

NEBRASKA RETIREMENT SYSTEMS COMMITTEE

NEBRASKA LEGISLATURE

LR 97: An interim study to carry out the provisions of section 13-2402, which requires the Nebraska Retirement Systems Committee to monitor underfunded defined benefit plans administered by political subdivisions

One Hundred Ninth Legislature
First Session

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Introduction

LR 97 is an interim study to carry out the provisions of Nebraska Revised Statute §13-2402, which requires that the Nebraska Retirement Systems Committee monitor underfunded defined benefit plans administered by political subdivisions. The resolution provides that the study shall include a public hearing for the presentation of reports by political subdivisions with underfunded defined benefit plans.

Background & Legislative History

In 2014, the Legislature passed LB 759, which required that each political subdivision which offers a defined benefit plan annually file the most recent annual actuarial valuation report for the plan with the Nebraska Retirement Systems Committee. If either the contributions to the plan do not equal the actuarial requirement for funding or the funded ratio of the plan is less than 80% according to the most recent actuarial valuation report, then the plan is considered underfunded, and the political subdivision is required to submit a more detailed report to the Committee and may be required to present its report to the Committee at a public hearing. This report must include, at a minimum, an analysis of the future benefit changes, contribution changes, or other proposed corrective action to improve the plan's funding condition.

If a governing entity fails to file the required information with the Committee, the State Auditor is authorized to audit the public pension system, or cause it to be audited at the political subdivision's own expense. The annual reporting requirement under §13-2402 began November 1, 2014, and in 2015, the reporting date was changed to October 15th of each year. A public hearing on LR 97 was conducted on November 20, 2025.

In order to standardize the reporting process, the Committee created a Reporting Form for Underfunded Defined Benefit Plans, which outlines the information that the Committee would like to receive in order to understand the circumstances that created the underfunding of the plan and to monitor corrective actions taken to improve the funding of the plan. A copy of the Reporting Form can be found on the following page.

2025 Reporting Form for Underfunded Political Subdivision Defined Benefit Plans

1. Please list the following information for **plan years 2021 through current plan year 2025:**
 - a. Funding status
 - b. Assumed rate of return
 - c. Actual investment return
 - d. Member and employer contribution rates -- percentage
 - e. Normal cost - percentage
 - f. Actuarially required contribution (ARC) - percentage & dollar amount
 - g. ARC contribution - actual dollar amount contributed & percentage of ARC actually contributed
2. Please provide a brief narrative of the circumstances that led to the current underfunding of the retirement plan.
3. Have there been any changes in the actuarial methods and/or assumptions since the previous actuarial valuation report? If so, please describe.
4. In what year is the plan's funding ratio expected to reach 100%?
5. What is the method used to amortize the unfunded actuarial liability?
6. Please provide a description of corrective actions implemented to improve the funding status of the plan including, but not limited to, benefit changes, increased contribution rates and/or employer contributions. Please include any actuarial projections based on these changes and attach a copy of the actuarial projections.
7. Please describe any recent or ongoing negotiations with bargaining groups that may impact the funding of the plan.
8. Please attach a copy of the most recent Actuarial Experience Study. When will the next Actuarial Experience Study for the plan be completed?
9. What is the current assumed rate of return? If the rate has been changed in the past year, or if there are plans to review the rate in the upcoming year, please describe.
10. Please attach the most recent actuarial valuation report. If the valuation report is completed biannually (or less often) please include an updated report for the interim year/s, if available.

Summary of Underfunded Defined Benefit Plans

In 2024, there were six political subdivisions with defined benefit plans which were considered underfunded because the funded ratio of the plan was less than 80%. A total of seven plans (two offered by the City of Omaha, one each offered by the other political subdivisions) were required to present to the committee in 2024. In addition to those underfunded defined benefit plans that reported in 2024, the City of Lincoln Police and Fire Pension Fund saw its funded ratio decrease below the 80% threshold and is required to report in 2025.

The chart below lists the political subdivisions with underfunded defined benefit plans that remain under the 80% threshold and a summary of the 2023/2024 and 2024/2025 funding status for each plan. In addition, a brief summary of the materials submitted to the Committee by each subdivision is contained below, and a complete copy of all political subdivision submissions can be found in the Appendices.

Political Subdivision	Name of Retirement Plan	2024 Funding Status¹	2025 Funding Status
Douglas County	Douglas County Employees' Retirement Plan	68.2%	68.6%
Eastern Nebraska Human Services Agency (ENHSA)	Eastern Nebraska Human Services Agency Employees Retirement Plan	72.0%	Not available – biennial valuation
City of Lincoln	City of Lincoln Police and Fire Pension Fund	80.0%	78.9%
City of Omaha	City of Omaha Employees Retirement System (COERS)	54.0%	54.3%
City of Omaha	City of Omaha Police and Fire Retirement System (COPFRS)	58.4%	58.2%
Omaha Public Power District	OPPD Retirement Plan	74.3%	73.2%
Omaha Public Schools	Omaha School Employees Retirement System (OSERS)	59.8%	59.7%
Regional Metropolitan Transit Authority of Omaha	Regional Metropolitan Transit Authority of Omaha Collective Bargaining Employee Pension Plan	73.9%	76.2%

¹ Funding status year may vary because some plans are based on calendar year or a September through August plan year so current plan year data is not yet available.

Douglas County Employees' Retirement Plan

Year	Funded Ratio	Assumed Investment Rate	Actual Investment Return	Normal Cost	Total ARC %	Employee Cont. Rates	Employer Cont. Rates	UAL	% of ARC Paid
2025	68.6%	7.5%	7.8%	10.7%	18.4%	8.5%	8.5%	\$209,564,442	96.3% ²
2024	68.2%	7.5%	5.7%	10.7%	18.3%	8.5%	8.5%	\$201,894,660	97.9%
2023	68.9%	7.5%	0.4%	10.3%	17.9%	8.5%	8.5%	\$189,050,631	106%
2022	73.9%	7.5%	12.6%	10.8%	17.4%	8.5%	8.5%	\$149,992,000	107.6%
2021	70.9%	7.5%	12.7%	10.9%	17.7%	8.5%	8.5%	\$159,200,000	100%

The plan's funded ratio is currently 68.6%, and the investment return was 7.8% compared to the previous year's return of 5.7%.

In the January 2025 Actuarial Valuation, two actuarial assumptions were updated and a new actuarial assumption was added:

- Other than Rule of 75 retirement rates for ages 65-69 were increased from 15% to 22.5%;
- Interest crediting rate on employee contributions were decreased from 4.37% to 4.18%; and
- Added assumption for unused vacation time and comp time of 5 days per year

In 1996, the plan was 97.8% funded. In 1996 for law enforcement, and in 1997 for other plan participants, the following benefit changes were made:

- Unreduced benefit upon Rule of 75; and
- Benefit formula increased from 1.5% of pay per year of service to 2% of pay per year of service

In 1998, a 3% COLA was approved, in 2000, a 4% COLA was approved, and in 2002, a 3% COLA was approved. By 2004, the funding ratio had fallen to 64.8%. Both county and member contributions were increased from 5.5% of pay in 2005 to the present level of 8.5% by 2008. Poor stock market performance during the Great Recession also negatively impacted the Plan's funded ratio, which reached a low point of 57.8% in 2010.

To ensure the financial viability of the Plan for its current participants, the following provisions were put in place for all employees hired after December 31, 2011:

² Expected

- No Rule of 75;
- Benefit formula reduced from 2% of pay per year of service to 1.5% of pay per year of service; and
- Maximum retirement income reduced from 60% of final average compensation to 45% of final average compensation

These plan changes, along with no COLA increases given since 2002, have increased the Plan’s funded ratio by 10.8% from its low point in 2010 to 68.6% in 2025. Funded levels in the future as forecast by HUB (the Plan’s actuary) Based on the January 1, 2025 Actuarial Valuation are as follows, assuming all current plan assumptions are met:

2022	68.6%
2029	72.2%
2034	78.3%
2039	87.7%
2044	102.1%

The amortization method is a 25-year amortization of the unfunded actuarial liability based on a closed, layered level percent of pay.

No recent or ongoing negotiations with any employee labor groups are expected to impact the funding of the Plan.

Eastern Nebraska Human Services Agency Employees Retirement Plan

Year	Funded Ratio	Assumed Investment Rate	Actual Investment Return	Normal Cost	Total ARC % ³	Employee Cont. Rates	Employer Cont. Rates	UAL	% of ARC Paid
2025	N/A	7.0%	13.5%	N/A	14.93%	3.0%	10.0%	N/A	N/A
2024	72%	7.0%	13.0%	7.0%	14.93%	3.0%	10.0%	\$20,506,549	94.6%
2023	N/A	7.0%	-10.8%	N/A	13.03%	3.0%	10.0%	N/A	108.2%
2022	81%	7.0%	12.1%	7.9%	13.03%	3.0%	10.0%	\$12,887,762	109.5%
2021	N/A	7.0%	9.9%	N/A	13.46%	2.75%	9.5%	N/A	95.5%

The agency conducts Actuarial Valuations on a biennial basis, so there is no new funding status for 2025. The investment return was 13.5% compared to the previous year’s return of 13%.

³ Actuarial Valuations are conducted every other year. Accordingly, the 2025 ARC as a percentage of assumed pay is the same as for 2024.

Prior to 2014, actual contributions to the Plan were significantly less than the ARC and investment losses during the Great Recession had significantly reduced the Plan's funding status. Investment gains from 2019-2021 increased the funded status over 80% in 2022, but investment losses in 2022 decreased the 2024 funded status to 72%.

Following the 2024 Experience Study, several changes to the actuarial assumptions were made:

- The salary scale assumption was increased from 2.5% to 3.0%;
- Turnover rates were increased by 33.3% for all but the first year during the select period; and
- The election form of distribution assumption under age 55 was changed from 25% annuity/75% return of employee contributions to 50% annuity/50% return of employee contributions

The agency has been increasing both employer and employee contributions since 2010. Beginning November 1, 2021, the employer contribution rate increased from 9.5% to 10% and employee contributions increased from 2.75% to 3%. The current contribution schedule shows a steady future annual improvement in the funding status above the 80% threshold in 12 years, and the Plan is forecasted to attain a 100% funded ratio in 2049. Funded levels in the future as forecast by HUB (the Plan's actuary) based on the January 1, 2024 Actuarial Valuation are as follows, assuming all current plan assumptions are met:

2024	72%
2029	74%
2034	79%
2036	81%
2039	85%
2044	93%
2049	100%

The amortization method is a 25-year amortization of the unfunded actuarial liability based on a closed, layered level percent of pay.

No recent or ongoing negotiations with any employee labor groups are expected to impact the funding of the Plan.

City of Lincoln Police and Fire Pension Fund

Year	Funded Ratio	Assumed Investment Rate	Actual Investment Return	Normal Cost	Total ARC %	Employee Cont. Rates	Employer Cont. Rates	UAL	% of ARC Paid
2025 ⁴	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2024	78.9%	7.20%	11.3%	17.74%	21.20%	7.87%	21.20%	\$90,916,948	N/A
2023	80.0%	7.25%	5.8%	17.53%	20.20%	7.85%	20.20%	\$80,419,491	110.4%
2022	81.6%	7.30%	-4.1%	16.19%	18.26%	7.74%	18.26%	\$69,030,442	103.2%
2021	80.4%	7.35%	21.9%	16.04%	18.40%	7.67%	18.40%	\$70,368,039	103.7%

The Plan’s funding ratio is currently 78.9% and the investment return was 11.3% compared to the previous year’s return of 5.8%.

Following the most recent Experience Study in 2023, a reduction in the investment return assumption is being phased-in over a four-year period, with the assumption lowering in 2024 from 7.25% to 7.20%. All other actuarial assumptions remain unchanged. A similar phased-in reduction in the investment return assumption was adopted following the previous Experience Study in 2019.

The City of Lincoln continues to consistently contribute at least 100% of the ARC each year as indicated in the chart above, with changes to the assumed rate of return largely accounting for the funded ratio dropping below 80%. Major steps were taken by the City beginning in 2015 following the creation of a pension task force that led to the adoption of major structural changes to the Plan to address the systematic funding of the unfunded actuarial liability. As forecast by Cavanaugh MacDonald (the Plan’s actuary) based on the August 31, 2024 Actuarial Valuation, assuming all current plan assumptions are met, the Plan will be 100% funded in 2044.

For each valuation since 2016, the amortization method is a 20-year amortization of the unfunded actuarial liability based on a closed, layered level percent of pay. Any Plan amendments or changes to the actuarial assumptions or methods that create a change in the unfunded actuarial liability are amortized over a demographically appropriate time period selected by the Plan Administrator.

The recently-adopted three-year police union contract included a 6% salary increase for FY 2025-26, a 6% salary increase for FY 2026-27, and a 5% salary increase for FY 2027-28. The current three-year fire union contract is in its final year, and provided for an 8% salary increase for FY 2023-24, a 6% salary increase for FY 2024-25, and a 4% salary

⁴ Plan year ends August 31st, so the 2025 Valuation Report is not yet available.

increase for FY 2025-26. Assumptions related to employee salaries will be reviewed and evaluated as part of the next Experience Study.

City of Omaha Employees Retirement System (COERS)

Year	Funded Ratio	Assumed Investment Rate	Actual Investment Return	Normal Cost	Total ARC %	Employee Cont. Rates	Employer Cont. Rates	UAL	% of ARC Paid
2025 ⁵	54.3%	7.5%	N/A	9.929%	29.365%	10.13%	18.83%	\$242,407,396	N/A
2024	54.0%	7.5%	5.92%	10.088%	30.137%	10.13%	18.83%	\$240,651,043	97.25%
2023	53.4%	7.5%	5.5%	10.139%	30.696%	10.13%	18.83%	\$241,565,989	92.02%
2022	53.7%	7.5%	-8.01%	10.229%	31.319%	10.13%	18.83%	\$236,464,731	90.59%
2021	53.3%	7.5%	17.98%	10.335%	30.269%	10.075%	18.775%	\$229,116,410	88.24%

The Plan’s funding ratio last year increased slightly from 54.0% to 54.3%. The most recent year’s return on investment was not yet available, but the previous year’s investment return was 5.92%.

In recent years, the City of Omaha has failed to make 100% of its ARC payments, although the percentage has increased from 88.24% in 2021 to 97.25% in 2024. The 2025 percentage of ARC paid is not yet available. Consequently, the Unfunded Actuarial Liability has grown from \$229.1 million in 2021 to over \$242.4 million in 2025.

The most recent Experience Study for 2020-2024, adopted in July 2025, made several changes to actuarial assumptions, including:

- Moving to the Pub-2016 General Mortality Tables with MP-2021 projection scale;
- Decreasing termination rates for males and females;
- Modifying assumed retirement rates for various age/service combinations;
- Increasing the assumed rate of early retirements with a reduced benefit; and
- Decreasing the assumed rate that individuals between the ages of 64 and 71 would retire when first eligible

The City of Omaha’s Civilian Plan has been underfunded for a number of years based on various reasons. According to information reported by the City, when the system was fully funded in the late 1990s, benefits were increased and even though the actuarial cost was calculated, the benefits exceeded those costs. There have been some

⁵ The City of Omaha’s Civilian Plan year ends December 31st, therefore the valuation report based on the 2025 Plan year is not yet available.

years when the investment loss was historically large. Other factors include reduction in the number of civilian employees over the past 20 years, lack of wage increases in some instances, and the delay in replacing retired personnel.

In 2013, in an effort to improve the condition of the Plan, the City entered into labor agreements with all of its civilian bargaining groups, which included the following changes instituted between 2013 and 2017:

- Contributions by the City increased 7% over the four years of the agreements from 11.775% to 18.775%;
- Existing employees receive 1.9% per year for future years of service instead of 2.25%;
- The Rule of 80 changed to the Rule of 85 and the minimum retirement age was increased from 60 to 65, with some grandfathering;
- The smoothing of the salary of a member's pension changed from a highest one year in the last five years to the average of the last five years of employment;
- Disability benefit was dramatically decreased for all employees; and
- A Cash Balance Plan was implemented for employees hired on or after March 1, 2015

When the above changes were originally approved, the Plan was projected to be fully funded by 2048. As forecast by Milliman (the Plan's actuary) based on the January 1, 2025 Actuarial Valuation, assuming all current plan assumptions are met, the Plan will be 100% funded in 2044.

The City has agreements with all of its civilian bargaining groups until the end of the 2025 payroll year. There were no additional changes to the Plan in the agreements that have been negotiated and approved in the last year. One recent change in the Plan was an increased in both the City and employee contributions by 0.055% to account for changing the period of time for vesting in the Cash Balance Plan from 10 years to 5 years.

The amortization method is on a layered based, with the initial base being funded as a level percent of payroll over a 25-year closed period that began January 1, 2016. Each experience base is funded as a level percent of payroll over a 20-year closed period.

City of Omaha Police and Fire Retirement System (COPFRS)

The Plan's funding ratio last year decreased slightly from 58.5% to 58.2%. The most recent year's return on investment was not yet available, but the previous year's investment return was 6.83%.

In recent years, the City of Omaha has failed to make 100% of its ARC payments, with the percentage varying between 93.16% and 97.23% between 2021 and 2024. The 2025 percentage of ARC paid is not yet available. Consequently, the Unfunded Actuarial Liability has grown from just over \$691 million in 2022 to over \$768.7 million in 2025.

Year	Funded Ratio	Assumed Investment Rate	Actual Investment Return	Normal Cost	Total ARC %	Employee Cont. Rates	Employer Cont. Rates	UAL	% of ARC Paid
2025 ⁶	58.2%	7.75%	N/A	18.929%	54.634%	16.10%- 17.15%	32.97%- 34.42%	\$768,714,777	N/A
2024	58.4%	7.75%	6.83%	19.604%	54.691%	16.10%- 17.15%	32.97%- 34.42%	\$728,491,626	97.23%
2023	58.0%	7.75%	4.87%	20.110%	54.973%	16.10%- 17.15%	32.97%- 34.42%	\$711,451,034	93.16%
2022	57.5%	7.75%	-6.55%	20.231%	52.819%	16.10%- 17.15%	32.97%- 34.42%	\$691,081,221	96.71%
2021	55.1%	7.75%	22.15%	21.291%	53.874%	16.10%- 17.15%	32.97%- 34.42%	\$693,166,515	95.31%

The most recent Experience Study for 2020-2024, adopted in July 2025, made several changes to actuarial assumptions, including:

- Pay increase assumption (Police) – years 0 to 2 – decreased by 1.7% per year;
- Pay increase assumption (Police) – years 9 to 11 – decreased by 0.5% per year;
- Pay increase assumption (Fire) – years 0 to 3 – increased by 1.4% per year;
- Pay increase assumption (Fire) – years 6 to 8 – decreased by 1.6% per year;
- Mortality assumption moved to the Pub-2016 General Mortality Tables with MP-2021 projection scale; and
- Adjustments to fire termination rates and Career Overtime Average (COTA) rates

The City of Omaha’s Police and Fire Plan has been underfunded for a number of years based on various reasons. According to information reported by the City, when the system was fully funded in the late 1990s, benefits were increased and even though the actuarial cost was calculated, the benefits exceeded those costs. There have been some years when the investment loss was historically large.

During the economic downturn of the early 2000s, there were some additional benefits (compensatory time paid at end of career) negotiated as part of wage and other compensation deferrals. The City reports that it was anticipated that members would

⁶ The City of Omaha’s police and fire Plan year ends December 31st, therefore the valuation report based on the 2025 Plan year is not yet available.

take advantage of the additional time off, but many did not – resulting in an increase in the compensation amount upon which the pension was calculated. Another factor noted was that wages were not increased at the rate in the actuarial assumptions.

In 2008, in an effort to improve the funding status, the City increased contributions and modified pension benefits through labor agreements with the police union in October 2010 and the fire union in December 2012. These changes in contributions and benefits included:

- Changing minimum retirement age from 45 to 50;
- Requiring 30 years of service instead of 25 to get the maximum benefit;
- Implementing a Career Overtime Average (COTA) so that employees could not artificially enhance their pension by working a lot of overtime or selling comp time in their last year of employment;
- Smoothing the salary on which a pension calculation was based from highest 1 year to highest 3 years;
- Pensions for new hires based only on base salary;
- For all groups excluding the police union, capping pension for new hires at 65% and requiring 30 years of service; and
- Increased city contributions to the systems by 13% to 14%

The employees who are part of COPFRS are from four bargaining groups:

- The City has a collective bargaining agreement with the Omaha Police Officer's Association for 2021 through 2025. As part of that agreement, the City and employees agreed to contribute an additional 0.75% of wages from 2021 through 2025. The agreement also made another prospective change providing that COPFRS is no longer responsible for medical payments for those who receive service-connected disability pensions whose bills are not covered under Workers' Compensation.
- The City has a collective bargaining agreement with the Police Management group for 2022 through 2025 which did not include any additional pension contributions or changes to the pension system.
- The City has a collective bargaining agreement with the Professional Firefighters' Association for 2024 through 2027. This agreement changed the widow's pension of Tier 3 Plan participants to match Tier 1 and Tier 2 Plan participants. The cost of this change was actuarially determined to be 0.25% of payroll, and the cost was divided equally between the City and employees through additional contributions of 0.125%.
- The City has a collective bargaining agreement with the Fire Management group for 2025 through 2027 which did not include any additional pension contributions or changes to the pension system.

As forecast by Milliman (the Plan’s actuary) based on the January 1, 2024 Actuarial Valuation, assuming all current plan assumptions are met, the Plan will be 100% funded in 2050.

OPPD Retirement Plan

Year	Funded Ratio	Assumed Investment Rate	Actual Investment Return	Normal Cost	Total ARC %	Employee Cont. Rates	Employer Cont. Rates	UAL	% of ARC Paid
2025	73.2%	6.5%	N/A	12.7%	27.7%	9.0%	27.7%	\$488,601,132	N/A
2024	74.3%	6.5%	7.6%	12.9%	27.3%	9.0%	27.3%	\$459,754,520	100%
2023	73.5%	6.5%	11.9%	13.1%	28.7%	9.0%	28.7%	\$464,894,437	100%
2022	75.5%	6.5%	-14.4%	13.4%	28.0%	9.0%	28.0%	\$422,067,662	100%
2021	72.0%	7.0%	6.4%	12.2%	29.4%	8.3%	29.4%	\$449,607,761	100%

The Plan’s funding ratio last year decreased from 74.3% to 73.2%. The most recent year’s return on investment was not yet available, but the previous year’s investment return was 7.6%.

OPPD has consistently paid 100% of its ARC in each of the previous five reporting years. In 2021 and 2023, the District contributed an additional \$95 million and \$50 million to the Plan, respectively, in addition to required ARC payments.

There have been no changes to the actuarial assumptions since the previous Actuarial Valuation report.

OPPD reports that the primary reasons for the Plan’s present funding level are lower investment performance from 2000 – 2008, increased mortality rates due to longer life expectancy, and the reduction of the assumed rate of return in 2022. In response to these issues, OPPD has been working to address funding and long-term sustainability of the Plan. In 2012, the District moved to a Cash Balance plan for employees hired on or after January 1, 2013. In 2013, the District changed early retirement eligibility, which generally prevents employees from receiving early retirement benefits before age 55.

The District ratified new collective bargaining agreements with its bargaining groups during 2025, and no changes to the Plan were included within those agreements.

The Plan’s unfunded liability is amortized over 20 years as a level dollar amount. A new amortization based is established each year for unexpected changes in the unfunded liability, such as plan amendments, assumption changes, or gains and losses. As forecast by Aon (the Plan’s actuary) based on the January 1, 2025 Actuarial

Valuation, assuming all current plan assumptions are met, the Plan will be 100% funded in 2045.

Omaha School Employees Retirement System (OSERS)

Year	Funded Ratio	Assumed Investment Rate	Actual Investment Return	Normal Cost	Total ARC %	Employee Cont. Rates	Employer Cont. Rates ⁷	UAL	% of ARC Paid ⁸
2025	60%	7.0%	N/A	12.94%	N/A	9.78%	9.8778%	\$1.184 B	N/A
2024	60%	7.2%	6.4%	12.74%	29.05%	9.78%	9.8778%	\$1.110 B	\$113.36%
2023	61%	7.3%	5.6%	12.61%	29.36%	9.78%	9.8778%	\$1.035 B	106.22%
2022	63%	7.4%	3.5%	12.59%	28.82%	9.78%	9.8778%	\$913,000,000	110.94%
2021	62%	7.5%	8.9%	12.76%	27.19%	9.78%	9.8778%	\$914,000,000	102.89%

The Plan’s funding ratio is currently at 60%. The most recent year’s return on investment was not yet available, but the previous year’s investment return was 6.4%. Management of the OSERS Plan was transferred from the Omaha Public Schools (OPS) to the Public Employees Retirement Board (PERB) with the passage of LB 147 in 2021, and the transfer of management was completed on September 1, 2024.

Beginning in 2019, OPS exceeded its statutorily required additional contributions to the Plan for several years. During the current 5-year reporting period, OPS contributed an additional \$1.9 million in 2021, an additional \$7.7 million in 2022, an additional \$5 million in 2023, and an additional \$11.8 million in 2024. In 2025, the OPS contribution was \$36.4 million, which was the statutorily required additional contribution.

Following the most recent Experience Study, several changes were made to the actuarial assumptions in the plan, including a phased-in reduction to the assumed rate of return from 7.5% to 7.0%. The next Experience Study is expected to be completed prior to the end of the calendar year.

OPS is currently in the final year of a 3-year collective bargaining agreement with the Omaha Education Association (OEA), and is similarly in the final year of collective bargaining agreements with other bargaining units.

Since 2019, the Plan’s unfunded liability is amortized utilizing a layered approach, split into two pieces. The first piece is amortized as a level-percent of pay over a closed, 30-

⁷ In addition to the employee and employer contributions, pursuant to Nebraska Revised Statute §79-916, the state is required to contribute an amount equal to 2% of the compensation of all OSERS members.

⁸ The percent of ARC paid as noted in the Actuarial Valuation reports includes the required state contribution of 2%.

year period beginning with the January 1, 2019 valuation. Future based that result from future actuarial experience are amortized as a level-percent of pay over a new 25-year closed period commencing on the respective valuation date.

As forecast by Cavanaugh Macdonald (the Plan’s actuary) based on the January 1, 2025 Actuarial Valuation, assuming all current plan assumptions are met, the Plan will be 100% funded in 2049.

Regional Metropolitan Transit Authority of Omaha Collective Bargaining Employee Pension Plan

Year	Funded Ratio	Assumed Investment Rate	Actual Investment Return	Normal Cost	Total ARC %	Employee Cont. Rates	Employer Cont. Rates	UAL	% of ARC Paid
2025	76.2%	6.25%	14.94%	7.48%	N/A	8.25%	8.25%	\$9,710,997	N/A
2024	73.9%	6.25%	17.49%	7.63%	8.1%	8.25%	8.25%	\$10,603,514	136.04%
2023	72.0%	6.25%	-15.76%	8.17%	7.4%	7.75%	7.75%	\$11,558,281	91.21%
2022	71.5%	6.25%	12.21%	8.73%	7.5%	7.75%	7.75%	\$11,851,560	83.17%
2021	68.5%	6.25%	14.24%	8.81%	7.6%	7.5%	7.75%	\$12,818,763	80.89%

Effective January 1, 2025, the Metro Area Transit Hourly Employee Pension Plan was renamed the Regional Metropolitan Transit Authority of Omaha Collective Bargaining Employee Pension Plan, to reflect the authority’s conversion from a transit authority to a regional transit authority (RMTA)⁹.

The Plan’s funding ratio is currently 76.2% and the investment return was 14.94% compared to the previous year’s return of 17.49%. The funding ratio has consistently increased each year under the current reporting period, up from 68.5% in 2021 to 76.2% in 2025.

Since 2017, Metro Transit has taken numerous steps to address long-term funding issues. For employees hired on or after January 1, 2018, the Metro Transit Pension Committee:

- Changed the normal retirement date from age 65 to the age when the employee reaches full retirement for purposes of receiving Social Security benefits;
- Eliminated the early retirement option; and

⁹ Under the Regional Metropolitan Transit Authority Act, an existing transit authority created under the Transit Authority Law could convert into a regional metropolitan transit authority (RMTA). Metro Transit officially converted into a RMTA on August 1, 2022.

- Changed the benefit factor percentage used in the calculation of monthly benefits to a tiered structure based on years of service in lieu of the previous method of using the same benefit percentage regardless of years of service

In 2025, the Pension Committee made incremental changes to the Plan's investment strategy portfolio in an effort to maximize returns and improve the funding status of the Plan.

Metro Transit ratified a new collective bargaining agreement with Transport Workers Union Local 223 on November 1, 2023, which increased both employer and employee contribution rates to 8.25%. Metro Transit is currently negotiating a new agreement with the union, but further increases in contribution rates are not anticipated.

The unfunded liability is amortized for 30 years starting in 2012, graded down for each successive year. The Individual Entry Age Normal Cost is the actuarial cost method used to value the liabilities, with the amortization period decreasing each year until it reaches 10 years, after which it remains at 10 years.

As forecast by Milliman (the Plan's actuary) based on the January 1, 2025 Actuarial Valuation, assuming all current plan assumptions are met, the Plan will be 100% funded in 2036.

Conclusion

Seven political subdivisions with underfunded defined benefit plans reported to the Retirement Systems Committee pursuant to §13-2402, with a total of eight underfunded plans (two offered by the City of Omaha, one each offered by the other political subdivisions) required to present to the Committee. Based on historical investment return trends and corrective actions taken by the political subdivisions, it seems likely that the City of Lincoln, the Eastern Nebraska Human Services Agency, and potentially the Regional Metropolitan Transit Authority of Omaha's defined benefit plans could surpass the 80% threshold in the coming year. The Committee will continue to monitor these entities to determine if further reporting may be required in the future.

Investment Returns

Several plans reported strong investment returns which greatly exceeded their respective assumed investment return rates:

- Regional Metropolitan Transit Authority of Omaha (Metro Transit) reported a return of 14.94%, following last year's return of 17.49%
- Eastern Nebraska Human Services Agency (ENHSA) reported a return of 13.5%, following last year's return of 13.0%.
- City of Lincoln Police and Fire had a return of 11.3% in 2024, following an investment return of 5.8% in the previous year.

In contrast, several plans saw investment returns which fell short of their assumed investment return rates. According to an October 2025 report from the Reason Foundation, the City of Omaha's Civilian Plan had the 5th lowest return of investment of any public pension plan in the country at 5.92%, and the City of Omaha's Police and Fire Plan had the 11th lowest at 6.83%. Similarly, the Omaha School Employees Retirement System (OSERS) had a return of just 6.4% in 2024, the latest year for which data was available.

Funding Levels

Four of the seven plans which conduct Actuarial Valuations on an annual basis¹⁰ saw a decline in funding level:

- City of Lincoln Police and Fire decreased from 80.0% to 78.9% - a 1.1% decrease

¹⁰ One plan, the Eastern Nebraska Human Services Agency Employees Retirement Plan, conducts Actuarial Valuations on a biennial basis.

- Omaha Public Power District (OPPD) decreased from 74.3% to 73.2% - a 1.1% decrease
- City of Omaha Police and Fire decreased from 58.4% to 58.2% - a 0.2% decrease
- Omaha School Employees Retirement System (OSERS) decreased from 59.8% to 59.7% - a 0.1% decrease

Of the remaining plans, only Metro Transit saw a notable increase in funding level, increasing from 73.9% to 76.2%, an increase of 2.3%. The remaining two plans – Douglas County (from 68.2% to 68.6%) and City of Omaha Civilian Employees (from 54.0% to 54.3%) – saw only minor increases in funding level.

ARC Contributions

Several political subdivisions failed to contribute at least 100% of their Actuarially Required Contribution (ARC) payments. Douglas County reported that it expected to only make 96.3% of its ARC payment in 2025 after only making 97.9% of its ARC payment in 2024.

The City of Omaha is consistently contributing less than the required ARC payments for both the Civilian Employees Plan and the Police and Fire Plan. While the Actuarial Valuations for 2025 are not yet available, for the Civilian Plan the City of Omaha contributed 97.25% of ARC in 2024, 92.02% in 2023, 90.59% in 2022, and 88.24% in 2021. For the Police and Fire Plan, the City of Omaha contributed 97.23% of ARC in 2024, 93.16% in 2023, 96.71% in 2022, and 95.31% in 2021.

Metro Transit had previously failed to meet its ARC payment for a number of years, but paid 136.4% of its ARC in 2024. The percentage of ARC paid in 2025 was not yet available.

Beginning in 2019, Omaha Public Schools (OPS) began exceeding its statutorily required ARC every year through 2024, with the District contributing an additional \$1.9 million in 2021, an additional \$7.7 million in 2022, an additional \$5 million in 2023, and an additional \$11.8 million in 2024 during the current reporting period.

OPPD consistently contributes 100% of its ARC.

While the City of Lincoln did not report the percentage of ARC paid for the Police and Fire Plan in either 2024 or 2025, the City has consistently contributed at least 100% of the ARC, contributing 110.4% in 2023, 103.2% in 2022, and 103.7% in 2021.

Investment Return Assumptions

Multiple political subdivisions have taken steps in recent years to reduce the assumed rate of return for their plans as part of their regular Experience Study timelines.

OPPD reduced their assumed rate of return from 7.0% to 6.5% in 2022.

Following the most recent Experience Study in 2023, the City of Lincoln began a phased-in reduction in the assumed rate of return of the Police and Fire Plan over a four-year period, with the assumption lowering from 7.25% to 7.20% in 2024. A similar phased-in reduction in the investment return assumption was adopted following the previous Experience Study in 2019.

Following the most recent Experience Study for the OSERS Plan, several changes were made to the actuarial assumptions in the plan, including a phased-in reduction to the assumed rate of return from 7.5% to 7.0%. The next Experience Study is expected to be completed prior to the end of the calendar year.

Contribution Increases

Historically, one of the most common changes made to improve the funding levels of defined benefit plans is to increase the employee and employer contribution rates. Recent contribution increases in the underfunded plans include:

- Beginning November 1, 2021, ENHSA increased the employer contribution rate from 9.5% to 10% and the employee contribution rate from 2.75% to 3%.
- Metro Transit ratified a new collective bargaining agreement with Transport Workers Union Local 223 on November 1, 2023, which increased both employer and employee contribution rates to 8.25%.

Final Observations

Reviewing reporting data that goes back to 2011, all but two of the plans have increased their funding levels, which is an overall positive trend:

- In 2011, Douglas County was funded at 61%; it is currently funded at 68.6%
- In 2012, Lincoln Police and Fire was funded at 76.6%; it is currently funded at 78.9%
- In 2011, Omaha Police and Fire was funded at 43%; it is currently funded at 58.2%
- In 2013, OPPD was funded at 69.7%; it is currently funded at 73.2%

- In 2012, Metro Transit was funded at 65%; it is currently funded at 76.2%

In contrast, three plans have seen a net reduction in their funding levels:

- In 2014, ENHSA was funded at 76%; it was funded at 72% in 2024
- In 2011, the Omaha Civilian Plan was funded at 56%; it is currently funded at 54.3%
- In 2011, OSERS was funded at 73%; it is currently funded at 59.7%

The Committee will continue to monitor and report the funding progress and/or decline of each plan and each political subdivision's corrective actions and commitment to meet or exceed the funding needs as recommended by its actuary.

Appendices

- Appendix A Douglas County Employees' Retirement Plan
Reporting Form
2025 Actuarial Valuation Report
2025 Experience Study
2025 Actuarial Review Presentation
- Appendix B Eastern Nebraska Human Services Agency
Employees Retirement Plan
Reporting Form
2024 Actuarial Valuation Report
2024 Forecast Study
2024 Experience Study
- Appendix C City of Lincoln Police and Fire Pension Fund
Cover Letter & Reporting Form
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- Appendix D City of Omaha Employees Retirement System
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2025 Experience Study
- Appendix E City of Omaha Police and Fire Retirement System
(COPFRS)
Reporting Form & Chart
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2025 Experience Study
- Appendix F Omaha Public Power District Retirement Plan
Cover Letter & Reporting Form
2025 Actuarial Valuation Report

- Appendix G Omaha School Employees Retirement System
(OSERS)
Reporting Form
2025 Actuarial Valuation Report
2021 Experience Study
- Appendix H Regional Metropolitan Transit Authority of Omaha
Collective Bargaining Employee Pension Plan
Reporting Form
2025 Actuarial Valuation Report
2023 Experience Study
- Appendix I Hearing Transcript

2025 Pension Plan Reporting Form

1)

	2025	2024	2023	2022	2021
Funding Status	68.6%	68.2%	68.9%	73.9%	70.9%
Assumed Rate of Return	7.5%	7.5%	7.5%	7.5%	7.5%
Actual Investment Return - Actuarial	7.8%	5.7%	0.4%	12.6%	12.7%
Actual Investment Return - Market	10.0%	12.0%	(11.0%)	12.5%	13.6%
Member & Employer Contribution Rates	8.5%	8.5%	8.5%	8.5%	8.5%
Normal Cost	10.7%	10.7%	10.3%	10.8%	10.9%
Actuarial Required Contribution (ARC)	\$34.7MM (18.4%)	\$33.0MM (18.3%)	\$29.2MM (17.9%)	26.3MM (17.4%)	\$26.0MM (17.7%)
ARC - Actual dollars contributed	\$33.4MM (expected)	\$32.3MM	\$30.9MM	\$28.3MM	\$26.0MM
ARC - Percentage of ARC contributed	96.3%* (expected)	97.9%*	106.0%	107.6%	100%

*Historically actual contributions have exceeded the ARC.

2) See attached narrative.

3) In the January 2025, Actuarial Valuation, the following two actuarial assumptions were updated:

- a) Other than Rule of 75 retirement rates were increased from 15% to 22.5% for ages 65-69. The result of this change was an increase in the liability of \$342K.
- b) The interest crediting rate on employee contributions decreased from 4.37% to 4.18%. This rate is indexed to the 10-year Treasury rate. The result of this change was a decrease in the liability of \$2K.
- c) Added an assumption of annual unused vacation and comp time of 5 days per year. The result of this change was an increase in the liability of \$3.0M.

All other actuarial methods and assumptions remain consistent with prior year.

4) Based on actuarial projections, the Douglas County Pension Plan is projected to reach 100% funding status in the year 2044.

5) The amortization method is a 25-year amortization of the unfunded actuarial liability based on a closed, layered level percent of pay.

6) See attached narrative.

7) There are no impacts on the Douglas County Pension Plan from any recent or ongoing labor negotiations.

8) The May 2025 Actuarial Experience Analysis is attached. An experience study is done every other year.

9) The assumed rate of return of the plan is 7.5%. No changes have been made in the past year and none are contemplated in the near future.

10) The January 1, 2024, Actuarial Report is attached.

Douglas County, Nebraska

Analytical Report on Defined Benefit Pension Plan

The most recent actuarial valuation was performed by HUB International for the Douglas County Employees' Defined Benefit Pension Plan as of January 1, 2025. The report showed the plan was 68.6% funded, had net assets on an actuarial basis of \$457.2 million, and had an unfunded actuarial accrued liability of \$209.6 million. The plan had 4,781 participants and an equal member and employer contribution rate of 8.5% of pay. The normal cost was \$20.1 million and the actuarial required contribution was \$34.7 million. The funded ratio has increased from 68.2% on January 1, 2024.

