described above, the Plan Administrator of the Pension Plan is authorized to take any actions that it determines necessary or appropriate to implement the foregoing, including but not limited to providing notices to the appropriate parties and Participants and implementing the changes noted above; and

BE IT RESOLVED FURTHER, that if this Resolution finally becomes effective as described above, then all actions heretofore taken by the Plan Administrator or Employer in connection with or relating to the subject matter of the foregoing resolutions and that are consistent with such resolutions are hereby authorized, approved, ratified, and confirmed as the acts and deeds of the Plan Administrator and the Employer having the same force as if performed pursuant to the direct authorization of the Board of Directors of the Employer.

IN WITNESS, WHEREOF, this Resolution and attached Amendment is hereby executed this _______________ day of October 2024 to and to be effective as of December 1, 2024 assuming that the foregoing conditions precedent to final adoption and effectivity have been satisfied and that, as a result, action is not taken by this Board to set aside and revoke this resolution.

Director Date

Director Date

Director Date

Director Date

Director Date

MCG CONSULTING GROUP
Actuaries • Advisors • Administrators

September 23, 2024

Pension Committee
Cottleville Community Fire Protection District Pension Plan

Cost statement of Proposed Changes to the Cottleville Community Fire Protection District Pension Plan ("the Plan")

Dear Committee Members:

According to Missouri Revised Statute 105.665: 1. The legislative body or committee thereof which determines the amount and type of plan benefits to be paid shall, before taking final action on any substantial proposed change in plan benefits, cause to be prepared a statement regarding the cost of such change(s).

The changes under consideration involve enhancements to the Plan's retirement benefits. Under consideration are the following:

A A Plan provision that would prospectively change the eligibility requirements for Normal Retirement from: **(i)** age 55 **or** a combination of whole years of age and whole Years of Credited Service equal to 80 or more to **(ii)** age 55 **or** a combination of whole years of age and whole Years of Credited Service of 78 or more **or** Years of Credited Service equal to 28 or more.

B A Plan provision that would change the accrued benefit formula for all years of service from: **(i)** 2.5% of Average Monthly Compensation per whole Year of Credited Service, not exceeding 30 Years of Credited Service to **(ii)** 2.68% of Average Monthly Compensation per whole Year of Credited Service, not exceeding 28 Years of Credited Service.

C A Plan provision that would **add** a Social Security Supplement. The Social Security Supplement would provide that any Participant who either: **(i)** retires from employment at or after having satisfied the requirements for Normal Retirement or **(ii)** separates from service with a vested Retirement Benefit prior to having satisfied the requirements for Normal Retirement and then satisfies those conditions, and then commences receipt of retirement benefits, would receive a monthly supplemental retirement benefit equal to the lesser of: (1) .18% of Average Monthly Compensation at separation from service per full Year of Credited Service, not exceeding 28 years or (2) the Participant's projected monthly Social Security old-age insurance benefits under title II of the Social Security Act (42 U.S.C. 401 et seq.) determined at commencement of the supplement as if such old-age insurance benefits commenced at the earliest possible time. The Social Security Supplement would be payable commencing when the Participant's normal accrued retirement benefit commences and would continue until the earliest of the

Participant's: (i) death, (ii) normal retirement benefit ceasing (for instance, upon rehire) or (iii) attaining the age at which Social Security old-age insurance benefits under title II of the Social Security Act (42 U.S.C. 401 et seq.) would be payable without reduction determined pursuant to the Security Act's provisions as they exist at the Effective Date of the amendment, i.e., upon attaining age 67.

The Social Security Supplement would **not** be: (1) payable to any beneficiary, contingent annuitant or joint annuitant after a Participant's death, (2) payable if a Participant dies prior to attainment of Normal Retirement Age, (3) considered part of the Participant's Accrued Benefit or any vested benefit or protected benefit, (4) payable in a lump sum or considered in determining a Participant's lump sum benefit or Accrued Benefit if a lump sum benefit payment is elected and (5) payable in any optional form of benefit or distribution.

The following cost statement employs the methods used in preparing the most recent periodic actuarial valuation for the plan and addresses the requirements in the order they are requested in the Statute:

(1) The total level normal cost of employer provided plan benefits currently in effect, is $1,490,462. Expressed as a percent of active employee payroll is 19.0%.

(2) The contribution for unfunded accrued liabilities currently payable by the plan is $53,831. Expressed as a percent of active employee payroll over a period of 15-27 years is 0.7%;

(3) The total employer contribution rate, which is the total of the normal cost percent plus the contribution percent for unfunded accrued liabilities adjusted with interest is $1,506,113. Expressed as a percent of active employee payroll over a period of 15-27 years is 21.2%;

(4) The legislative body is currently paying more than the total contribution rate as defined in subdivision (3) of this subsection;

(5) The plan's actuarial value of assets, market value of assets, actuarial accrued liability, and funded ratio as defined in section 105.660 as of the most recent actuarial valuation is:

Actuarial Value of Assets	$34,747,782
Market Value of Assets	$32,751,441
Actuarial Accrued Liability	$37,129,272
Funded Ratio	93.6%

(6) The total post-change contribution rate is $1,751,532. Expressed as a percent of active employee payroll over a period of 15-27 years is 24.7%. We expect that contributions will remain higher than recommended for the foreseeable future.

(7) Please see the attached tables showing ten-year projections of important actuarial measurements.