To understand why the Douglas County DB Plan is only 68.6% funded, it is important to look at the history of changes to the Plan. In 1996, the Plan was 97.8% funded. In 1996 for law enforcement and in 1997 for all other plan participants, the following changes were made:

- Unreduced benefit upon Rule of 75.
- Benefit formula increased from 1.5% of pay per year of service to 2% of pay per year of service.

In 1998 a 3% COLA was approved, in 2000 a 4% COLA was approved, and in 2002 a 3% COLA was approved. By 2004, the funding ratio had fallen to 64.8%. The Plan is a contributory plan with the County's contribution equal to the Member's contribution. The County and Member contributions each increased from 5.5% of pay in 2005 to the present level of 8.5% of pay by 2008. Poor stock market performance during the Great Recession also negatively impacted the Plan's funded ratio which reached a low point of 57.8% in 2010.

The members of the Pension Committee and the County Board of Commissioners recognized that substantive changes had to be made to the Plan rules to ensure the financial viability of the Plan for its current participants. Accordingly, effective for all employees hired after December 31, 2011, the following pension provisions were put in place:

- No rule of 75.
- Benefit formula was reduced from 2% of pay per year of service to 1.5% of pay per year of service.
- Maximum retirement income was reduced from 60% of participant's final average compensation to 45%.

Sheriff Deputies and Corrections Guards (who account for about 24% of total plan participants) have slightly different plan provisions which provide for increased benefits with early retirement. For these increased benefits, the Sheriff deputies and Corrections guards contribute an additional 2%.

These plan changes, along with no COLA increases being given since 2002, have increased the plan funding ratio by approximately 11 percentage points from its low point in 2010 to 68.6% as of January 1, 2025. These plan changes have also materially impacted the Plan's forecast of funded percentage so that the forecast now projects the plan achieving acceptable funded levels in the future as shown in the following forecast developed by HUB in January, 2025:

Estimated Funded Percentage*

2025	68.6%
2029	72.2%
2034	78.3%
2039	87.7%
2044	102.1%

**Forecast based on current plan assumptions.*

In July 2015, the Long-Term Disability (LTD) program was removed from the Pension Plan and put into a separate fully-insured benefit plan. On January 1, 2016 the interest crediting rate on member contributions was changed from 5.0% to the 10-year Treasury Rate in effect on November 1st of the preceding plan year. The combined impact of these two changes was a \$3.6 million decrease in the actuarial accrued liability and a 0.6% increase to the Plan's funded ratio.

Effective in 2021, Corrections guards were extended the same plan benefit provisions as Sheriff deputies and the guard's member contribution rate was increased by an additional 2% of pay. This benefit change had no impact on the plan's funding status or actuarial accrued liability.

On January 1, 2023, actuarial valuation updates were made as withdrawal rates were increased by 25% for all ages under age 60, in addition annual accrued sick leave was reduced from 7 days to 5 days per year. Also, the assumed retirement rates under Rule of 75 were increased from 5% to 10% for ages 51-54; other than Rule of 75 employees assumed retirement rates were decreased from 30% to 15% for ages 65-69. The result of these changes was a net effect of increasing liabilities by less than \$500,000.

As of the January 1, 2024, actuarial valuation, there was a slight update to the mortality improvement assumption to be consistent with IRS prescribed assumptions for corporate plans.

In the January 1, 2025 actuarial valuation, Rule of 75 retirement rates were increase for those aged 65-69 and an assumption of unused vacation and comp time of 5 days per year was added to ensure that our assumptions were conservative and reflected our actual experience. This added an additional \$3.3MM to the liability.

No recent or ongoing negotiations with any employee labor groups are expected to impact the funding of the pension plan.

The Douglas County Pension Committee, Board of Commissioners, and administrative staff believe the aforementioned combination of actions will significantly improve the financial condition of the Douglas County Employee Defined Benefit Pension Plan and ensure the financial viability and payment of benefits to participants going forward.



May 29, 2025

PERSONAL & CONFIDENTIAL

Ms. Lori Pirsch
Finance Director
Douglas County Employees' Retirement Plan
1819 Farnam Street
Omaha, NE 68183

RE: 2025 Interim Actuarial Report

Dear Lori:

Enclosed are fifteen copies of the January 1, 2025 interim actuarial report for the Douglas County Employees' Retirement Plan. The results contained in this report are consistent with our retirement committee presentation dated May 22, 2025.

If you have any questions about the information provided in the report, please give me a call.

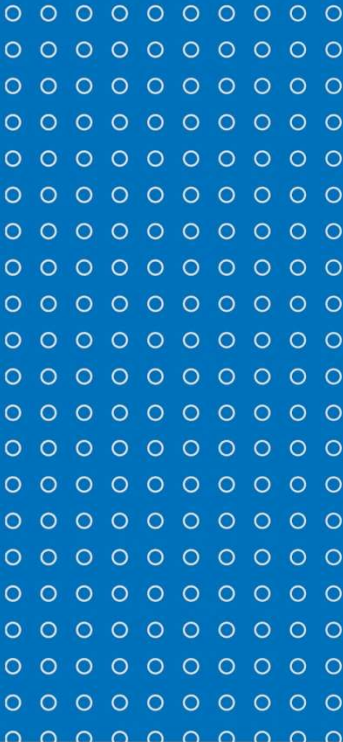
Sincerely,

A handwritten signature in blue ink that reads 'Glen C. Gahan'.

Glen C. Gahan, FSA, EA
Executive Vice President

GCG/bk

Enclosures



DOUGLAS COUNTY EMPLOYEES' RETIREMENT PLAN

Interim Actuarial Report
January 1, 2025





May 29, 2025

ACTUARIAL CERTIFICATION

Employees' Retirement Committee
Douglas County Employees' Retirement Plan
1819 Farnam Street
Omaha, NE 68183

Committee Members:

An actuarial valuation was performed for the Douglas County Employees' Retirement Plan as of January 1, 2025. The valuation was prepared to determine the value of accrued benefits and annual costs. The results of the valuation are contained in the accompanying interim actuarial report.

The valuation is based on eligible employees and summary of assets submitted by Douglas County and data concerning retired employees submitted by United of Omaha. Summaries of the data and the calculations contained in the valuation were performed by our firm from this data.

To the best of my knowledge, the information supplied in this report is complete and accurate and, in my opinion, the assumptions are reasonably related to the experience of the plan and to reasonable expectations and represent my best estimate of anticipated experience under the Plan. However, future measures may differ significantly from the current measurement. Due to the limited scope of our assignment, this report does not include an analysis of the potential range of such future measures. The undersigned meets the qualification standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Sincerely,

A handwritten signature in blue ink that reads "Glen C. Gahan".

Glen C. Gahan, FSA
Executive Vice President
Member of American Academy of Actuaries
Enrolled Actuary No. 23-04875

GCG/bk

Enclosure

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Purpose of Interim Actuarial Report

Purpose - The interim Actuarial Report is prepared for the year between the biannual Actuarial Valuation of the Employees' Retirement Plan to provide:

- An update of the funding status
- An update of plan liabilities
- An update of contributions made to the Plan
- An update of the actuarially determined contribution
- Status of Plan Participants
- Value of Plan Assets

Determine Actuarial Accrued Liability and Annual Costs

Evaluate Unfunded Accrued Liability

Actuarial Report Based On:

- Existing Plan Provisions as of January 1, 2025
- Current Active and Non-Active Participant Data reported as of December 31, 2024
- Actuarial Value of Plan Assets
- Actuarial Methods and Assumptions

Change in Plan Provisions

The plan was restated and amended to eliminate from benefit service years which a member is on LTD. This change is effective for members who become disabled on and after April 9, 2024. See page 16 of the report for a summary of historical changes in plan provisions.

Change in Actuarial Assumptions

An actuarial assumptions experience study was performed as of December 31, 2024 to compare recent plan experience against that produced by the actuarial assumptions. Based on that analysis, the following changes in actuarial assumptions were implemented as of January 1, 2025.

- Other than Rule of 75 retirement rates were increased from 15% to 22.5% for ages 65-69.
- Interest crediting rate on employee contributions decreased from 4.37% to 4.18%.
- Added assumption of annual unused vacation and comp time of 5 days per year.
- All other assumptions were deemed reasonably consistent with plan experience.

Participant Data

	Plan Year Beginning January 1	
	2024	2025
Active Participants:		
Under Age 70	2,226	2,291
Age 70 & Over	38	42
Total	2,264	2,333
Non-Active Participants:		
Retired		
39G 12795 (after 2/28/2003)	1,240	1,283
GDA 6148 (prior to 3/1/2003)	244	222
Vested Terminated	172	167
Terminated Non-Vested	666	767
Disabled	13	9
Total Non-Active	2,335	2,448
Total Participants	4,599	4,781
Annual Covered Compensation:		
Total Under Age 70	\$179,684,987	\$188,672,845
Average Per Participant	80,721	82,354
Annual Pension Benefit		
Current Retired	36,287,101	38,207,418
Immediate Disability Payments	0	0
Deferred to Age 65		
Vested Terminated	2,198,955	2,060,136
Disabled	266,365	199,059

Market Value of Plan Assets

Summary of Changes in Value of Plan Assets

Market Value of Plan Assets on January 1, 2024		\$425,594,136
Plus Increases		
Employee Contributions	16,349,865	
County Contributions	15,906,334	
Investment Experience	42,169,613	
		74,425,812
Less Decreases		
Pensions Paid to Retirees	37,347,964	
Refunds to Terminated EEs	2,890,802	
Disability Premiums/Administration	0	
Administrative Expenses	1,299,065	
		41,537,831
Market Value of Plan Assets on January 1, 2025		\$458,482,117
Approximate Rate of Return		10.0%
Plan Investments	% of Total	Market Value
US Bank		
Operating Account - Cash and Cash Equivalents	1.6%	\$7,454,593
Aristotle	3.5%	16,151,966
Atlanta Capital	10.8%	49,580,033
Blackrock	6.9%	31,771,589
JP Morgan	7.9%	36,139,923
Winslow - Capital Management	4.4%	20,058,814
Sanderson International	0.0%	201
Harding Loevner	6.6%	30,044,948
Wells Fargo Emerging Market	4.9%	22,434,295
Marathon	7.0%	32,088,884
IR&M Core Plus Bond	8.6%	39,303,022
Total		285,028,268
United of Omaha Insurance Company		
General Asset Account GDA 6148	13.7%	62,598,927
Small Company Fund GDA 6148	3.7%	17,121,491
Institutional Index 500 GDA 6148	20.4%	93,536,869
General Asset Account 39G-12795	0.0%	196,562
Total		173,453,849
Grand Total	100.0%	\$458,482,117

Description of Actuarial Value of Assets

Objective Since January 1, 1986, an actuarial value of plan assets has been used to determine the actuarially determined contribution and to evaluate the funding status of the Retirement Plan. An actuarial value of plan assets is used to smooth fluctuations in market value from one valuation date to the next.

Description Actuarial value is equal to:

- Adjusted value of plan assets
- Plus, one-half of the excess of market value over the adjusted value of plan assets

Where adjusted value of plan assets equal:

- Actuarial value of plan assets on the prior valuation date
- Plus contributions with expected interest
- Less pensions paid, refunds and other disbursements with expected interest

Actuarial Value of Plan Assets

Actuarial Value of Plan Assets on January 1, 2024		\$433,147,906
Plus Increases		
Employee Contributions	16,349,865	
County Contributions	15,906,334	
Expected Interest	32,138,032	
		64,394,231
Less Decreases		
Pensions Paid to Retirees	37,347,964	
Refunds to Terminated EEs	2,890,802	
Disability Premiums/Administration	0	
Administrative Expenses	1,299,065	
		41,537,831
Adjusted Value on January 1, 2025		456,004,306
Market Value on January 1, 2025		458,482,117
One-Half Excess, Market Value Less Adjusted Value		1,238,906
Actuarial Value of Plan Assets on January 1, 2025		\$457,243,212
Approximate Rate of Return		7.8%
Actuarial Value as a % of Market Value		99.7%

Unfunded Accrued Liability

Actuarial Accrued Liability	Plan Year Beginning January 1	
	2024	2025
1. Active	\$268,523,467	\$282,856,848
2. Vested Terminated Participants	13,625,540	13,853,904
3. Terminated Non-Vested*	2,116,329	2,781,269
4. Disabled Participants	1,825,644	1,375,635
5. Retirees		
39G 12795 (after 2/28/2003)	325,832,990	344,560,765
GDA 6148 (prior to 3/1/2003)	23,118,596	21,379,233
	348,951,586	365,939,998
6. Total (1) + (2) + (3) + (4) + (5)	635,042,566	666,807,654
Actuarial Value of Plan Assets		
7. Actuarial Value of Plan Assets	433,147,906	457,243,212
Unfunded Accrued Liability		
8. Unfunded Accrued Liability (6) - (7)	201,894,660	209,564,442
9. Ratio of Assets to Accrued Benefits (7) / (6)	68.2%	68.6%

*Amount equal to expected refund of member contributions.

Annual Normal Cost

Annual Normal Cost	Plan Year Beginning January 1	
	2024	2025
Retirement, Death, Termination and Disability	\$18,003,989	\$18,750,718
Immediate Disability Benefit	0	0
Annual Administrative Expense	1,276,782	1,375,446
Total	19,280,771	20,126,164
Expected Plan Contributions		
From Employees	15,711,835	16,671,352
From County	15,273,224	16,037,192
Total	30,985,059	32,708,544

Actuarially Determined Contribution

The Members contribute 8.5% of covered payroll annually to the Plan, with Sheriff members hired after July 1, 2011 contributing less after 32 years of service and FOP #8 members hired after June 30, 2014 contributing 10.5% of covered payroll for the first 32 years of service and less after 32 years. In accordance with applicable State and County statutes, the County contributes an annual amount not greater than the Member contributions.

An actuarially determined contribution is the annual calculated contribution amount as determined by application of the plan's actuarial methods and assumptions. This contribution provides a measure of the amount of contributions needed to fund the benefits earned in the current year plus the 25-year amortization of the unfunded accrued liability. It is an illustrative amount useful as a benchmark comparison to the actual contributions into the plan and is also reported in the annual Governmental Accounting Standards Board (GASB) disclosures. The plan is not currently being funded on this basis, but is funded by the fixed contribution rates described above.

	Plan Year Beginning January 1	
	2024	2025
1. Annual Normal Cost	\$19,280,771	\$20,126,164
2. Amortization of the Unfunded Accrued Liability	12,485,497	13,356,346
3. One-half Year Interest on (1) and (2)	1,191,235	1,255,594
4. Actuarially Determined Contribution	32,957,503	34,738,104

Actuarial Methodology

Actuarial Cost Method	Projected Unit Credit	Projected Unit Credit
Amortization Method	Level Percent of Pay	Level Percent of Pay
Amortization Period	Closed, Layered 25 Years	Closed, Layered 25 Years
Actuarial Assumptions	Same, as described in report	Same, as described in report

Amortization of Unfunded Accrued Liability

	Plan Year Beginning January 1	
	2024	2025
Unfunded Accrued Liability (UAL)	\$201,894,660	\$209,564,442
Annual Normal Cost	19,280,771	20,126,164
Actuarially Determined Contribution	32,957,503	34,738,104
Expected Plan Contributions		
From Employees	15,711,835	16,671,352
From County	15,273,224	16,037,192
Total	30,985,059 *	32,708,544
Amount Available to Reduce UAL	11,704,288	12,582,380
Years Required to Amortize the UAL		
as a level percent of pay	20.8	19.9
as a level dollar amount	Unable to Amortize	Unable to Amortize
Interest - only on the UAL	15,142,100	15,717,333

*Actual amount contributed was \$32,256,199.

Accrued Liability Payments

One of the components included to determine the actuarially determined contribution is the Accrued Liability Payment. The Accrued Liability Payment is an annual amount that will amortize:

- The unfunded accrued liability established as of January 1, 2017.
- An increase or decrease in the unfunded accrued liability due to plan amendment.
- An increase or decrease in the unfunded accrued liability due to a change in actuarial assumptions.
- An increase or decrease in the unfunded accrued liability resulting from actuarial gains or losses due to plan experience more or less favorable than expected.

This section of the report documents the Amortization Bases established for the Plan and displays other values associated with minimum funding.

<u>Amortization Base</u>	<u>Date Established</u>	<u>Source of Base</u>
140,285,787	January 1, 2017	Initial Unfunded
5,714,314	January 1, 2018	Actuarial Loss
16,456,582	January 1, 2019	Actuarial Loss
2,033,084	January 1, 2020	Assumption Change, Amendment, Actuarial Gain
(19,340,431)	January 1, 2021	Assumption Change, Actuarial Gain
(12,570,553)	January 1, 2022	Assumption Change, Actuarial Gain
38,478,112	January 1, 2023	Assumption Change, Actuarial Loss
11,491,051	January 1, 2024	Assumption Change, Actuarial Loss
3,918,880	January 1, 2025	Assumption Change, Actuarial Loss

Accrued Liability Payments

(continued)

Minimum Funding

The Unamortized Balance is based on the methodology for the actuarially determined contribution and does not reflect actual past funding of the Amortization Bases. For each amortization base, the initial amortization period and the remaining term of the amortization period determined on the valuation date are displayed.

Charge Bases			
Amortization Base	Initial Term-Years	Remaining Term on Valuation Date	Minimum Payment
140,285,787	25	17	10,667,557
5,714,314	25	18	412,944
16,456,582	25	19	1,130,178
2,033,084	25	20	132,693
38,478,112	25	23	2,144,783
11,491,051	25	24	607,699
3,918,880	25	25	196,630
		Total	\$ 15,292,484
Credit Bases			
Amortization Base	Initial Term-Years	Remaining Term on Valuation Date	Minimum Payment
19,340,431	25	21	1,197,614
12,570,553	25	22	738,524
		Total	\$ 1,936,138
Total			\$ 13,356,346

Actuarial (Gain)/Loss

Expected Unfunded Actuarial Accrued Liability

1.	Expected Actuarial Accrued Liability*	
a.	Actuarial Accrued Liability on January 1, 2024	635,042,566
b.	Normal Cost	19,280,771
c.	Benefit Distributions	(40,238,766)
d.	Interest on above at 7.50% to December 31, 2024	50,583,204
e.	Total	661,649,867
2.	Expected Assets	
a.	Actuarial Value of Assets on January 1, 2024	433,147,906
b.	Contributions	32,256,199
c.	Benefit Distributions and Noninvestment Expenses	(41,537,831)
d.	Interest on above at 7.50% to December 31, 2024	35,253,369
e.	Total	456,004,305
3.	Expected Unfunded Actuarial Accrued Liability on December 31, 2024	205,645,562

Actual Unfunded Actuarial Accrued Liability

4.	Actuarial Accrued Liability Before Changes	663,444,152
5.	Actuarial Value of Assets	457,243,212
6.	Actual Unfunded Actuarial Accrued Liability on December 31, 2024 (4) - (5)	206,200,940

Actuarial (Gain) or Loss

7.	Investment (Gain) or Loss (2e) - (5)	(1,238,907)
8.	Other (Gain) or Loss (4) - (1e)	1,794,285
9.	Total Actuarial (Gain) or Loss (7) + (8)	555,378
10.	Assumption Changes	3,363,502
11.	Amortization Base (9) + (10)	3,918,880

* Based on the Projected Unit Credit Cost Method.

Risk and Other Disclosures

The Actuarial Standards Board provides guidance to actuaries when performing certain actuarial services in the form of standards of practice. The Board has issued a standard of practice on risk disclosure that applies to actuaries when performing a funding valuation of a defined benefit pension plan. This standard of practice addresses assessment and disclosure of the risk that actual future measurements may differ significantly from expected future measurements of pension liabilities, funded status, and actuarially determined contributions.

Risk is defined as the potential of actual future measurements to deviate from expected future measurements. This deviation results when actual future experience is different from actuarially assumed experience. Sample sources of risk include: investment returns, asset/liability mismatch, interest rates, longevity and other demographic risks, and contribution risk. The following are certain significant measures of risk as they pertain to the plan.

	<u>January 1, 2024</u>	<u>January 1, 2025</u>
Retired Participant Liability	348,951,586	365,939,998
Total Plan Liability	635,042,566	666,807,654
Ratio	54.9%	54.9%

More risk related to investment returns is associated with plans whose retiree liability is a significant and growing proportion of the plan's total liability, since it is more difficult to restore a plan financially after losses occur due to a shorter duration of liability where significant retired liability exists.

	<u>January 1, 2024</u>	<u>January 1, 2025</u>
Contributions in prior year	30,913,213	32,256,199
Benefit Payments in prior year	(38,283,053)	(40,238,766)
Net Cash Flow	(7,369,840)	(7,982,567)

More risk related to investment volatility is associated with plans whose benefit payments are significant compared to the plan contributions. If, for example, a plan has negative cash flow and experiences investment returns below an assumed rate then there are fewer assets that can be reinvested to earn potentially higher returns that may follow.

	<u>January 1, 2024</u>	<u>January 1, 2025</u>
Duration of Plan Liability	11.5 years	11.3 years

Duration is a present value weighted average of the timing of future benefit payments. Plans with a higher duration have more risk related to future interest rates. Additionally, more risk related to asset/liability mismatch is associated with plans whose liability duration differs significantly from the duration of plan investments.

Risk and Other Disclosures

(continued)

	<u>January 1, 2024</u>	<u>January 1, 2025</u>
Market Value of Assets	425,594,136	458,482,117
Total Covered Payroll	183,570,620	192,421,661
Asset Volatility Ratio	2.3	2.4

More risk related to investment return and future costs are associated with plans whose asset volatility ratio is high and growing; which is a characteristic of more mature plans.

	<u>January 1, 2024</u>	<u>January 1, 2025</u>
Market Value of Assets	425,594,136	458,482,117
Actuarial Accrued Liability	635,042,566	666,807,654
Ratio	67.0%	68.8%

More risk is associated with plans that have lower funded ratios.

	<u>January 1, 2024</u>	<u>January 1, 2025</u>
Actuarial Accrued Liability	635,042,566	666,807,654
Total Covered Payroll	183,570,620	192,421,661
Liability Volatility Ratio	3.5	3.5

More risk related to experience losses and future costs are associated with plans whose liability volatility ratio is high and growing; which is a characteristic of more mature plans.

The assumptions used to determine the risk measures above are identical to the assumptions used for recommended funding purposes on the respective valuation dates.

Other Disclosures

The standard of practice on measuring pension obligations and determining pension plan contributions provides guidance to actuaries related to determination of funded status, assigning the value of pension benefits to time periods, developing contribution allocation procedures and certain other disclosures. One additional disclosure includes the calculation of a low default risk obligation measure ("LDRM"). The calculation of the LDRM can be based on the same assumptions used in the funding valuation, except the discount rate or rates should be selected from low default risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future. Thus, one interpretation of the LDRM is an estimate of the cost to fully immunize all benefits accrued as of the measurement date, by purchasing securities that mature at the same times when future benefits are due. Another interpretation is that the difference between the pension liability used to fund the plan and the LDRM represents the expected savings to be achieved by investing in asset classes with higher expected returns than bonds.

We have calculated the LDRM as of January 1, 2025 to be \$822,128,963. The discount rate used is from the FTSE Pension Discount Curve as of December 31, 2024 which resulted in an effective discount rate of 5.64% and the Projected Unit Credit Actuarial Accrued Liability cost method was used. All other assumptions and methods are identical to those used in calculating the Recommended Contribution contained in this report.

Risk and Other Disclosures

(continued)

The calculation of the LDRM is not intended to suggest it is the “right” liability measure for Douglas County. The use of a discount rate based on low default risk fixed income securities produces a higher liability than that used for long-term investment purposes of the County's assets. If the LDRM was used for determining the Recommended Contribution it would generally produce higher contribution requirements and potentially more security of member's benefits due to higher asset levels.

The determination of the actuarially determined contribution in this report meets the definition of a reasonable actuarially determined contribution as contained in the actuarial standard of practice applicable for funding valuations of defined benefit plans addressing the measurement of pension obligations and determining pension plan contributions. An actuarially determined contribution is reasonable by satisfying the following: i) all assumptions are reasonable, do not significantly conflict with our professional judgement and are expected to have no significant bias; ii) the actuarial cost method and asset valuation method are acceptable and defined in the Actuarial Methods and Assumptions section of this report; iii) the amortization method, if applicable, of the Unfunded Actuarial Accrued Liability (“UAAL”) is expected to produce total amortization payments that are expected to fully amortize the UAAL within a reasonable time period; and iv) the contribution allocation procedure is consistent with accumulating assets adequate to make benefit payments when due.

Analysis of Actuarially Determined Contribution

Below is an analysis of the Anticipated Contributions as it relates to the definition of a reasonable actuarially determined contribution for the 2025 plan year.

1. Actuarially Determined Contribution (ADC)	\$34,738,104
2. Projected Unit Credit Normal Cost	20,126,164
3. Contribution in Excess of Projected Unit Credit Normal Cost	14,611,940
4. Projected Unit Credit Actuarial Accrued Liability	666,807,654
5. Actuarial Value of Plan Assets	457,243,212
6. Unfunded Actuarial Accrued Liability (UAAL)	209,564,442
7. Estimated number of years before the ADC exceeds the normal cost plus interest on the UAAL.	4 years
8. Estimated number of years until UAAL is funded	20 years

History of Plan Changes

- 2025** The plan was restated and amended to eliminate from benefit service years which a member is on LTD. This change is effective for members who become disabled on and after April 9, 2024.
- 2020** FOP #8 members hired after June 30, 2014 benefit under the same plan provisions as Sheriff Deputies hired after June 30, 2011. The employee contribution rate is the same as the Sheriffs plus an additional 2% of pay.
- 2016** Long Term Disability provision for active members was eliminated from the Plan as of 7/1/2015. LTD is provided by insurance outside of the pension plan. The interest crediting rate on employee contributions was changed from 5% to the 10-Year Treasury rate for November prior to the valuation date as of 1/1/2016.
- 2012** Certain bargaining employees hired after June 30, 2011 and all non-bargaining employees hired after December 31, 2011. It is anticipated that all bargaining units will be under these same benefit provisions after their next contract is negotiated.
- 1.5% of pay per year of service (45% maximum)
 - No Rule of 75
 - 8.5% contribution rate
 - Early Retirement at age 50 and 10 years of service or age 60 and 5 years of service
 - Early Retirement reduction of 5% per year
- Sheriff Deputies hired after June 30, 2011
- Benefit formula changed to the following:
 - 1.0% of pay for 1 to 10 years of service
 - 2.0% of pay for 11 to 20 years of service
 - 2.5% of pay for 21 to 32 years of service
 - Contribution rate changed to the following:
 - 8.5% for 1-32 years of service
 - 7.5% at 33 years of service
 - 6.5% at 34 years of service
 - 5.5% at 35+ years of service
 - Early Retirement at age 53
 - Early Retirement reduction of 4.8% per year
 - No Early Retirement reduction if 30 or more years of service
- 2008** Member and County contribution rate increased from 7.5% to 8.5%
- 2007** Member and County contribution rate increased from 6.5% to 7.5%
- 2006** Member and County contribution rate increased from 5.5% to 6.5%

History of Plan Changes

(continued)

- 2003** Beginning March 2003 all new retirees have their pension benefit paid from plan assets but not covered under an insurance contract.
- 2002** Increase retiree pension by 3%, but not less than \$5 a month
- 2000** Increase retiree pension by 4%, but not less than \$5 a month
- 1998** Increase retiree pension by 3%, but not less than \$5 a month
- 1997**
- Rule of 75 for other than law enforcement
 - Unreduced benefit upon Rule of 75
 - 2.0% benefit formula after January 1, 1962
 - 5.5% member contributions
- 1996**
- Rule of 75 for law enforcement
 - Unreduced benefit upon Rule of 75
 - 2.0% benefit formula after January 1, 1962
 - 5.5% member contributions
 - Participation begins on first day of employment
 - Increase retiree pension by 4% but not less than \$10 a month
- 1994**
- Benefit formula change to the following:
 - 1% of pay for service before January 1, 1962
 - 1.5% of pay for service after January 1, 1962
 - Decrease in interest rate on employee contributions to 5% effective July 1, 1994
 - Increase retiree pension by 3%
- 1992**
- Early Retirement Incentive Program (112 members elected benefit)
 - Early Termination of Employment Incentive Program (188 members elected benefit)
 - Increase retiree pension by 3%
- 1990**
- Benefit formula change to the following:
 - 1% of pay for service before January 1, 1962
 - 1.4625% of pay for service after January 1, 1962
 - Increase retiree pension by 4%
 - Vesting changed from 25% after 5 graded to 100% after 15 to 25% after 5 increased 15% a year up to 10
 - Maximum Disability Benefit increased from \$36,000 to \$57,600

History of Plan Changes

(continued)

- 1988**
 - Benefit formula change to the following:
 - 1% of pay for service before January 1, 1962
 - 1.425% of pay for service after January 1, 1962
 - Increase retiree pension by 4%, but no less than \$5 a month
 - Changed eligibility requirements to include participants hired after age 60

- 1986**
 - Benefit formula change to the following:
 - 1% of pay for service before January 1, 1962
 - 1.2% of pay for service from January 1, 1962 to January 1, 1972
 - 1.4% of pay for service after January 1, 1972
 - Increase retiree pension by 6% but not less than \$5 a month

- 1984**
 - Increased benefit formula from 1.1% of pay to 1.2% for service after January 1, 1974
 - Increase retiree pension by 6%, but not less than \$5 a month

- 1982**
 - Added Special Early Retirement
 - Benefit formula change from 1% of pay to 1.1% of pay for service after January 1, 1972
 - Increase retiree pension by 6%, but not less than \$10 a month
 - Changes in disability retirement provisions
 - Changes in actuarial assumptions
 - Special provisions for county employees change to state employees

- 1980**
 - Special Early Retirement
 - Change in service definition – unlimited sick leave
 - \$10/month increase in pension to retirees
 - Added Late Retirement Benefit

History of Plan Funding

Year	Actuarial Value Of Assets (\$1,000s)	Actuarial Accrued Liability		Funded Ratio	
		Before Changes (\$1,000s)	After Changes (\$1,000s)	Before Changes	After Changes
2025	\$457,243	\$663,444	\$666,808	68.9%	68.6%
2024	433,148	638,390	635,043	67.9%	68.2%
2023	418,167	606,531	607,218	68.9%	68.9%
2022	425,764	574,980	575,756	74.0%	73.9%
2021	386,862	547,858	546,029	70.6%	70.9%
2020	350,081	516,180	523,727	67.8%	66.8%
2019	320,394	488,372	488,372	65.6%	65.6%
2018	315,694	464,170	464,234	68.0%	68.0%
2017	287,478	428,146	427,763	67.1%	67.2%
2016	274,878	412,283	408,662	66.7%	67.3%
2015	263,790	394,847	394,847	66.8%	66.8%
2014	245,830	380,727	380,727	64.6%	64.6%
2013	219,494	362,117	362,117	60.6%	60.6%
2012	205,795	343,542	343,178	59.9%	60.0%
2011	196,119	321,700	321,700	61.0%	61.0%
2010	177,797	307,407	307,407	57.8%	57.8%
2009	167,994	290,127	290,127	57.9%	57.9%
2008	177,834	269,970	270,351	65.9%	65.8%
2007	165,309	253,386	248,986	65.2%	66.4%
2006	151,686	239,229	239,602	63.4%	63.3%
2005	142,403	221,642	221,642	64.2%	64.2%
2004	132,769	204,952	204,952	64.8%	64.8%
2003	125,238	188,697	188,697	66.4%	66.4%
2002	126,336	167,690	172,615	75.3%	73.2%
2000	117,626	124,906	127,011	94.2%	92.6%
1998	97,626	107,071	108,391	91.2%	90.1%
1996	81,626	78,202	83,472	104.4%	97.8%
1994	69,860	71,242	72,869	98.1%	95.9%
1992	60,912	59,747	66,161	101.9%	92.1%
1990	48,387	47,474	48,717	101.9%	99.3%
1988	37,662	36,212	37,390	104.0%	100.7%
1986	30,161	27,830	30,455	108.4%	99.0%
1984	21,752	20,912	22,203	104.0%	98.0%
1982	16,115	16,687	17,828	96.6%	90.4%
1980	11,468	15,229	15,597	75.3%	73.5%

Actuarial Cost Method

Annual costs were calculated using the Projected Unit Credit Actuarial Cost Method. Projected Unit Credit is one of the Accrued Benefit Actuarial Cost Methods. Using Projected Unit Credit, annual costs equal the sum of the normal cost and an amount to amortize the unfunded accrued liability. The normal cost is defined as the actuarial value of retirement and ancillary benefits that are allocated to the current year.

The unfunded accrued liability is equal to the accrued liability reduced by the actuarial value of plan assets. The accrued liability is defined as the actuarial value of retirement and ancillary benefits that have been allocated to years of service prior to the current year.

The method allocates an equal amount of a participant's projected retirement benefit to each year of service. The benefit at normal retirement is projected assuming salaries increase at the assumed rates. The projected retirement benefit is then divided by the participant's years of service to determine the portion of the retirement benefit allocated to each year. Service includes years following the later of the date of hire and July 1, 1952 (January 1, 1955 for former Board of Health participants) and prior to the assumed retirement age.

As experience develops under the Retirement Plan, actuarial gains and losses will result. Actuarial gains and losses indicate the extent to which actual experience is deviating from that expected on the basis of the actuarial assumptions. Actuarial gains result from experience more favorable than assumed and reduce the unfunded accrued liability. Actuarial losses result from experience less favorable than assumed and increase the unfunded accrued liability. All actuarial gains and losses are included in the determination of the unfunded accrued liability as of the valuation date.

The unfunded actuarial accrued liability is amortized over 25 years on a fixed percentage of pay, closed layered basis. This amortization method was adopted effective January 1, 2017.

Asset Valuation Method

The Actuarial Value of Plan Assets held in the pension trusts was calculated as the sum of the following:

- Adjusted Value of Plan Assets
- One-half of the excess of Market Value over the Adjusted Value of Plan Assets

The Adjusted Value of Plan Assets equals:

- Actuarial Value of Plan Assets on the prior valuation date, plus contributions and expected interest, less
- Pensions paid, refunds and other disbursements with expected interest

Actuarial Assumptions

Investment Return 7.5% compounded annually.

Salary Scale Salaries were assumed to increase at an annual rate compounded annually following the valuation date varying by age, as illustrated below.

Age	Percentage Increase
18-29	6.50%
30-39	6.00%
40-44	5.50%
45-54	5.00%
55+	4.50%

Mortality Rates PubG-2010 set forward 2-years for males and 1-year for females and projected with 75% of 2024 Adjusted MP-2021 improvement scale.

Disability Rates None.

Withdrawal Rates Based on rates as illustrated below:

Age	Rate
22	35.4%
27	15.9%
32	12.5%
37	10.3%
42	7.4%
47	5.0%
52	2.9%
57	2.4%
62	1.5%

Accrued Sick Leave 5 days per year.

Unused Vacation & Comp Time 5 days per year.

Actuarial Assumptions

(continued)

Retirement Rates	Age	Rule of 75	Other
	50	30%	5%
	51-54	10%	2%
	55-61	10%	5%
	62-64	20%	10%
	65-69	30%	22.5%
	70	100%	100%

Retirement rate is 30% the first year a Member is eligible for Rule of 75.

Age	Sheriffs hired after June 30, 2011	and	FOP #8 members hired after June 30, 2014
53-54			5%
55			25%
56-57			15%
58			20%
59-61			25%
62			30%
63			35%
64			40%
65			100%

Retirement rate is 100% at 30 years of service.

Interest Rate on Employee Contributions

4.18% per annum, based on the 10-year treasury rate as of November 30th preceding the valuation date.

Administrative Expenses

Annual administrative expenses have been estimated as 3/10 of 1% of plan assets.

Summary of Plan Provisions

Effective Date	January 1, 1963
Plan Year	January 1 through December 31.
Participation	First day of continuous employment.
Definitions	
Member	Any employee who participates in the Plan as an active participant or a non-active participant entitled to a disability pension, a deferred vested retirement benefit or a current retirement benefit.
Benefit Service	Years of service following the later of July 1, 1952 and the date of hire and prior to the normal retirement date. Years of service prior to January 1, 1955 are not considered for members who were participants of the Omaha-Douglas County Board of Health Retirement Plan.
Final Average Compensation	Average monthly compensation paid during the 60 consecutive months of the last 120 months of service that produces the largest average monthly compensation. The average monthly compensation is limited for members who were participants of the Omaha-Douglas County Board of Health Retirement Plan prior to 1975.
Normal Retirement Date	First day of calendar month coinciding with or next following the 65th birthday (age 55 for sheriff deputies hired after June 30, 2011 and FOP #8 members hired after June 30, 2014).
Rule of 75 Retirement	<p>First day of calendar month coincident with or next following the attainment of age 50, and completion of a sufficient number of years of service so that when such years are added to the members attained age, the total equals or exceeds 75. Such service must be exclusive of accumulated sick leave.</p> <p>There is no Rule of 75 Retirement for bargaining employees hired after June 30, 2011 (or later date based on applicable bargaining unit contract) and all non-bargaining employees hired after December 31, 2011.</p>

Summary of Plan Provisions

(continued)

Early Retirement

Following attainment of age 55 and 20 years of service, or age 60 and 5 years of service. Age 53 for sheriff deputies hired after June 30, 2011 and FOP #8 members hired after June 30, 2014. Age 50 and 10 years of service or age 60 and 5 years of service for bargaining employees hired after June 30, 2011 (or later date based on applicable bargaining unit contract) and all non-bargaining employees hired after December 31, 2011.

Benefits

Normal Retirement

For participants who were actively employed on October 4, 1997 and retire thereafter, a monthly income equal to the sum of (1) and (2), not to exceed 60% of the participant's final Average Compensation:

- (1) 1% of Final Average Compensation, multiplied by years of benefit service prior to January 1, 1962, plus
- (2) 2.0% of Final Average Compensation multiplied by years of benefit service following January 1, 1962.

For bargaining employees hired after June 30, 2011 (or later date based on applicable bargaining unit contract) and all non-bargaining employees hired after December 31, 2011, a monthly income equal to 1.5% for each year of service not to exceed 45% of the participant's final Average Compensation.

For sheriff deputies hired after June 30, 2011 and FOP #8 members hired after June 30, 2014, a monthly income equal to the sum of (1), (2) and (3), not to exceed 60% of the participant's final Average Compensation:

- (1) 1.0% of Final Average Compensation multiplied by 1-10 years of benefit service.
- (2) 2.0% of Final Average Compensation multiplied by 11-20 years of benefit service.
- (3) 2.5% of Final Average Compensation multiplied by 21-32 years of benefit service.

Summary of Plan Provisions

(continued)

Early Retirement

Monthly income computed in the same manner as normal retirement, based on benefit service and final average compensation at the early retirement date, and reduced by 1/4 of 1% for each full calendar month that the initial retirement payment precedes the normal retirement date.

Reduced by .4167% for each full calendar month that the initial retirement payment precedes the normal retirement date for bargaining employees hired after June 30, 2011 (or later date based on applicable bargaining unit contract) and all non-bargaining employees hired after December 31, 2011.

Reduced by .4% for each full calendar month that the initial retirement payment precedes the normal retirement date for sheriff deputies hired after June 30, 2011 and FOP #8 members hired after June 30, 2014.

Rule of 75 Retirement

If the eligibility requirements for Rule of 75 Retirement are met, the early retirement benefit will not be reduced for the period that retirement precedes the normal retirement date.

Late Retirement

A member who attains the age of 65 after December 31, 1987, shall be entitled to the Normal Retirement Benefit based on Years of Service and Final Average Compensation determined as of the late Retirement Date.