(8) Additional contributions will be mandated by the proposed change as noted above;

(9) The proposed change would not impair the ability of the plan to meet the obligations thereof in effect at the time the proposal is made;

(10) All assumptions relied upon to evaluate the present financial condition of the plan and all assumptions relied upon to evaluate the impact of the proposed change upon the financial condition of the plan, which are those assumptions used in preparing the most recent periodic actuarial valuation for the plan, are:

(a) Investment return of 6.5%;

(b) Base Pay increases are assumed to be 4.0%;

(c) Mortality of employees and officials, and other persons who may receive benefits under the plan is the Public Safety 2010 Bottom Quartile table for employees and annuitants, projected with generational improvements using the most recently available projection scale (MP 2024 for the most recent valuation);

(d) Withdrawal (turnover) is illustrated in the following table:

Selected Rates

Age	Probability of Termination
20	0.195
25	0.170
30	0.087
35	0.072
40	0.057
45	0.029
50	0.009
52 and above	0.000

(e) Disability rates are considered part of the withdrawal assumption.

(f) Retirement rates are based on the following table:

Age	Probability of Retirement
55	50%
56	25%
57	25%
58	25%
59	25%
60	100%

(g) There has been no significant change in active employee group size;

(11) As the Plan actuary I certify that the assumptions used for the valuation produce results which, in the aggregate, are reasonable;

(12) Actuarial Method Used for the Valuation – Entry Age Normal

Normal Cost. Normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

The annual normal costs for each individual active Member, payable from date of hire to date of retirement, are sufficient to accumulate the value of the Member's benefit at the time of retirement;

Each annual normal cost is a constant percentage of the Member's year-by-year projected covered pay.

The excess of accrued assets over actuarial accrued assets was amortized as a level percent-of-payroll over 15-27 years using layered amortization.

Respectfully submitted,

Traci M. Christian, EA, MAAA, MSEA, FCA

Cottleville Community Fire Protection District Defined Benefit Pension Plan

Projection of Funded Status and Recommended Contributions - STUDY Change to NRA: 55 OR Rule of 78 OR 28 YOS, Benefits accrue over 28 Years, PLUS SS Supp

Year	Total Normal Cost	Amortization	Recommended Contribution	Expected District EOY Contribution	Employee Contribution	Expected Total Contribution	Payroll	Recommended Contribution as a % of Payroll	Benefit Payments	Actuarial Assets	Accrued Liability	Unfunded Liability	Funded Ratio
2024	1,536,354	166,270	1,822,480	2,721,000	70,948	2,791,948	7,094,847	25.7%	307,158	34,747,782	38,565,024	3,817,242	90.1%
2025	1,597,808	172,922	1,895,381	2,492,000	73,786	2,565,786	7,378,641	25.7%	712,645	38,698,089	42,390,827	3,692,738	91.3%
2026	1,661,720	179,839	1,971,196	2,523,000	76,738	2,599,738	7,673,787	25.7%	1,138,989	42,302,805	46,112,090	3,809,285	91.7%
2027	1,728,189	187,032	2,050,044	2,555,000	79,807	2,634,807	7,980,738	25.7%	1,462,826	45,358,310	49,703,102	4,344,792	91.3%
2028	1,797,317	194,514	2,132,046	2,587,000	83,000	2,670,000	8,299,967	25.7%	1,884,174	49,839,394	53,263,958	3,424,564	93.6%
2029	1,869,210	202,294	2,217,327	2,619,000	86,320	2,705,320	8,631,966	25.7%	2,306,533	53,803,545	56,694,848	2,891,303	94.9%
2030	1,943,978	210,386	2,306,020	2,652,000	89,772	2,741,772	8,977,245	25.7%	2,587,072	57,624,600	59,989,226	2,364,626	96.1%
2031	2,021,737	218,801	2,398,261	2,685,000	93,363	2,778,363	9,336,335	25.7%	2,868,492	61,440,820	63,287,710	1,846,890	97.1%
2032	2,102,607	227,554	2,494,192	2,719,000	97,098	2,816,098	9,709,788	25.7%	3,130,641	65,251,119	66,592,843	1,341,724	98.0%
2033	2,186,711	236,656	2,593,959	2,753,000	100,982	2,853,982	10,098,180	25.7%	3,411,817	69,076,153	69,928,267	852,114	98.8%
2034	2,274,179	246,122	2,697,718	2,787,000	105,021	2,892,021	10,502,107	25.7%	3,515,867	72,897,384	73,279,751	382,367	99.5%

The results presented here are ESTIMATES. They are based on the data, assumptions, methods and plan provisions outlined in the January 1, 2024 valuation report unless otherwise noted.
This summary should be considered a supplement to that report.
These results are for discussion purposes only and should not be relied upon for puposes of making cash contributions to the Plan nor for any other purposes.

Cottleville Community Fire Protection District Defined Benefit Pension Plan

Projection of Funded Status and Recommended Contributions - STUDY Change to NRA: 55 OR Rule of 78 OR 28 YOS, Benefits accrue over 28 Years, PLUS SS Supp