Death

A benefit of 60% of earned pension is payable until death of the spouse if an employee has completed 8 years of service at the date of death. The earned pension is based on length of service and final average compensation to the date of death. The participant and spouse must be married for at least one year prior to date of death.

If the employee is not survived by dependents or does not qualify for the spouse benefit, the employee's contributions, plus accumulated interest is paid to the beneficiary upon death.

Summary of Plan Provisions

(continued)

Termination Benefit

Deferred monthly income equal to the earned benefit based on service and compensation to the date of termination and multiplied by a vesting factor:

<u>Completed Years of Service on Date of Termination</u>	<u>Vesting Factor</u>
Less than 5	0.00
5	0.25
6	0.40
7	0.55
8	0.70
9	0.85
10 Years and Over	1.00

If a member's employment is terminated due to a change in employment status as provided by the Nebraska Legislature to that of a state employee, such member's Vested Factor will be 1.00. The termination benefits to which he is entitled shall be based on the average monthly compensation of the member during Douglas County employment and/or state employment which immediately follows Douglas County employment.

Upon termination prior to qualifying for a vested pension or in lieu of the vested pension, the employee may withdraw his contributions increased by interest. Effective July 1, 1994, the interest rate credited is 5% compounded annually. This interest rate credit was changed to the 10-year treasury rate as of November 30th, preceding the plan year, as of January 1, 2016.

Form of Annuity

Normal Form

Joint life annuity, 60% continuing to spouse or dependent children.

Five years certain and life, if no eligible dependents.

Summary of Plan Provisions

(continued)

Contribution

Participant

Members contributed 5.5% of total earnings prior to January 1, 2006. The annual contribution rate increased to 6.5% as of January 1, 2006, 7.5% as of January 1, 2007 and 8.5% as of January 1, 2008 and thereafter.

Sheriff deputies hired after June 30, 2011 and FOP #8 members hired after June 30, 2014 contribute according the following schedule:

Years of Service	Sheriff Percentage	FOP #8 Percentage
Less than 33	8.50%	10.50%
33	7.50%	9.50%
34	6.50%	8.50%
35 or more	5.50%	7.50%

Effective July 1, 1985, the Employee contribution is “picked up” and contributed to the Plan by Douglas County.

County

The County pays the balance of the cost of the plan. By law, the County cannot contribute more than the participants for pension benefits earned after the effective date of the plan. The County pays for all benefits earned for service before the plan was effective.

Participant Census Statistics

	Plan Year Beginning January 1		
	2023	2024	2025
Active Participants			
Number	2,128	2,264	2,333
Average Attained Age	44.8	44.4	44.1
Average Past Service	10.2	9.6	9.5
Total Annual Compensation	\$166,459,750	\$183,570,620	\$192,421,661
Average Annual Compensation	78,224	81,082	82,478
Actives under old formula	870	792	732
Percent of Total Actives	40.9%	35.0%	31.4%
Actives under reduced formula	1,258	1,472	1,601
Percent of Total Actives	59.1%	65.0%	68.6%
Non-Active Participants			
Number	2,199	2,335	2,448
Average Attained Age	68.7	68.8	69.2
Total Annual Benefits	39,223,650	40,868,750	43,247,882
Average Annual Benefit	17,837	17,503	17,667
Retirees under Mutual Contract	268	244	222
Total Retirees	1,448	1,484	1,505
Percent of Total Retirees	18.5%	16.4%	14.8%

Participant Census Statistics

(continued)

January 1, 2025

Active Participants Included in Valuation

Age at Valuation Date	Years of Service									Average Salary
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total	
Under 20	2	0	0	0	0	0	0	0	2	39,709
20-24	128	0	0	0	0	0	0	0	128	58,713
25-29	187	38	1	0	0	0	0	0	226	65,952
30-34	186	93	12	0	0	0	0	0	291	72,148
35-39	126	68	63	20	1	0	0	0	278	82,441
40-44	110	66	58	53	25	2	0	0	314	83,353
45-49	85	44	34	50	52	24	0	0	289	95,191
50-54	74	51	34	51	50	37	4	0	301	94,859
55-59	56	35	22	28	32	32	19	6	230	87,136
60-64	34	31	30	33	16	16	5	7	172	86,271
65 & Over	13	24	16	15	11	9	5	9	102	87,183
Total	1,001	450	270	250	187	120	33	22	2,333*	
Average Salary	66,097	82,729	93,015	100,958	103,367	108,786	109,773	121,406		82,478

Average Salary - based on Total Covered Reported Payroll for 2025.

* 1601 actives (68.6% of all active participants) are under the reduced plan formula.

Participant Census Statistics

(continued)

January 1, 2025

Non-Active Participants Included in Valuation

	Number	Total Annual Benefit	Average Annual Benefit
Retired & Beneficiary			
39G-12795 (after 2/28/2003)	1,283	\$34,962,542	\$27,251
GDA 6148 (prior to 3/1/2003)	222	3,244,876	14,617
Vested Terminated	167	2,060,136	12,336
Terminated Non-Vested	767	2,781,269	3,626 *
Disabled Participants	9	199,059	22,118
Total	2,448	43,247,882	17,667

* Amount equal to expected refund of member contributions.

Retired & Beneficiary Participants in Pay Status

Age	Number	Total Annual Benefit	Average Annual Benefit
Under 50	7	\$122,266	\$17,467
50-54	53	2,168,881	40,922
55-59	111	4,247,709	38,268
60-64	203	7,002,205	34,494
65-69	302	8,392,722	27,790
70-74	307	6,997,131	22,792
75-79	254	5,570,233	21,930
Over 79	268	3,706,271	13,829
Total	1,505	38,207,418	25,387

Participant Census Statistics

(continued)

	Active	Non-Active			Total	
		Deferred	Disabled	Retired Beneficiary		
Number on January 1, 2024	2,264	838	13	1,277	207	4,599
Terminated						
Non-Vested	0	0	0	0	0	0
Vested - Lump Sum	-107	-50	0	0	0	-157
Vested - Deferred	-72	+72	0	0	0	0
Disabled	0	0	0	0	0	0
Deceased						
Vested - Lump Sum	0	0	0	0	0	0
Vested - Beneficiary	-1	0	0	-10	+11	0
No Additional Benefit	0	0	0	-28	-15	-43
Retired						
Monthly Benefit	-61	-2	-3	+66	0	0
Lump Sum	0	0	0	0	0	0
Certain Period Expired	0	0	0	0	-3	-3
Return to Active	+11	-11	0	0	0	0
New Entrants or Prior Omissions						
During Plan Year	+299	+87	-1	0	0	+385
Number on January 1, 2025	2,333	934	9	1,305	200	4,781

<u>Non-Active Participants</u>	<u>Number</u>	<u>Annual Benefit</u>
Vested Deferred Participants		
Vested Participants	167	\$2,060,136
Non-vested Participants	767	2,781,269 *
Disabled Participants	9	199,059
Retired & Beneficiary Participants	1,505	38,207,418

* Amount equal to expected refund of member contributions.



May 20, 2025

PERSONAL & CONFIDENTIAL

Ms. Lori Pirsch
Douglas County Employees' Retirement Plan
1819 Farnam Street
Omaha, NE 68183

RE: 2025 Experience Analysis

Dear Lori:

Enclosed are fifteen copies of the 2025 Experience Analysis for the Douglas County Employees' Retirement Plan. Based on a comparison of actual to expected experience we recommend updating the following assumptions as of January 1, 2025:

- retirement rates for those participants not eligible for Rule of 75
- accumulated vacation and comp time

This change would better align the assumptions to recent plan experience. The net impact is expected to be a slight increase in liability.

We will continue to monitor actual pay increases compared to the actuarial assumption. Average increases over the past five years exceeded those assumed, but the most recent year (2024) experienced actual pay increases less than assumed.

Please contact me with any questions.

Sincerely,

A handwritten signature in blue ink that reads 'Glen C. Gahan'.

Glen C. Gahan, FSA
Executive Vice President

GCG/bk

Enclosures

DOUGLAS COUNTY EMPLOYEES' RETIREMENT PLAN

2025 Experience Analysis

May 2025

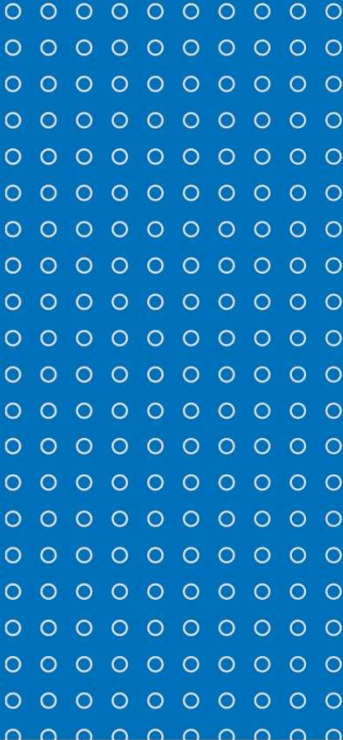


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Overview

A Plan Experience Analysis was performed to compare actual plan experience to the expected experience based on the Plan's actuarial assumptions.

The assumptions analyzed were:

- Rates of Termination
- Rates of Retirement
 - Rule of 75
 - Other than Rule of 75
- Rates of Salary Increases
- Rates of Mortality
- Rates of Investment Return
- Accumulated Vacation and Comp Time

Actuarial Assumptions Recommendation

Based on a review of actual and expected experience over the past five years, the following revisions to the actuarial assumptions are recommended.

Rates of Termination

No changes recommended

Rates of Retirement

Rule of 75

No changes recommended

Other than Rule of 75

We recommend increasing the rates from 15% to 22.5% for ages 65-69.

Rates of Salary Increases

No changes recommended

Rates of Mortality

No changes recommended

Rates of Investment Return

No changes recommended, based on direction of the County and investment advisor.

Annual Accumulated Vacation and Comp Time

Based on discussion with the County and data provided by the County, a new assumption of accumulated vacation and comp time of 5 days per year has been added to the valuation assumptions

Comparison of Actual and Expected Rates

Terminations

Age Group	2024			2023			2022			2021			2020		
	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio
20-24	19	24	80%	19	17	114%	45	22	203%	6	15	41%	17	18	96%
25-29	34	30	113%	34	27	124%	75	34	221%	25	31	81%	37	29	128%
30-34	24	33	74%	35	30	116%	76	34	224%	28	30	94%	24	30	81%
35-39	32	27	117%	23	26	88%	61	31	199%	22	29	76%	31	30	103%
40-44	23	22	104%	23	21	110%	43	22	196%	16	21	78%	21	20	106%
45-49	14	15	95%	15	13	115%	35	14	257%	14	13	104%	11	14	76%
50-54	14	9	154%	14	9	156%	22	9	255%	13	9	140%	8	9	88%
55-59	7	6	124%	9	5	170%	10	6	176%	4	5	76%	8	6	139%
60-62	2	3	68%	5	3	180%	3	3	116%	2	3	69%	4	3	134%
Total	169	168	101%	177	151	117%	370	173	214%	130	156	83%	161	159	102%

5-Year Summary

Age	Actual	Exp	Ratio
20-24	106	95	112%
25-29	205	151	136%
30-34	187	156	120%
35-39	169	144	118%
40-44	126	105	120%
45-49	89	69	129%
50-54	71	45	158%
55-59	38	28	138%
60-62	16	14	113%
Total	1007	807	125%

Comparison of Actual and Expected Rates

(continued)

Rule of 75 Retirements

Age	5-Year Summary			2024			2023			2022			2021			2020		
	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio
50	6	13.50	44%	1	3.90	26%	1	1.80	56%	1	2.40	42%	1	2.70	37%	2	2.70	74%
51	19	11.60	164%	2	1.20	167%	3	1.60	188%	5	2.50	200%	5	3.70	135%	4	2.60	154%
52	12	12.10	99%	2	1.80	111%	5	2.30	217%	2	2.70	74%	2	2.50	80%	1	2.80	36%
53	10	12.20	82%	2	0.80	250%	1	2.40	42%	1	2.00	50%	3	2.90	103%	3	4.10	73%
54	10	14.50	69%	1	2.60	38%	0	2.40	0%	2	2.90	69%	4	3.60	111%	3	3.00	100%
55	10	13.10	76%	1	2.80	36%	1	2.60	38%	5	3.60	139%	2	2.20	91%	1	1.90	53%
56	10	12.60	79%	0	1.90	0%	2	2.70	74%	3	2.80	107%	2	3.00	67%	3	2.20	136%
57	10	11.90	84%	2	2.50	80%	2	1.90	105%	1	1.90	53%	5	4.10	122%	0	1.50	0%
58	13	12.90	101%	1	2.00	50%	2	2.00	100%	1	2.60	38%	4	3.70	108%	5	2.60	192%
59	16	12.60	127%	2	1.30	154%	4	2.20	182%	4	3.40	118%	2	2.60	77%	4	3.10	129%
60	19	15.60	122%	4	3.30	121%	2	2.90	69%	3	2.80	107%	6	4.30	140%	4	2.30	174%
61	12	14.40	83%	2	2.90	69%	1	2.10	48%	4	3.90	103%	1	2.60	38%	4	2.90	138%
62	20	20.50	98%	4	3.20	125%	4	4.70	85%	3	4.00	75%	6	4.90	122%	3	3.70	81%
63	19	20.60	92%	2	3.90	51%	1	3.40	29%	7	3.20	219%	2	3.10	65%	7	7.00	100%
64	14	18.90	74%	1	3.50	29%	0	1.60	0%	1	2.60	38%	4	5.50	73%	8	5.70	140%
65	0	0.00		0	0.00		0	0.00		0	0.00		0	0.00		0	0.00	
66	0	0.00		0	0.00		0	0.00		0	0.00		0	0.00		0	0.00	
67	0	0.00		0	0.00		0	0.00		0	0.00		0	0.00		0	0.00	
68	0	0.00		0	0.00		0	0.00		0	0.00		0	0.00		0	0.00	
69	0	0.00		0	0.00		0	0.00		0	0.00		0	0.00		0	0.00	
Total	200	217.00	92%	27	37.60	72%	29	36.6	79%	43	43.30	99%	49	51.4	95%	52	48.10	108%

Comparison of Actual and Expected Rates

(continued)

Early and Normal Retirements

Age	5-Year Summary			2024			2023			2022			2021			2020		
	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio
<=60	4	10.64	38%	0	3.41	0%	0	2.77	0%	3	1.56	192%	0	1.85	0%	1	1.05	95%
61	2	4.00	50%	0	1.05	0%	0	0.40	0%	1	1.10	91%	1	0.70	143%	0	0.75	0%
62	2	4.50	44%	0	0.80	0%	0	1.10	0%	1	1.00	100%	0	1.00	0%	1	0.60	167%
63	5	4.25	118%	0	1.25	0%	0	0.70	0%	2	0.90	222%	0	0.50	0%	3	0.90	333%
64	1	3.90	26%	0	1.00	0%	0	0.60	0%	0	0.60	0%	0	0.70	0%	1	1.00	100%
65	14	18.10	77%	0	2.10	0%	1	2.40	42%	6	4.80	125%	3	4.60	65%	4	4.20	95%
66	25	16.45	152%	4	2.10	190%	3	3.45	87%	7	4.15	169%	6	3.90	154%	5	2.85	175%
67	21	12.55	167%	6	3.00	200%	2	2.65	75%	4	2.85	140%	5	2.10	238%	4	1.95	205%
68	16	9.85	162%	2	2.50	80%	7	2.10	333%	3	1.50	200%	1	1.65	61%	3	2.10	143%
69	11	7.05	156%	3	1.05	286%	1	0.90	111%	2	1.65	121%	4	1.65	242%	1	1.80	56%
Subtotal	101	91.29	111%	15	18.26	82%	14	17.07	82%	29	20.11	144%	20	18.65	107%	23	17.20	134%
70+	33	212.00	16%	4	39.00	10%	11	48.00	23%	1	42.00	2%	8	44.00	18%	9	39.00	23%
Total	134	303.29	44%	19	57.26	33%	25	65.07	38%	30	62.11	48%	28	62.65	45%	32	56.20	57%

Comparison of Actual and Expected Rates

(continued)

Salary Increases

Age Group	2024			2023			2022			2021			2020		
	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio
20-24	4.25%	6.50%	65%	15.98%	6.50%	246%	20.62%	6.50%	317%	7.26%	6.50%	112%	2.19%	6.50%	34%
25-29	3.55%	6.50%	55%	13.29%	6.50%	204%	16.04%	6.50%	247%	4.58%	6.50%	70%	5.53%	6.50%	85%
30-34	3.42%	6.00%	57%	11.30%	6.00%	188%	14.98%	6.00%	250%	9.36%	6.00%	156%	4.65%	6.00%	78%
35-39	5.08%	6.00%	85%	8.78%	6.00%	146%	15.44%	6.00%	257%	7.84%	6.00%	131%	4.87%	6.00%	81%
40-44	3.50%	5.50%	64%	6.46%	5.50%	117%	14.94%	5.50%	272%	4.20%	5.50%	76%	5.61%	5.50%	102%
45-49	5.38%	5.00%	108%	5.80%	5.00%	116%	13.54%	5.00%	271%	8.08%	5.00%	162%	3.86%	5.00%	77%
50-54	3.95%	5.00%	79%	7.10%	5.00%	142%	10.95%	5.00%	219%	8.23%	5.00%	165%	2.98%	5.00%	60%
55-59	4.95%	4.50%	110%	5.95%	4.50%	132%	12.35%	4.50%	274%	4.59%	4.50%	102%	3.84%	4.50%	85%
60-65	3.56%	4.50%	79%	3.66%	4.50%	81%	11.11%	4.50%	247%	5.60%	4.50%	124%	2.65%	4.50%	59%
65+	3.51%	4.50%	78%	3.82%	4.50%	85%	9.68%	4.50%	215%	7.44%	4.50%	165%	2.53%	4.50%	56%
Totals	4.20%	5.27%	80%	7.20%	5.25%	137%	13.30%	5.26%	253%	6.75%	5.29%	128%	4.05%	5.26%	77%

5-Year Summary

Age	Actual	Exp	Ratio
20-24	10.06%	6.50%	155%
25-29	8.60%	6.50%	132%
30-34	8.74%	6.00%	146%
35-39	8.40%	6.00%	140%
40-44	6.94%	5.50%	126%
45-49	7.33%	5.00%	147%
50-54	6.64%	5.00%	133%
55-59	6.34%	4.50%	141%
60-65	5.32%	4.50%	118%
65+	5.40%	4.50%	120%
Total	7.38%	5.40%	137%

Comparison of Actual and Expected Rates

(continued)

Male PubG-2010 (+2) projected with 75% of MP-2021 from 2010

Mortality for Retired and Terminated Vested Participants - Males

Age Group	2024			2023			2022			2021			2020		
	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio
<60	0	0.82	0%	0	0.74	0%	2	0.54	368%	0	0.49	0%	0	0.46	0%
60-64	0	0.84	0%	2	0.84	237%	0	0.75	0%	1	0.81	123%	2	0.77	261%
65-69	1	1.68	60%	3	1.71	175%	1	1.61	62%	3	1.61	186%	4	1.68	237%
70-74	3	3.08	97%	1	3.01	33%	5	3.17	158%	4	3.08	130%	3	2.82	106%
75-79	5	4.52	111%	2	3.78	53%	3	3.58	84%	4	3.24	123%	1	2.95	34%
80-84	6	4.49	134%	3	3.90	77%	5	3.39	148%	3	3.20	94%	5	2.76	181%
85-89	3	3.32	90%	3	3.18	94%	3	3.13	96%	5	3.34	150%	7	3.99	175%
90-94	5	1.56	321%	2	1.48	136%	5	2.28	219%	3	2.43	123%	6	3.40	176%
>=95	2	1.23	163%	2	1.76	114%	0	1.17	0%	2	1.21	165%	0	0.90	0%
Total	25	21.54	116%	18	20.41	88%	24	19.63	122%	25	19.43	129%	28	19.74	142%

5-Year Summary

Age	Actual	Exp	Ratio
<60	2	3.05	65%
60-64	5	4.01	125%
65-69	12	8.30	145%
70-74	16	15.17	105%
75-79	15	18.08	83%
80-84	22	17.74	124%
85-89	21	16.97	124%
90-94	21	11.15	188%
>=95	6	6.27	96%
Total	120	100.74	119%

Comparison of Actual and Expected Rates

(continued)

Female PubG-2010 (+1) projected with 75% of MP-2021 from 2010

Mortality for Retired and Terminated Vested Participants - Females

Age Group	2024			2023			2022			2021			2020		
	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio	Actual	Exp	Ratio
<60	0	0.52	0%	0	0.50	0%	0	0.36	0%	0	0.37	0%	0	0.33	0%
60-64	1	0.60	167%	0	0.61	0%	0	0.58	0%	0	0.50	0%	0	0.45	0%
65-69	1	1.21	83%	2	1.23	163%	1	1.12	89%	4	1.22	329%	4	1.27	314%
70-74	5	2.49	201%	3	2.32	129%	5	2.43	206%	6	2.41	249%	3	2.18	138%
75-79	2	3.42	58%	5	3.36	149%	3	3.44	87%	2	3.32	60%	1	2.98	34%
80-84	5	4.74	105%	14	4.67	300%	5	3.83	131%	3	3.19	94%	5	3.50	143%
85-89	1	4.44	23%	3	4.84	62%	9	5.51	163%	8	6.63	121%	5	5.78	86%
90-94	7	6.76	104%	4	6.21	64%	12	7.00	171%	4	5.97	67%	11	6.95	158%
>=95	6	3.33	180%	6	3.69	163%	5	4.66	107%	5	4.71	106%	7	5.55	126%
Total	28	27.50	102%	37	27.42	135%	40	28.92	138%	32	28.31	113%	36	28.98	124%

5-Year Summary

Age	Actual	Exp	Ratio
<60	0	2.07	0%
60-64	1	2.73	37%
65-69	12	6.05	198%
70-74	22	11.82	186%
75-79	13	16.52	79%
80-84	32	19.92	161%
85-89	26	27.20	96%
90-94	38	32.89	116%
>=95	29	21.93	132%
Total	173	141.13	123%

Historical Rates of Investment Return

Year	Annual Return on Market Value of Assets	Annual Return on Actuarial Value of Assets
1984	8.9%	N/A
1985	20.6%	N/A
1986	15.5%	N/A
1987	4.4%	N/A
1988	11.5%	N/A
1989	15.5%	N/A
1990	6.7%	N/A
1991	15.5%	N/A
1992	7.9%	N/A
1993	10.4%	N/A
1994	2.4%	N/A
1995	17.2%	N/A
1996	10.6%	N/A
1997	13.3%	N/A
1998	7.7%	N/A
1999	7.3%	N/A
2000	2.3%	6.2%
2001	1.3%	2.4%
2002	-4.6%	0.0%
2003	15.7%	7.3%
2004	10.0%	8.7%
2005	7.1%	7.8%
2006	12.1%	10.0%
2007	4.9%	7.2%
2008	-18.7%	-6.4%
2009	16.0%	3.8%
2010	11.0%	9.7%
2011	0.5%	5.0%
2012	10.3%	7.6%
2013	18.9%	13.2%
2014	5.2%	9.1%
2015	2.3%	5.6%
2016	6.8%	6.2%
2017	16.8%	11.4%
2018	-2.8%	4.1%
2019	19.7%	11.6%
2020	13.6%	12.7%
2021	12.7%	12.7%
2022	-11.0%	0.4%
2023	12.0%	5.7%
2024	10.0%	7.8%
Arithmetic	8.5% (41 yrs)	
Averages	6.9% (25 yrs)	6.8% (25 yrs)
	8.0% (10 yrs)	7.8% (10 yrs)
	7.5% (5 yrs)	7.9% (5 yrs)

Historical Market and Actuarial Value of Assets

Year	Market Value of Assets	Actuarial Value of Assets	AVA as % of MVA
2000	123,913,647	117,625,992	94.9%
2001	125,752,053	123,971,024	98.6%
2002	126,751,547	126,336,366	99.7%
2003	119,929,319	125,237,848	104.4%
2004	137,080,947	132,768,961	96.9%
2005	148,916,100	142,402,678	95.6%
2006	157,653,656	151,686,147	96.2%
2007	175,115,759	165,309,144	94.4%
2008	184,386,700	177,833,982	96.4%
2009	151,275,593	167,993,744	111.1%
2010	179,166,378	177,797,061	99.2%
2011	199,988,291	196,119,468	98.1%
2012	200,860,360	205,795,168	102.5%
2013	219,605,063	219,494,329	99.9%
2014	258,340,593	245,830,308	95.2%
2015	267,549,482	263,789,654	98.6%
2016	269,935,429	274,877,630	101.8%
2017	283,902,001	287,477,661	101.3%
2018	326,905,394	315,694,446	96.6%
2019	309,764,717	320,394,185	103.4%
2020	363,054,352	350,081,173	96.4%
2021	404,822,679	386,861,916	95.6%
2022	445,724,020	425,764,430	95.5%
2023	388,193,816	418,167,315	107.7%
2024	425,594,136	433,147,906	101.8%
2025	458,482,117	457,243,212	99.7%

Actuarial Assumptions

Investment Return 7.5% compounded annually.

Salary Scale Salaries were assumed to increase at an annual rate compounded annually following the valuation date varying by age, as illustrated below.

Age	Percentage Increase
18-29	6.50%
30-39	6.00%
40-44	5.50%
45-54	5.00%
55+	4.50%

Mortality Rates PubG-2010 set forward 2-years for males and 1-year for females and projected with 75% of the MP-2021 improvement scale.

Disability Rates None.

Withdrawal Rates Based on rates as illustrated below:

Age	Current Percentage
22	35.4%
27	15.9%
32	12.5%
37	10.3%
42	7.4%
47	5.0%
52	2.9%
57	2.4%
62	1.5%

Accrued Sick Leave 5 days per year.

Accumulated Vacation and Comp Time 5 days per year (recommend to add for 2025).

Actuarial Assumptions

(continued)

Retirement Rate	Age	Rule of 75	Other	
			Current	Recommended
	50	30%	5%	5%
	51-54	10%	2%	2%
	55-61	10%	5%	5%
	62-64	20%	10%	10%
	65-69	30%	15%	22.5%
	70	100%	100%	100%

Retirement rate is 30% the first year a Member is eligible for Rule of 75.

Age	Sheriffs Hired after June 30, 2011	and	FOP #8 members hired after June 30, 2014
53-54			5%
55			25%
56-57			15%
58			20%
59-61			25%
62			30%
63			35%
64			40%
65			100%

Retirement rate is 100% at 30 years of service.

Interest Rate on Employee Contributions 4.18% per annum, based on the 10-year treasury rate as of November 30th preceding the valuation date.

Administrative Expenses Annual administrative expenses have been estimated as 3/10 of 1% of plan assets.



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Welcome

**Douglas County
Employees' Retirement Plan
Actuarial Review
as of January 1, 2025**

May 22, 2025

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Actuarial Valuation Overview

- An actuarial valuation is performed annually to report on the financial health of the Retirement Plan, including:
 - Funded Percentage
 - Summary of Plan Liabilities and Assets
 - Value of Earned Benefits
 - Actuarially Determined Contribution
 - Summary of County and Employee Contributions
 - Forecast Future Years' Funded Percentage

Plan Members

Number of Members	2024	2025
Actives		
• Prior Benefit Formula With Rule 75	792	732
• Newer, Reduced Benefit Formula ¹	1,472	1,601
• Total	2,264	2,333
Retirees and Beneficiaries		
• Contract 39G – 12795 (after 2/28/2003)	1,240	1,283
• Contract GDA – 6148 (prior to 3/1/2003)	244	222
• Total	1,484	1,505
Vested Terminated	172	167
Terminated Non-Vested	666	767
Disabled ²	13	9
Total	4,599	4,781
Retirees and Beneficiaries as a Percent of Total	32.3%	31.5%

¹ Includes Sheriffs and FOP #8 members.

² Disability benefits provided by an insurance contract held outside of the pension plan effective July 1, 2015.

Changes From Prior Year

- Plan Provisions
 - The plan was restated and amended to eliminate from benefit service years which a member is on LTD. This change is effective for members who become disabled on and after April 9, 2024.
- Actuarial Assumptions
 - Interest crediting rate on employee contributions decreased from 4.37% to 4.18%
 - decreased liability \$2k
 - Other than Rule of 75 retirement rates for ages 65-69 increased from 15% to 22.5%
 - increased liability \$342k
 - Added assumption for unused vacation time and comp time of 5 days per year
 - increased liability \$3,024k
- Rational for Changes
 - Interest crediting rate is indexed to the 10-year Treasury rate for the November preceding the plan year
 - Retirement rates increased to more closely align the assumption with the actual plan experience over the past 5 years per the 2025 Experience Analysis
 - Based on discussion with the County and data provided by the County, a new assumption of accumulated vacation time and comp time of 5 days per year has been added to the valuation assumptions

Plan Provisions

- Monthly Annuity – the plan provides monthly benefits payable to the members and beneficiaries
- Amount of Benefit – determined by the member's pay, service and the plan's benefit formula. Pay is averaged over five years.
- Benefit Formula – depends on the member's date of hire and classification:
 - All prior to June 30, 2011
 - 2% of Average Pay times Years of Service
 - Maximum of 60% of Average Pay
 - Eligible for Rule of 75 Retirement
 - Generally, those hired after December 31, 2011
 - 1.5% of Average Pay times Years of Service
 - Maximum of 45% of Average Pay
 - Not eligible for Rule of 75
 - Sheriff deputies hired after June 30, 2011 and FOP #8 members hired after June 30, 2014 have a service-graded benefit formula, with a maximum benefit of 60% of Average Pay
 - No Rule of 75
 - Unreduced benefit after 30 years of service
 - Unreduced benefit at age 55
 - Maximum of 60% of Average Pay

Plan Provisions (cont'd)

- Full retirement benefits (unreduced) are payable:

	Hired Prior to 2012	Hired After 2011	Sheriff Deputies Hired After 2011	FOP #8 Hired After 2014
Normal Retirement Date	65	65	55	55
Rule of 75	50 with Age + Svc > 75	N/A	N/A	N/A

- Early Retirement – a reduced pension payable after:

Hired Prior to 2012	<ul style="list-style-type: none"> ▪ Age 55 with 20 years of service ▪ Age 60 with 5 years of service
Hired After 2012	<ul style="list-style-type: none"> ▪ Age 50 with 10 years of service ▪ Age 60 with 5 years of service
Sheriff Deputies Hired After 2011	<ul style="list-style-type: none"> ▪ Age 53
FOP #8 Members Hired After 2014	<ul style="list-style-type: none"> ▪ Age 53

- Other Benefits – may be payable upon death

Plan Provisions (cont'd)

- Vesting Schedule – a deferred pension is earned based on the vesting schedule

Years of Service	Vesting Percentage
Less than 5	0%
5	25%
6	40%
7	55%
8	70%
9	85%
10 +	100%

Plan Changes – Recent History

- FOP #8 – The same benefit provisions in effect for sheriffs hired after June 30, 2011, were extended to FOP #8 members hired after June 30, 2014, and the member contributions were increased by 2%.
- Disability Benefits – The disability provision for active members was removed from the Plan as of July 1, 2015. Disabilities occurring after this date are covered under an insurance contract separate from the pension plan. Members who become disabled on and after April 9, 2024 will not be credited with benefit service while on LTD.
- Interest on Member Contributions – Effective January 1, 2016, the interest crediting rate on Member Contributions was changed from 5.0% to the 10-year Treasury rate for the November 30th preceding the Plan Year.

2025	4.18%	2022	1.43%	2019	3.01%
2024	4.37%	2021	0.84%	2018	2.42%
2023	3.68%	2020	1.78%	2017	2.37%

Actuarial Assumptions

- Investment Return 7.5% per year
- Salary Increases

Age	Annual Increase
18 – 29	6.5%
30 – 39	6.0%
40 – 44	5.5%
45 – 54	5.0%
55 +	4.5%

- Mortality Table PubG-2010 set forward two years for males and one year for females and projected with 75% of 2024 Adjusted MP-2021 improvement
- Withdrawal Rates (Sample)

Age	Annual Increase
22	35.4%
32	12.5%
42	7.4%
52	2.9%

- Member Contributions 8.5% of Pay (FOP #8 members hired after 6/30/2014 contribute 10.5% of Pay)
- County Contributions 8.5% of Pay

Actuarial Assumptions (cont'd)

Retirement Rates*

Age	Rule of 75	Other
50	30%	5%
51 – 54	10%	2%
55 – 61	10%	5%
62 – 64	20%	10%
65 – 69	30%	22.5%**
70+	100%	100%

*30% assumed to retire upon eligibility for Rule of 75.

** Changed from 15% as of January 1, 2025.

Actuarial Assumptions (cont'd)

Retirement Rates* – Sheriffs hired after June 30, 2011 and FOP #8 members hired after June 30, 2014

Age	Rate
53 – 54	5%
55	25%
56 – 57	15%
58	20%
59 – 61	25%
62	30%
63	35%
64	40%
65+	100%

*100% assumed to retire at 30 years of service

Actuarial Assumptions (cont'd)

- | | |
|---|---------------------------|
| • Interest Rate on Employee Contributions | 4.18% per year |
| • Accumulated Sick Leave | 5 days per year |
| • Accumulated Vacation and Comp Time* | 5 days per year |
| • Administrative Expenses | 3/10 of 1% of plan assets |

* New assumption for the 1/1/2025 valuation

Change in Assets

	<u>Market Value</u>	<u>Actuarial Value</u>
• January 1, 2024 Value	\$425,594,136	\$433,147,906
• Contributions		
◦ Members	16,349,865	16,349,865
◦ County	15,906,334	15,906,334
• Benefit Payments, Including Refunds	(40,238,766)	(40,238,766)
• Non-investment Expenses	(1,299,065)	(1,299,065)
• Net Investment Income	42,169,613	33,376,938
• January 1, 2025 Value	458,482,117	457,243,212
• Approximate Rate of Return	10.0%	7.8%
• Actuarial Value as % of Market Value		99.7%

Actuarial Measurements (thousands)

	2024	2025
Actuarial Accrued Liability	\$635,043	\$666,808
Actuarial Value of Assets	\$433,148	\$457,243
Funded Percentage	68.2%	68.6%
Unfunded Liability	\$201,895	\$209,564

Market Value of Assets at 1/1/2025 was \$458,482; resulting in a Funded Percentage of 68.8%, an increase from 67.0%.

Actuarial Determined Contribution

	2024	2025
Expected Member Contributions	\$15,712	\$16,672
Expected County Contributions	\$15,273	\$16,037
Total	\$30,985*	\$32,709

Actuarial Determined Contribution		
▪ Normal Cost (Value Of Benefits Earned In The Year)	\$19,281	\$20,126
▪ 25-Year Amortization of Unfunded Liability	\$12,486	\$13,356
▪ ½ year interest	\$1,191	\$1,256
Total	\$32,958	\$34,738

*Actual total for 2024 was \$32,256,199

Plan Asset History as of January 1

Year	Market Value of Assets	Rate of Return Prior Year
2025	\$458,482,117	10.0%
2024	\$425,594,136	12.0%
2023	\$388,193,816	-11.0%
2022	\$445,724,020	12.7%
2021	\$404,822,679	13.6%
2020	\$363,054,352	19.7%
2019	\$309,764,717	-2.8%
2018	\$326,905,394	16.8%
2017	\$283,902,001	6.8%
2016	\$269,520,264	2.3%
2015	\$267,549,482	5.2%
2014	\$258,340,593	18.9%
2013	\$219,605,063	10.3%
2012	\$200,860,360	0.5%
2011	\$199,988,291	11.0%

Note: 15-year geometric average return of 8.1%

Historical Funded Percentage

Year	Actuarial Value of Assets (\$1,000s)	Actuarial Accrued Liability (\$1,000s)	Funded Ratio
2025	\$457,243	\$666,808	68.6%
2024	\$433,148	\$635,043	68.2%
2023	\$418,167	\$607,218	68.9%
2022	\$425,764	\$575,756	73.9%
2021	\$386,862	\$546,029	70.9%
2020	\$350,081	\$523,726	66.8%
2019	\$320,394	\$488,372	65.6%
2018	\$315,694	\$464,234	68.0%
2017	\$287,478	\$427,763	67.2%
2016	\$274,878	\$408,662	67.3%
2015	\$263,790	\$394,847	66.8%
2014	\$245,830	\$380,727	64.6%
2013	\$219,494	\$362,117	60.6%
2012	\$205,795	\$343,178	60.0%
2011	\$196,119	\$321,700	61.0%

Looking Forward

- Funding Policy
- Reporting of Risk Measures
- Forecasts of Funding Percentage
- Effect of Actuarial Standard of Practice No. 4

Funding Policy

- The County's funding policy is to contribute amounts to the plan necessary to fund benefits earned under the plan, along with members' contributions, based on the Contribution Rates below.
- Nebraska State statute limits the County's contribution to no more than the amounts contributed by the members.
- Member Contributions: 8.5% of Pay
 - For all members, regardless of date of hire or classification
 - Plus additional 2% of pay for FOP #8 members hired after 2014
 - Contributions reduce after 33 years of service for sheriff deputies hired after 2011 and FOP #8 members hired after 2014
- County Contributions:
 - Same Amount as Members, excluding additional 2% of pay for FOP #8 members hired after 2014

Funding Policy

- Actuarially Determined Contribution:
 - The annual calculated contribution amount as determined by application of the plan's actuarial methods and assumptions. This contribution provides a measure of the amount of contributions needed to fund the benefits earned in the current year plus the 25-year amortization of the unfunded accrued liability, based on a closed, layered level percent of pay. The plan is not currently being funded on this basis, but is funded by the fixed contribution rates described previously.

Risk Measures

- The Actuarial Standards of Practice require the reporting of certain risk disclosures.
- Risk is defined as the potential of actual future measurements deviating from expected future measurements resulting from actual future experience deviating from actuarially assumed experience.
- Sample sources of risk include:
 - Investment Return
 - Asset/Liability Mismatch
 - Interest Rate Risk
 - Longevity and Other Demographic Risks
 - Contribution Risk

Risk Measures (cont'd)

	January 1, 2024	January 1, 2025
Market Value of Assets	\$425,594,136	\$458,482,117
Total Covered Payroll	\$183,570,620	\$192,421,661
Ratio	2.3	2.4
More risk is associated with plans whose size (assets and liabilities) are significantly larger than annual payroll.		
Market Value of Assets	\$425,594,136	\$458,482,117
Actuarial Accrued Liability	\$635,042,566	\$666,807,654
Ratio	67.0%	68.8%
More risk is associated with plans that have lower funded ratios.		
Retired Participant Liability	\$348,951,586	\$365,939,998
Total Actuarial Accrued Liability	\$635,042,566	\$666,807,654
Ratio	54.9%	54.9%
More risk is associated with plans whose retiree liability is a significant and growing proportion of the plan's total liability.		
Benefit Payments	\$38,283,053	\$40,238,766
Total Contributions	\$30,913,213	\$32,256,199
Ratio	123.8%	124.7%
More risk is associated with plans whose benefit payments are significantly larger than contributions.		