Year	Total Normal Cost	Amortization	Recommended Contribution	Expected District EOY Contribution	Employee Contribution	Expected Total Contribution	Payroll	Recommended Contribution as a % of Payroll	Benefit Payments	Actuarial Assets	Accrued Liability	Unfunded Liability	Funded Ratio
2024	1,536,354	166,270	1,822,480	2,721,000	70,948	2,791,948	7,094,847	25.7%	307,158	34,747,782	38,565,024	3,817,242	90.1%
2025	1,597,808	172,922	1,895,381	2,492,000	73,786	2,565,786	7,378,641	25.7%	712,645	38,698,089	42,390,827	3,692,738	91.3%
2026	1,661,720	179,839	1,971,196	2,523,000	76,738	2,599,738	7,673,787	25.7%	1,138,989	42,302,805	46,112,090	3,809,285	91.7%
2027	1,728,189	187,032	2,050,044	2,555,000	79,807	2,634,807	7,980,738	25.7%	1,462,826	45,358,310	49,703,102	4,344,792	91.3%
2028	1,797,317	194,514	2,132,046	2,587,000	83,000	2,670,000	8,299,967	25.7%	1,884,174	49,839,394	53,263,958	3,424,564	93.6%
2029	1,869,210	202,294	2,217,327	2,619,000	86,320	2,705,320	8,631,966	25.7%	2,306,533	53,803,545	56,694,848	2,891,303	94.9%
2030	1,943,978	210,386	2,306,020	2,652,000	89,772	2,741,772	8,977,245	25.7%	2,587,072	57,624,600	59,989,226	2,364,626	96.1%
2031	2,021,737	218,801	2,398,261	2,685,000	93,363	2,778,363	9,336,335	25.7%	2,868,492	61,440,820	63,287,710	1,846,890	97.1%
2032	2,102,607	227,554	2,494,192	2,719,000	97,098	2,816,098	9,709,788	25.7%	3,130,641	65,251,119	66,592,843	1,341,724	98.0%
2033	2,186,711	236,656	2,593,959	2,753,000	100,982	2,853,982	10,098,180	25.7%	3,411,817	69,076,153	69,928,267	852,114	98.8%
2034	2,274,179	246,122	2,697,718	2,787,000	105,021	2,892,021	10,502,107	25.7%	3,515,867	72,897,384	73,279,751	382,367	99.5%
2035	2,365,146	255,967	2,805,626	2,822,000	109,222	2,931,222	10,922,191	25.7%	3,629,714	76,897,602	76,834,803	(62,799)	100.1%
2036	2,459,752	266,205	2,917,852	2,917,852	113,591	3,031,442	11,359,079	25.7%	3,775,386	81,079,488	80,600,266	(479,222)	100.6%
2037	2,558,142	390,786	3,156,519	3,156,519	118,134	3,274,653	11,813,442	26.7%	3,840,738	85,483,011	84,560,833	(922,178)	101.1%
2038	2,660,468	424,675	3,302,322	3,302,322	122,860	3,425,182	12,285,979	26.9%	3,915,181	90,348,498	88,816,147	(1,532,351)	101.7%
2039	2,766,887	273,307	3,254,208	3,344,000	127,774	3,471,774	12,777,419	25.5%	3,961,256	95,603,908	93,380,171	(2,223,737)	102.4%
2040	2,877,562	284,239	3,384,377	3,386,000	132,885	3,518,885	13,288,515	25.5%	4,066,433	101,199,939	98,306,620	(2,893,319)	102.9%
2041	2,992,665	295,609	3,519,752	3,519,752	138,201	3,657,952	13,820,056	25.5%	4,301,096	107,098,228	103,562,562	(3,535,666)	103.4%
2042	3,112,371	307,433	3,660,542	3,660,542	143,729	3,804,270	14,372,858	25.5%	4,445,672	113,276,683	109,040,434	(4,236,249)	103.9%
2043	3,236,866	319,731	3,806,963	3,806,963	149,478	3,956,441	14,947,773	25.5%	4,511,927	119,853,781	114,852,582	(5,001,199)	104.4%
2044	3,366,341	362,551	3,991,387	3,991,387	155,457	4,146,844	15,545,683	25.7%	4,561,264	126,942,153	121,106,697	(5,835,456)	104.8%
2045	3,500,994	377,053	4,151,042	4,151,042	161,675	4,312,718	16,167,511	25.7%	4,684,083	134,630,732	127,854,281	(6,776,451)	105.3%
2046	3,641,034	392,135	4,317,084	4,317,084	168,142	4,485,226	16,814,211	25.7%	4,754,764	142,858,131	135,057,052	(7,801,079)	105.8%
2047	3,786,676	407,820	4,489,767	4,489,767	174,868	4,664,635	17,486,780	25.7%	4,814,098	151,719,842	142,804,168	(8,915,674)	106.2%
2048	3,938,143	1,056,567	5,346,312	5,346,312	181,863	5,528,175	18,186,251	29.4%	4,857,069	161,275,711	151,148,692	(10,127,019)	106.7%
2049	4,095,668	1,098,830	5,560,165	5,560,165	189,137	5,749,302	18,913,701	29.4%	4,936,034	172,271,883	160,152,556	(12,119,327)	107.6%
2050	4,259,495	1,142,783	5,782,571	5,782,571	196,702	5,979,274	19,670,249	29.4%	4,963,284	184,122,402	169,827,903	(14,294,499)	108.4%
2051	4,429,875	-	4,741,716	5,855,000	204,571	6,059,571	20,457,059	23.2%	4,980,808	196,945,041	180,278,489	(16,666,552)	109.2%
2052	4,607,070	-	4,931,385	5,928,000	212,753	6,140,753	21,275,341	23.2%	4,938,876	210,663,355	191,571,723	(19,091,632)	110.0%
2053	4,791,353	-	5,128,640	6,002,000	221,264	6,223,264	22,126,355	23.2%	4,900,412	225,397,837	203,831,025	(21,566,812)	110.6%

The results presented here are ESTIMATES. They are based on the data, assumptions, methods and plan provisions outlined in the January 1, 2024 valuation report unless otherwise noted.
This summary should be considered a supplement to that report.
These results are for discussion purposes only and should not be relied upon for puposes of making cash contributions to the Plan nor for any other purposes.

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August 30, 2024

Creve Coeur Fire Protection District
11221 Olive Blvd.
Creve Coeur, Missouri 63141

RE: Creve Coeur Fire Protection District Age Activated Supplemental Pension Plan – Section 105.665 Cost Statement

Dear Members of the Board:

The purpose of this letter is to provide the Board of the Creve Coeur Fire Protection District Age Activated Supplemental Pension Plan ("Plan") with a cost statement required under the Missouri Revised Statutes Section 105.665 in connection with the following proposed changes in Plan provisions:

- The target percentage of Final Average Monthly Compensation would increase from 70% to 75%, and the Money Purchase Plan contribution rate would increase from 18% to 20%.

For purposes of the cost statement, we have assumed that these plan changes were implemented retroactive to January 1, 2024. Our projections are based on the census data, assets and actuarial assumptions that were used in the January 1, 2024 actuarial valuation. We did not take into account changes in plan population and/or market conditions after January 1, 2024.

In Exhibit I attached to this letter, we have provided 10-year projections of costs and liabilities based on current and proposed plan provisions.

We are providing the following information numbered to correspond with Section 105.665:

1. The level normal cost of plan benefits currently in effect is $298,612 as of January 1, 2024, or 4.0% of expected covered payroll.
2. The contribution amount for the plan's unfunded actuarial accrued liability is $0 as of January 1, 2024, or 0.0% of expected covered payroll. The amortization period is 15 years.
3. The current total required contribution (including interest to the end of the plan year) determined as of January 1, 2024 is $317,425, or 4.2% of expected covered payroll.
4. The total required contribution from item 3 is being contributed in a timely manner.
5. As of January 1, 2024, the plan's actuarial value of assets is $18,533,557, the market value of assets is $18,136,335, the actuarial accrued liability is $16,652,967, and the funded ratio based on the actuarial value of assets is 111.3%.
6. The proposed total required contribution (including interest to the end of the plan year) determined as of January 1, 2024 is $364,573, or 4.8% of expected covered payroll. Note that this does not include the proposed additional 2% of pay contribution to the Money Purchase Plan, which is estimated to be approximately $150,000 for 2024.
7. A 10-year projection of liabilities, annual costs and funded ratios is presented in Exhibit I.
8. The proposed provisions would result in additional contributions in the year of implementation. For purposes of this cost statement, we have illustrated the additional contributions assuming the proposed plan changes were in effect as of January 1, 2024.

9. Under the Board's funding policy, the proposed plan changes would not in any way impair the ability of the plan sponsor to meet its obligation to pay benefits to plan members and their beneficiaries.
10. The actuarial assumptions used in the January 1, 2024 actuarial valuation are presented in Exhibit II. Other assumptions used for these projections that are not listed in Exhibit II are included in Exhibit III.
11. The actuary's certification regarding the assumptions used in the January 1, 2024 valuation is provided below.
12. The actuarial funding method used in the January 1, 2024 valuation is described in Exhibit II.

Assumptions and Methods

In preparing the January 1, 2024, actuarial valuation, which is the basis for this cost statement, we have employed generally accepted actuarial methods and assumptions, in conjunction with employee data and financial information provided to us by the Plan. The employee data has not been audited, but it has been reviewed and found to be consistent, both internally and with prior years' data. The validity of our analysis results is dependent upon the accuracy of the data and financial information provided.

In our opinion, the actuarial assumptions used are reasonable, taking into account the experience of the Plan and reasonable long-term expectations, and represent our best estimate of the anticipated long-term experience under the Plan. The actuary performs an analysis of Plan experience periodically and recommends changes if, in the opinion of the actuary, assumption changes are needed to more accurately reflect expected future experience. A summary of all assumptions and methods used are as described in Exhibit II. Unless otherwise specified in this study, all data, methods, assumptions, and plan provisions are the same as described in the January 1, 2024 valuation report dated May 24, 2024. The methodology used in the selection of the assumptions is described in detail in the January 1, 2024 valuation report, including the disclosures required under Actuarial Standards of Practice No. 27 and 35.

Where presented, references to "funded ratio" and "unfunded accrued liability" typically are measured on an actuarial value of assets basis. It should be noted that the same measurements using market value of assets would result in different funded ratios and unfunded accrued liabilities. Where presented, references to "accumulated benefit funded ratio" is measured on a market value of assets basis. Moreover, the funded ratios presented are appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the plan if the plan were to settle (i.e. purchase annuities) for a portion or all of its liabilities.

Future actuarial measurements may differ slightly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law. Because of limited scope, no analysis of the potential range of such future differences was performed except as noted in this letter.

Gallagher prepared this cost statement for use by the Board in considering the proposed plan changes described above. Use of this cost statement by other parties or for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or the inapplicability of the cost statement for that purpose. Because of the risk of misinterpretation of actuarial results, Gallagher recommends requesting its advance review of any statement, document, or filing to be based on information contained in this cost statement. Gallagher will accept no liability for any such statement, document or filing made without its prior review.