Forecast of Funded Percentage

Forecast Period	Year	Estimated Funded Percentage		
		6.5% Investment Return	7.5% Investment Return	8.5 % Investment Return
Current – Actual	2025	68.6%	68.6%	68.6%
1 Year	2026	69.2%	69.5%	69.8%
2 Years	2027	69.5%	70.3%	71.2%
3 Years	2028	69.8%	71.2%	72.7%
4 Years	2029	70.0%	72.2%	74.4%
5 Years	2030	70.3%	73.2%	76.2%
10 Years	2035	72.7%	79.9%	87.7%
15 Years	2040	77.8%	90.1%	104.1%
20 Years	2045	87.8%	105.8%	127.4%

Assumptions

- Investment Return 7.5%, 6.5% or 8.5% per year
- Discount Rate 7.5% for all scenarios
- Salary Scale Graded 4.5% – 6.5%
- Mortality Table PubG-2010 set forward two years for males and one year for females and projected with 75% of 2024 Adjusted MP-2021 improvement scale
- Actuarial Cost Method Projected Unit Credit
- Member Growth Rate 0%
- Plan Provisions Same as Current
- Other Assumptions and Data Consistent with the January 1, 2025 Valuation

Forecasts are intended for illustrative purposes as an indication of future trends and risks. Actual future funded percentages will differ from these forecasts as actual plan experience differs from the assumptions.

ASOP No. 4

- This updated Actuarial Standard of Practice became effective for measurement dates on or after February 15, 2023.
- This ASOP adds the disclosure of a new liability calculation called a “Low-Default-Risk Obligation Measure” (LDRM). This liability represents the present value of earned benefits based on discount rates derived from low-default-risk fixed income securities.
 - For 2025, this liability is based on a discount rate of 5.64% rather than the plan’s assumed rate of investment return of 7.5% and resulted in a LDRM liability of \$822,128,963. Using current discount rates may result in some year-to-year volatility.
- One interpretation of the LDRM is an estimate of the cost to fully immunize all benefits accrued as of the measurement date, by purchasing securities that mature at the same time future benefits are due.
- Another interpretation is that the difference between the pension liability used to fund the plan and the LDRM represents the expected savings to be achieved by investing in asset classes with higher expected returns than bonds.

ASOP No. 4 (cont'd)

- This updated ASOP also requires that a plan's amortization method is expected to produce amortization payments that fully amortize the unfunded liability bases within a reasonable time period or reduce the outstanding balance by a reasonable amount each year.
 - Determination of a reasonable time period or a reasonable amount is based on several considerations; including the length of time until amortization payments exceed nominal interest on the outstanding balance.
 - As of January 1, 2025 this amortization period is 19.9 years.
- This ASOP also requires the disclosure of the annual actuarial gain or loss split out by:
 - Investment gain or loss
 - Other sources of gain or loss
 - This gain or loss disclosure is contained in the formal actuary's report.



Thank you.

**2025 Report to the Nebraska Retirement Systems Committee
Eastern Nebraska Human Services Agency Employees Retirement Plan**

1. Information for plan years 2020 through 2025*:

	2025	2024	2023	2022	2021	2020
Funding Status						
• Market Value of Assets	N/A	\$51,740,930	N/A	\$54,101,481	N/A	\$45,131,959
• Actuarial Accrued Liability	N/A	\$72,247,479	N/A	\$66,989,243	N/A	\$62,126,732
• Funded Status	N/A	72%	N/A	81%	N/A	73%
Assumed rate of return	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Prior year actual return	13.5%	13.0%	-10.8%	12.1%	9.9%	14.0%
Member contribution rates: % of pay	3.00%	3.00%	3.00%	3.00%	2.75%	2.75%
Employer contribution rates: % of pay	10.0%	10.0%	10.0%	10.0%	9.5%	9.5%
Normal cost: % of pay	N/A	7.0%	N/A	7.9%	N/A	7.4%
ARC: % of pay	14.93%	14.93%	13.03%	13.03%	13.46%	13.46%
ARC (\$)	\$3,467,490	\$3,366,495	\$2,862,326	\$2,792,513	\$3,202,721	\$3,124,606
Contribution (\$)	TBD	\$3,185,176	\$3,096,400	\$3,059,102	\$3,059,132	\$3,221,931
Contribution: % of ARC	TBD	94.6%	108.2%	109.5%	95.5%	103.1%

* Actuarial Valuations are conducted every other year. Accordingly, the 2025 ARC as a percentage of assumed pay is the same as for 2024.

2025 Report to the Nebraska Retirement Systems Committee Eastern Nebraska Human Services Agency Employees Retirement Plan

2. **Circumstances that led to the current underfunding of the retirement plan:** Prior to 2014, actual contributions were significantly less than the ARC. Additionally, investment losses resulting from the financial crisis of 2008/09 significantly reduced the plan’s funding status. Investment gains for 2019, 2020 and 2021 increased the 2022 funded status to over 80%; but, the investment loss in 2022 decreased the 2024 funded status to 72%.

3. **Changes in the actuarial methods and/or assumptions since the previous actuarial valuation report:** For the 2024 actuarial valuation, the salary scale assumption was increased from 2.50% to 3.00%. Turnover rates were increased 33.3% for all but the first year during the select-period. The election form of distribution assumption under age 55 was changed from 25% annuity / 75% return of employee contributions to 50% annuity / 50% return of employee contributions. There were no other changes in the actuarial assumptions or methods.

These changes in actuarial assumptions were based on the plan’s experience study completed in 2024. The impact of these changes was to increase the actuarial accrued liability by \$138,173 or 0.2% and an increase in the normal cost of \$42,980.

4. **Year the plan funding ratio expected to reach 100%:** Based on forecasts as of 1/1/2024, the Plan is forecasted to attain a 100% funding ratio in 2049 based on the January 1, 2024 census data and assets and projected with assumptions as described in the January 1, 2024 actuarial valuation report. Attached is a copy of this funding ratio forecast.

Summary of Funded Ratio Forecast

Year	Funded Ratio
2024	72%
2029	74%
2034	79%
2036	81%
2039	85%
2044	93%
2049	100%

5. **Method used to amortize the unfunded actuarial liability:** 25 years on fixed level dollar, closed layered basis. This method was adopted as of 1/1/2018.

6. **Corrective actions implemented to improve the funding status of the plan:** The agency has been increasing employer contributions since 2010. Beginning November 1, 2021, the employer contribution rate increased from 9.5% to 10% and employee contributions increased from 2.75% to 3%. The most recent forecast study was completed in August 2024 (see attached). The current contribution schedule of 10.0% employer and 3.00% employee shows steady future annual improvement in the funding status attaining a funding status exceeding 80% in 12 years. Currently, there are no plans adopted to increase the employer nor employee contribution rate.

2025 Report to the Nebraska Retirement Systems Committee Eastern Nebraska Human Services Agency Employees Retirement Plan

These forecasts of funded status would result in higher funded percentages if updated for investment gains subsequent to January 1, 2024. For example, the plan's investment return for the year ended 12/31/2024 was approximately 13.5% compared to the assumed annual rate of return of 7.0%. The plan's investment return for the nine months ended 9/30/2025 was approximately 12.4% compared to the assumed annual rate of return of 7.0%.

7. **Negotiations with bargaining groups:** Approximately 20% of the agency's employees are covered under a collective bargaining agreement. As of this report, the agency is not in negotiations for any plan changes.
8. **The most recent Actuarial Experience Study was completed in August 2024 and is attached.** An experience study is performed every four years on this plan. See item #3 for changes to the actuarial assumptions based on results of this study. The next study will be performed in 2028.
9. **The current assumed rate of return is 7.0%.** This assumption has not been changed since inception of the Plan. The rate is reviewed in the Actuarial Experience Study conducted every four years.
10. **The report for the January 1, 2024 actuarial valuation is attached.**



September 24, 2024

PERSONAL & CONFIDENTIAL

Ms. Debbie Herbel
Eastern Nebraska Human Services Agency
4715 South 132nd Street
Omaha, NE 68137

RE: Employees Retirement Plan

Dear Debbie:

We have completed our work on the actuarial valuation for the Eastern Nebraska Human Services Agency Employees Retirement Plan. Enclosed for your review are 15 copies of the Actuarial Valuation Report for the plan year beginning January 1, 2024.

The Report Highlights section summarizes the valuation results. The actuarial formula to determine the Recommend Employer Contribution is based on an amount equal to the excess of the plan's Normal Cost over the anticipated employee contributions, plus an amount to amortize the unfunded accrued liability over a closed, layered 25-year period. As you will note, the plan's funded ratio decreased from 81% as of January 1, 2022 to 72% as of January 1, 2024.

The valuation recognizes the updated participant and plan asset information as of January 1, 2024. The following actuarial assumptions were changed based on results of the January 1, 2024 experience study:

- The salary scale assumption was increased from 2.50% to 3.00%.
- Turnover rates were increased 33.3% for all but the first year during the select-period.
- The election form of distribution assumption under age 55 was changed from 25% annuity / 75% return of employee contributions to 50% annuity / 50% return of employee contributions.

All other actuarial methods and assumptions are the same as those used for the prior valuation. In our opinion, these methods and assumptions are appropriate.

Additional Risk Disclosures

The Actuarial Standards Board adopted revisions to Actuarial Standard of Practice No. 4 (ASOP No. 4), first effective for this January 1, 2024 actuarial valuation. In order to satisfy requirements of ASOP No. 4, the following disclosures are included in this report:

- Gain and loss analysis separating the total gain or loss into investment gain or loss and other gain or loss.

Ms. Debbie Herbel
September 24, 2024
Page -2-

- Low default risk obligation measure - this calculation of plan liabilities is based on applicable fixed income expected returns rather than the plan's actual expected return on assets. This measure resulted in a significantly higher liability, but is not used to calculate the actuarially determined contribution.
- Commentary on the reasonableness of the actuarially determined contribution, the amortization method used for the unfunded liability and the actuarial cost methods.

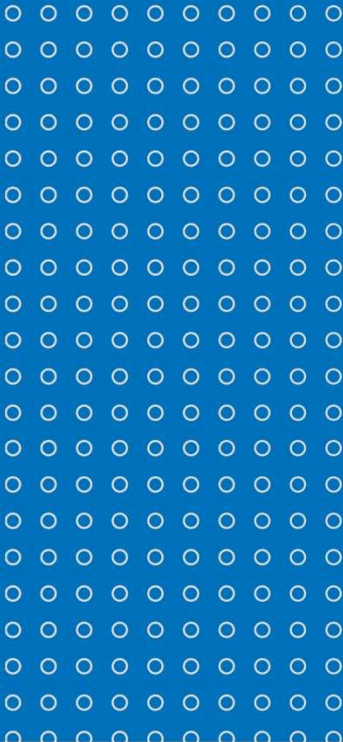
Please call if we can provide additional information.

Sincerely,

A handwritten signature in black ink that reads "Glen Gahan". The signature is fluid and cursive, with the first name "Glen" being more prominent than the last name "Gahan".

Glen Gahan, FSA, MAAA
Enrolled Actuary

Enclosures



EASTERN NEBRASKA HUMAN SERVICES AGENCY EMPLOYEES RETIREMENT PLAN

Actuarial Valuation Report

January 1, 2024





September 24, 2024

ACTUARIAL CERTIFICATION

Pension Committee
Eastern Nebraska Human Services Agency
4715 South 132nd Street
Omaha, NE 68137

Committee Members:

An actuarial valuation was performed for the Eastern Nebraska Human Services Agency Employees Retirement Plan as of January 1, 2024. The valuation was prepared to determine the value of accrued benefits and annual costs. The results of the valuation are contained in the accompanying report.

The valuation is based on eligible employees submitted by your office. A statement of plan assets was furnished by United of Omaha, American Funds, and Stichler Wealth Management. We have not made an independent audit of this data, but have relied on the accuracy of the information that was supplied.

To the best of my knowledge, the information supplied in this report is complete and accurate and in my opinion the assumptions are reasonably related to the experience of the Plan and to reasonable expectations and represent my best estimate of anticipated experience under the Plan. However, future measures may differ significantly from the current measurement. Due to the limited scope of our assignment, this report does not include an analysis of the potential range of such future measures. The undersigned meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Sincerely,

A handwritten signature in black ink that reads "Glen Gahan".

Glen Gahan, FSA, MAAA
Enrolled Actuary

Enclosure

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Financial Highlights

	<u>2022</u>	<u>2023</u>	<u>2024</u>
Annual Contributions			
Recommended	2,792,513	2,862,326 *	3,366,495
Actual	3,059,102	3,096,400	N/A
Plan Assets			
Prior Year Investment Return	12.1%	-10.8%	13.0%
Funding Basis			
Actuarial Accrued Liability	66,989,243		72,247,479
Plan Assets	54,101,481		51,740,930
Unfunded Actuarial Accrued Liability	12,887,762		20,506,549
Accrued Benefit Basis			
Vested Benefit Value	63,155,929		67,457,948
Accrued Benefit Value	64,519,720		68,862,717
Funded Ratios**			
Funding Basis - AAL	81%		72%
Accrued Benefit Basis	84%		75%
Normal Cost			
As a percent of covered payroll	7.9%		7.0%
Interest Rates			
Funding Basis	7.00%		7.00%
Accrued Benefit Basis	7.00%		7.00%
Annual Covered Payroll			
	21,424,998		22,547,449
Number of Participants			
Active and Disabled	524		469
Retired and Beneficiary	332		367
Vested Terminations and Transfers	126		139
Total	<u>982</u>		<u>975</u>

* Increased from prior year recommended contribution by 2.5% salary scale.

** Ratio of plan assets to applicable actuarial liability.

Comments on the Valuation

The results of the actuarial valuation prepared for the Eastern Nebraska Human Services Agency Employees Retirement Plan as of January 1, 2024 are summarized in this report. The following observations are provided regarding the report.

Plan Experience

Examining the overall plan experience since the last valuation on January 1, 2022, we note:

- Since the prior valuation, the number of active participants has decreased from 524 to 469. Annual covered payroll for participants under Normal Retirement Age increased from \$21,424,998 to \$22,547,449, a 5.2% increase. The average salary for participants under Normal Retirement Age increased from \$43,724 to \$51,596, a 18.0% increase.
- For active participants included in the valuation, average age decreased from 46.4 to 46.0 years and average service decreased from 10.3 to 9.3 years.
- The investment return on plan assets since the prior valuation was lower on average than the assumed 7.0% rate. The approximate investment return rate for 2022 was -10.8%, and for 2023 was 13.0%.
- On the same actuarial basis as used in 2022 and prior to any assumption or plan changes, the Unfunded Accrued Liability (UAL) increased by \$7,480,000, from \$12,890,000 to \$20,370,000. Contributing factors were:
 - Investment return rates less than expected increased the UAL by approximately \$7,390,000.
 - Contributions more than the Normal Cost plus interest on the UAL decreased the UAL by approximately \$860,000.
 - Net actuarial losses from other sources increased the UAL by approximately \$950,000.

Comments on the Valuation

Actuarial Assumptions

The salary scale assumption was increased from 2.50% to 3.00%. Turnover rates were increased 33.3% for all but the first year during the select-period. The election form of distribution assumption under age 55 was changed from 25% annuity / 75% return of employee contributions to 50% annuity / 50% return of employee contributions. The net effect of these changes increased the UAL by \$138,173. The corresponding reduction in the normal cost was \$42,980.

All other assumptions are the same as those used in the 2022 valuation.

Recommended Contribution

The recommended contribution consists of the plan's normal cost plus a 25-year amortization payment of the unfunded accrued liability. This amortization period is closed for the initial unfunded actuarial accrued liability (UAAL) as of January 1, 2018. New bases will be established in future years for changes in the UAAL due to changes in plan provisions, actuarial assumptions and experience (gains)/losses.

We recommend ENHSA increase the total contribution to the plan to at least \$3,366,495 for 2024. Plan contributions include amounts contributed by the employees and by the employer. For 2024, the anticipated employee contributions at the current rate of 3.0% are \$676,423 and the anticipated employer contributions at the current rate of 10.0% are \$2,254,745 for a total of \$2,931,168. The shortfall can be funded by increased contributions by the employees, ENHSA, or both.

Annual Contributions

Annual contributions to the Retirement Plan as illustrated herein are comprised of employee contributions equal to a percentage of expected compensation as of the valuation date and an amount payable by the employer.

	<u>January 1, 2022</u>	<u>January 1, 2024</u>	
		<u>Before Assumption and Plan Changes</u>	<u>After Assumption and Plan Changes*</u>
Recommended Contribution			
Normal Cost	\$1,687,585	\$1,624,503	\$1,581,523
Accrued Liability Payment	1,104,928	1,773,891	1,784,972
Total	2,792,513	3,398,394	3,366,495
Expected Employee Contribution			
Employee Contribution Rate	3.00%	3.00%	3.00%
Covered Payroll	21,424,998	22,547,449	22,547,449
Expected Employee Contribution	642,750	676,423	676,423
Recommended Employer Contribution			
Normal Cost less Employee Contribution	1,044,835	948,080	905,100
Employer Normal Cost as a Percent of Pay	4.88%	4.20%	4.01%
Total Contribution less Employee Contribution	2,149,763	2,721,971	2,690,072
Employer Contribution as a Percent of Pay	10.03%	12.07%	11.93%

* The mortality table, salary scale, turnover rates and elected form of distribution assumptions were changed as shown in the Actuarial Assumptions section.

Valuation Results

A summary of the results of the actuarial valuations performed as of January 1, 2022 and January 1, 2024 is displayed below:

	<u>January 1, 2022</u>	<u>January 1, 2024</u>	
		<u>Before Assumption and Plan Changes</u>	<u>After Assumption and Plan Changes*</u>
Unfunded Accrued Liability			
Accrued Liability	\$66,989,243	\$72,109,306	\$72,247,479
Less: Plan Assets	<u>54,101,481</u>	<u>51,740,930</u>	<u>51,740,930</u>
Unfunded Accrued Liability	\$12,887,762	\$20,368,376	\$20,506,549
Ratio of Assets to Accrued Liability	81%	72%	72%
Annual Normal Cost			
Retirement, Death, Termination and Deferred Disability Benefits	\$1,654,110	\$1,590,359	\$1,547,379
Administrative Expense Load	<u>33,475</u>	<u>34,144</u>	<u>34,144</u>
Total	\$1,687,585	\$1,624,503	\$1,581,523

* The mortality table, salary scale, turnover rates and elected form of distribution assumptions were changed as shown in the Actuarial Assumptions section.

Plan Assets

All future plan benefits will be derived from plan assets on the valuation date, future contributions and investment income on these amounts. The changes in the value of plan assets since the last valuation and the value of plan assets on the current valuation date are displayed below.

Changes in Value of Plan Assets

Market Value of Assets on January 1, 2022	\$54,101,481
Contribution Receivable	0
Adjusted Plan Assets on January 1, 2022	\$54,101,481
Employer Contributions	2,358,337
Employee Contributions	700,765
Investment Income	(5,744,594)
Monthly Benefit Payments	(4,271,821)
Lump Sum Distributions	0
Administrative Charges	(37,649)
Market Value of Assets on January 1, 2023	\$47,106,519
Contribution Receivable	0
Adjusted Plan Assets on January 1, 2023	\$47,106,519
Employer Contributions	2,377,276
Employee Contributions	719,124
Investment Income	6,081,306
Monthly Benefit Payments	(4,179,310)
Lump Sum Distributions	(329,841)
Administrative Charges	(34,144)
Market Value of Assets on January 1, 2024	\$51,740,930
Contribution Receivable	0
Adjusted Plan Assets on January 1, 2024	\$51,740,930

Asset Allocation

Employee Funds - Annuity Contract	\$3,634,370
Employee Funds - Equities	6,530,578
Employer Funds - Annuity Contract	7,896,583
Employer Funds - Equities	33,679,399
	\$51,740,930

Plan Financial Information

Another objective of preparing the actuarial valuation is to evaluate the funding status of the Plan. The following display compares the funding status of the Plan for the two most recent actuarial valuations.

	<u>January 1, 2022</u>	<u>January 1, 2024</u>
1. Actuarial Present Value of Vested Accrued Benefits		
Retirees and Beneficiaries of Deceased Participants	\$35,956,578	\$42,828,643
Vested Terminated Participants	3,308,191	4,361,747
Active Participants	23,891,160	20,267,558
Total	\$63,155,929	\$67,457,948
2. Actuarial Present Value of Non-Vested Accrued Benefits for Active Participants	\$1,363,791	\$1,404,769
3. Actuarial Present Value of Accrued Benefits (1) + (2)	\$64,519,720	\$68,862,717
4. Value of Assets	\$54,101,481	\$51,740,930
5. Funded Ratio*		
Vested Accrued Benefits	86%	77%
Accrued Benefits	84%	75%
Interest Rate	7.00%	7.00%

The actuarial present value of vested and non-vested benefits has been determined based on the actuarial assumptions shown in the Actuarial Assumptions section.

* Ratio of plan assets to applicable actuarial present value.

Accrued Liability Payment

One of the components included to determine the actuarially determined contribution is the Accrued Liability Payment. The Accrued Liability Payment is an annual amount that will amortize:

- The unfunded accrued liability established as of January 1, 2018.
- An increase or decrease in the unfunded accrued liability due to plan amendment.
- An increase or decrease in the unfunded accrued liability due to a change in actuarial assumptions.
- An increase or decrease in the unfunded accrued liability resulting from actuarial gains or losses due to plan experience more or less favorable than expected.

This section of the report documents the Amortization Bases established for the Plan and displays other values associated with minimum funding.

<u>Amortization Base</u>	<u>Date Established</u>	<u>Source of Base</u>
14,245,604	January 1, 2018	Initial Unfunded
3,300,070	January 1, 2020	Assumption Change & Actuarial Loss
(3,767,955)	January 1, 2022	Assumption Change, Plan Change & Actuarial Gain
8,479,695	January 1, 2024	Assumption Change & Actuarial Loss

Minimum Funding

The Unamortized Balance is based on the methodology for the actuarially determined contribution and does not reflect actual past funding of the Amortization Bases. For each amortization base, the initial amortization period and the remaining term of the amortization period determined on the valuation date are displayed.

Charge Bases

<u>Amortization Base</u>	<u>Initial Term-Years</u>	<u>Remaining Term on Valuation Date</u>	<u>Minimum Payment</u>
14,245,604	25	19	1,142,451
3,300,070	25	21	264,655
(3,767,955)	25	23	(302,178)
8,479,695	25	25	680,044
		Total	\$1,784,972

Actuarial (Gain)/Loss

Expected Unfunded Actuarial Accrued Liability

1.	Expected Actuarial Accrued Liability*	
a.	Actuarial Accrued Liability on January 1, 2022	66,989,243
b.	Normal Cost - 2022 & 2023	3,493,301
c.	Benefit Distributions 2022 & 2023	(8,780,972)
d.	Interest on above at 7.00% to December 31, 2023	9,460,845
e.	Total	71,162,417
2.	Expected Assets	
a.	Actuarial Value of Assets on January 1, 2022	54,101,481
b.	Contributions - 2022 & 2023	6,155,502
c.	Benefit Distributions 2022 & 2023	(8,780,972)
d.	Interest on above at 7.00% to December 31, 2023	7,659,552
e.	Total	59,135,563
3.	Expected Unfunded Actuarial Accrued Liability on December 31, 2023	12,026,854

Actual Unfunded Actuarial Accrued Liability

4.	Actuarial Accrued Liability Before Changes	72,109,306
5.	Actuarial Value of Assets	51,740,930
6.	Actual Unfunded Actuarial Accrued Liability on December 31, 2023 (4) - (5)	20,368,376

Actuarial (Gain) or Loss

7.	Investment (Gain) or Loss (2e) - (5)	7,394,633
8.	Other (Gain) or Loss (4) - (1e)	946,889
9.	Total Actuarial (Gain) or Loss (7) + (8)	8,341,522

* Based on the Entry Age Normal Cost Method.

Risk and Other Disclosures

The Actuarial Standards Board provides guidance to actuaries when performing certain actuarial services in the form of standards of practice. The Board has issued a standard of practice on risk disclosure that applies to actuaries when performing a funding valuation of a defined benefit pension plan. This standard of practice addresses assessment and disclosure of the risk that actual future measurements may differ significantly from expected future measurements of pension liabilities, funded status, and actuarially determined contributions.

Risk is defined as the potential of actual future measurements to deviate from expected future measurements. This deviation results when actual future experience is different from actuarially assumed experience. Sample sources of risk include: investment returns, asset/liability mismatch, interest rates, longevity and other demographic risks, and contribution risk. The following are certain significant measures of risk as they pertain to the plan.

	<u>January 1, 2022</u>	<u>January 1, 2024</u>
Retired Participant Liability	35,956,578	42,828,643
Total Plan Liability	66,989,243	72,247,479
Ratio	53.7%	59.3%

More risk related to investment returns is associated with plans whose retiree liability is a significant and growing proportion of the plan's total liability, since it is more difficult to restore a plan financially after losses occur due to a shorter duration of liability where significant retired liability exists.

	<u>January 1, 2022</u>	<u>January 1, 2024</u>
Contributions in prior year	3,059,132	3,096,400
Benefit Payments in prior year	(4,014,040)	(4,509,151)
Net Cash Flow	(954,908)	(1,412,751)

More risk related to investment volatility is associated with plans whose benefit payments are significant compared to the plan contributions. If, for example, a plan has negative cash flow and experiences investment returns below an assumed rate then there are fewer assets that can be reinvested to earn potentially higher returns that may follow.

	<u>January 1, 2022</u>	<u>January 1, 2024</u>
Duration of Plan Liability	11.3 years	11.2 years

Duration is a present value weighted average of the timing of future benefit payments. Plans with a higher duration have more risk related to future interest rates. Additionally, more risk related to asset/liability mismatch is associated with plans whose liability duration differs significantly from the duration of plan investments.

Risk and Other Disclosures

(continued)

	<u>January 1, 2022</u>	<u>January 1, 2024</u>
Market Value of Assets	54,101,481	51,740,930
Total Covered Payroll	23,017,560	24,519,733
Asset Volatility Ratio	2.4	2.1

More risk related to investment return and future costs are associated with plans whose asset volatility ratio is high and growing; which is a characteristic of more mature plans.

	<u>January 1, 2022</u>	<u>January 1, 2024</u>
Market Value of Assets	54,101,481	51,740,930
Actuarial Accrued Liability	66,989,243	72,247,479
Ratio	80.8%	71.6%

More risk is associated with plans that have lower funded ratios.

	<u>January 1, 2022</u>	<u>January 1, 2024</u>
Actuarial Accrued Liability	66,989,243	72,247,479
Total Covered Payroll	23,017,560	24,519,733
Liability Volatility Ratio	2.9	2.9

More risk related to experience losses and future costs are associated with plans whose liability volatility ratio is high and growing; which is a characteristic of more mature plans.

The assumptions used to determine the risk measures above are identical to the assumptions used for recommended funding purposes on the respective valuation dates.

Other Disclosures

The standard of practice on measuring pension obligations and determining pension plan contributions provides guidance to actuaries related to determination of funded status, assigning the value of pension benefits to time periods, developing contribution allocation procedures and certain other disclosures. One additional disclosure includes the calculation of a low default risk obligation measure (“LDRM”). The calculation of the LDRM can be based on the same assumptions used in the funding valuation, except the discount rate or rates should be selected from low default risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future. Thus, one interpretation of the LDRM is an estimate of the cost to fully immunize all benefits accrued as of the measurement date, by purchasing securities that mature at the same times when future benefits are due.

We have calculated the LDRM as of January 1, 2024 to be \$92,860,411. The discount rate used is from the FTSE Pension Discount Curve as of December 31, 2024 which resulted in an effective discount rate of 4.78% and the Projected Unit Credit Actuarial Accrued Liability cost method was used. All other assumptions and methods are identical to those used in calculating the Recommended Contribution contained in this report.

Risk and Other Disclosures

(continued)

The calculation of the LDROM is not intended to suggest it is the “right” liability measure for ENHSA. The use of a discount rate based on low default risk fixed income securities produces a higher liability than that used for long-term investment purposes of ENHSA's assets. If the LDROM was used for determining the Recommended Contribution it would generally produce higher contribution requirements and potentially more security of member's benefits due to higher asset levels.

The determination of the Recommended Contribution in this report meets the definition of a reasonable actuarially determined contribution as contained in the actuarial standard of practice applicable for funding valuations of defined benefit plans addressing the measurement of pension obligations and determining pension plan contributions. An actuarially determined contribution is reasonable by satisfying the following: i) all assumptions are reasonable, do not significantly conflict with our professional judgement and are expected to have no significant bias; ii) the actuarial cost method and asset valuation method are acceptable and defined in the Summary of Actuarial Methods section of this report; iii) the amortization method, if applicable, of the Unfunded Actuarial Accrued Liability (“UAAL”) is expected to produce total amortization payments that are expected to fully amortize the UAAL within a reasonable time period; and iv) the contribution allocation procedure is consistent with ENHSA accumulating assets adequate to make benefit payments when due.

Analysis of Actuarially Determined Contribution

Below is an analysis of the Recommended Contribution as it relates to the definition of a

1. Recommended Contribution	3,366,495
2. Projected Unit Credit Normal Cost	1,581,523
3. Contribution in Excess of Projected Unit Credit Normal Cost	1,784,972
4. Projected Unit Credit Actuarial Accrued Liability	72,247,479
5. Plan Assets	51,740,930
6. Unfunded Actuarial Accrued Liability (UAAL)	20,506,549
7. Interest on UAAL = 7.00% x (6)	1,435,458
8. Contribution in excess of Normal Cost plus Interest on UAAL	349,514

Since (8) above is greater than zero, the recommended contribution currently exceeds the Annual Normal Cost plus interest on the UAAL and is a reasonable actuarially determined contribution.

Actuarial Cost Method

Annual costs were calculated using the Projected Unit Credit Actuarial Cost Method. Projected Unit Credit is one of the Accrued Benefit Actuarial Cost Methods. Using Projected Unit Credit, annual costs equal the sum of the normal cost and an amount to amortize the unfunded accrued liability. The normal cost is defined as the actuarial value of retirement and ancillary benefits that are allocated to the current year.

The unfunded accrued liability is equal to the accrued liability reduced by the actuarial value of plan assets. The accrued liability is defined as the actuarial value of retirement and ancillary benefits that have been allocated to years of service prior to the current year.

The method allocates an equal amount of a participant's projected retirement benefit to each year of service. The benefit at normal retirement is projected assuming salaries increase at the assumed rates. The projected retirement benefit is then divided by the participant's years of service to determine the portion of the retirement benefit allocated to each year.

At the end of each year, a determination of actuarial gains and losses is made. Actuarial gains and losses indicate the extent to which actual experience is deviating from that expected on the basis of the actuarial assumptions. Actuarial gains result from experience more favorable than assumed and reduce the unfunded accrued liability. Actuarial losses result from experience less favorable than assumed and increase the unfunded accrued liability. All actuarial gains and losses are included in the determination of the unfunded accrued liability as of the valuation date.

The unfunded actuarial accrued liability is amortized over 25 years on a fixed level dollar, closed layered basis. This amortization method was adopted effective January 1, 2018.

Asset Valuation Method

The value of plan assets is based on the contract value of assets held at United of Omaha and the market value of assets held at American Funds and Stichler Wealth Management.

Actuarial Assumptions

Interest Rate 7.0% compounded annually.

Salary Scale Salaries were assumed to increase at an annual rate of 3.0% compounded annually following the valuation date.

Mortality Rates PubG-2010(B) / MP 2021 generational improvement scale projected from 2010.

Turnover Rates Based on years of service and age as follows:

Years of Service	Annual Rate
0	54.0%
1	34.0%
2	20.0%
3 or more	200% of Scale T-7 of the Actuary's Pension Handbook based on the participants' age.

Elected Form of Distribution

Age	<u>Percent Electing</u>	
	Deferred Annuity	Employee Contribution
Under 55	50%	50%
55 and over	100%	0%

Retirement Rate

Participants are assumed to retire in accordance with the following schedule:

Age	Annual Rate of Retirement
55	5%
56	2%
57	2%
58	2%
59	3%
60	4%
61	5%
62	15%
63	5%
64	5%
65	100%

**Actuarial Assumptions
(continued)**

Normal Retirement Age	Age 65 or Age 62 with 30 years of service earned as of the valuation date.
Marriage Rate	75% of the participants were assumed to be married at retirement. Female spouses are assumed to be 3 years younger than male spouses.
Administrative Expenses	Equal to prior plan year actual expense.

Summary of Plan Provisions

Effective Date	January 1, 1982.
Plan Year	January 1 through December 31.
Participation	Full-time employees are eligible to participate on January 1 or July 1 coinciding with or next following the completion of 6 months of service.
Definitions	
<i>Service</i>	Any period of time the Employee is in the employ of the Employer as a full-time Employee.
<i>Year of Service</i>	A consecutive 12 month period during which 2,000 hours of service has been completed. For purposes of retirement benefits, a Year of Service shall include the fractional portion of the year from the most recent employment anniversary to date of termination.
<i>Average Monthly Compensation</i>	Average of monthly compensation during the five consecutive years of the last ten years of service which produces the highest average.
<i>Normal Retirement Date</i>	First day of the month coinciding with or next following the attainment of age 65, or age 62 with 30 years of service.
<i>Early Retirement Date</i>	First day of any month following the attainment of age 55 and completion of 10 years of service, or age 60 and 5 years of service.
<i>Late Retirement Date</i>	Anytime following Normal Retirement Date.
<i>Disability Retirement</i>	If a participant has completed five years of service and becomes disabled, they will remain active in the plan until their Normal Retirement Date. Mandatory employee contributions will be waived.

Summary of Plan Provisions (continued)

Benefits

Normal Retirement Monthly annuity equal to 1.75% of Average Monthly Compensation multiplied by the number of Years of Service.

Early Retirement Monthly annuity computed in the same manner as the Normal Retirement Benefit but based on the service and Average Monthly Compensation as of the Early Retirement Date and reduced by 0.25% for each full month that the Early Retirement Date precedes the Normal Retirement Date.

Late Retirement Monthly annuity computed in the same manner as the Normal Retirement Benefit but based on the service and Average Monthly Compensation earned as of the Late Retirement Date.

Disability Monthly annuity payable at Normal Retirement Age computed in the same manner as the Normal Retirement Benefit assuming that compensation as of the date of Disability and service continued to the Normal Retirement Date.

Preretirement Death Benefit A benefit is payable at the death of an active participant.

Death Prior to Early Retirement Date - A lump sum equal to the participant's contributions plus accumulated interest is payable to a designated beneficiary.

Death After Early Retirement Date - A monthly income payable to a surviving spouse or dependent children equal to 60% of the earned benefit determined at the participant's death. This amount is payable beginning at the participant's Normal Retirement Date. A reduced monthly income may be selected by the surviving spouse or the dependent children to be payable beginning at any date following the participant's Early Retirement Date. The monthly income is payable for the life of the surviving spouse. If paid to the dependent children, the monthly income will continue until the youngest child attains age 21.

If the participant is not survived by an eligible spouse or dependent children a lump sum equal to the participant's contributions plus accumulated interest is payable to a designated beneficiary.

Summary of Plan Provisions (continued)

Termination Benefit Benefit upon termination equal to a vested interest in the earned pension as of the date of termination determined according to the following schedule:

<u>Years of Service</u>	<u>Vesting %</u>
Less than 5 years	0%
5	50%
6	60%
7	70%
8	80%
9	90%
10 or more years	100%

Normal Forms of Annuity

Married Participant Joint and 60% Survivor annuity.

Single Participant Five Year Certain & Life annuity.

Contributions

Participant A monthly amount equal to 3.00% of monthly compensation. This rate increased from 2.75% to 3.00% as of November 1, 2021. The contributions are picked up by the employer effective July 1, 2013.

Employer An amount necessary to provide the benefits under the plan based upon the recommendations of periodic actuarial valuations. Currently, the employer is contributing 10.00% of payroll. This rate increased from 9.50% to 10.00% as of November 1, 2021.

Participant Census Statistics

January 1, 2024

Active and Disabled Participants Included in Valuation

Age at Valuation Date	Years of Service									Average Salary
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total	
Under 20	1	0	0	0	0	0	0	0	1	35,560
20-24	9	0	0	0	0	0	0	0	9	38,292
25-29	38	5	0	0	0	0	0	0	43	42,445
30-34	37	14	4	0	0	0	0	0	55	43,446
35-39	25	19	10	2	0	0	0	0	56	49,811
40-44	29	8	7	9	6	0	0	0	59	51,328
45-49	23	11	3	3	9	4	0	0	53	57,235
50-54	15	10	4	5	4	6	2	0	46	53,793
55-59	19	9	4	5	8	8	1	2	56	47,966
60-64	16	12	8	7	4	7	4	1	59	57,473
65 & Over	9	6	4	2	5	3	1	2	32	60,131
Total	221	94	44	33	36	28	8	5	469	
Average Salary	46,246	52,224	53,578	55,347	59,673	52,995	69,692	83,759		51,006

Average Salary - based on reported compensation for calendar 2023.

Participant Census Statistics
(continued)

January 1, 2024
Non-Active Participants Included in Valuation

	Number	Total Annual Benefit	Average Annual Benefit
Retired & Beneficiary	367	\$4,480,520	\$12,209
Vested Terminated	139	937,650	6,746
Total	506	5,418,170	10,708

Retired & Beneficiary Participants in Pay Status

Age	Number	Total Annual Benefit	Average Annual Benefit
Under 55	9	\$59,334	\$6,593
55-59	2	22,454	11,227
60-64	39	676,467	17,345
65-69	88	1,177,181	13,377
70-74	89	1,194,053	13,416
75-79	62	776,220	12,520
80-84	42	333,531	7,941
85-89	23	162,485	7,065
Over 89	13	78,795	6,061
Total	367	4,480,520	12,209

Participant Census Statistics
(continued)

	Active and Disabled	Non-Active		Total
		Deferred	Retired	
Number on January 1, 2022	524	126	332	982
Terminated				
Non-Vested	-40	0	0	-40
Vested - Lump Sum	-77	-15	0	-92
Vested - Deferred	-40	+40	0	0
Deceased				
Vested - Lump Sum	-1	0	0	-1
Vested - Beneficiary	-1	0	-15	-16
No Additional Benefit	0	0	-13	-13
Retired				
Monthly Benefit	-39	-11	+50	0
Lump Sum	0	0	0	0
Certain Period Expired	0	0	-3	-3
Beneficiary	0	0	+16	+16
Return to Active	+1	-1	0	0
New Entrants or Prior Omissions During Plan Year	+142	0	0	+142
Number on January 1, 2024	469	139	367	975
<u>Non-Active Participants</u>		<u>Number</u>	<u>Annual Benefit</u>	
Deferred Participants		139	\$937,650	
Retired & Beneficiary Participants		367	\$4,480,520	



September 24, 2024

Ms. Debbie Herbel
Eastern Nebraska Human Services Agency
4715 South 132nd Street
Omaha, NE 68137

RE: Employees Retirement Plan Forecast Study

Dear Debbie:

We have estimated future funded ratios for the Retirement Plan. Please note, the values presented are only estimates, as the actual amounts will be based on census data and plan experience, actual asset values and assumptions applied in future years, as well as other variables. Therefore, actual future measures will differ from these estimates as actual future experience differs from assumed experience.

The funded ratio is the ratio of the plan assets to the actuarial accrued liability. For active participants, the latter amount is the actuarial measure of benefits based on service to date and pay projected to retirement. For all other participants, it is the measure of their actual vested benefit.

Forecast Results

We have provided two sets of forecasts. The first forecast applies the current contribution schedule. This assumes the employer contribution of 10.0%, and the employee contribution of 3.00%, will continue each year following. Under the assumptions applied, a funded ratio greater than 100% will be attained in the year 2049, or in 25 years. The second forecast applies an increase to the contribution rates for employers, to 12.5%, and the consistent employee rate of 3.0%. A 100% funded ratio will be attained 10 years earlier under this scenario, by 2039. The results are summarized in the tables on the following pages.

Assumptions

All methods and assumptions are consistent with those applied to complete the 2024 valuation. Please refer to pages 13 through 15 of the January 1, 2024 Actuarial Valuation Report for a complete description of these methods and assumptions. The forecast begins with the census and valuation results as of January 1, 2024. Assets are projected beginning with total assets as of December 31, 2023 and assumes an annual 7.0% rate of return. Refer to the valuation report for a summary of the census, funding results and asset development.

Please call me at 402.964.5490 to discuss the results or for any alternative assumptions or contribution rates.

Sincerely,

A handwritten signature in black ink that reads "Glen Gahan".

Glen Gahan, FSA
Executive Vice President

Enclosure

**Eastern Nebraska Human Services Agency
Employees Retirement Plan
Estimated Funded Ratios**



	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	
Scenario 1 - No Change to current Contribution Percentage																											
Funding Basis	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
Employer Contribution Percent	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Employee Contribution Percent	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Total Contribution Percent	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%
Employer Contribution (000's)	2,255	2,322	2,392	2,464	2,538	2,614	2,692	2,773	2,856	2,942	3,030	3,121	3,215	3,311	3,411	3,513	3,618	3,727	3,839	3,954	4,072	4,194	4,320	4,450	4,583	4,721	
Funded Ratio	71.6%	72.0%	72.5%	73.0%	73.6%	74.2%	74.9%	75.7%	76.5%	77.5%	78.5%	79.6%	80.8%	82.1%	83.4%	84.8%	86.3%	87.8%	89.3%	90.9%	92.5%	94.1%	95.7%	97.2%	98.8%	100.3%	

Assumptions

Mortality Table PubG-2010(B) / MP 2021
 Employer Contribution 10.00% of forecasted payroll
 Salary Scale 3.00%
 Investment Return 7.0% per year
 Other assumptions consistent with the 1/1/2024 valuation report.

**Eastern Nebraska Human Services Agency
Employees Retirement Plan
Estimated Funded Ratios**



	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	
Scenario 2 - Increased Employer Contribution Percentage																											
Funding Basis	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
Employer Contribution Percent	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%
Employee Contribution Percent	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Total Contribution Percent	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Employer Contribution (000's)	2,818	2,903	2,990	3,080	3,172	3,267	3,365	3,466	3,570	3,677	3,788	3,901	4,018	4,139	4,263	4,391	4,523	4,658	4,798	4,942	5,090	5,243	5,400	5,562	5,729	5,901	
Funded Ratio	71.6%	72.8%	74.1%	75.5%	77.0%	78.6%	80.4%	82.2%	84.2%	86.3%	88.6%	90.9%	93.3%	95.9%	98.5%	101.1%	103.8%	106.6%	109.3%	112.1%	114.8%	117.4%	120.1%	122.6%	125.0%	127.4%	

Assumptions

Mortality Table PubG-2010(B) / MP 2021
 Employer Contribution 12.50% of forecasted payroll
 Salary Scale 3.00%
 Investment Return 7.0% per year
 Other assumptions consistent with the 1/1/2024 valuation report.

EASTERN NEBRASKA HUMAN SERVICES AGENCY EMPLOYEES RETIREMENT PLAN

Actuarial Experience Review
August 2024

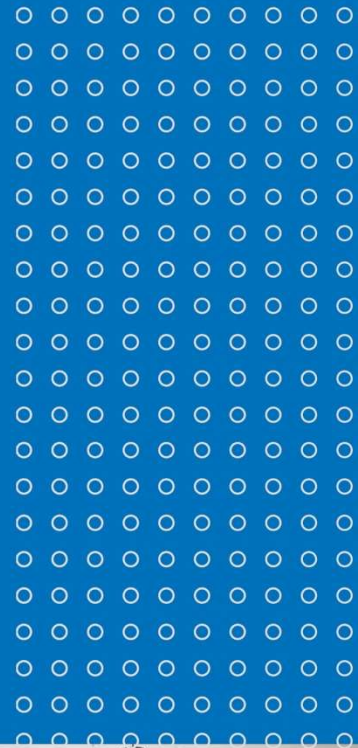


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Discussion of Results

HUB International Great Plains has conducted an actuarial study of the salary, turnover, mortality, benefit election and investment return experience for the Eastern Nebraska Human Services Agency (ENHSA) Employees Retirement Plan (Plan). The study includes data from the 2020 through 2023 plan years. In addition, the results from previous studies conducted on the 2014 through 2019 plan years have been included for comparison when available.

Experience has been analyzed on annual periods based on the census and asset data provided by ENHSA. An analysis of experience involves:

- Calculation of actual rates of increase (decrease).
- Calculation of expected rates of increase (decrease).
- Comparison of the actual rates to the expected rates (i.e., on absolute terms).
- Comparison of the actual rates divided by the expected rates (i.e., on relative terms).

Salary Experience

The salary change rate was calculated two ways. First, salaries were compared in the aggregate from one year to the next for the last 10 years. This comparison often forms the basis of the assumed rate of salary increase used in an actuarial valuation. These historical annual salary increases were then compared to the current assumed salary increase rate of 2.5%. Salary increase rates over the last three years were also analyzed by 5-year age brackets.

Experience indicates that an increase in the salary increase rate assumption should be considered. The average over the last 10 years is 6.4%; the average over the last five years is 8.1%. The salary increase rate assumption was increased from 2.0% to 2.5% effective with the 2016 valuation.

The current state of the economy, future long-range budget and expected funding of the agency should also be considered when selecting an assumption for expected future salary increases. For example, with the current rate of inflation around 3%, it appears an increase in the assumed salary increase rate is reasonable.

Turnover Experience

The current turnover assumption consists of rates that vary by age and service. The turnover rates do not depend on age during the first three years of service. After three years of service, the rates are a function of age only.

Because the turnover rate is dependent upon both years of service and age, the turnover rate was calculated two ways. First, turnover rates were calculated for employees who have less than three years of service with ENHSA. Second, employees were grouped in 5-year age brackets. The turnover rate was calculated based on the number of employees in each age group ending their employment with ENHSA.

The experience since 2018 shows turnover experience greater than expected. The average of the three grouped periods for all ages and years of service is 140% of expected. Experience indicates that an increase in the turnover rate assumption should be considered.

The graphs on pages 8 and 9 analyze turnover by years of service. The graphs on pages 10 and 11 analyze turnover by five-year age brackets. For the most recent experience, the largest

variance from expected is for 3 or more years of service (179% of expected). The most recent experience based on age groups resulted in turnover greater than expected in 8 of the 8 age groups.

For turnovers with less than 1 year of service, our test results may be less than actual since our data does not track a new hire and termination that occurs within the same plan year, only those that cross over to the next plan year. Likewise, a turnover age assumption beyond age 65 would be atypical for this size and type of plan.

Retirement Experience

The current retirement assumption consists of rates that vary by age. The retirement rates are between 2% and 5% between ages 55 and 64, except for age 62. A higher rate of 15% is assumed for age 62 because participants with 30 years of service can begin an unreduced benefit at age 62. 100% retirement is assumed at age 65.

Graphs on pages 12 and 13 show the actual vs. expected retirements by each age. There was a total of 39 retirements compared to 56 expected retirements for 2022-2023. This variance of 17 less retirements from expected is due to the 100% assumption at age 65. A retirement age assumption beyond age 65 would be atypical for this size and type of plan.

Mortality Experience

The chart displays mortality results of the most recent 4 periods. In each period, actual deaths of actives exceeded expectations. A current mortality improvement scale (MP-2021) is applied to account for expected mortality changes in future years. The current assumed mortality table and improvement scale is generally considered to be reasonable based on broad mortality experience research by the Society of Actuaries. We would expect adoption of updated applicable mortality tables or improvement scales as they become available.

This plan is not of sufficient size to reflect its own experience within a mortality table.

Additionally, retiree mortality experience exceeded expectations. For the 2020-2023 period, actual deaths were 154% of expected.

Form of Benefit Election Experience

For those participants who terminated with a vested deferred annuity option, actual experience was tabulated to determine the percent who elected to forego the annuity option and elect a return of their contributions plus interest.

Actual experience for the most recent two-year periods has been less than the expectation that 75% of those under age 55 elect a return of contributions (69% elected a return of contributions in 2018-2019, 45% in 2020-2021 and 37% in 2022-2023). For those 55 and over, 2% elected a return of contributions in the 2018-2019 period, 2% elected a return of contributions in the 2020-2021 period and 13% made this election in the 2022-2023 period. The assumption for this age group is that no participants will elect the return of contributions.

Consideration may be given to reducing the 75% assumption for those under age 55.

Investment Return Experience

The investment return rate was calculated on a simplified basis that assumes cash flow occurs uniformly throughout each year. Use of a simplified basis is supported by the fact employee and ENHSA contributions are made bi-monthly. For this or other reasons, the calculated rate may not agree with rates of return reported by the investment providers.

The investment return rate has averaged 5.8% on a compound basis over the 10-year period from 2014 through 2023. For the five-year period from 2019 through 2023, the average return rate is 7.2%. The investment return rate exceeded the 7% assumption during 5 of the 10 years displayed. The rate of investment return assumption has been 7.0% since prior to 1997. While the historical returns provide an objective and potentially reasonable level to which the mean return may revert, the future is likely to be different than the past. Considering the target investment mix of 50% equities, 45% fixed income and 5% real estate securities, 7.0% may continue to be considered a reasonable assumption. We recommend ENHSA request from the Plan's investment advisor their long-term expected return on plan assets and compare this expected rate to the Plan's assumed 7.0%.

The value of assets is based on the market value. Consideration may be given to a change in the valuation method to an asset smoothing method, in order to cushion fluctuations in the equity market. The asset investments have experienced 2 years of negative annual returns in the past ten years. The fixed income investment target of 45% helps to minimize more severe fluctuations in the assets.

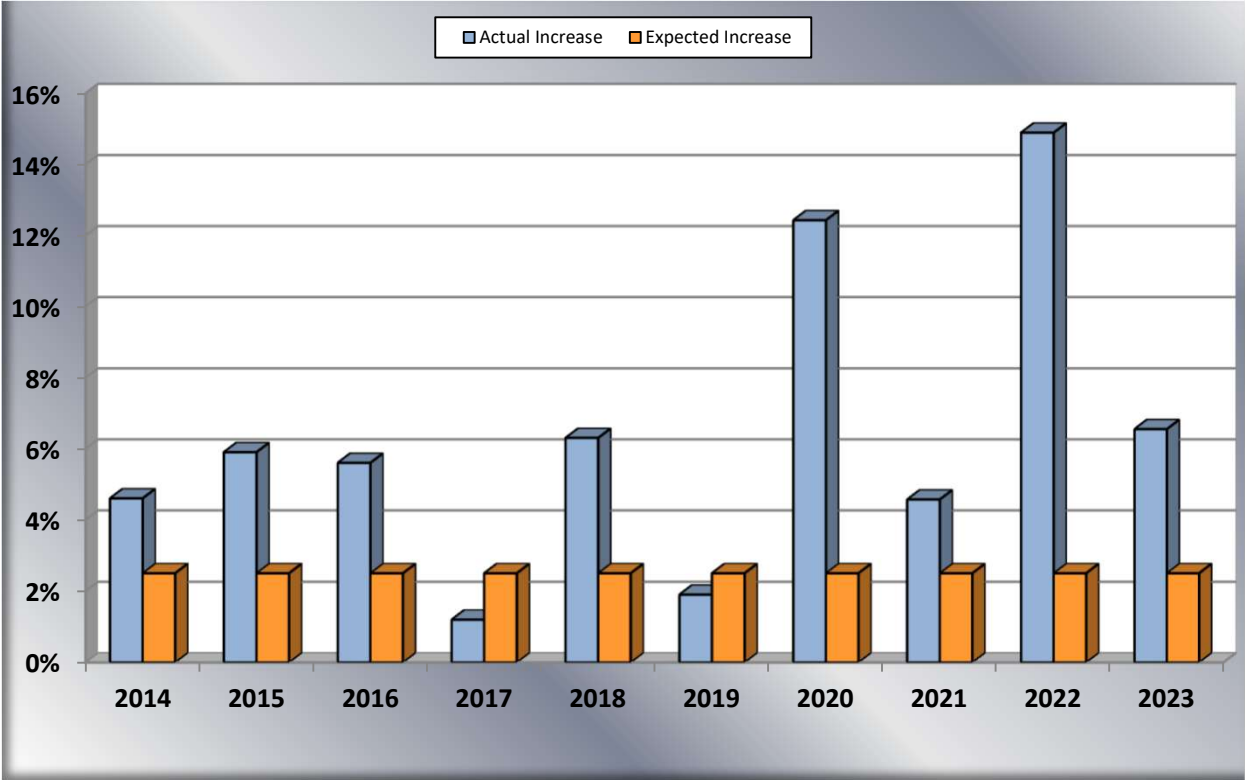
Overall Experience History

With each 2-year valuation period, we measure the actual liabilities and assets compared to the expected liabilities and assets. When liabilities increase more than expected or asset performance is less than expected, this is an experience loss. Likewise, a decrease in liabilities from expected or asset performance greater than expected is an experience gain. The impact of changes in assumptions on the liabilities is also measured as a gain or loss. Together, these variations from expected results make up the net (gain) or loss on the Plan. A net (gain) is a decrease to the unfunded accrued liability whereas a net loss is an increase to the unfunded accrued liability. Changes in magnitude of these gains and losses from one valuation period to another are typical, especially with a relatively smaller plan size. Over time, if assumptions are appropriate, one would expect the cumulative (gain)/loss to converge to near \$0.

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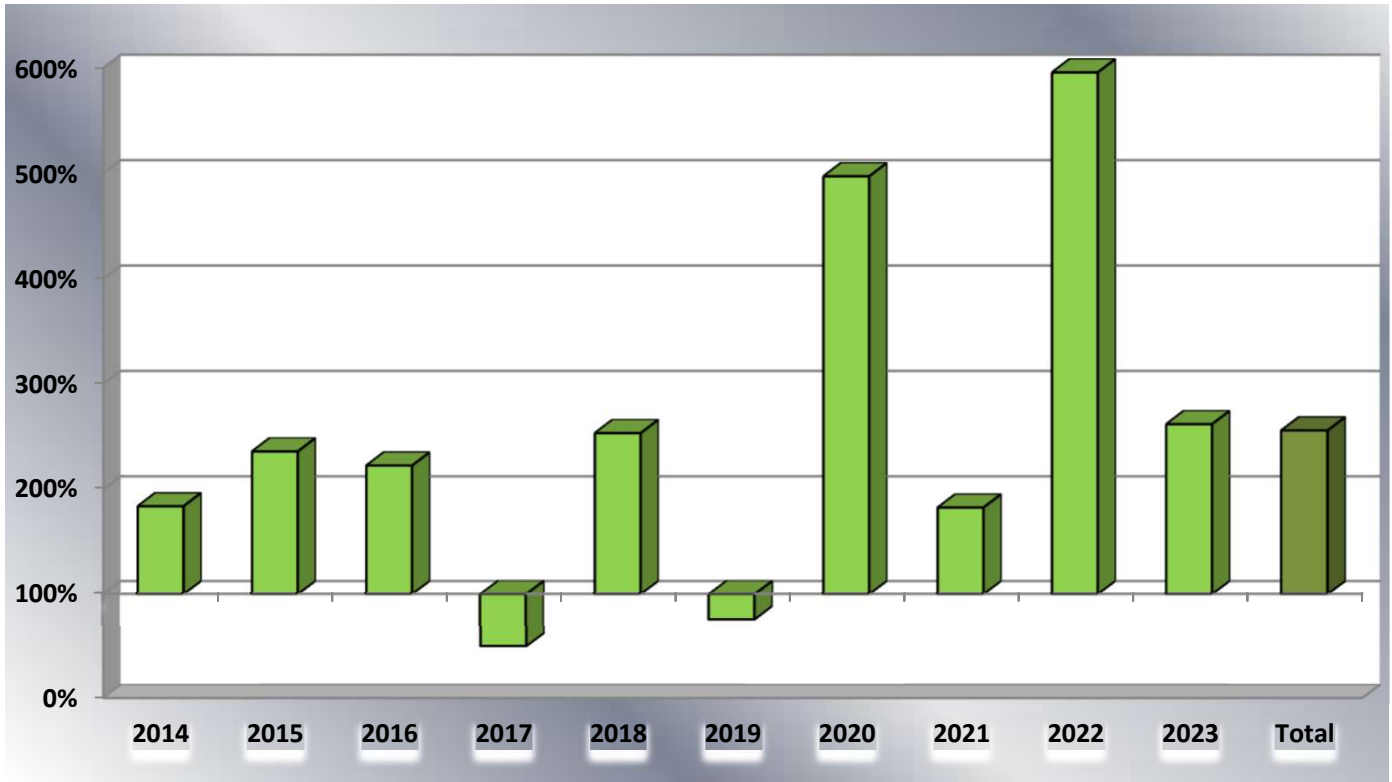
The results in this report were prepared using information provided to us by other parties. The census information has been provided to us by ENHSA, the employer. Asset information has been provided to us by the trustee. We have reviewed the provided data for reasonableness but have not made an independent audit of this data. We have relied on the accuracy of the information that was supplied.

Salary Experience from 2014 to 2023



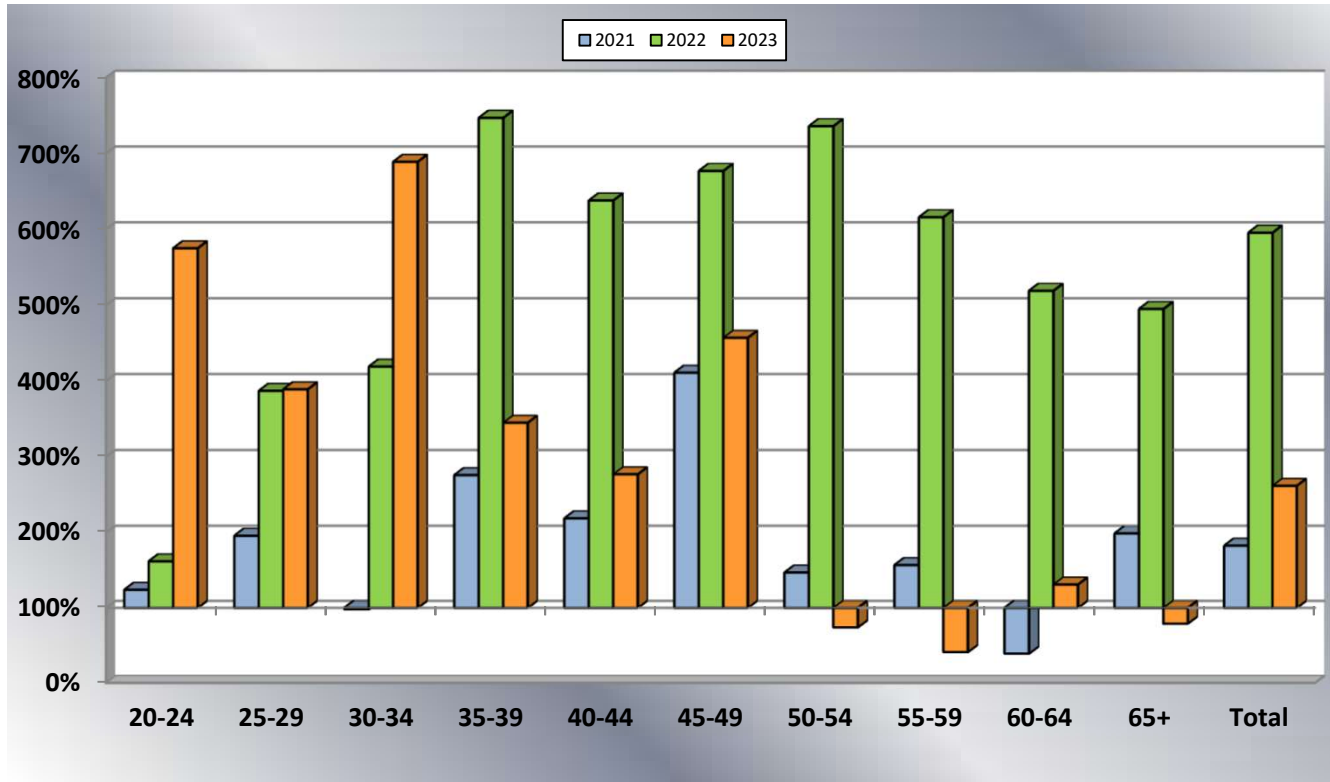
Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Actual Increase	4.6%	5.9%	5.6%	1.2%	6.3%	1.9%	12.4%	4.6%	14.9%	6.5%
Expected Increase	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%

Salary Experience from 2014 to 2023 Ratio of Actual vs. Expected Salary Increase



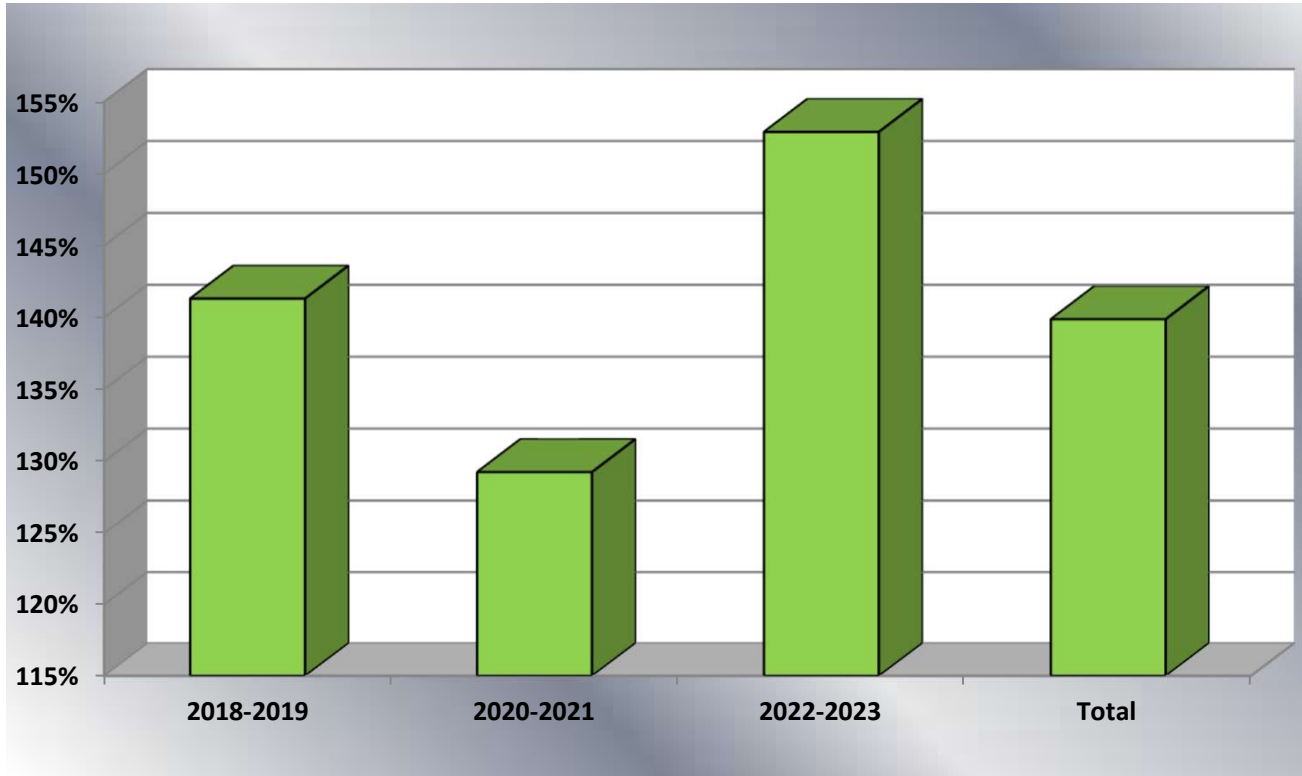
Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Actual Increase	4.6%	5.9%	5.6%	1.3%	6.3%	1.9%	12.4%	4.6%	14.9%	6.5%	6.4%
Expected Increase	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Actual vs. Expected	184.0%	236.0%	222.6%	50.0%	253.4%	76.0%	497.1%	182.8%	595.6%	261.9%	255.9%

Salary Experience from 2021 to 2023 Ratio of Actual to Expected Salary Increase by Age Group



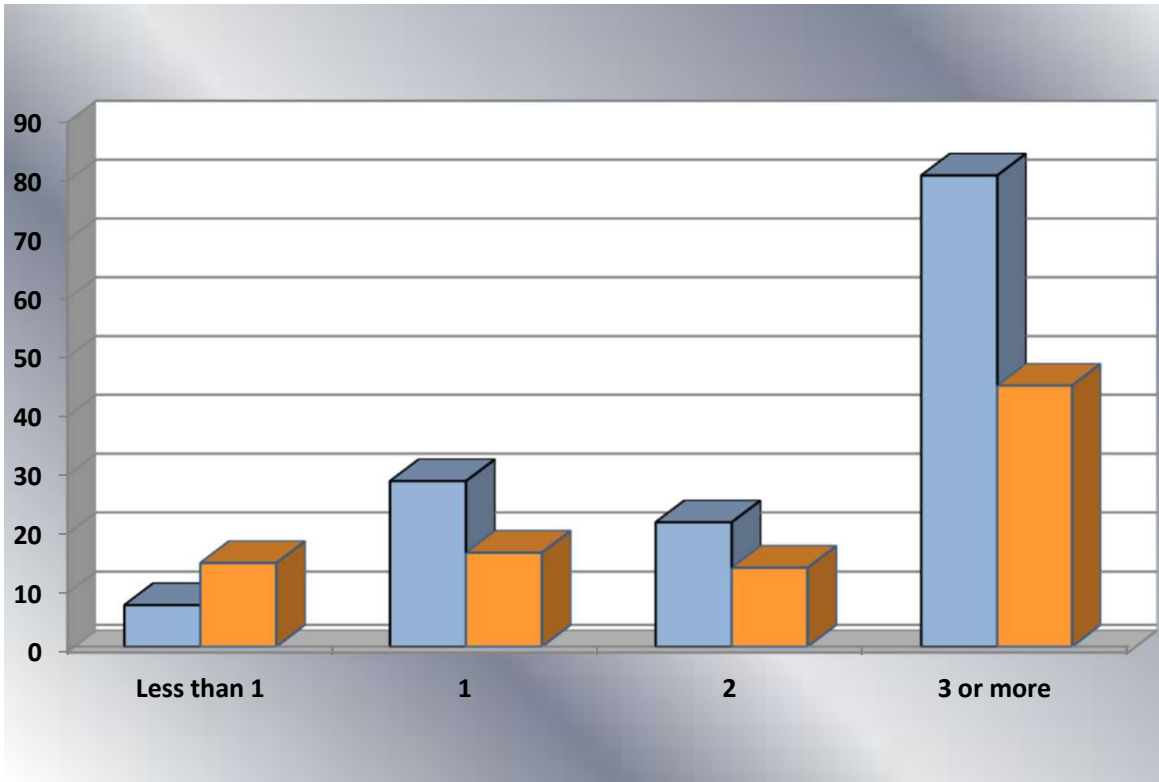
Age	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	Total
Actual Increase vs. Expected Increase											
2021	124%	196%	98%	276%	219%	411%	147%	157%	39%	199%	183%
2022	162%	387%	419%	747%	638%	677%	736%	616%	519%	495%	596%
2023	575%	389%	689%	345%	277%	457%	74%	41%	131%	79%	262%

Turnover Experience from 2018 to 2023 Ratio of Actual to Expected Turnover



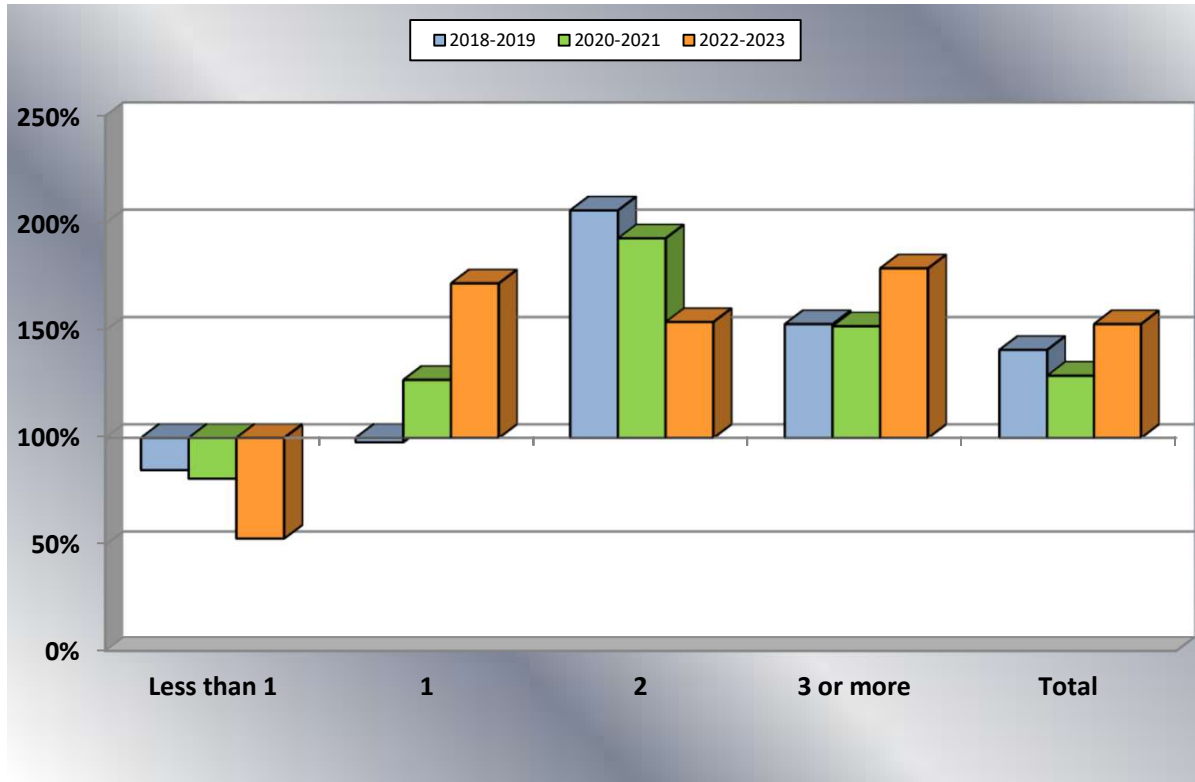
Year	2018-2019	2020-2021	2022-2023	Total
Actual Turnover	171	166	140	477
Expected Turnover	121	128	92	341
Actual vs. Expected	141%	129%	153%	140%

Turnover Experience for 2022 and 2023 Ratio of Actual to Expected Turnover by Years of Service



Years of Service	Less than 1	1	2	3 or more	Total
Actual Turnover	8	29	22	81	140
Expected Turnover	15	17	14	45	92
Actual vs. Expected	53%	172%	154%	179%	153%

Turnover Experience from 2018 to 2023 Ratio of Actual to Expected Turnover by Years of Service

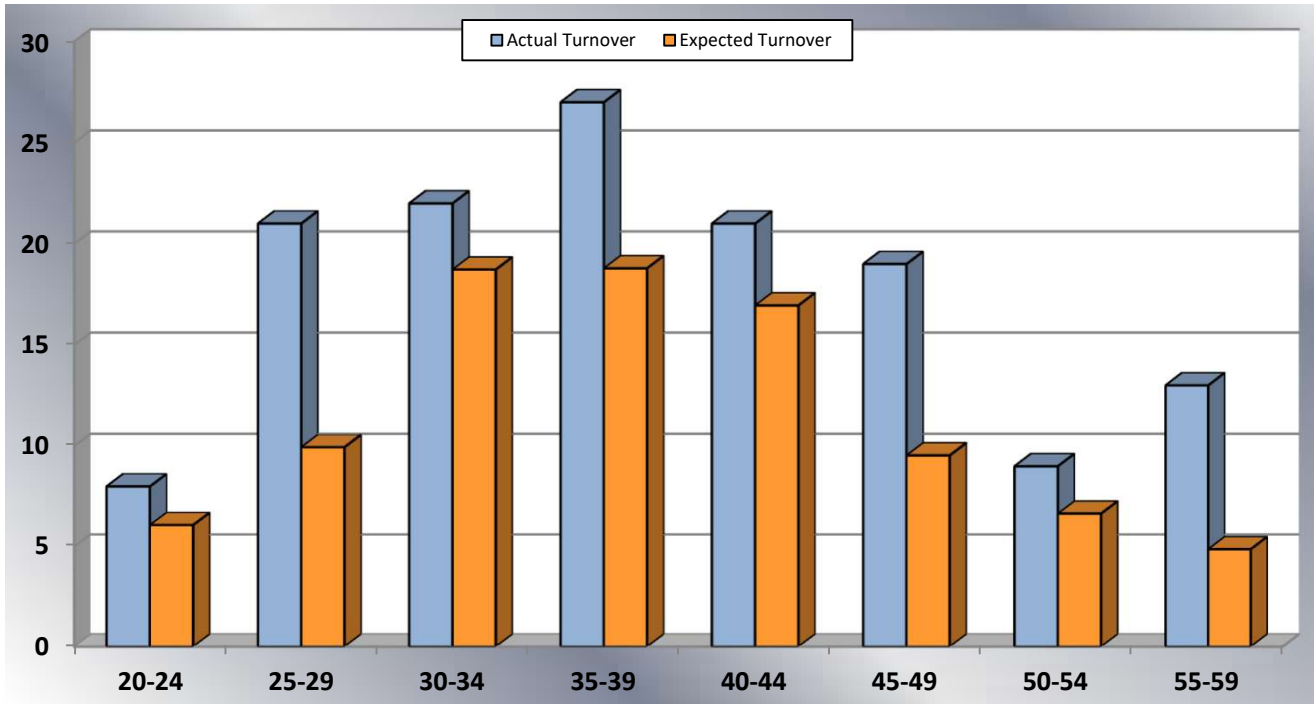


Years of Service	Less than 1	1	2	3 or more	Total
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Actual Turnover vs. Expected Turnover

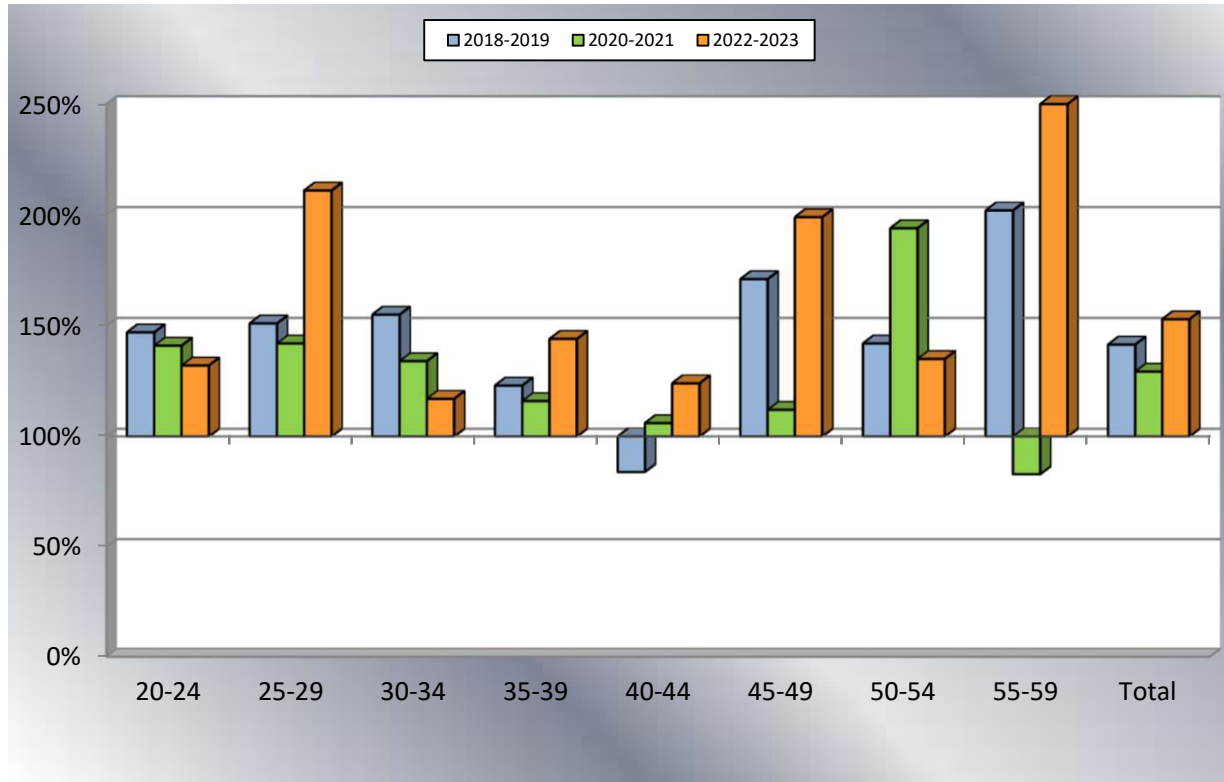
2018-2019	85%	98%	206%	153%	141%
2020-2021	81%	127%	193%	152%	129%
2022-2023	53%	172%	154%	179%	153%

Turnover Experience for 2022 and 2023 Incidence of Turnover by Age Group



Age	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	Total
Actual Turnover	8	21	22	27	21	19	9	13	140
Expected Turnover	6	10	19	19	17	10	7	5	92

Turnover Experience from 2018 to 2023 Ratio of Actual to Expected Turnover by Age Group

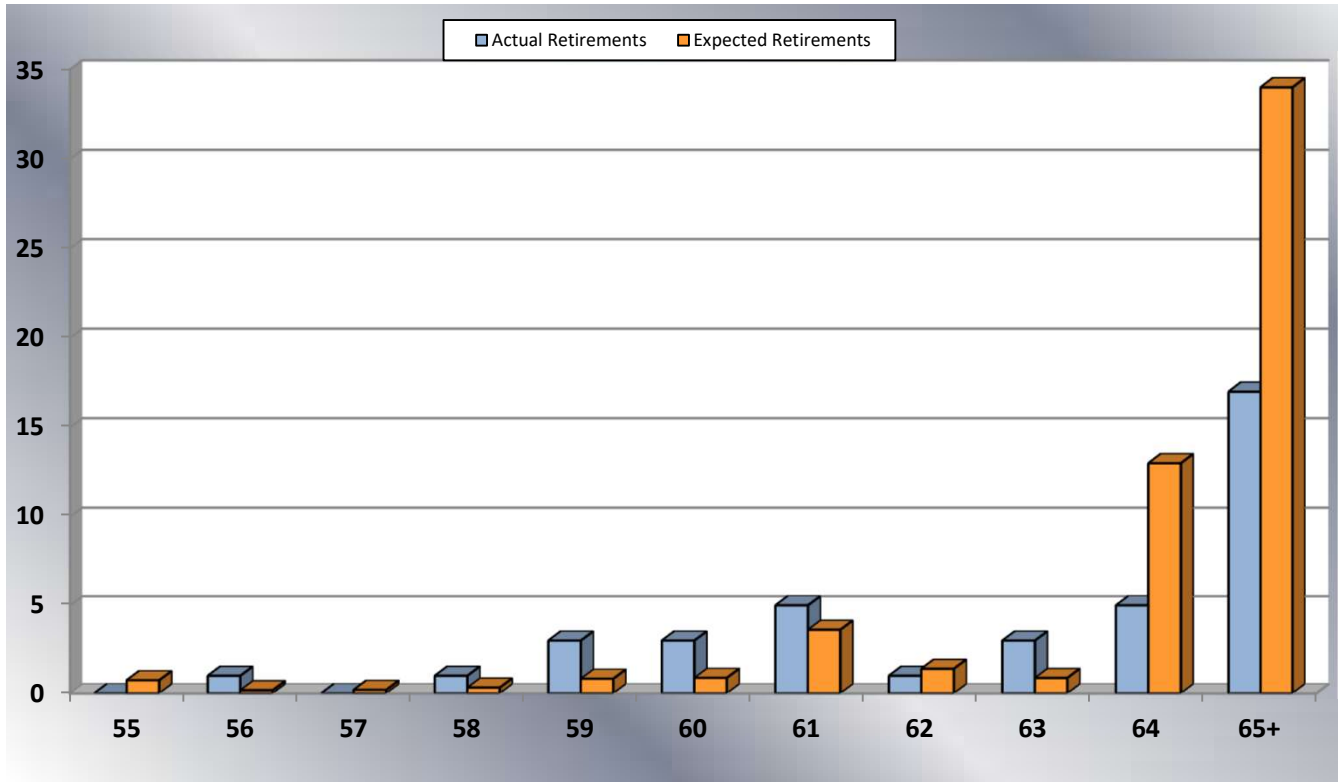


Age	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	Total
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Actual Turnover vs. Expected Turnover