Use of Models

Actuarial Standard of Practice No. 56 provides guidance to actuaries when performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. Gallagher uses third-party software in the performance of annual actuarial valuations and projections. The model is intended to calculate the liabilities associated with the provisions of the plan using data and assumptions as of the measurement date under the funding rules specified in this letter. The output from the third-party vendor software is used as input to an internally developed model that applies applicable funding rules to the derived liabilities and other inputs, such as plan assets and contributions, to generate the exhibits found in this letter. Gallagher has an extensive review process in which the results of the liability calculations are checked using detailed sample life output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other funding outputs and the internal model are similarly reviewed in detail and at a higher level for accuracy, reasonability, and consistency with prior results. Gallagher also reviews the third-party model when significant changes are made to the software. This review is performed by experts within Gallagher who are familiar with applicable funding rules, as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed. Significant changes to the internal model that are applicable to multiple clients are generally developed, checked, and reviewed by multiple experts within Gallagher who are familiar with the details of the required changes.

Assessment of Risks

Information required under Actuarial Standards of Practice No. 51 regarding the Plan's major risks are provided in the January 1, 2024 actuarial valuation report. Those same risks are applicable to the analysis contained in this letter.

Actuarial Certification

The undersigned are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this memorandum. This letter has been prepared in accordance with all Applicable Actuarial Standards of Practice and we are available to answer any questions on the material contained in the letter, or to provide explanations or further details as may be appropriate.

Sincerely,

David J. Kershner, FSA, EA, MAAA, FCA
Principal, Wealth

Duncan Reynolds, ASA, EA, MAAA
Senior Consultant, Wealth

Gallagher

Insurance | Risk Management | Consulting

Exhibit I

Creve Coeur Fire Protection District Age Activated Supplemental Pension Plan
January 1, 2024 Projections

		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
	CURRENT											
A	Actuarial Accrued Liability	16,652,967	16,913,001	17,034,252	17,133,948	17,291,255	17,494,424	17,711,727	17,930,556	18,160,146	18,412,207	18,647,333
B	Actuarial Value of Assets	18,533,557	18,016,046	18,718,499	18,932,633	19,214,774	19,548,708	19,903,923	20,268,056	20,656,137	21,079,308	21,494,700
C	Unfunded Actuarial Accrued Liability [A-B]	(1,880,590)	(1,103,045)	(1,684,247)	(1,798,685)	(1,923,519)	(2,054,284)	(2,192,196)	(2,337,500)	(2,495,991)	(2,667,101)	(2,847,367)
D	Funded Ratio [B/A]	111.3%	106.5%	109.9%	110.5%	111.1%	111.7%	112.4%	113.0%	113.7%	114.5%	115.3%
E	Market Value of Assets	18,136,335	18,499,086	18,718,499	18,932,633	19,214,774	19,548,708	19,903,923	20,268,056	20,656,137	21,079,308	21,494,700
F	Normal Cost	298,612	255,122	269,521	286,098	289,064	312,251	323,881	353,521	367,090	354,438	369,805
G	Amortization of Unfunded Liability	0	0	0	0	0	0	0	0	0	0	0
H	Employer Cost [F+G]x1.063	317,425	271,195	286,501	304,122	307,275	331,923	344,286	375,793	390,217	376,768	393,103
G	Projected Payroll	7,521,425	7,558,012	7,498,314	7,602,264	7,782,287	7,949,447	8,056,654	8,156,227	8,321,905	8,540,879	8,770,006
H	Employer Contribution Rate [H/G]	4.2%	3.6%	3.8%	4.0%	3.9%	4.2%	4.3%	4.6%	4.7%	4.4%	4.5%
	PROPOSED											
A	Actuarial Accrued Liability	18,022,889	18,404,681	18,610,652	18,789,037	19,025,715	19,302,569	19,588,566	19,864,244	20,142,428	20,445,538	20,724,295
B	Actuarial Value of Assets	18,533,557	18,053,577	18,786,790	18,985,999	19,248,096	19,549,719	19,860,889	20,161,871	20,471,313	20,810,308	21,125,194
C	Unfunded Actuarial Accrued Liability [A-B]	(510,668)	351,104	(176,138)	(196,962)	(222,381)	(247,150)	(272,323)	(297,627)	(328,885)	(364,770)	(400,899)
D	Funded Ratio [B/A]	102.8%	98.1%	100.9%	101.0%	101.2%	101.3%	101.4%	101.5%	101.6%	101.8%	101.9%
E	Market Value of Assets	18,136,335	18,536,617	18,786,790	18,985,999	19,248,096	19,549,719	19,860,889	20,161,871	20,471,313	20,810,308	21,125,194
F	Normal Cost	342,966	286,952	300,944	316,742	316,437	341,030	351,860	383,335	395,956	377,946	392,466
G	Amortization of Unfunded Liability	0	34,678	0	0	0	0	0	0	0	0	0
H	Employer Cost [F+G]x1.063	364,573	341,893	319,903	336,697	336,373	362,515	374,027	407,485	420,901	401,757	417,191
G	Projected Payroll	7,521,425	7,558,012	7,498,314	7,602,264	7,782,287	7,949,447	8,056,654	8,156,227	8,321,905	8,540,879	8,770,006
H	Employer Contribution Rate [H/G]	4.8%	4.5%	4.3%	4.4%	4.3%	4.6%	4.6%	5.0%	5.1%	4.7%	4.8%

Exhibit II

Actuarial Assumptions and Methods

Interest Rate

6.3% compounded annually (net of investment expenses).

Money Purchase Plan Conversion Rate

The interest rate used in converting Money Purchase Plan account balances to monthly annuities is 4.5%. The mortality table is as specified in Revenue Ruling 2001-62.