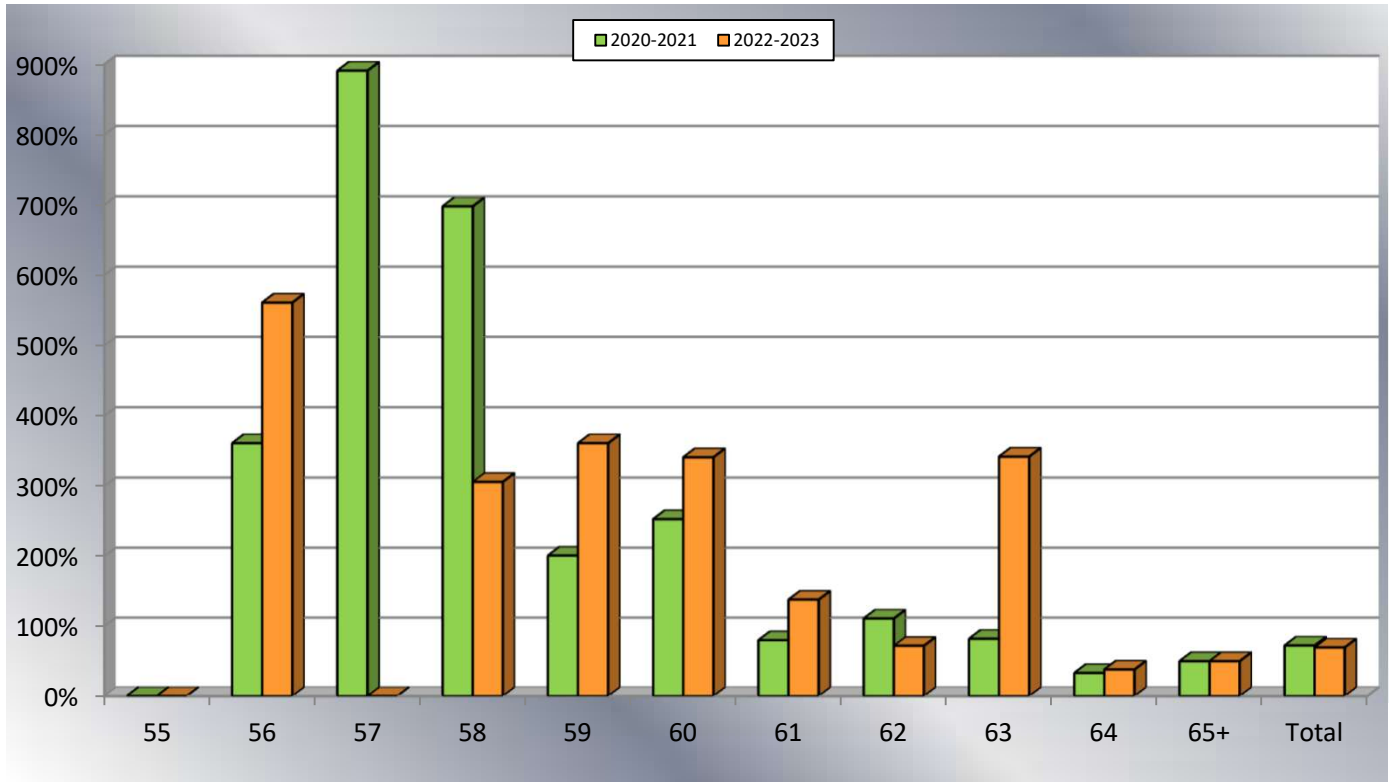
2018-2019	147%	151%	155%	123%	84%	171%	142%	202%	141%
2020-2021	141%	142%	134%	116%	106%	112%	194%	83%	129%
2022-2023	132%	211%	117%	144%	124%	199%	135%	267%	153%

Retirement Experience for 2022 and 2023 Incidence of Retirements by Age



Age	55	56	57	58	59	60	61	62	63	64	65+	Total
Actual Retirements	0	1	0	1	3	3	5	1	3	5	17	39
Expected Retirements	1	0	0	0	1	1	4	1	1	13	34	56

Retirement Experience from 2020 to 2023 Ratio of Actual to Expected Retirements by Age

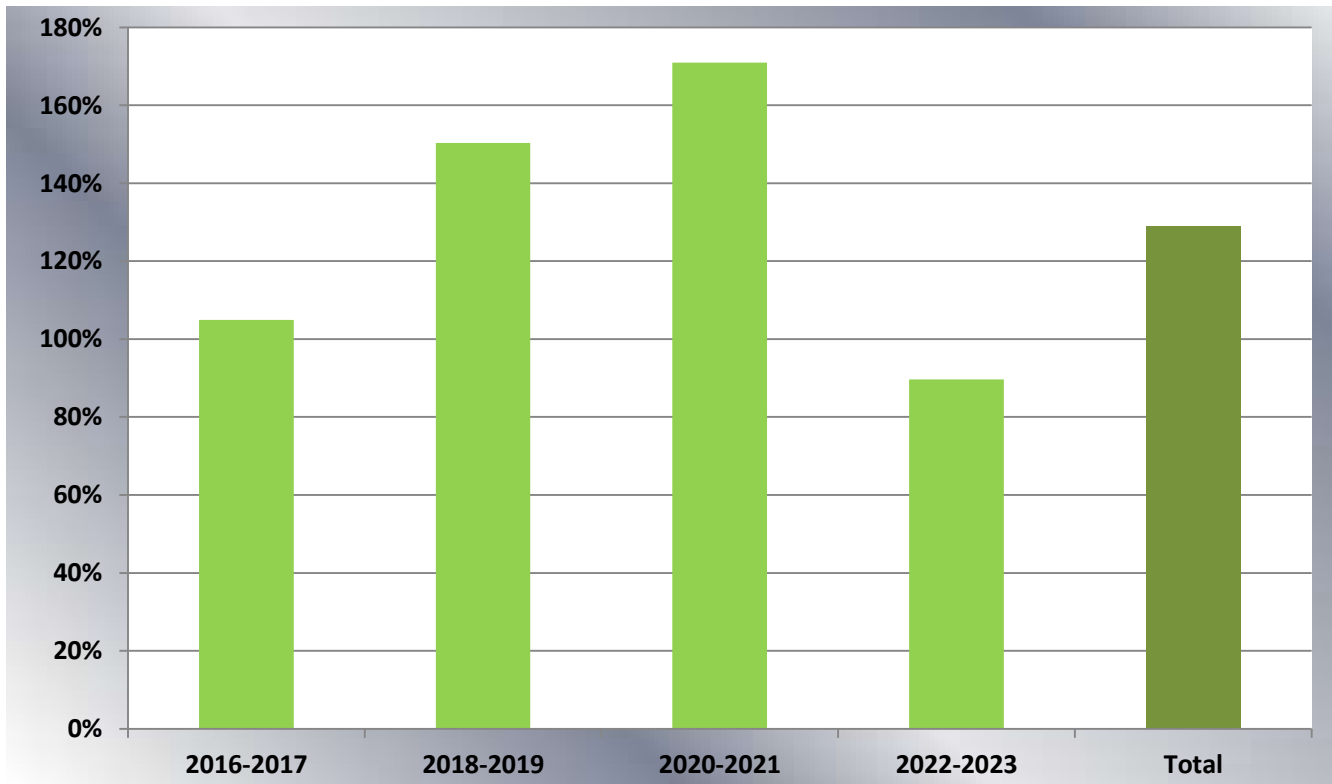


Age	55	56	57	58	59	60	61	62	63	64	65+	Total
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Actual Turnover vs. Expected Turnover

2020-2021	0%	361%	891%	698%	201%	253%	80%	111%	82%	33%	50%	72%
2022-2023	0%	561%	0%	306%	361%	341%	138%	72%	342%	38%	50%	70%

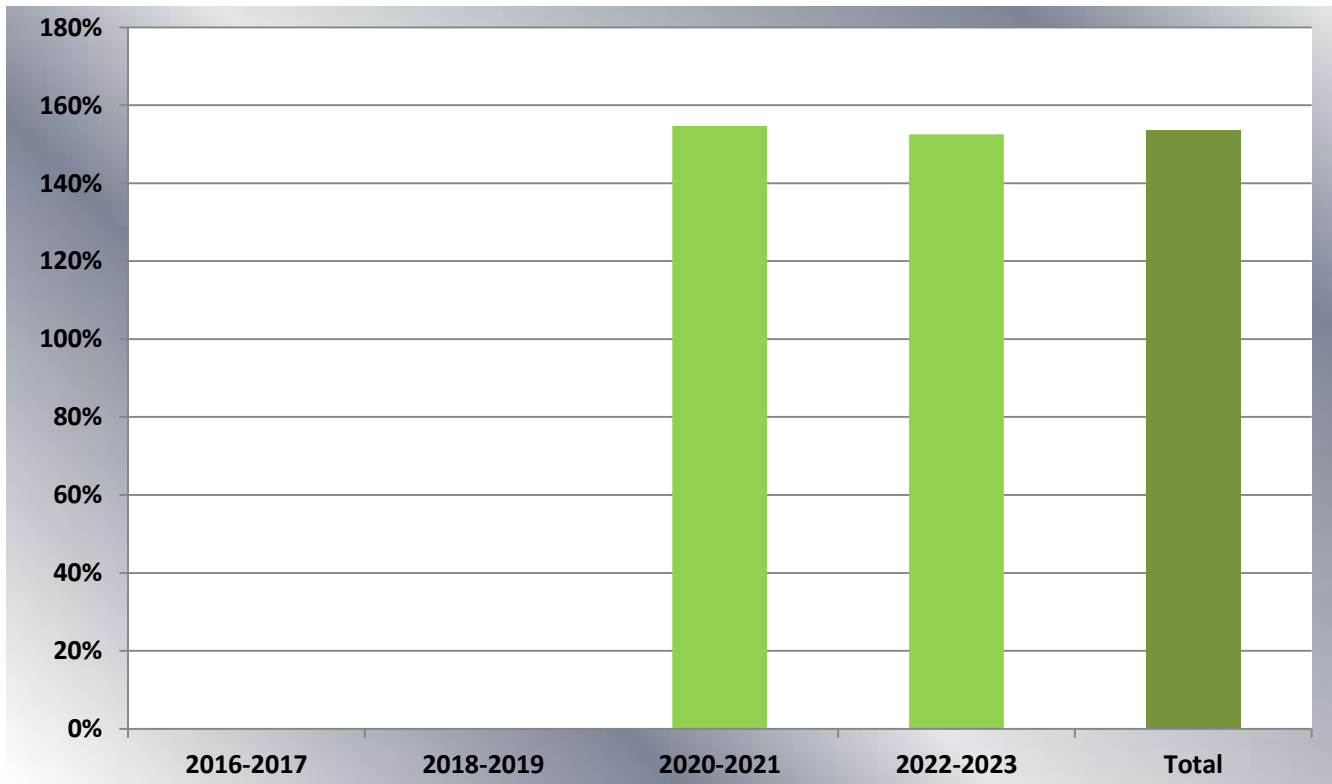
Mortality Experience from 2016 to 2023 Ratio of Actual to Expected Deaths of Actives



Year	2016-2017	2018-2019	2020-2021	2022-2023	Total
Actual Deaths	3	4	4	2	13
Expected Deaths	2.86	2.66	2.34	2.23	10.09
Actual vs. Expected	105%	150%	171%	90%	129%
Mortality Table Basis	PubG-2010(B)	PubG-2010(B)	PubG-2010(B)	PubG-2010(B)	PubG-2010(B)

In recent years, the mortality table has been advancing to the most current improvement scale applied for corporate plan valuation purposes. The recently available PubG-2010 table is based on mortality experience of general employees of public plans, and is considered a part of the relevant "assumption universe" for such plans. The PubG-2010(B) table reflects expected experience of these employees and retirees with below-median pay and retirement benefits.

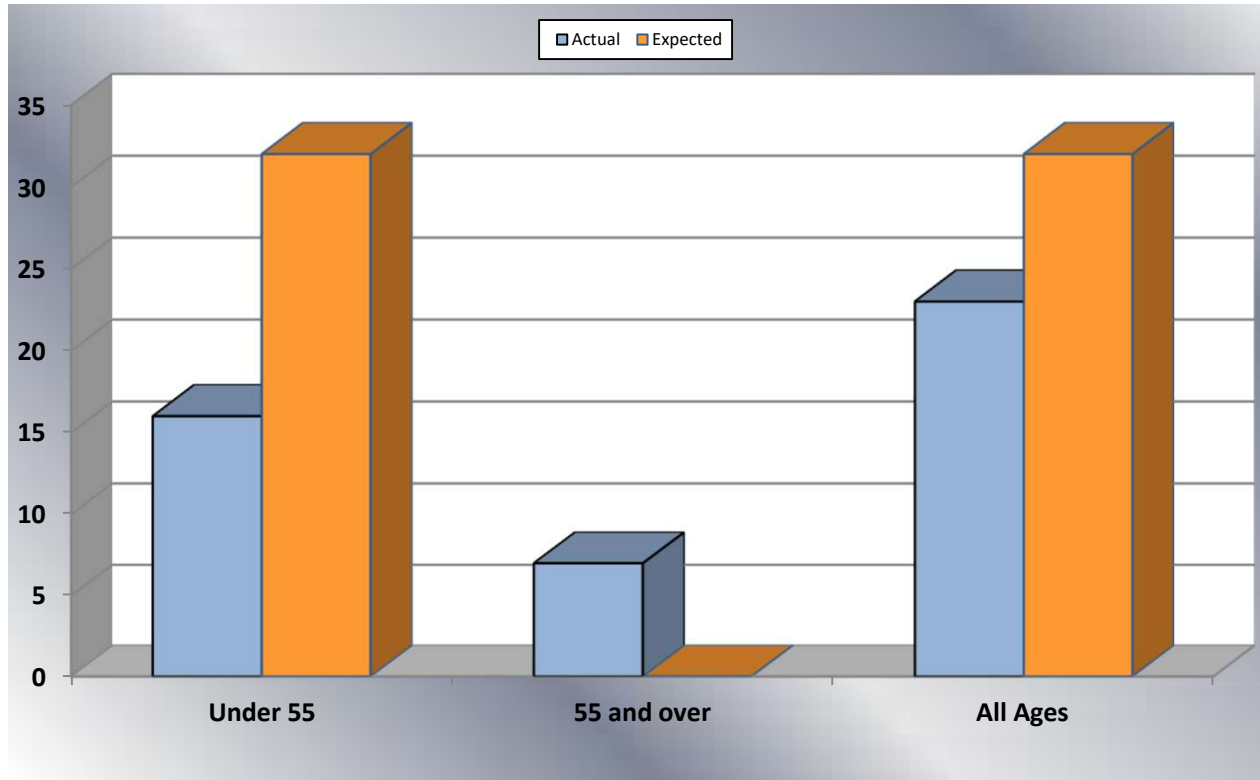
Mortality Experience from 2020 to 2023 Ratio of Actual to Expected Deaths of Retirees



Year	2016-2017	2018-2019	2020-2021	2022-2023	Total
Actual Deaths	0	0	26	28	54
Expected Deaths	0.00	0.00	16.81	18.36	35.17
Actual vs. Expected	#DIV/0!	#DIV/0!	155%	153%	154%
Mortality Table Basis	PubG-2010(B)	PubG-2010(B)	PubG-2010(B)	PubG-2010(B)	PubG-2010(B)

In recent years, the mortality table has been advancing to the most current improvement scale applied for corporate plan valuation purposes. The recently available PubG-2010 table is based on mortality experience of general employees of public plans, and is considered a part of the relevant "assumption universe" for such plans. The PubG-2010(B) table reflects expected experience of these employees and retirees with below-median pay and retirement benefits.

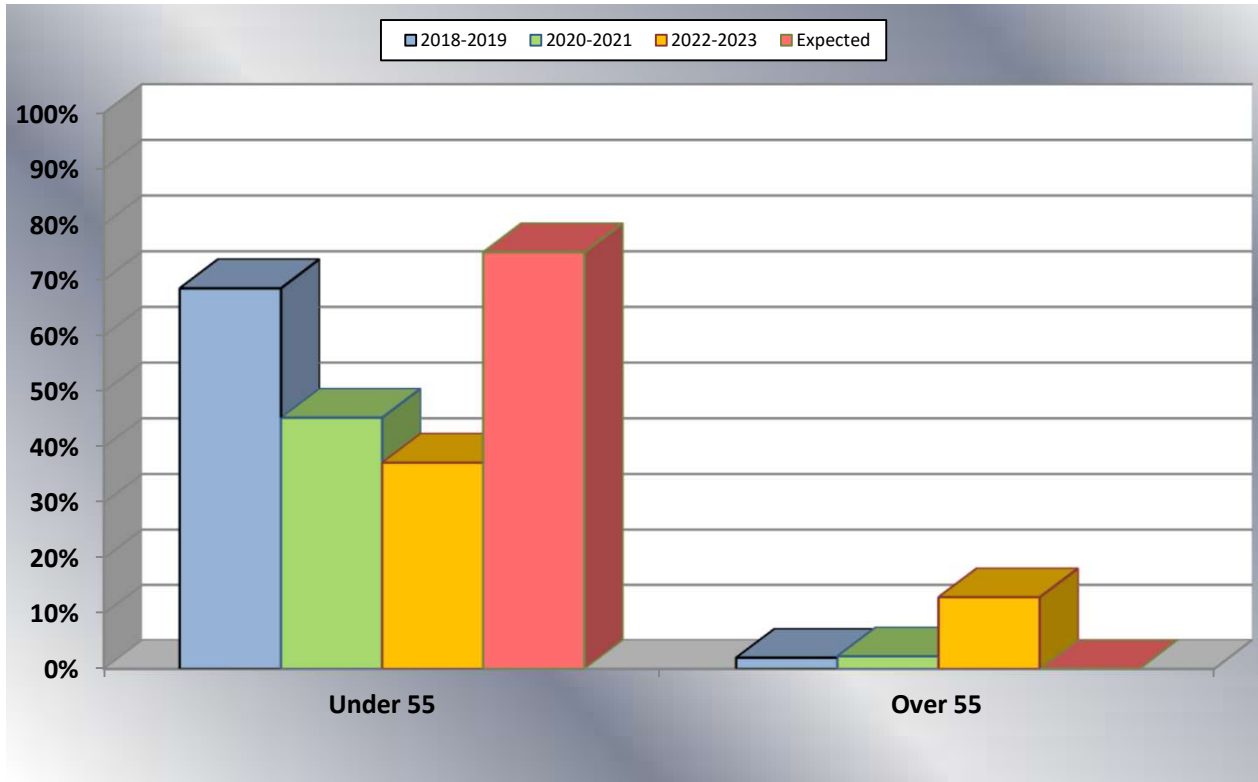
Benefit Election Experience for 2022 and 2023 Incidence of Election to Return Contributions



Age	Under 55	55 and over	All Ages
Number Electing Return of Contributions*			
Actual	16	7	23
Expected	32	0	32
Actual vs. Expected	50%	N/A	72%

* Excludes those withdrawing before the opportunity to vest in a deferred annuity.

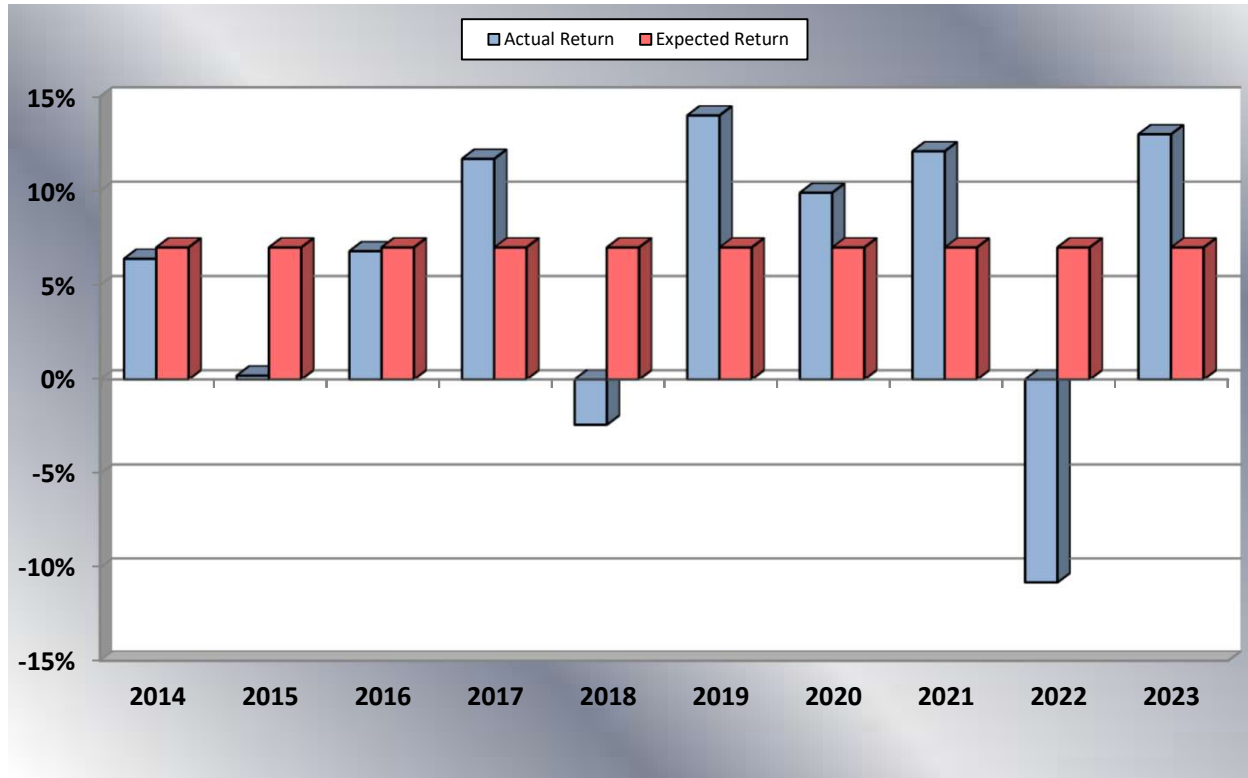
Benefit Election Experience from 2018 to 2023 Percent Electing Return of Contributions



Age	Under 55	Over 55	All Ages
Percent Electing Return of Contributions*			
2018-2019	69%	2%	34%
2020-2021	45%	2%	26%
2022-2023	37%	13%	24%
Expected	75%	0%	N/A

* Excludes those withdrawing before the opportunity to vest in a deferred annuity.

Investment Experience from 2014 to 2023

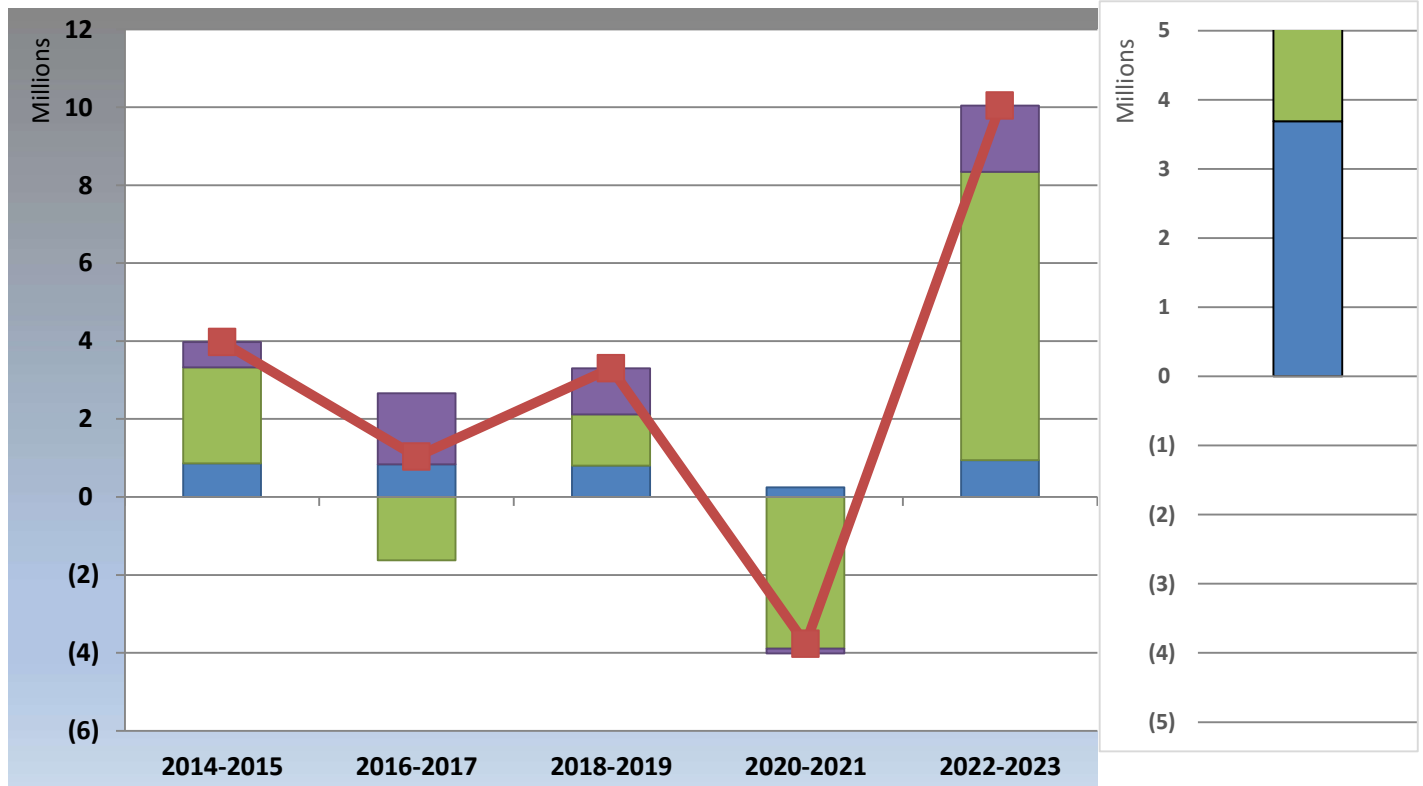


Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Actual Return	6.4%	0.2%	6.8%	11.7%	-2.4%	14.0%	9.9%	12.1%	-10.8%	13.0%
Expected Return	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%

Average returns from historical periods are not, by themselves, strong indicators of future returns.

Experience (Gain)/Loss History

Cumulative (G)/L
2014-2023



Year	2014-2015	2016-2017	2018-2019	2020-2021	2022-2023	Cumulative (G)/L
Liability (Gain)/Loss	859,422	838,735	800,922	244,051	946,889	3,690,019
Asset (Gain)/Loss	2,464,389	(1,626,017)	1,315,257	(3,889,499)	7,394,633	5,658,763
Assumption Changes	648,294	1,822,710	1,183,891	(122,507)	1,701,846	5,234,234
Net (Gain)/Loss	3,972,105	1,035,428	3,300,070	(3,767,955)	10,043,368	14,583,016

Assumption Changes:

- 2014-2015 Mortality table and increase to salary scale from 2% to 2.5%
- 2016-2017 Mortality table.
- 2018-2019 Mortality table and additional early retirement rates.
- 2020-2021 Mortality improvement scale.
- 2022-2023 Mortality improvement scale, turnover rates, salary scale. Preliminary amount.

Actuarial Assumptions

The actuarial assumptions included in the experience study are summarized below:

Investment Return Rate	7.0% compounded annually
Salary Increase Rate	2.5% compounded annually
Mortality Rates	PubG-2010 (B) / MP 2021 generational improvement scale projected from 2010

Turnover Rates Rates in the first three years are:

Years of Service	Rate
0	54.0%
1	25.5
2	15.0

After three years, sample rates are as follows:

Age	Rate
25	14.5%
30	14.0
35	13.1
40	11.6
45	9.5
50	6.3
55	2.3
60	0.2

Elected Form of Distribution	Under Age 55	75% Return of Contribution 25% Deferred Annuity
	Over age 55	100% Deferred Annuity

Retirement Rates	Age	Rate
	55	5%
	56-58	2%
	59	3%
	60	4%
	61	5%
	62	15%
	63	5%
	64	5%
	65+	100%

Salary Experience Analysis from 2022 to 2023⁽³⁾

Age Group	2022 Salary	2023 Salary	Actual Increase⁽¹⁾	Expected Increase⁽²⁾	Actual/Expected
20-24	36,461	41,701	14.37%	2.50%	575%
25-29	41,200	45,207	9.73%	2.50%	389%
30-34	41,327	48,444	17.22%	2.50%	689%
35-39	49,981	54,294	8.63%	2.50%	345%
40-44	53,070	56,745	6.92%	2.50%	277%
45-49	53,736	59,870	11.41%	2.50%	457%
50-54	49,798	50,724	1.86%	2.50%	74%
55-59	51,401	51,925	1.02%	2.50%	41%
60-64	63,800	65,888	3.27%	2.50%	131%
65+	51,644	52,658	1.96%	2.50%	79%
Total	51,078	54,423	6.55%	2.50%	262%

Salary Experience Analysis from 2021 to 2022⁽³⁾

Age Group	2021 Salary	2022 Salary	Actual Increase⁽¹⁾	Expected Increase⁽²⁾	Actual/Expected
20-24	35,041	36,461	4.05%	2.50%	162%
25-29	37,566	41,200	9.67%	2.50%	387%
30-34	37,412	41,327	10.47%	2.50%	419%
35-39	42,112	49,981	18.69%	2.50%	747%
40-44	45,770	53,070	15.95%	2.50%	638%
45-49	45,962	53,736	16.91%	2.50%	677%
50-54	42,058	49,798	18.40%	2.50%	736%
55-59	44,540	51,401	15.40%	2.50%	616%
60-64	56,469	63,800	12.98%	2.50%	519%
65+	45,953	51,644	12.38%	2.50%	495%
Total	44,459	51,078	14.89%	2.50%	596%

⁽¹⁾ The percentage is based on the aggregate amounts.

⁽²⁾ Rate used in actuarial valuations since 2016.

⁽³⁾ Results derived from 2024 valuation census.

Salary Experience Analysis from 2020 to 2021⁽³⁾

Age Group	2020 Salary	2021 Salary	Actual Increase⁽¹⁾	Expected Increase⁽²⁾	Actual/Expected
20-24	34,764	35,841	3.10%	2.50%	124%
25-29	36,242	38,020	4.91%	2.50%	196%
30-34	38,646	39,592	2.45%	2.50%	98%
35-39	37,539	40,125	6.89%	2.50%	276%
40-44	42,198	44,504	5.47%	2.50%	219%
45-49	41,858	46,164	10.29%	2.50%	411%
50-54	40,280	41,765	3.69%	2.50%	147%
55-59	47,383	49,237	3.91%	2.50%	157%
60-64	47,752	48,213	0.97%	2.50%	39%
65+	43,013	45,157	4.98%	2.50%	199%
Total	41,972	43,890	4.57%	2.50%	183%

Salary Experience Analysis from 2019 to 2020⁽³⁾

Age Group	2019 Salary	2020 Salary	Actual Increase⁽¹⁾	Expected Increase⁽²⁾	Actual/Expected
20-24	39,024	34,764	-10.91%	2.50%	-437%
25-29	37,172	36,242	-2.50%	2.50%	-100%
30-34	39,348	38,646	-1.78%	2.50%	-71%
35-39	35,481	37,539	5.80%	2.50%	232%
40-44	38,500	42,198	9.60%	2.50%	384%
45-49	38,903	41,858	7.59%	2.50%	304%
50-54	38,036	40,280	5.90%	2.50%	236%
55-59	37,827	47,383	25.26%	2.50%	1010%
60-64	33,769	47,752	41.41%	2.50%	1656%
65+	36,143	43,013	19.01%	2.50%	760%
Total	37,333	41,972	12.43%	2.50%	497%

⁽¹⁾ The percentage is based on the aggregate amounts.

⁽²⁾ Rate used in actuarial valuations since 2016.

⁽³⁾ Results derived from 2022 valuation census.

Turnover and Early Retirement Experience

Turnover Experience for 2022 and 2023

Years of Service	Actual Turnover	Expected Turnover	Actual/Expected
0	8	15	53%
1	29	17	172%
2	22	14	154%
3 or More	81	45	179%
Total	140	92	153%

Age Group	Actual Turnover	Expected Turnover	Actual/Expected
20-24	8	6	132%
25-29	21	10	211%
30-34	22	19	117%
35-39	27	19	144%
40-44	21	17	124%
45-49	19	10	199%
50-54	9	7	135%
55-59	13	5	267%
Total	140	92	153%

Early Retirement Experience for 2022 and 2023

Age Group	Actual Retirement	Expected Retirement	Actual/Expected
55 and Under	0	1	0%
56	1	0	561%
57	0	0	0%
58	1	0	306%
59	3	1	361%
60	3	1	341%
61	5	4	138%
62	1	1	72%
63	3	1	342%
64	5	13	38%
65+	17	34	50%
Total	39	56	70%

**Turnover and Early Retirement Experience
(continued)**

Turnover Experience for 2020 and 2021

Years of Service	Actual Turnover	Expected Turnover	Actual/Expected
0	31	38	81%
1	34	27	127%
2	21	11	193%
3 or More	80	53	152%
Total	166	128	129%

Age Group	Actual Turnover	Expected Turnover	Actual/Expected
20-24	17	12	141%
25-29	32	23	142%
30-34	34	25	134%
35-39	28	24	116%
40-44	19	18	106%
45-49	13	12	112%
50-54	19	10	194%
55-59	4	5	83%
Total	166	128	129%

Early Retirement Experience for 2020 and 2021

Age Group	Actual Retirement	Expected Retirement	Actual/Expected
55 and Under	0	1	0%
56	1	0	361%
57	3	0	891%
58	4	1	698%
59	3	1	201%
60	2	1	253%
61	2	3	80%
62	3	3	111%
63	1	1	82%
64	4	12	33%
65+	15	30	50%
Total	38	52	72%

Mortality Experience

Active Mortality Experience for 2016 through 2023

<u>Year of Death</u>	<u>Actual Deaths</u>	<u>Expected Deaths</u>	<u>Actual/Expected</u>	<u>Mortality Table Basis</u>
2022 - 2023	2	2.23	90%	PubG-2010(B)
2020 - 2021	4	2.34	171%	PubG-2010(B)
2018 - 2019	4	2.66	150%	PubG-2010(B)
2016 - 2017	3	2.86	105%	PubG-2010(B)
Total	13	10.09	129%	

Retiree Mortality Experience for 2020 through 2023

<u>Year of Death</u>	<u>Actual Deaths</u>	<u>Expected Deaths</u>	<u>Actual/Expected</u>	<u>Mortality Table Basis</u>
2022 - 2023	28	18.36	153%	PubG-2010(B)
2020 - 2021	26	16.81	155%	PubG-2010(B)
Total	54	35.17	154%	

Benefit Election Experience

Elected Form of Distribution for 2022 and 2023

<u>Age Group</u>	<u>Participants with Annuity Option</u>	<u>Number Electing Return of Contributions</u>	<u>Expected</u>	<u>Actual/Expected</u>	<u>Percent Electing Return of Contributions</u>	<u>Percent Expected</u>
Under 55	43	16	32	50%	37%	75%
55 and over	54	7	0	N/A	13%	0%
Total	97	23	32	72%	24%	33%

Elected Form of Distribution for 2020 and 2021

<u>Age Group</u>	<u>Participants with Annuity Option</u>	<u>Number Electing Return of Contributions</u>	<u>Expected</u>	<u>Actual/Expected</u>	<u>Percent Electing Return of Contributions</u>	<u>Percent Expected</u>
Under 55	53	24	40	60%	45%	75%
55 and over	44	1	0	N/A	2%	0%
Total	97	25	40	63%	26%	41%



October 9, 2025

Senator Beau Ballard, Chairman
Nebraska Retirement Systems Committee
State Capitol
P.O. Box 94604
Lincoln, NE 68509-4604

Dear Senator Ballard,

Thank you for your letter dated September 3, 2025, regarding defined benefit plan reporting to the Nebraska Retirement Systems Committee.

We have enclosed information requested per the Committee's Neb. Rev. Stat. 13-2402 Reporting Form. The information will be presented to the Committee, as requested, on Friday November 20, 2025 at 1:30 p.m. in Room 1525 of the State Capitol. The presenters will be Bryan Hoge, Principal and Consulting Actuary at Cavanaugh Macdonald Consulting and Paul D. Lutomski, Pension Officer for the City of Lincoln, Nebraska.

Respectfully,

Barb McIntyre
Human Resource Director
Police and Fire Pension Administrator

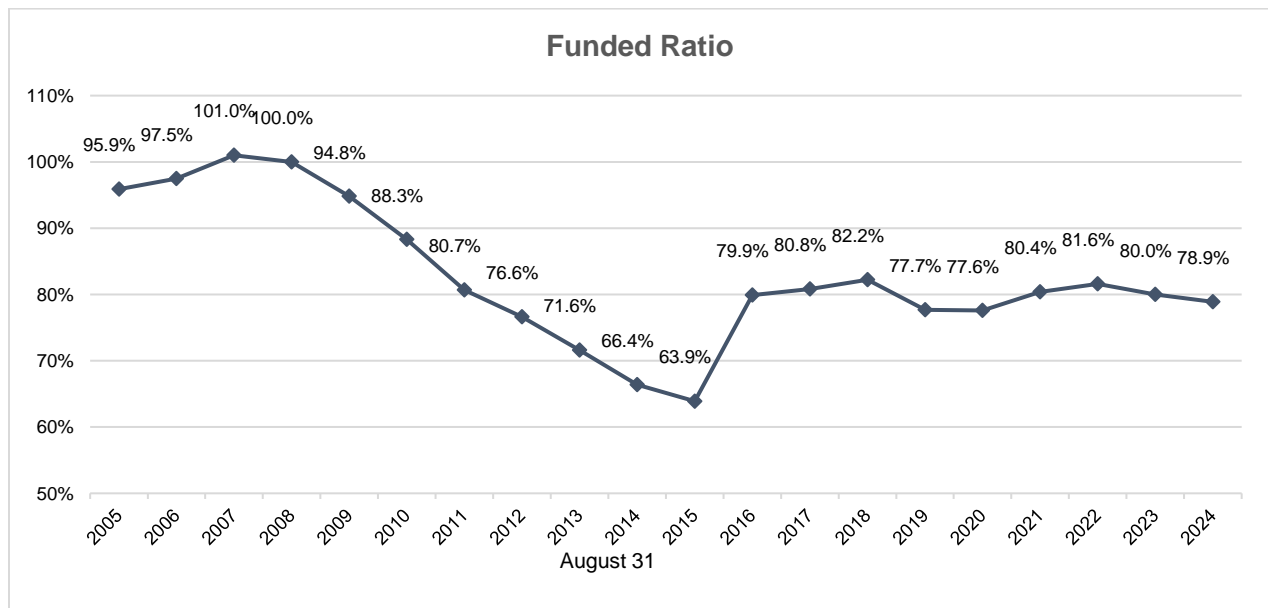
2025 Reporting Form for Underfunded Political Subdivision Pension Plans

1. Please list the following information for plan years 2019 through current plan year 2024:
 - a. Funding status
 - b. Assumed rate of return
 - c. Actual investment return
 - d. Member and employer contribution rates -- percentage
 - e. Normal cost – percentage
 - f. Actuarially required contribution (ARC) – percentage & dollar amount
 - g. ARC contribution – actual dollar amount contributed & percentage of ARC actually contributed

Please see the attached Exhibit A for this information.

2. Please provide a brief narrative of the circumstances that led to the current underfunding of the retirement plan.

Many factors impact the funded ratio of a retirement system from year to year. A graph of the long term historical funded ratio, based on the actuarial value of assets, is shown below:



Note: impact of the Great Recession is reflected over the 2009 to 2013 valuations due to asset smoothing.

One of the key reasons for the current underfunded status of the Plan is the impact of the Great Recession in 2008 and 2009. The actual rate of return on Plan assets was -6.6% for the fiscal year ending August 31, 2008 and -16.7% for the fiscal year ending August 31, 2009, compared to the assumed rate of return of 7.5% for those years. Over that two-year period, the value of plan assets declined by 22% instead of increasing with the expected return of 7.5% per year. Plan assets were nearly 40% lower than the expected value of assets (value if the actuarial assumption of 7.5% had been met from August 31, 2007 to August 31, 2009). That was reflected in the funded ratio of 72% on a market value basis in the August 31, 2009 valuation report.

Due to the use of an asset smoothing method, the funded ratio on the actuarial value of assets as of August 31, 2009 was more than 20% higher than the funded ratio on the market value of assets (94.8% vs 72.0%). As the deferred investment experience was recognized in the asset smoothing method over the next four years (2009 to 2013), the funded ratio declined (see graph above). While the Plan assets have generally met the expected return of 7.5% since August 31, 2009 (compound return of 7.8% over the period from September 1, 2010 to August 31, 2024), the “lost earnings” from the Great Recession have not been recovered because the actuarial losses from the Great Recession were amortized (repaid) over an open 30-year period at that time.

Note that the increase in the funded ratio in the 2016 valuation reflects the impact of the merger of the 13th Check COLA Pool Fund into the regular trust fund which resulted in a change in the investment return assumption from 6.40% to 7.50%. This is discussed in more detail in our response to later questions.

In more recent years, the investment return assumption has been decreased which has also slowed the improvement in the funded ratio. See additional discussion in response to question 3.

3. Have there been any changes in the actuarial methods and/or assumptions since the previous actuarial valuation report? If so, please describe.

The last experience study was performed in 2023 and the recommended assumptions were first reflected in the August 31, 2023 valuation report. The reduction in the investment return assumption is being phased-in over a four-year period. As a result, the investment return assumption in the August 31, 2024 valuation is 7.20% compared to 7.25% in the 2023 valuation. All other assumptions are unchanged. The decrease in the investment return assumption increased the unfunded actuarial accrued liability by \$2.5 million, increased the actuarial required contribution rate by 0.47%, and increased the employer contribution amount by \$0.3 million.

4. In what year is the plan's funding ratio expected to reach 100%?

If all assumptions are met in the future, the Plan is projected to be 100% funded in the 2044 valuation.

5. What is the method used to amortize the unfunded actuarial liability?

The UAAL is amortized with payments determined as a level-percent of payroll, using a layered approach. The August 31, 2016 UAAL, which is the initial amortization base, is amortized over a closed 28-year period (ending August 31, 2044). For each valuation after August 31, 2016, the net annual experience gain/loss is amortized over a new, closed 20-year period. Subsequent plan amendments or changes to actuarial assumptions or methods that create a change in the UAAL are amortized over a demographically appropriate time period selected by the Plan Administrator at the time the change is reflected in the annual actuarial valuation. The increase in the unfunded actuarial accrued liability due to the assumption changes in the most recent experience study was amortized over a closed 20-year period.

6. Please provide a description of corrective actions implemented to improve the funding status of the plan including, but not limited to, benefit changes, increased contribution rates and/or employer contributions. Please include any actuarial projections based on these changes and attach a copy of the actuarial projections.

Plan Changes: The expected return on plan assets was 7.5% from 1999 through 2017. However, the 13th Check COLA Pool Fund (created in 1991) was funded by a portion of actual investment returns that were above the actuarial assumed rate of return on the market value of assets. As a result, the Plan assets "lost" a portion of any returns above 7.5% but retained the full impact of returns below the expected return of 7.5%, lowering the effective rate of return on the assets to fund the regular plan benefits. In order to reflect the impact of the expected transfer of a portion of any favorable investment experience to the 13th Check COLA Pool Fund, the investment return assumption for the regular Pension Fund was lowered to 6.75% in the 2014 valuation and then to 6.40% in the 2015 valuation. The decrease in the assumed rate of return in those years significantly lowered the funded ratio, which was 63.9% in the August 31, 2015 valuation.

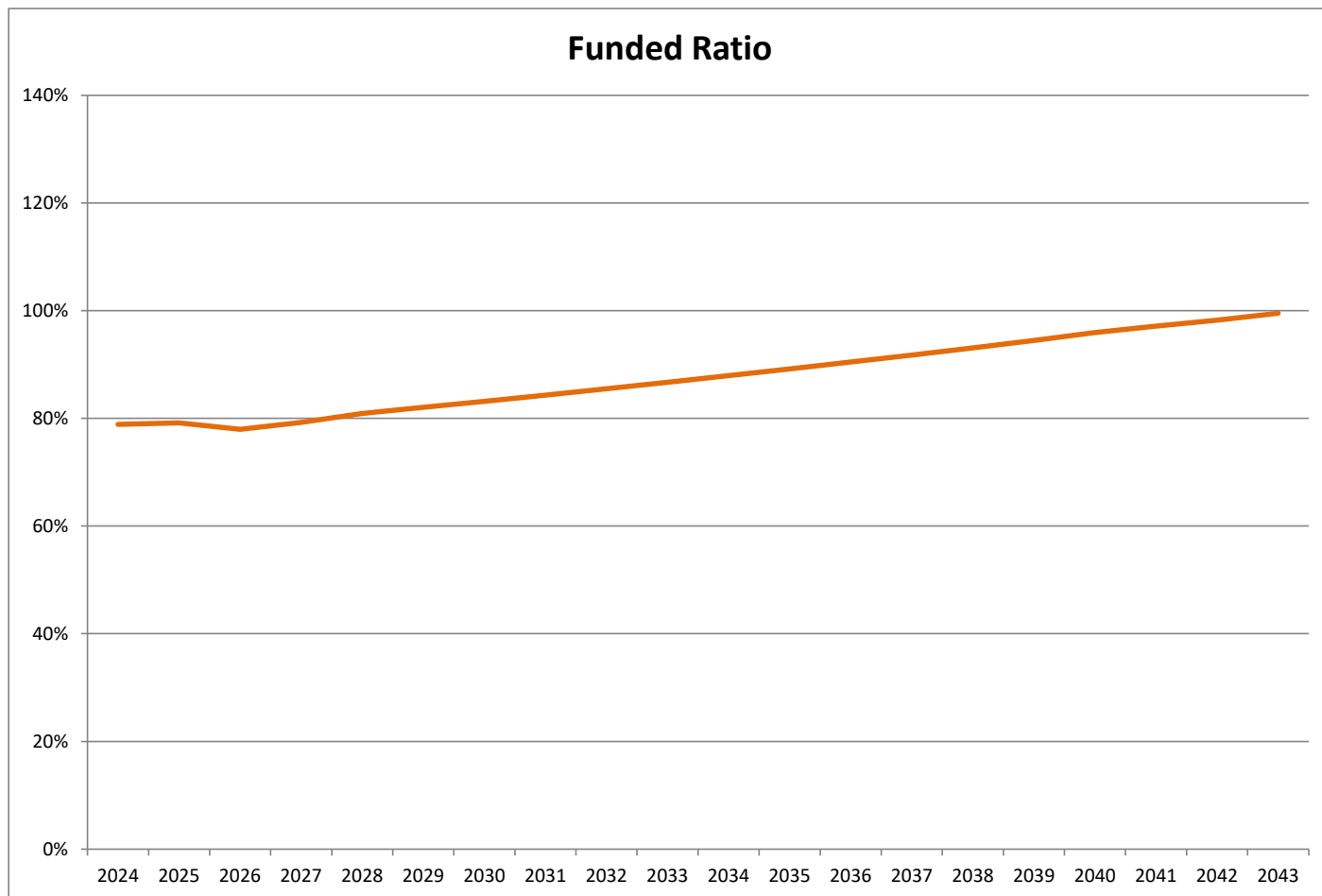
The City of Lincoln commissioned a pension task force in the fall of 2015 with the charge to review the Police and Fire Pension Plan and make recommendations for improvements to the City. One of the recommendations resulted in City of Lincoln Ordinance #20343 [06/27/16]. This change merged the assets of the 13th Check COLA Pool Fund with the assets of the regular Police and Fire Pension Plan and provided for the 13th Check benefits to be paid directly from the Police and Fire Pension Plan (rather than from the separate 13th Check COLA Pool Fund), thereby eliminating future transfers of favorable investment experience (returns above the assumed rate) to the 13th Check COLA Pool Fund. As a result, the regular Pension Plan fund retains the entire return earned and the total expected return can be used as the actuarial assumed rate of return. As a result, the investment return assumption, which had been lowered to 6.40% to reflect the impact of the skimming of investment gains to the COLA Pool Fund, was returned to 7.50% in the August 31, 2016 valuation.

Changes to Funding Policy: In addition to the merger of the 13th Check COLA Pool Fund with the regular Pension Fund, additional action has been taken by the City of Lincoln to improve the future funding of the Plan and to specifically address the systematic funding of the Unfunded Actuarial Liability. The City of Lincoln Ordinance #20495 [05/26/2017], modified the Plan's funding policy by providing for the amortization of the existing UAL at 08/31/2016 over a 28-year closed period. In each Actuarial Valuation subsequent to August 31, 2016, the annual net experience gains/losses (actual versus expected experience) is amortized over a new, closed 20-year period (referred to as a "layered" amortization approach). Subsequent plan amendments

or changes in actuarial assumptions or methods that create a change in the UAL will be amortized over a demographically appropriate time period, selected by the Plan Administrator at the time the change is reflected in the annual actuarial valuation.

The funding policy further provides that the Actuarially Determined Employer Contribution (ADEC) Rate shall be the greater of the Employer Normal Cost Rate or the sum of the Employer Normal Cost Rate and the UAL contribution rate. If actuarial assets exceed the actuarial accrued liability, a negative amortization payment shall only be applied if the plan has been at least 115 percent funded for the current and prior two years. Otherwise, the full employer normal cost rate will be contributed, thereby protecting the Plan's "surplus" assets. The dollar amount of the Actuarial Employer Contribution shall be the ADEC rate multiplied by the valuation payroll projected forward to the fiscal year under consideration, plus the actual administrative expenses for the fiscal year ending on the valuation date, projected forward one year with the inflation assumption used in the valuation.

An actuarial model of future valuation results on an open group basis is not prepared every year, but such a projection model was created based on the August 31, 2024 actuarial valuation in conjunction with a special project. The projected funded ratio, using that model and assuming all assumptions are met, is shown below. A table of key valuation results for each year is attached as Exhibit B. Note that since these results are from the open group projection model, they differ from the short-term projections shown in Table 12 of the August 31, 2024 actuarial valuation report.



7. Please describe recent or ongoing negotiations with bargaining groups that may impact the plan's funding.

The current actuarial assumption for the Base (Economic) annual pay increase is 3%. This rate was set in the most recent Experience Study, which covered experience that occurred in the four years ending August 2022.

The three-year Police Union contract recently adopted included a 6% increase for FY 2025-26, a 6% increase for ~~FY 2025-26~~ FY 2026-27, and a 5% increase for ~~FY 2026-27~~ FY 2027-28.

The three-year Fire Union contract is now in its last year. The contract provided for an 8% increase for FY 2023-24, a 6% increase for FY 2024-25, and a 4% increase for FY 2025-26.

It is expected that future annual Base (Economic) increases for both groups will continue to be at rates higher than the assumed 3% for an unknown duration. This assumption will be reviewed and evaluated as part of the next experience study.

8. Please attach a copy of the most recent Actuarial Experience Study. When will the next Actuarial Experience Study be completed and available for review by the Committee?

A copy of the most recent Experience Study Report is attached (dated December 11, 2023). The next experience study, covering the four years ending August 31, 2026, will be completed after the August 31, 2026 actuarial valuation report has been completed. We anticipate a draft report in second quarter of 2027.

9. What is the current assumed rate of return? If the rate has been changed in the past year, or if there are plans to review the rate in the upcoming year, please describe.

In the last experience study, the actuary recommended reducing the investment return assumption from 7.30% to 7.00%. This change is being implemented incrementally with a decrease of .05% in the 2023 valuation, followed by a decrease of 0.10% in the assumption each year over the next two years. As a result, the investment return assumption in the August 31, 2024 actuarial valuation was 7.20% and it will be 7.10% in the August 31, 2025 valuation. Based on the current schedule, the investment return assumption will ultimately reach 7.00% in the August 31, 2026 valuation.

10. Please attach the most recent actuarial valuation report. If the valuation report is completed biannually (or less often) please include an updated report for the interim year/s, if available.

Actuarial valuations are prepared annually, as of August 31, for the Lincoln Police and Fire Retirement System. The most recent valuation report, prepared as of August 31, 2024, is attached.

Please submit the information electronically by **October 15, 2025** to: Senator Beau Ballard, Chairman, Nebraska Retirement Systems Committee at bballard@leg.ne.gov and Trevor Fitzgerald, Senior Research Consultant & Committee Legal Counsel at tfitzgerald@leg.ne.gov If you have any questions, please contact Trevor at 402-471-2626 or tfitzgerald@leg.ne.gov.

City of Lincoln Police and Fire Pension Fund



**Actuarial Valuation Report
as of August 31, 2024**

SUBMITTED: JANUARY 9, 2025



January 9, 2025

The City Council
City of Lincoln
575 South 10th Street, Suite 4401
Lincoln, NE 68508

Re: City of Lincoln Police and Fire Pension Fund

Dear Council Members:

At your request, we have performed an actuarial valuation of the City of Lincoln Police and Fire Pension Fund as of August 31, 2024 to determine the actuarial contribution for the fiscal year ending August 31, 2026. The major findings of the valuation are contained in this report which reflects the benefit provisions in effect as of August 31, 2024. There were no changes to the actuarial methods or benefit provisions from the prior valuation, but there were two changes to the actuarial assumptions used in this valuation. The investment return assumption and the assumed interest rate credited on member contributions were both lowered from 7.25% to 7.20%. The net impact of the assumption changes was an increase in both the unfunded actuarial accrued liability and the actuarial contribution rate.

In preparing this report, we relied, without audit, on information (some oral and some written) supplied by the Plan's staff. This information includes, but is not limited to, plan provisions, member data and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete, our results may be different, and our calculations may need to be revised.

In order to prepare the results in this report, we have utilized actuarial models that were developed to measure liabilities and determine actuarial costs. These models include tools that we have produced and tested, along with commercially available valuation software that we have reviewed to confirm the appropriateness and accuracy of the output. In utilizing these models, we develop and use input parameters and assumptions about future contingent events along with recognized actuarial approaches to develop the necessary results. The valuation results summarized in this report involve actuarial calculations that require the use of many assumptions about future events. The assumptions are adopted by the City after consultation with the actuary. We believe that the assumptions and methods used in this report are reasonable and appropriate for the purpose for which they have been used. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable, and valuation results based on



SECTION 1 – EXECUTIVE SUMMARY

OVERVIEW

This report presents the results of the August 31, 2024 actuarial valuation of the City of Lincoln Police and Fire Pension Fund (Plan). The primary purposes of performing a valuation are to:

- disclose asset and liability measures as of the valuation date,
- calculate the actuarially determined employer contribution rate required to fund the Plan for the fiscal year ending two years from the valuation date,
- determine the actual experience of the Plan since the last valuation date,
- assess and disclose the key risks associated with funding the Plan, and
- analyze and report on trends in contributions, assets, and liabilities over the past several years.

The plan provisions and actuarial methods remain unchanged from the prior valuation. However, the investment return assumption and the assumed interest rate credited on member contributions were both decreased from 7.25% to 7.20%. Based on the most recent experience study, the City’s intention has been to decrease the assumption incrementally each year until reaching an ultimate assumption of 7.00% in the August 31, 2026 valuation. As a result of the assumption changes in this valuation, the actuarial accrued liability (AAL) increased by \$2.5 million, the actuarial required contribution rate increased by 0.47% of pay, and the employer contribution amount increased by \$0.3 million.

The valuation results provide a “snapshot” view of the Plan’s financial condition on August 31, 2024 as shown in the table below. Overall, the valuation results indicated net unfavorable experience, the result of an actuarial gain of \$3.0 million on actuarial assets and an actuarial loss of \$10.5 million on the actuarial accrued liability. The liability loss is primarily due to larger salary increases than expected, based on the actuarial assumptions. The net experience loss (both assets and liabilities) was \$7.5 million which increased the unfunded actuarial accrued liability. A detailed analysis of the change in the unfunded actuarial accrued liability from August 31, 2023 to August 31, 2024 can be found on page 4.

	8/31/2024 Valuation	8/31/2023 Valuation
Unfunded Actuarial Accrued Liability	\$ 90,916,948	\$ 80,419,491
Funded Ratio (Actuarial Assets)	78.9%	80.0%
Actuarially Determined Employer Contribution Rate	21.20%	20.20%
Estimated Covered Payroll	\$ 63,257,284	\$ 58,717,009
City Contribution for Following Fiscal Year*	\$ 14,101,657	\$ 12,462,426

* Includes administrative expenses. See Table 12 for details.



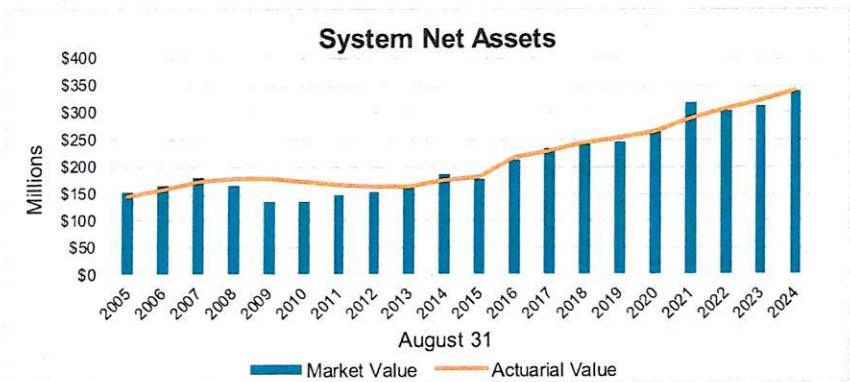


SECTION 1 – EXECUTIVE SUMMARY

	Market Value (\$M)	Actuarial Value (\$M)
Assets, August 31, 2023	\$312.2	\$320.7
• City and Member Contributions*	15.5	15.5
• Benefit Payments and Refunds	(21.8)	(21.8)
• Administrative Expenses	(0.7)	(0.7)
• Investment Income, Net of Expenses	<u>34.5</u>	<u>25.9</u>
Assets, August 31, 2024	\$339.7	\$339.6
Estimated Rate of Return, Net of Expenses	11.3%	8.2%

*Includes service purchases

The rate of return, measured on the market value of assets, was 11.3%, as reported by the City. Due to the combined impact of favorable asset experience for fiscal year 2024 and the scheduled recognition of the deferred investment experience from the prior four years, the return on the actuarial or smoothed value of assets was about 8.2%. Since this return is greater than the investment return assumption for FY 2024 of 7.25%, it generated an experience gain of \$3.0 million on the actuarial value of assets. Due to the asset smoothing method, the market value of assets exceeds the actuarial value of assets by \$0.1 million. This net deferred investment gain will flow through the asset smoothing method and be recognized over the next four years (see Table 4).



The actuarial value of assets has been both above and below the market value over this period. This is to be expected when using an asset smoothing method.

Note: Results for years before 2015 were prepared by the prior actuary.





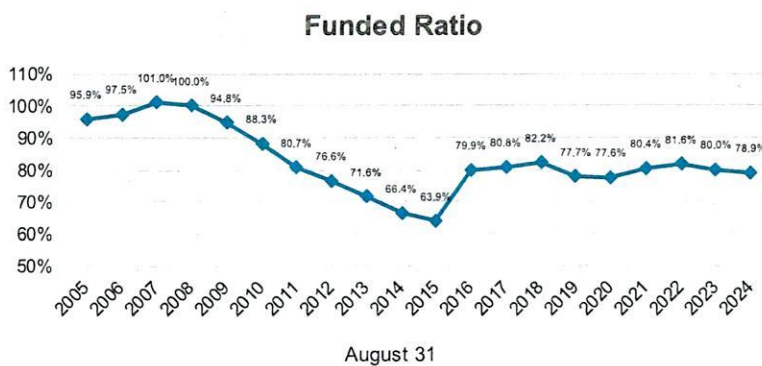
SECTION 1 – EXECUTIVE SUMMARY

The experience loss of \$7.5 million for the last plan year was the net result of an experience loss of \$10.5 million on Plan liabilities and an experience gain of \$3.0 million on Plan assets (actuarial value). The unfavorable experience on Plan liabilities was primarily due to salary increases that were larger than expected, based on the actuarial assumptions. Although smaller in magnitude, there were also experience losses on actual retirement and disability experience.

Analysis of the unfunded actuarial accrued liability strictly as a dollar amount can be misleading. Another way to evaluate the unfunded actuarial accrued liability and the progress made in its funding is to track the funded status, the ratio of the actuarial value of assets to the actuarial accrued liability. This information for recent years is shown in the following table (in millions). Historical information is shown in the graph below. Note that the funded ratio does not indicate whether or not the Plan has sufficient funds to settle all current obligations, nor is it necessarily indicative of the need for, or amount of, future funding.

	8/31/20	8/31/21	8/31/22	8/31/23	8/31/24
Actuarial Accrued Liability (\$M)	\$343.1	\$358.6	\$375.5	\$401.1	\$430.5
Actuarial Value of Assets (\$M)	\$266.1	\$288.2	\$306.4	\$320.7	\$339.6
Unfunded AAL*	\$77.0	\$70.4	\$69.0	\$80.4	\$90.9
Funded Ratio (Actuarial Assets/AAL)	77.6%	80.4%	81.6%	80.0%	78.9%
Actuarial Accrued Liability (\$M)	\$343.1	\$358.6	\$375.5	\$401.1	\$430.5
Market Value of Assets (\$M)	\$267.2	\$318.9	\$301.2	\$312.2	\$339.7
Unfunded AAL*	\$75.9	\$39.7	\$74.2	\$88.9	\$90.8
Funded Ratio (MVA/AAL)	77.9%	88.9%	80.2%	77.8%	78.9%

* Numbers may not add due to rounding.



From 2007 to 2015, the funded ratio steadily declined due to changes in assumptions, adverse experience, and contributions less than the full actuarial rate. The large improvement in 2016 was due to the merger of the COLA Pool Fund with the general pension fund which resulted in an increase in the investment return assumption.

Note: Results for years prior to 2015 were prepared by prior actuaries.

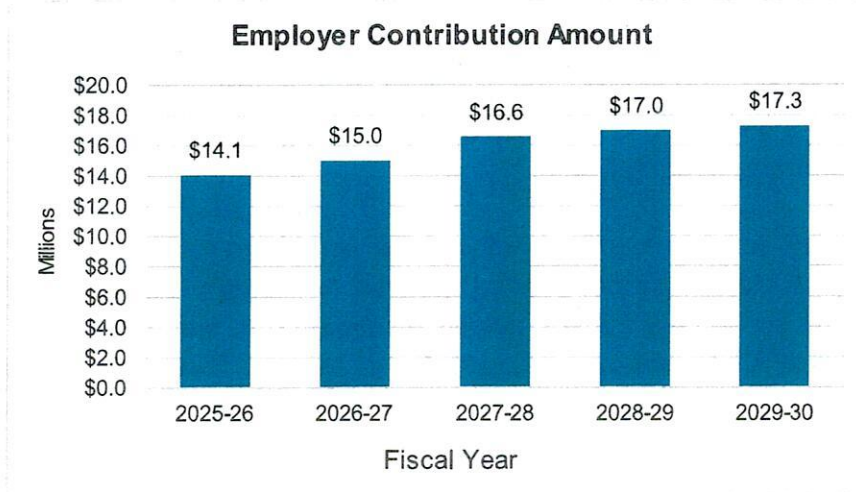
As mentioned earlier, due to the asset smoothing method there is a \$0.1 million difference between the market and actuarial value of assets. This deferred investment gain will flow through the asset smoothing method over the next four years. If all actuarial assumptions are met in the future and unfavorable investment experience does not occur, the funded ratio will increase





SECTION 1 – EXECUTIVE SUMMARY

As the investment return assumption is lowered in the next two valuations, the actuarially determined contribution rate is expected to increase and, therefore, so is the dollar amount of the City’s contribution. Based on the current valuation results, schedule changes to the investment return assumption, and assuming all actuarial assumptions are met in the future, the estimated City contributions are shown in the following graph:



COMMENTS

The Lincoln City Council passed Lincoln City Ordinance #20495 in May 2017, strengthening the Plan’s long-term funding by modifying the amortization policy for the unfunded actuarial accrued liability to use layered amortization with closed amortization periods. The ordinance also requires the City to contribute the full actuarially determined employer contribution (ADEC) as calculated in the annual actuarial valuation. These changes to the funding policy were intended to improve the Plan’s long-term funding, with the goal of accumulating sufficient assets over time to fully finance the future benefits payable to members. If all assumptions are met and the City makes the full actuarial contributions as required under the ordinance, the funding policy will result in the Plan reaching fully funded status.

As of August 31, 2024, the actuarial accrued liability of the Plan was \$430.5 million and the actuarial value of assets was \$339.6 million, resulting in a funded ratio of 78.9%, down from the funded ratio of 80.0% in last year’s valuation. Using the market value of assets, the funded ratio is also 78.9%, up from 77.8% last year.

Retirement plans use several mechanisms to create more stability in the contribution levels. These include an asset valuation method, which smoothes out the volatility in the investment returns, and amortization of any actuarial gains or losses over a number of years. The unfunded actuarial accrued liability is amortized using a “layered” approach. Under the Plan’s funding policy, a new amortization base equal to the difference between the actual and expected UAAL is created each year and amortized over a closed 20-year period. The intent of this methodology is to





SECTION 1 – EXECUTIVE SUMMARY

A summary of key data elements and valuation results as of August 31, 2024 and August 31, 2023 are presented on the following page. More detail on each of these elements can be found in the following sections of this report.





SECTION 2 – SCOPE OF THE REPORT

This report presents the results of the actuarial valuation of the City of Lincoln Police and Fire Pension Fund as of August 31, 2024. This valuation was prepared at the request of the City.

Please pay particular attention to our actuarial certification letter, where the guidelines employed in the preparation of this report are outlined. We also comment on the sources and reliability of both the data and the actuarial assumptions upon which our findings are based. Those comments are the basis for our certification that this report is complete and accurate to the best of our knowledge and belief.

A summary of the findings which result from this valuation is presented in the previous section. Section 3 describes the assets and investment experience of the Plan. Sections 4 and 5 describe how the obligations of the Plan are to be met under the actuarial cost method in use. Section 6 discloses key maturity measurements and discusses the key risks facing the funding of the Plan. Section 7 includes some historical funding and other information.

This report includes several appendices:

- Appendix A Schedules of valuation data classified by various categories of members.
- Appendix B A summary of the current benefit structure, as determined by the provisions of governing law on August 31, 2024.
- Appendix C A summary of the actuarial methods and assumptions used to estimate liabilities and determine contribution rates.
- Appendix D A glossary of actuarial terms.





TABLE 1

STATEMENT OF NET PLAN ASSETS AT MARKET VALUE

	Market Value	
	August 31, 2024	August 31, 2023
Cash & Equivalents	\$ 9,889,364	\$ 8,001,649
Accrued Interest & Dividends	33,789	32,073
Fixed Income Investments	60,400,590	58,491,984
Equity Investments	179,031,882	147,843,023
Alternative Investments	90,376,278	97,829,041
Total Assets	\$ 339,731,903	\$ 312,197,770
Contributions Receivable	\$ 0	\$ 0
Net Assets Available for Benefits	\$ 339,731,903	\$ 312,197,770



SECTION 3 - ASSETS



TABLE 3

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

	Year End			
	8/31/2021	8/31/2022	8/31/2023	8/31/2024
1. Asset Value, Beginning of Year	\$ 267,193,074	\$ 318,905,474	\$ 301,227,002	\$ 312,197,770
2. Contributions During Year				
a. Members	\$ 3,706,959	\$ 3,839,689	\$ 4,228,254	\$ 4,609,406
b. City	9,988,807	11,573,047	10,533,904	10,783,513
c. Service Purchases	0	465,169	267,174	58,362
d. Contributions Receivable	0	0	0	0
e. Total	\$ 13,695,766	\$ 15,877,905	\$ 15,029,332	\$ 15,451,281
3. Benefit Payments and Expenses	\$ 19,567,528	\$ 20,555,982	\$ 21,223,956	\$ 22,524,209
4. Assumed Rate of Return	7.40%	7.35%	7.30%	7.25%
5. Expected Investment Income on (1), (2) and (3)	\$ 19,558,909	\$ 23,270,681	\$ 21,767,450	\$ 22,382,431
6. Actual Return on Market Value, Net of Investment Expenses	\$ 57,584,162	\$ (13,000,395)	\$ 17,165,392	\$ 34,607,061
7. Return to be Spread, End of Year (6) - (5)	\$ 38,025,253	\$ (36,271,076)	\$ (4,602,058)	\$ 12,224,630
8. Return to be Spread				
	Plan Year	Return to be	Unrecognized	Unrecognized
	Ending	Spread	Percent	Return
	2024	\$12,224,630	80%	\$9,779,704
	2023	(4,602,058)	60%	(2,761,235)
	2022	(36,271,076)	40%	(14,508,430)
	2021	38,025,253	20%	7,605,051
				\$115,090
9. Total Market Value of Assets as of August 31, 2024				\$339,731,903
10. Total Actuarial Value of Assets as of August 31, 2024 (9) - (8)				\$339,616,813
11. Asset Ratios				
(a) Actuarial Value to Market Value (10) / (9)				99.97%
(b) Market Value to Actuarial Value (9) / (10)				100.03%
12. Return on Actuarial Value of Assets, Net of Expenses				8.2%





SECTION 4 – PLAN LIABILITIES

In the previous section, an actuarial valuation was compared with an inventory process, and an analysis was given of the inventory of assets of the City of Lincoln Police and Fire Pension Fund as of the valuation date, August 31, 2024. In this section, the discussion will focus on the commitments (future benefit payments) of the Plan, which are referred to as its liabilities.

Table 5 contains an analysis of the actuarial present value of all future benefits (PVFB) for contributing members, inactive members, retirees and their beneficiaries.

The liabilities summarized in Table 5 include the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member, this value includes measurement of both benefits already earned and future benefits expected to be earned. For all members, active and retired, the value extends over benefits earnable and payable for the rest of their lives and for the lives of the surviving beneficiaries.

All liabilities reflect the benefit provisions in place as of August 31, 2024.

Actuarial Accrued Liability

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. An actuarial cost method is a mathematical technique that allocates the present value of future benefits into annual costs. In order to do this allocation, it is necessary for the funding method to “breakdown” the present value of future benefits into two components:

- (1) that which is attributable to the past, and
- (2) that which is attributable to the future.

Actuarial terminology calls the part attributable to the past the “past service liability” or the “actuarial accrued liability”. The portion allocated to the future is known as the present value of future normal costs, with the specific piece of it allocated to the current year being called the “normal cost”. Table 6 contains the calculation of actuarial accrued liability for the Plan. The Entry Age Normal actuarial cost method is used to develop the actuarial accrued liability.



SECTION 4 – PLAN LIABILITIES



TABLE 6

ACTUARIAL ACCRUED LIABILITY AS OF AUGUST 31, 2024

1. Active Employees	
a. Present Value of Future Benefits	\$ 284,375,212
b. Present Value of Future Normal Costs	103,418,887
c. Actuarial Accrued Liability	<u>\$ 180,956,325</u>
(1a) - (1b)	
2. Inactive Members	\$ 9,730,746
3. In Pay Members	
a. Retirees	\$ 165,311,909
b. Disabled Members	24,050,829
c. DROP Members	39,883,149
d. Beneficiaries	10,600,803
e. Total	<u>\$ 239,846,690</u>
4. Total Actuarial Accrued Liability	\$ 430,533,761
(1c) + (2) + (3e)	
5. Actuarial Value of Assets	\$ 339,616,813
6. Unfunded Actuarial Accrued Liability	\$ 90,916,948
(4) - (5)	





SECTION 4 – PLAN LIABILITIES

TABLE 8
ACTUARIAL GAIN/(LOSS)

<u>Liabilities</u>	
1. Actuarial Accrued Liability as of August 31, 2023	\$ 401,094,971
2. Normal Cost and Service Purchases for Plan Year Ending August 31, 2024	9,356,368
3. Benefit Payments During Plan Year Ending August 31, 2024	(21,849,952)
4. Interest at 7.25%	28,979,519
5. Assumption Changes	2,452,446
6. Expected Actuarial Accrued Liability as of August 31, 2024	\$ 420,033,352
7. Actuarial Accrued Liability as of August 31, 2024	\$ 430,533,761
<u>Assets</u>	
8. Actuarial Value of Assets as of August 31, 2023	\$ 320,675,480
9. Contributions During Plan Year Ending August 31, 2024	15,451,281
10. Benefit Payments and Expenses During Plan Year Ending August 31, 2024	(22,524,209)
11. Interest at 7.25%	22,997,065
12. Expected Actuarial Value of Assets as of August 31, 2024	\$ 336,599,617
13. Actuarial Value of Assets as of August 31, 2024	\$ 339,616,813
<u>Gain / (Loss)</u>	
14. Expected Unfunded Actuarial Accrued Liability (6) – (12)	\$ 83,433,735
15. Unfunded Actuarial Accrued Liability (7) – (13)	\$ 90,916,948
16. Actuarial Gain / (Loss) (14) – (15)	\$ (7,483,213)
17. Actuarial Gain / (Loss) on Actuarial Value of Assets (13) – (12)	\$ 3,017,196
18. Actuarial Gain / (Loss) on Actuarial Accrued Liability (6) – (7)	\$ (10,500,409)





SECTION 5 – EMPLOYER CONTRIBUTIONS

The previous two sections were devoted to a discussion of the assets and liabilities of the Plan. A comparison of Tables 3 and 5 indicates that current assets (actuarial value) fall short of meeting the present value of future benefits (total liability). This is expected in all but a completely closed fund, where no further contributions are anticipated. In an active Plan, there will almost always be a difference between the actuarial value of assets and total liabilities. This deficiency has to be made up by future contributions and investment returns. An actuarial valuation sets out a schedule of future contributions that will deal with this deficiency in an orderly fashion.

The method used to determine the incidence of the contributions in various years is called the actuarial cost method. Under an actuarial cost method, the contributions required to meet the difference between current assets and current liabilities are allocated each year between two elements: (1) the normal cost rate and (2) the unfunded actuarial accrued liability contribution rate.

The term “fully funded” is often applied to a Plan in which contributions at the normal cost rate are sufficient to pay for the benefits of existing employees as well as for those of new employees. More often than not, Plans are not fully funded, either because of past benefit improvements that have not been completely funded or because actuarial deficiencies have occurred when experience has not been as favorable as anticipated. Under these circumstances, an unfunded actuarial accrued liability (UAAL) exists. Likewise, when the actuarial value of assets is greater than the actuarial accrued liability, a surplus exists.

Description of Contribution Rate Components

The Entry Age Normal (EAN) actuarial cost method is used for the valuation. Under that method, the normal cost for each year from entry age to assumed exit age is a constant percentage of the member’s year by year projected compensation. The portion of the present value of future benefits not provided by the present value of future normal costs in the actuarial accrued liability. The unfunded actuarial accrued liability represents the difference between the actuarial accrued liability and the actuarial value of assets as of the valuation date. The unfunded actuarial accrued liability is calculated each year and reflects experience gains/losses.

In general, contributions are computed in accordance with a level percent-of-payroll funding objective. The funding policy for the Plan, which determines the City’s contribution, can be found in Appendix B of Chapter 2.62 in the Lincoln Municipal Code. The contribution rate developed in the August 31, 2024 actuarial valuation will be used to determine the dollar amount of the actuarially determined employer contribution to the City of Lincoln Police and Fire Pension Fund for fiscal year end 2026. In this context, the term “contribution rate” means the percentage, which is applied to the estimated active member payroll for the applicable plan year to determine the actual employer contribution amount (i.e., in dollars) for the group.





SECTION 5 – EMPLOYER CONTRIBUTIONS

TABLE 10

DEVELOPMENT OF UNFUNDED ACTUARIAL ACCRUED LIABILITY CONTRIBUTION RATE

We believe the use of the layered amortization policy, with new bases over 20 years and the remainder of the legacy base over 20 years, complies with Actuarial Standard of Practice Number 4. This policy will fully amortize the individual, as well as the total, unfunded actuarial accrued liability within a reasonable timeframe and/or reduce the amount of the UAAL by a reasonable amount within a sufficiently short period.

Amortization Bases	Original Amount	Remaining Payments	Base is Paid Off	Outstanding Balance as of August 31, 2024	Annual Contribution*
2016 UAAL Base	\$ 54,590,515	20	8/31/2044	\$ 56,446,957	\$ 4,160,374
2017 Experience Base	(286,327)	13	8/31/2037	(258,980)	(25,925)
2018 Experience Base	(2,490,622)	14	8/31/2038	(2,310,220)	(218,688)
2019 Experience Base	5,276,186	15	8/31/2039	4,994,030	449,267
2019 Assumption Change Base	13,739,593	15	8/31/2039	13,004,839	1,169,926
2020 Experience Base	2,583,532	16	8/31/2040	2,488,937	213,711
2020 Assumption Change Base	1,831,310	16	8/31/2040	1,764,258	151,487
2021 Experience Base	(8,629,870)	17	8/31/2041	(8,431,698)	(693,635)
2021 Assumption Change Base	1,998,466	17	8/31/2041	1,952,573	160,629
2022 Experience Base	(3,324,286)	18	8/31/2042	(3,283,636)	(259,671)
2022 Assumption Change Base	2,091,838	18	8/31/2042	2,066,259	163,400
2023 Experience Base	6,841,729	19	8/31/2043	6,813,414	519,482
2023 Assumption Change Base	4,810,131	19	8/31/2043	4,790,224	365,226
2024 Experience Base	8,427,545	20	8/31/2044	8,427,545	621,145
2024 Assumption Change Base	2,452,446	20	8/31/2044	2,452,446	180,755
Total				\$ 90,916,948	\$ 6,957,483

* Amounts reflect mid-year timing. Based on level percentage of payroll, assuming payroll increases 3.00% per year.