Money Purchase Plan Conversion Rate

Current Plan Provisions:	18% of Salary
Proposed Plan Provisions:	20% of Salary

Salary Increases

4.0% compounded annually, with recognition of longevity increases.

Inflation for COLA

Consumer Price Index assumed to increase at 3.0% compounded annually.

Hours Worked

It is assumed each active member earns at least 1,500 hours each year in the future.

Mortality

Healthy Lives: Pub-2010 Mortality Table, Public Safety, fully generational with the MP-2021 Mortality Improvement scale.

Disabled Lives: Pub-2010 Disability Mortality Table, Public Safety, fully generational with the MP-2021 Mortality improvement scale.

Withdrawal Rates

T-6 rates from the Pension Actuaries Handbook by Crocker, Sarason and Straight.

Actuarial Assumptions and Methods (continued)

Assumed Retirement Age

Age	Retirement Rate
55	40%
56	10%
57	10%
58	10%
59	10%
60	10%
61 (or older)	100%

Expenses

None explicitly assumed.

Asset Valuation Method

The actuarial value of assets is based on a three-year smoothing method and is determined by spreading the effect of each year's investment return in excess of or below the expected return over three years. The Fair Value of assets at the valuation date is reduced by the sum of the following:

13. 66.67% of the return to be spread during the first year preceding the valuation date,

14. 33.33% of the return to be spread during the second year preceding the valuation date.

Actuarial Cost Method

Projected Unit Credit Actuarial Cost Method. Under this method, the projected benefit of each participant is allocated to his years of service by level proration. The actuarial present value of benefits allocated to the current plan year is the normal cost, and the actuarial present value of benefits allocated to prior years of service is the accrued liability. Actuarial gains and losses are recognized in the unfunded accrued liability as they emerge.

Amortization Method for Unfunded Accrued Liability (UAL)

The UAL for each valuation is amortized over a 15-year period, on a level dollar basis. The amortization period is reset to 15 years for each subsequent valuation[1]. Surplus funding is not amortized to offset the normal cost contribution.

---

[1] As noted in the January 1, 2024 valuation report, we recommend that the amortization method be changed from an "open" amortization method to a "closed" amortization period to ensure that any unfunded liability is fully funded. Making this change will not materially impact the results shown in this letter.

Gallagher

Insurance | Risk Management | Consulting

Projection Assumptions

New Entrants

New entrants were assumed to replace exiting active members such that the number of active members (59) stays level throughout the projection period. New entrant demographics are based on the plan's new entrants during the last five years. The expected salary of new entrants in 2024 was $75,000. 78% of new entrants were assumed to be male and 22% were assumed to be female.

Timing of Employer Contributions

Employer contributions were assumed to be made mid-year following the plan year to which the contribution applies.

Asset Returns in 2024 and Beyond

Market returns were assumed to be 6.3% per year net of investment expenses.

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ACTUARIAL COST STATEMENT FOR PROPOSED CHANGES FOR THE RETIREMENT PLAN FOR EMPLOYEES OF FLORISSANT VALLEY FIRE PROTECTION DISTRICT

Prepared November 6, 2024

This actuarial statement is to disclose the financial impact of the Substantial Proposed Changes to the Retirement Plan for Employees of Florissant Valley Fire Protection District which would become effective on December 27, 2024. This statement is prepared using the actuarial assumptions and methods employed in the last annual actuarial valuation in accordance with R.S.Mo. § 105.665.

Proposed Changes

The current pension benefit does not provide for increases in the benefit of participants once retired.

Under the proposal, a one-time $3,000 payment will be made to each retiree and beneficiary who is current receiving monthly retirement payments. The total cost of this benefit is a one-time charge of $93,000 or 0.21% of the Plan's Accrued Liability or 0.25% of Plan Assets.

Actuarial Analysis

1. Attached is a 10-year projection of the current plan and the proposed plan.

2. The below table summarizes the impact based on the latest actuarial valuation, January 1, 2024 considering the cost of the proposed benefit as a reduction in Plan assets.

	Current	Proposed
ACCRUED LIABILITY	$44,750,634	$44,750,634
ESTIMATED ASSETS	$37,282,810	$37,189,810
UNFUNDED ACCRUED LIABILITY	$7,467,824	$7,560,824
ACCRUED LIABILITY FUNDED RATIO	83.3%	83.1%
NORMAL COST	$838,133	$838,133
NORMAL COST AS A % OF PAYROLL	11.0%	11.0%
EXPENSES	$10,250	$10,250

20 YEAR AMORT OF UNFUNDED LIABILITY	$782,508	$791,795
AMORT AS A % OF PAYROLL	10.3%	10.3%
EMPLOYEE CONTRIBUTION	68,760	68,760
ANNUAL COST (beginning of year)	$1,561,881	$1,571,168
ANNUAL COST (end of year)	$1,663,403	$1,673,294
ANNUAL COST AS A % OF PAYROLL	20.6%	20.7%
EXPECTED CONTRIBUTION	$2,561,881	$2,561,881
ASSUMED PAYROLL	$7,593,000	$7,593,000
EXPECTED BENEFIT PAYMENTS	$1,913,648	$1,913,648

3. As shown in the projections, we do not believe that the proposed change would impair the ability of the plan to meet the obligations thereof in effect at the time the proposal is made.

4. The assumptions used for this analysis are listed in the cost projection exhibits and the 1/1/2024 actuarial report that has been attached.

5. We believe the assumptions used for the actuarial valuation produce results which, in the aggregate, are reasonable.

6. Individual Entry Age Normal method is used for the actuarial valuation. Unfunded Actuarial Liabilities are amortized over a closed 15 year period. The Unfunded Accrued Liability equals the Accrued Liability less the Actuarial Value of Assets.

Ekon Benefits

Keith Kowalczyk

Keith Kowalczyk
President
Associate of the Society of Actuaries
Enrolled Actuary, No. 23-2812

RETIREMENT PLAN FOR EMPLOYEES OF FLORISSANT VALLEY FIRE PROTECTION DISTRICT

COST PROJECTION - CURRENT PLAN

	1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2028	1/1/2029	1/1/2030	1/1/2031	1/1/2032	1/1/2033	1/1/2034
ACCRUED LIABILITY	44,750,634	46,576,000	48,560,000	50,598,000	52,548,000	54,420,000	56,384,000	57,662,000	58,883,000	60,232,000	61,585,000
ESTIMATED ASSETS	37,282,810	40,436,000	42,687,000	45,016,000	47,281,000	49,496,000	51,833,000	53,516,000	55,178,000	57,007,000	58,885,000
UNFUNDED ACCRUED LIABILITY	**7,467,824**	**6,140,000**	**5,873,000**	**5,582,000**	**5,267,000**	**4,924,000**	**4,551,000**	**4,146,000**	**3,705,000**	**3,225,000**	**2,700,000**
ACCRUED LIABILITY FUNDED RATIO	**83.3%**	**86.8%**	**87.9%**	**89.0%**	**90.0%**	**91.0%**	**91.9%**	**92.8%**	**93.7%**	**94.6%**	**95.6%**
NORMAL COST	838,133	929,000	943,000	959,000	978,000	993,000	1,013,000	1,034,000	1,054,000	1,066,000	1,086,000
EXPENSES	10,000	10,250	10,506	10,769	11,038	11,314	11,597	11,887	12,184	12,489	12,801
EMPLOYEE CONTRIBUTIONS	-68,760	-77,530	-78,850	-80,350	-81,790	-83,350	-84,930	-86,370	-87,660	-89,140	-90,230
NORMAL COST INCLUDING ADJUSTMENTS	779,373	861,720	874,656	889,419	907,248	920,964	939,667	959,517	978,524	989,349	1,008,571
AMORT OF UNFUNDED LIABILITY	782,508	675,000	681,000	687,000	695,000	702,000	711,000	721,000	732,000	745,000	762,000
ANNUAL COST (beginning of year)	**1,561,881**	**1,536,720**	**1,555,656**	**1,576,419**	**1,602,248**	**1,622,964**	**1,650,667**	**1,680,517**	**1,710,524**	**1,734,349**	**1,770,571**
COST AS A % OF PAYROLL	20.6%	19.8%	19.7%	19.6%	19.6%	19.5%	19.4%	19.5%	19.5%	19.5%	19.6%
EXPECTED EMPLOYER CONTRIBUTION	**2,561,881**	**1,536,720**	**1,555,656**	**1,576,419**	**1,602,248**	**1,622,964**	**1,650,667**	**1,680,517**	**1,710,524**	**1,734,349**	**1,770,571**
ASSUMED PAYROLL	7,593,000	7,753,000	7,885,000	8,035,000	8,179,000	8,335,000	8,493,000	8,637,000	8,766,000	8,914,000	9,023,000
EXPECTED BENEFIT PAYMENTS	1,913,648	1,969,000	2,056,000	2,286,000	2,504,000	2,548,000	3,357,000	3,514,000	3,488,000	3,581,000	3,548,000

COST PROJECTION - PLAN DESIGN - $3,000 ONE-TIME PAYMENT TO RETIREES

	1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2028	1/1/2029	1/1/2030	1/1/2031	1/1/2032	1/1/2033	1/1/2034
ACCRUED LIABILITY	44,750,634	46,576,000	48,560,000	50,598,000	52,548,000	54,420,000	56,384,000	57,662,000	58,883,000	60,232,000	61,585,000
ESTIMATED ASSETS	37,282,810	40,343,000	42,598,000	44,930,000	47,200,000	49,419,000	51,760,000	53,448,000	55,115,000	56,949,000	58,833,000
UNFUNDED ACCRUED LIABILITY	**7,467,824**	**6,233,000**	**5,962,000**	**5,668,000**	**5,348,000**	**5,001,000**	**4,624,000**	**4,214,000**	**3,768,000**	**3,283,000**	**2,752,000**
ACCRUED LIABILITY FUNDED RATIO	**83.3%**	**86.6%**	**87.7%**	**88.8%**	**89.8%**	**90.8%**	**91.8%**	**92.7%**	**93.6%**	**94.5%**	**95.5%**
NORMAL COST	838,133	929,000	943,000	959,000	978,000	993,000	1,013,000	1,034,000	1,054,000	1,066,000	1,086,000
EXPENSES	10,000	10,250	10,506	10,769	11,038	11,314	11,597	11,887	12,184	12,489	12,801
EMPLOYEE CONTRIBUTIONS	-68,760	-77,530	-78,850	-80,350	-81,790	-83,350	-84,930	-86,370	-87,660	-89,140	-90,230
NORMAL COST INCLUDING ADJUSTMENTS	779,373	861,720	874,656	889,419	907,248	920,964	939,667	959,517	978,524	989,349	1,008,571
AMORTIZATION	1,034,171	1,043,458	1,043,458	1,043,458	1,043,458	1,043,458	1,043,458	1,043,458	1,043,458	1,043,458	1,043,458
BASES	9,869,550	9,508,724	9,015,509	8,490,234	7,930,817	7,335,038	6,700,533	6,024,785	5,305,114	4,538,663	3,722,394
AMORT OF UNFUNDED LIABILITY	782,508	684,000	690,000	697,000	704,000	711,000	720,000	730,000	741,000	755,000	771,000
ANNUAL COST (beginning of year)	**1,561,881**	**1,545,720**	**1,564,656**	**1,586,419**	**1,611,248**	**1,631,964**	**1,659,667**	**1,689,517**	**1,719,524**	**1,744,349**	**1,779,571**
COST AS A % OF PAYROLL	20.6%	19.9%	19.8%	19.7%	19.7%	19.6%	19.5%	19.6%	19.6%	19.6%	19.7%
EXPECTED EMPLOYER CONTRIBUTION	**2,561,881**	**1,545,720**	**1,564,656**	**1,586,419**	**1,611,248**	**1,631,964**	**1,659,667**	**1,689,517**	**1,719,524**	**1,744,349**	**1,779,571**
ASSUMED PAYROLL	7,593,000	7,753,000	7,885,000	8,035,000	8,179,000	8,335,000	8,493,000	8,637,000	8,766,000	8,914,000	9,023,000
EXPECTED BENEFIT PAYMENTS	1,913,648	1,969,000	2,056,000	2,286,000	2,504,000	2,548,000	3,357,000	3,514,000	3,488,000	3,581,000	3,548,000
$3,000 ONE TIME PAYMENT TO RETIREES	93,000										

Assumptions

Discount Rate	6.50%	
Rate of Return	6.50%	
Aggregate Payroll Growth	1.90%	(Represents $1,500 annual salary increase plus 0.5% for career promotions)
Inflation	2.50%	
Assumes Level Population (New Hires Replace Retirements)		
2023 Pension Property Tax Assessment	876,278	

RESOLUTION OF THE
BOARD OF DIRECTORS OF THE
FLORISSANT VALLEY FIRE PROTECTION DISTRICT

A RESOLUTION APPROVING THE AMENDMENT OF "THE RETIREMENT PLAN FOR EMPLOYEES OF FLORISSANT VALLEY FIRE PROTECTION DISTRICT (AS AMENDED AND RESTATED EFFECTIVE JANUARY 1, 2014)"

WHEREAS, pursuant to the laws of the State of Missouri, the Fire District Board of Directors (the "Board") of the Florissant Valley Fire District (the "District") has the power to manage, control and supervise all of the District's business and affairs including the authority to establish and maintain a pension fund as well as the authority to authorize a board of trustees to administer such a fund, and

WHEREAS, the District, an entity organized and existing pursuant to the provisions of Chapter 321 of the Revised Statutes of the State of Missouri, has previously established and agreed to maintain the Retirement Plan for Employees of the Florissant Valley Fire Protection District (the "Plan") effective as of February 1, 1970 and

WHEREAS, the Board has reviewed the attached amended Plan in the form of the Fourth Amendment.

NOW THEREFORE, BE IT RESOVLED BY THE BOARD OF DIRECTORS OF THE FLORISSANT VALLEY FIRE PROTECTION DISTRICT THAT THE FOLLOWING RESOLUTION BE HEREBY ADOPTED:

1. The Retirement Plan for Employees of Florissant Valley Fire Protection District (As Amended and Restated Effective January 1, 2014) attached here to in the form of the Fourth Amendment is hereby adopted and approved.

2. The Plan, as amended, is hereby reaffirmed and ratified.

IN WITNESS WHEREOF, the District has caused this FOURTH AMENDMENT to be executed by its duly appointed official on this 6th day of NOVEMBER, 2024, effective as of December 27, 2024.

FLORISSANT VALLEY FIRE
PROTECTION DISTRICT

By ______________________
Jason Hoevelmann, Fire Chief

By ______________________
Daniel Lubiewski, Trustee

By ______________________
Robert Carmack, Trustee

By ______________________
Michael Mahaffy, Trustee

By ______________________
Mark Waller, Trustee

By ______________________
Russell Kleffner, Trustee

FOURTH AMENDMENT TO THE
RETIREMENT PLAN FOR EMPLOYEES OF
FLORISSANT VALLEY FIRE PROTECTION DISTRICT
(AS AMENDED AND RESTATED EFFECTIVE JANUARY 1,2014)

WHEREAS, the Florissant Valley Fire Protection District (the "District"), organized and existing under Chapter 321 of the Revised Statutes of the State of Missouri, has previously established and agreed to maintain the Retirement Plan for Employees of the Florissant Valley Fire Protection district (the "Plan") effective as of February 1, 1970, and

WHEREAS, the District finds it necessary to further amend the Plan, and

WHEREAS, pursuant to the provisions of Section 11.2, the District reserved the right to amend the Plan, in whole or in part, at any time and from time to time, subject to certain limitations,

NOW THEREFORE, in exercise of the power so reserved, the Plan is hereby amended as follows:

1. A new subsection is added to Article IV as follows:

   ¶ 4.6 All retirees and beneficiaries receiving benefits on December 27, 2024 will receive an additional one-time payment of $3,000 on such date.

2. The Plan, as amended, is hereby reaffirmed and ratified.

RESOVLED this 6th day of November, 2024.

BOARD OF DIRECTORS OF THE
FLORISSANT VALLEY FIRE PROTECTION
DISTRICT

By: ______________________
Director

By: ______________________
Director

By: ______________________
Director

By: ______________________
Director

By: ______________________
Director