- 1. Total UAAL Amortization Payment \$ 6,957,483
- 2. Total Projected Payroll for FY 2024-25 \$ 61,414,839
- 3. UAAL Amortization Payment as a Percent of Payroll 11.33%





SECTION 5 – EMPLOYER CONTRIBUTIONS

TABLE 12

FIVE-YEAR BUDGET REQUEST ESTIMATE

The Employer Contribution Amount, per City Ordinance 20495, requires the City to contribute the Actuarially Determined Employer Contribution Amount plus Administrative Expenses to the Plan.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Employer	UAAL	Actuarially	Actuarially		Employer
Fiscal	Total	Normal Cost	Contribution	Determined	Determined	Admin.	Contribution
Year	Payroll*	Rate	Rate	Employer	Employer	Expenses**	Amount
				Contribution	Contribution		Amount
				Rate	Amount		(5) + (6)
				(2) + (3)	(1) * (4)		
2025-26	63,257,284	9.87%	11.33%	21.20%	13,410,544	691,113	14,101,657
2026-27	65,155,003	10.23%	11.77%	22.00%	14,334,101	708,391	15,042,492
2027-28	67,109,653	10.61%	13.00%	23.61%	15,844,589	726,101	16,570,690
2028-29	69,122,943	10.57%	12.93%	23.50%	16,243,892	744,254	16,988,146
2029-30	71,196,631	10.57%	12.65%	23.22%	16,531,858	762,860	17,294,718

Note: Projected employer contribution amounts assume that all actuarial assumptions are met in the future and reflect the expectation that the investment return assumption will decrease incrementally until reaching 7.00% in the August 31, 2026 valuation (which determines the City contribution for FY 2027-2028). Consequently, the assumed return in each year shown in this table varies in accordance with the investment return assumption for that year (7.20% for contributions in FY 2025-2026, 7.10% for contributions in FY 2026-2027 and 7.00% thereafter).

* Total payroll is projected to increase at 3.00% per year for future years.

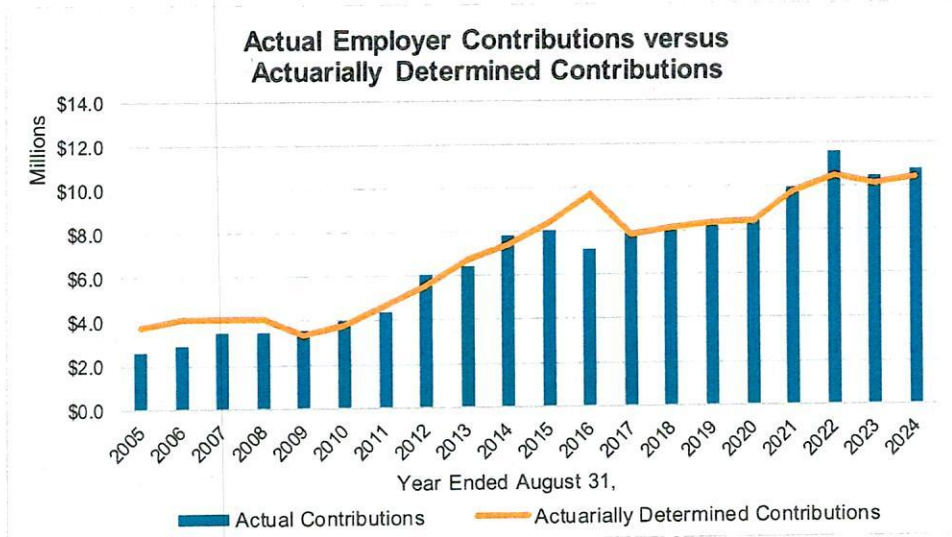
** Administrative expenses are assumed to increase with price inflation of 2.50% per year.





SECTION 6 – RISK CONSIDERATIONS

less than the full actuarial contribution in 8 of the last 20 years, as shown in the following graph, with the greatest shortfall occurring during FY 2015-2016.



However, in May of 2017, the Plan’s funding policy was modified by City ordinance to require the City to contribute the Actuarially Determined Employer Contribution (ADEC), which is defined as the greater of the employer normal cost rate or the sum of the employer normal cost rate and UAAL contribution rate. The dollar amount of the City contribution is also required to include a component for administrative expenses. Prior to this change, the ordinance only required the contribution to be at least the employer normal cost plus administrative expenses, i.e., the full actuarial contribution was not required to be made. The changes to the funding policy in 2017 were implemented to strengthen the Plan’s long-term funding and are expected to do so if actual City contributions continue to follow the Policy.

Investment Return Risk

Perhaps the most significant risk factor for most retirement systems, including the City of Lincoln Police and Fire Pension Fund, is investment return because of the volatility of returns associated with the asset allocations (see Table 13). Historically, actual returns in any given year have varied significantly from the assumed rate of return (see the graph following this paragraph). This is to be expected, given the Plan’s asset allocation and the standard deviation of the portfolio, but it does create a high degree of uncertainty, or risk.





SECTION 6 – RISK CONSIDERATIONS

with the COVID-19 pandemic. This type of event is also significant, although the impact on the Plan's funding is more easily absorbed. While either of these events could happen, it represents a relatively small probability and thus represents much less risk than the volatility associated with investment returns.

The following exhibits summarize some historical information that helps indicate how certain key risk metrics have changed over time. Many are due to the natural maturing of the retirement system over time.





SECTION 6 – RISK CONSIDERATIONS

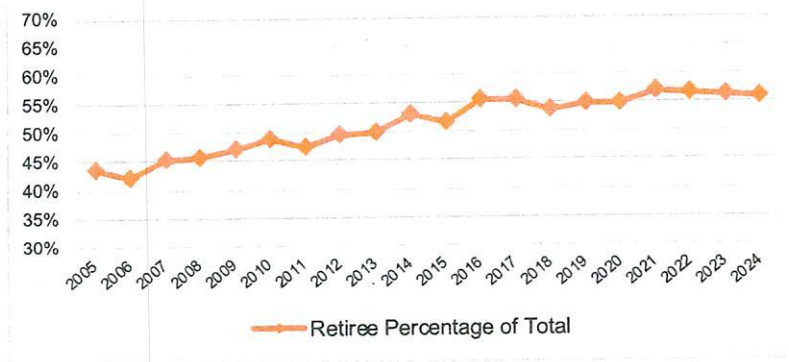
TABLE 14

LIABILITY MATURITY MEASUREMENTS

Most public sector retirement systems have been in operation for many years. As a result, they have aging plan populations, and in some cases declining active populations, resulting in an increasing ratio of retirees to active members and a growing percentage of retiree liability. With more of the total liability residing with retirees, investment volatility has a greater impact on the funding of the system because it is more difficult to restore the system financially after losses occur when there is comparatively less payroll over which to spread costs.

Year End	Retiree Liability (a)	Total Actuarial Accrued Liability (b)	Retiree Percentage (a) / (b)
8/31/2005	\$65,946,867	\$151,978,408	43.4%
8/31/2006	67,729,832	161,583,285	41.9%
8/31/2007	76,597,657	169,587,458	45.2%
8/31/2008	81,480,790	179,376,149	45.4%
8/31/2009	88,108,214	187,292,374	47.0%
8/31/2010	94,844,691	195,206,353	48.6%
8/31/2011	96,971,599	204,990,324	47.3%
8/31/2012	106,051,038	214,878,992	49.4%
8/31/2013	113,673,206	229,192,937	49.6%
8/31/2014	139,496,202	262,918,401	53.1%
8/31/2015	147,478,263	286,493,673	51.5%
8/31/2016	150,187,027	271,594,222	55.3%
8/31/2017	157,805,935	285,038,672	55.4%
8/31/2018	159,139,159	296,440,660	53.7%
8/31/2019	177,864,308	325,109,208	54.7%
8/31/2020	187,742,509	343,087,750	54.7%
8/31/2021	204,175,685	358,573,819	56.9%
8/31/2022	212,530,618	375,472,940	56.6%
8/31/2023	224,636,068	401,094,971	56.0%
8/31/2024	239,846,690	430,533,761	55.7%

Note: Years prior to 8/31/2015 were provided by the prior actuary.





SECTION 6 – RISK CONSIDERATIONS

TABLE 16

COMPARISON OF VALUATION RESULTS UNDER ALTERNATE INVESTMENT RETURN ASSUMPTIONS

(\$ in thousands)

This exhibit compares the key August 31, 2024 valuation results under five (5) different investment return assumptions to illustrate the impact of different assumptions on the funding of the Plan. Note that only the investment return assumption is changed, as identified in the heading below. All other assumptions are unchanged for purposes of this analysis.

Investment Return Assumption	6.75%	7.00%	7.20%	7.50%	7.75%
Contributions					
Normal Cost Rate	19.67%	18.57%	17.74%	16.57%	15.67%
UAAL Amortization Rate	13.58%	12.33%	11.33%	9.84%	8.61%
Actuarial Determined Contribution Rate	33.25%	30.90%	29.07%	26.41%	24.28%
Effective Employee Contribution Rate	(7.87%)	(7.87%)	(7.87%)	(7.87%)	(7.87%)
Employer Required Contribution Rate	25.38%	23.03%	21.20%	18.54%	16.41%
Employer Contribution Amount for FY 2025-2026	\$16,746	\$15,259	\$14,102	\$12,419	\$11,072
Actuarial Accrued Liability	\$453,416	\$440,470	\$430,534	\$416,291	\$404,994
Actuarial Value of Assets	339,617	339,617	339,617	339,617	339,617
Unfunded Actuarial Accrued Liability*	\$113,800	\$100,853	\$90,917	\$76,674	\$65,377
Funded Ratio	74.9%	77.1%	78.9%	81.6%	83.9%

Note: All other assumptions are unchanged for purposes of this sensitivity analysis.

*May not add due to rounding.





SECTION 7 – HISTORICAL FUNDING AND OTHER INFORMATION

TABLE 17

SCHEDULE OF FUNDING PROGRESS

Two tests of funding progress based on the relationship between valuation assets and actuarial accrued liabilities are shown on the following pages. These tests are based upon the actuarial cost method used in the valuation.

The Ratio of Valuation Assets to Actuarial Accrued Liabilities is a traditional measure of a Plan's funding progress. Except in years when the benefit provisions are amended or actuarial assumptions are revised, the ratio can be expected to gradually tend toward 100%, assuming recommended contribution amounts are received by the plan.

The Ratio of Unfunded Actuarial Accrued Liabilities to Valuation Payroll is another relative index of condition. In an inflationary economy, the value of dollars is decreasing. This environment results in employee salaries increasing in dollar amounts, retirement benefits increasing in dollar amounts, and then, unfunded actuarial accrued liabilities increasing in dollar amounts – all at a time when the actual substance of these items may be decreasing. When looking at dollar amounts, the effects of inflation can hide the actual funding progress from year to year. Unfunded actuarial accrued liability dollars divided by active employee payroll dollars provides an index which attempts to eliminate the misleading effects of inflation. The smaller the ratio of unfunded liabilities to active member payroll, the stronger the Plan. Observation of this relative index over a period of years will provide an indication of whether the Plan is becoming financially stronger or weaker.





SECTION 7 – HISTORICAL FUNDING AND OTHER INFORMATION

TABLE 18

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Beginning September 1	Actuarial Valuation Date	Actuarially Determined Employer Contribution*	Actual Contribution	Contribution Deficiency/ (Excess)
2006	8/31/2005	\$4,056,195	\$3,494,590	\$561,605
2007	8/31/2006	4,076,536	3,456,424	620,112
2008	8/31/2007	3,316,464	3,521,858	(205,394)
2009	8/31/2008	3,752,124	4,014,414	(262,290)
2010	8/31/2009	4,651,872	4,333,811	318,061
2011	8/31/2010	5,574,482	6,052,020	(477,538)
2012	8/31/2011	6,718,467	6,446,472	271,995
2013	8/31/2012	7,377,763	7,865,929	(488,166)
2014	8/31/2013	8,418,199	8,045,293	372,906
2015	8/31/2014	9,666,852	7,170,104	2,496,748
2016	8/31/2015	7,829,103 **	7,974,731	(145,628)
2017	8/31/2016	8,164,782	8,239,839	(75,057)
2018	8/31/2017	8,333,901	8,333,901	0
2019	8/31/2018	8,422,965	8,490,046	(67,081)
2020	8/31/2019	9,733,221	9,988,807	(255,586)
2021	8/31/2020	10,509,325	11,573,047	(1,063,722)
2022	8/31/2021	10,159,639	10,533,904	(374,265)
2023	8/31/2022	10,453,600	10,783,513	(329,913)
2024	8/31/2023	12,462,426	N/A	N/A
2025	8/31/2024	14,101,657	N/A	N/A

* Actuarially Determined Employer Contribution is equal to the initial Budget Request amount shown in Table 12 for the appropriate fiscal year. The employer contribution rate from 8/31/04 to 8/31/08 is based on a 10-year amortization of the UAAL/(Surplus). The UAAL was amortized over 30 years from 8/31/09 to 8/31/13. The UAAL is currently amortized using a layered approach, where the initial base is amortized over a closed 30-year period effective 8/31/14. Bases established after 8/31/16 are amortized over closed 20-year periods.

** Actuarially Determined Employer Contribution was reduced from \$12,065,465 in the 2015 valuation report due to the plan change merging the COLA Pool fund into the general pension fund.

Note: For valuation dates prior to 2015, information shown is from the prior actuary's report.





APPENDIX A – SUMMARY OF MEMBERSHIP DATA

MEMBER DATA RECONCILIATION

August 31, 2023 to August 31, 2024

The number of members included in the valuation, as summarized in the table below, is in accordance with the data submitted by the Plan for members as of the valuation date.

	Active Participants	DROP Members	Service Retirees	Disabled Retirees	Beneficiaries	Inactive Vested	Refunds Due	Total
Members as of 08/31/23	607	44	459	56	59	26	10	1,261
New Participants	40	0	0	0	0	0	0	40
Rehired	0	0	0	0	0	0	0	0
Terminations								
Refunded	(9)	0	0	0	0	0	(1)	(10)
Refund Due	(4)	0	0	0	0	0	4	0
Deferred Vested	(2)	0	0	0	0	2	0	0
Retirements								
Service	(4)	(9)	14	0	0	(1)	0	0
Disability	(3)	0	0	3	0	0	0	0
DROP	(16)	16	0	0	0	0	0	0
Deaths								
Cashed Out	0	0	0	0	0	0	0	0
Refund Due	0	0	0	0	0	0	0	0
With Beneficiary	0	0	(2)	0	2	0	0	0
Without Beneficiary	0	0	(7)	(1)	(5)	0	0	(13)
Data Adjustments	0	0	0	0	0	0	0	0
Members as of 08/31/24	609	51	464	58	56	27	13	1,278





APPENDIX A – SUMMARY OF MEMBERSHIP DATA

NOT-IN-PAY MEMBERS INCLUDED IN VALUATION

Valuation Date	Active Members	Inactive Vested Members	Total Payroll*	Average			% Increase
				Age	Service	Pay	
Aug. 31, 1995	526	41	\$18,561,302	39.1	14.5	\$35,288	3.9%
Aug. 31, 1996	545	42	19,224,719	39.1	14.3	35,275	0.0%
Aug. 31, 1997	549	43	20,908,549	38.9	13.3	38,085	8.0%
Aug. 31, 1998	561	47	21,860,493	38.8	13.2	38,967	2.3%
Aug. 31, 1999	545	48	23,611,284	39.1	13.5	43,323	11.2%
Aug. 31, 2000	543	45	25,808,088	39.5	13.8	47,529	9.7%
Aug. 31, 2001	584	41	28,215,685	39.3	13.3	48,315	1.7%
Aug. 31, 2002	536	36	26,606,881	38.4	12.3	49,640	2.7%
Aug. 31, 2003	535	31	27,415,330	38.7	12.5	51,244	3.2%
Aug. 31, 2004	533	25	28,124,862	38.8	12.5	52,767	3.0%
Aug. 31, 2005	533	25	29,029,309	39.1	12.9	54,464	3.2%
Aug. 31, 2006	558	25	30,724,333	39.2	12.8	55,062	1.1%
Aug. 31, 2007	531	28	30,546,235	39.5	13.0	57,526	4.5%
Aug. 31, 2008	549	30	32,265,715	39.3	12.7	58,772	2.2%
Aug. 31, 2009	553	27	33,449,977	39.3	12.6	60,488	2.9%
Aug. 31, 2010	561	26	34,233,197	39.4	12.4	61,022	0.9%
Aug. 31, 2011	562	28	35,763,446	39.6	12.7	63,636	4.3%
Aug. 31, 2012	559	26	36,310,880	39.5	12.6	64,957	2.1%
Aug. 31, 2013	573	24	38,107,652	39.4	12.4	66,506	2.4%
Aug. 31, 2014	555	27	37,887,505	39.6	12.5	68,266	2.6%
Aug. 31, 2015	576	28	42,381,059	39.4	12.3	73,578	7.8%
Aug. 31, 2016	573	27	42,930,194	39.5	12.3	74,922	1.8%
Aug. 31, 2017	576	24	44,776,055	39.7	12.4	77,736	3.8%
Aug. 31, 2018	587	25	46,877,559	40.0	12.7	79,860	2.7%
Aug. 31, 2019	590	24	48,131,172	39.7	12.4	81,578	2.2%
Aug. 31, 2020	607	25	50,809,087	39.5	12.2	83,705	2.6%
Aug. 31, 2021	599	29	50,765,438	39.3	11.9	84,750	1.2%
Aug. 31, 2022	595	32	52,184,225	39.6	12.0	87,705	3.5%
Aug. 31, 2023	607	26	57,006,805	39.5	11.8	93,916	7.1%
Aug. 31, 2024	609	27	61,414,839	39.3	11.7	100,845	7.4%

* Reflects Non-DROP projected payroll in 2002 and later.

Note: For valuation dates prior to 2015, information shown is from the prior actuary's report.





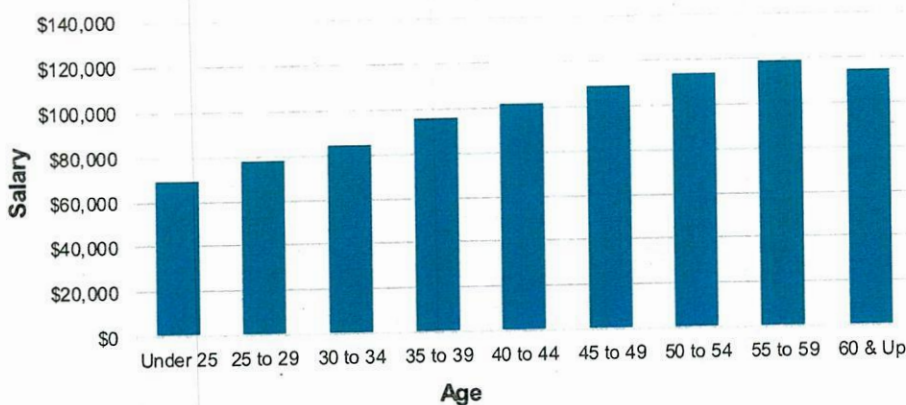
APPENDIX A – SUMMARY OF MEMBERSHIP DATA

SUMMARY OF ACTIVE MEMBERS As of August 31, 2024

Fire

Age	Number			Annual Reported Salary For Year Ended		
	Male	Female	Total	Male	Female	Total
Under 25	14	5	19	\$ 955,316	\$ 361,048	\$ 1,316,364
25 to 29	24	5	29	1,878,991	382,700	2,261,691
30 to 34	43	8	51	3,618,694	690,039	4,308,733
35 to 39	46	6	52	4,441,687	533,870	4,975,557
40 to 44	51	7	58	5,197,458	712,480	5,909,938
45 to 49	41	2	43	4,479,834	210,255	4,690,089
50 to 54	33	2	35	3,800,957	181,865	3,982,822
55 to 59	12	0	12	1,428,546	0	1,428,546
60 & Up	8	0	8	916,898	0	916,898
Total	272	35	307	\$ 26,718,381	\$ 3,072,257	\$ 29,790,638

Average Salary by Age





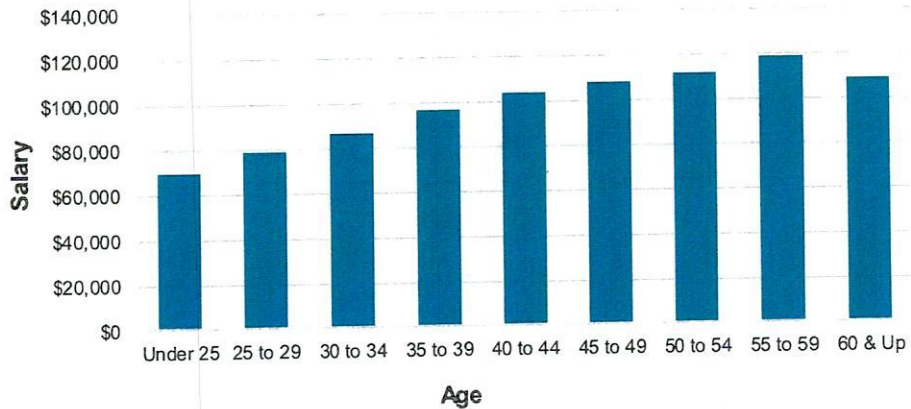
APPENDIX A – SUMMARY OF MEMBERSHIP DATA

SUMMARY OF ACTIVE MEMBERS As of August 31, 2024

Total

Age	Number			Annual Reported Salary For Year Ended		
	Male	Female	Total	Male	Female	Total
Under 25	23	11	34	\$ 1,597,859	\$ 774,390	\$ 2,372,249
25 to 29	61	16	77	4,789,752	1,250,827	6,040,579
30 to 34	93	16	109	8,056,384	1,418,329	9,474,713
35 to 39	95	16	111	9,277,954	1,478,579	10,756,533
40 to 44	89	11	100	9,202,270	1,149,102	10,351,372
45 to 49	86	7	93	9,311,237	710,451	10,021,688
50 to 54	51	3	54	5,718,149	325,159	6,043,308
55 to 59	19	0	19	2,251,863	0	2,251,863
60 & Up	12	0	12	1,310,094	0	1,310,094
Total	529	80	609	\$ 51,515,562	\$ 7,106,837	\$ 58,622,399

Average Salary by Age





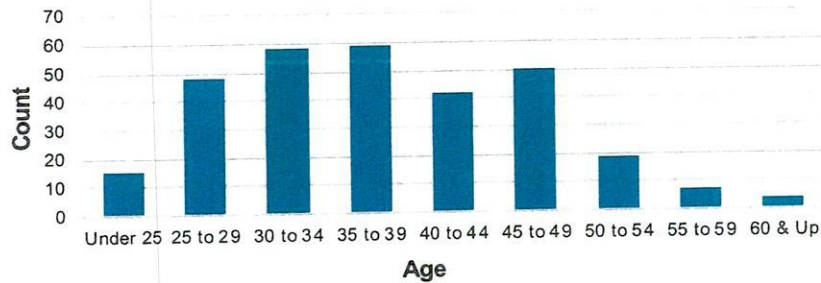
APPENDIX A – SUMMARY OF MEMBERSHIP DATA

DISTRIBUTION OF ACTIVE MEMBERS As of August 31, 2024

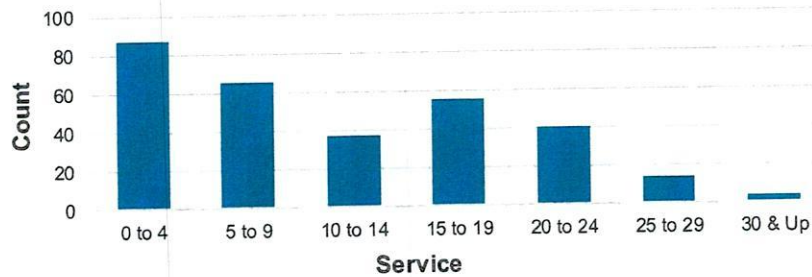
Police

Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	Total
Under 25	15	0	0	0	0	0	0	15
25 to 29	37	11	0	0	0	0	0	48
30 to 34	18	35	5	0	0	0	0	58
35 to 39	8	15	21	15	0	0	0	59
40 to 44	5	1	7	25	4	0	0	42
45 to 49	1	2	3	13	22	9	0	50
50 to 54	1	1	1	1	10	5	0	19
55 to 59	0	0	0	1	2	0	4	7
60 & Up	2	0	0	0	2	0	0	4
Total	87	65	37	55	40	14	4	302

Age Distribution



Service Distribution





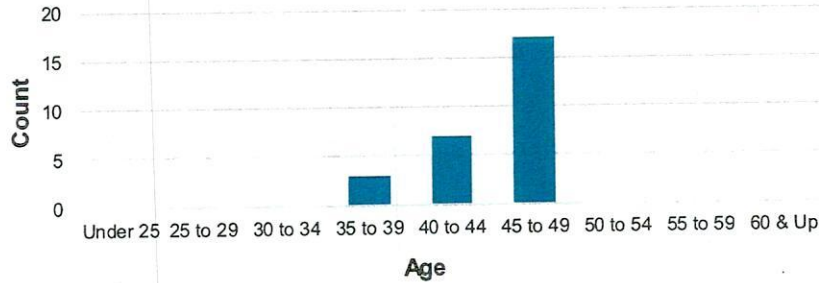
APPENDIX A – SUMMARY OF MEMBERSHIP DATA

SUMMARY OF INACTIVE VESTED MEMBERS As of August 31, 2024

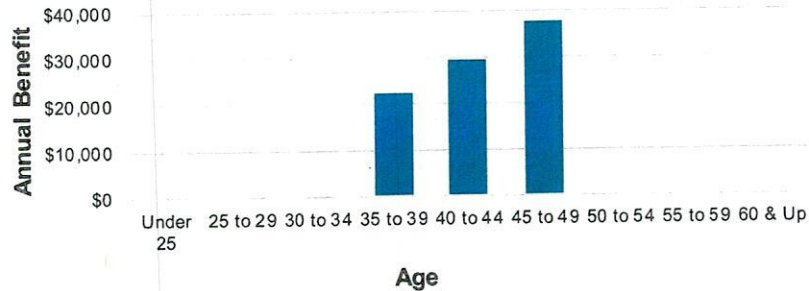
Age	Number			Annual Benefit at Retirement*		
	Male	Female	Total	Male	Female	Total
Under 25	0	0	0	\$ 0	\$ 0	\$ 0
25 to 29	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0
35 to 39	3	0	3	67,608	0	67,608
40 to 44	5	2	7	150,352	54,811	205,163
45 to 49	13	4	17	387,915	254,671	642,586
50 to 54	0	0	0	0	0	0
55 to 59	0	0	0	0	0	0
60 & Up	0	0	0	0	0	0
Total	21	6	27	\$ 605,875	\$ 309,482	\$ 915,357

* Includes 13th Check amounts.

Age Distribution



Average Benefit





APPENDIX A – SUMMARY OF MEMBERSHIP DATA

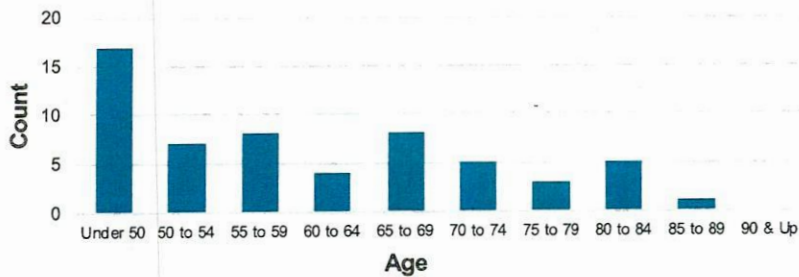
SUMMARY OF RETIRED MEMBERS As of August 31, 2024

Disabled Retirees

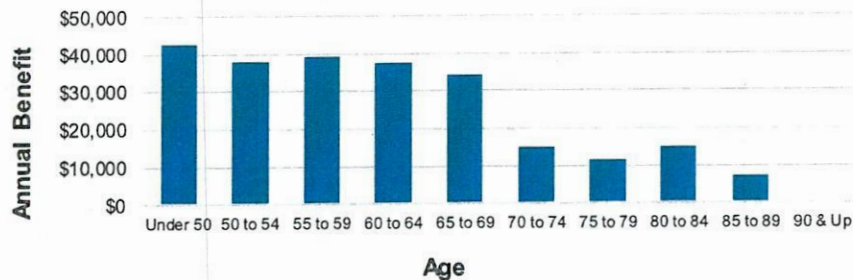
Age	Number			Annual Benefit*		
	Male	Female	Total	Male	Female	Total
Under 50	11	6	17	\$ 488,499	\$ 238,826	\$ 727,325
50 to 54	6	1	7	221,181	44,124	265,305
55 to 59	7	1	8	303,721	11,220	314,941
60 to 64	3	1	4	130,525	19,580	150,105
65 to 69	7	1	8	260,952	10,718	271,670
70 to 74	5	0	5	73,889	0	73,889
75 to 79	3	0	3	34,566	0	34,566
80 to 84	5	0	5	73,699	0	73,699
85 to 89	1	0	1	7,243	0	7,243
90 & Up	0	0	0	0	0	0
Total	48	10	58	\$1,594,275	\$ 324,468	\$1,918,743

* Includes 13th Check amounts.

Age Distribution



Average Benefit





APPENDIX A – SUMMARY OF MEMBERSHIP DATA

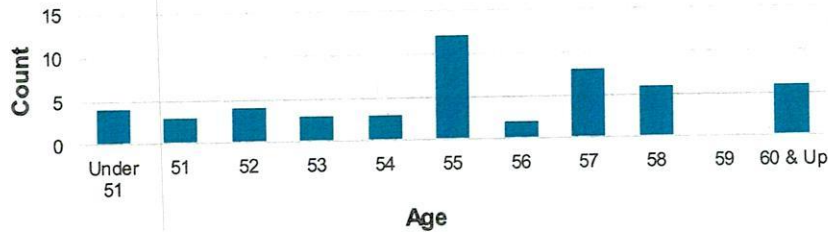
SUMMARY OF RETIRED MEMBERS As of August 31, 2024

DROP Members

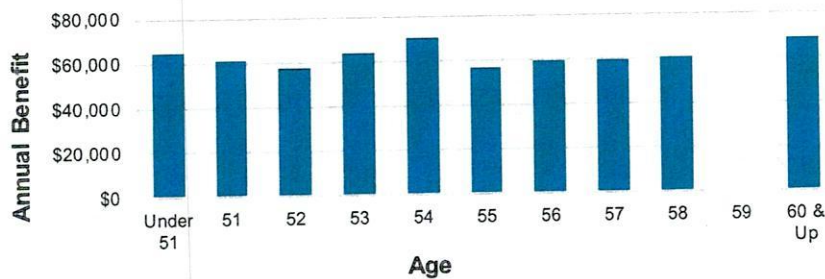
Age	Number			Annual Benefit*		
	Male	Female	Total	Male	Female	Total
Under 51	2	2	4	\$ 131,664	\$ 129,583	\$ 261,247
51	3	0	3	185,030	0	185,030
52	3	1	4	171,617	60,579	232,196
53	3	0	3	191,988	0	191,988
54	2	1	3	148,324	61,818	210,142
55	10	2	12	581,588	101,628	683,216
56	2	0	2	119,752	0	119,752
57	8	0	8	478,439	0	478,439
58	6	0	6	363,520	0	363,520
59	0	0	0	0	0	0
60 & Up	5	1	6	357,914	54,003	411,917
Total	44	7	51	\$2,729,836	\$ 407,611	\$3,137,447

* Includes 13th Check amounts.

Age Distribution



Average Benefit





APPENDIX B – SUMMARY OF BENEFIT PROVISIONS

Plan B: 52% of Regular Pay plus 2% of Regular Pay for each year of service rendered after becoming eligible to a maximum increase of 6%.

Plan C: 48% of Regular Pay plus 2% of Regular Pay for each year of service rendered after becoming eligible to a maximum increase of 6%.

Partial Annuity

Eligibility – all plans: Normal Retirement Age and 10 or more years of service.

Amount of Pension – Plan A: 2.56% of Regular Pay times years of service.

Plan B: 58% of Regular Pay with 21 years of service. Members with less than 21 years of service receive a ratio of years of service to 21 years of 58% of Regular Pay.

Plan C: 54% of Regular Pay with 21 years of service. Members with less than 21 years of service receive a ratio of years of service to 21 years of 54% of Regular Pay.

Deferred Annuity (Vested Termination)

Eligibility – all plans: Age less than Normal Retirement Age and 10, or more, years of service. Payments begin at age 50.

Amount of Pension – Plan A: 2.56% of Regular Pay times years of service.

Plan B: 58% of Regular Pay with 21 years of service. Members with less than 21 years of service receive a ratio of years of service to 21 years of 58% of Regular Pay.

Plan C: 54% of Regular Pay with 21 years of service. Members with less than 21 years of service receive a ratio of years of service to 21 years of 54% of Regular Pay.

Duty-Related Disability

Eligibility – all plans: Permanent inability to perform the duties of position from a cause occurring while in line of duty.





APPENDIX B – SUMMARY OF BENEFIT PROVISIONS

Amount of Pension: Pension which would have been payable as a Non-Duty Disability awarded the day prior to death and elected Option A (Joint & 100% Survivor).

Death after Retirement – Remainder Refund

Eligibility – all plans: Employed on January 1, 1992 or hired between January 1, 1992 and March 31, 2010.

Amount of Benefit: Upon retirement, the member’s balance of contributions plus accrued interest is reduced each month by a level amount equal to the member’s balance divided by the expected number of payments. Once both the member and, if applicable, their joint annuitant have died, the remaining balance is paid as a lump sum to a designated beneficiary.

The expected number of monthly payments is established in the Internal Revenue Code in effect April 1, 2010 and depends on the age of the retiree at retirement, or the combined ages of the retiree and joint annuitant.

Non-Vested Termination

Eligibility – all plans: Termination of employment and no pension is or will become payable.

Amount of Benefit: Refund of member’s contributions plus annual interest.

Employee Contributions

Plan A: 8.0% of pay.
Plan B: 7.6% of pay.
Plan C: 7.0% of pay.

Employee contributions are credited with regular interest, which is the rate of interest earned each calendar month in conformity with the actual earnings on investments of the Police and Fire Pension Fund.

Upon reaching 21 years of service, member contributions are discontinued for Plan B and Plan C members. Members participating in Old Plan B or Old Plan C contribute until reaching 26 years of service.





APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Investment Return: 7.20% compounded annually, net of investment expenses. While the City expects to decrease the assumption incrementally until reaching the ultimate rate of 7.00% in 2026, the decision to change the assumption must be confirmed each year and thus is not reflected in the current valuation results.

Inflation Rate: 2.50% compounded annually

Salary Increases: These assumptions are used to project current salaries to those upon which benefits will be based.

Years of Service	Annual Rate of Pay Increase for Sample		
	Base (Economic)	Merit and Longevity	Total
0	3.00%	5.75%	8.75%
1	3.00%	4.75%	7.75%
2	3.00%	3.75%	6.75%
3-7	3.00%	3.25%	6.25%
8	3.00%	2.25%	5.25%
9	3.00%	1.25%	4.25%
10-14	3.00%	0.75%	3.75%
15-19	3.00%	0.25%	3.25%
20+	3.00%	0.00%	3.00%

Payroll Growth: 3.00% per year

Mortality:

Actives and Inactive Vested Members:

PubS-2010 Employee Mortality Table with generational mortality improvement using the MP-2021 Mortality Improvement Scale.

65% of active member deaths were assumed to be duty related and 35% were assumed to be non-duty related.

Healthy Retirees:

PubS-2010 Healthy Annuitant Mortality Table with generational mortality improvement using the MP-2021 Mortality Improvement Scale.

Beneficiaries:

Pub-2010 Contingent Survivors Mortality Table with generational mortality improvement using the MP-2021 Mortality Improvement Scale.





APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Retirement and DROP Entry:

Service	Rates of Retirement and/or DROP Entry			
	Plan A		Plan B, C & Old Plan	
	Police	Fire	Police	Fire
21	0%	0%	25%	33%
22	0%	0%	25%	33%
23	0%	0%	25%	33%
24	0%	0%	25%	33%
25	50%	55%	25%	33%
26	50%	30%	85%	40%
27	45%	30%	85%	50%
28	45%	30%	85%	50%
29	45%	30%	85%	50%
30	100%	100%	100%	100%

Terminated vested members are assumed to begin receiving their benefits upon reaching their Normal Retirement Age.





APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

ACTUARIAL METHODS

Funding Method

Under the Entry Age Normal (EAN) cost method, the actuarial present value of each member's projected benefits is allocated on a level basis over the member's compensation between the entry age of the member and the assumed exit ages. The portion of the actuarial present value allocated to the valuation year is called the normal cost. The actuarial present value of benefits allocated to prior years of service is called the actuarial accrued liability. The unfunded actuarial accrued liability (UAAL) represents the difference between the actuarial accrued liability and the actuarial value of assets as of the valuation date. The unfunded actuarial accrued liability is calculated each year and reflects experience gains/losses.

The UAAL is amortized, as a level-percent of payroll, using a layered approach. The August 31, 2016 UAAL serves as the initial base and is amortized over a closed 28-year period (closed 30-year period beginning on August 31, 2014). For each valuation subsequent to August 31, 2016, annual net experience gains/losses will be amortized over a new, closed 20-year period. Subsequent plan amendments or changes in actuarial assumptions or methods that create a change in the UAAL will be amortized over a demographically appropriate time period selected by the Plan Administrator at the time that the change is reflected in the annual actuarial valuation.

Asset Valuation Method

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

- i. 80% of the return to be spread during the first year preceding the valuation date,
- ii. 60% of the return to be spread during the second year preceding the valuation date,
- iii. 40% of the return to be spread during the third year preceding the valuation date, and
- iv. 20% of the return to be spread during the fourth year preceding the valuation date.





APPENDIX D – GLOSSARY OF TERMS

Actuarial Accrued Liability	The difference between the actuarial present value of Plan benefits and the actuarial value of future normal costs. Also referred to as “accrued liability” or “actuarial liability”.
Actuarial Assumptions	Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover, and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.
Accrued Service	Service credited under the Plan which was rendered before the date of the actuarial valuation.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate assumptions.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of retirement Plan benefits between future normal cost and actuarial accrued liability. Sometimes referred to as the “actuarial funding method”.
Experience Gain (Loss)	The difference between actual experience and actuarial assumptions anticipated experience during the period between two actuarial valuation dates.
Actuarial Present Value	The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.
Amortization	Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with a lump sum payment.
Normal Cost	The portion of the actuarial present value of Plan benefits allocated to the current year by the actuarial cost method.





APPENDIX E – FUNDING POLICY

I. Introduction

This funding policy pertains to the City of Lincoln, Nebraska (“City”) Police and Fire Pension (“Pension”) as described in Lincoln Municipal Code § 2.62.010, 2.65.010 and 2.66.010. The Plan Administrator sets the following guiding principles in the development of a comprehensive funding plan to maintain long-term sustainability, if needed:

- Shared responsibility among members and employer;
- Intergenerational equity;
- Preservation of the defined benefit plan.

II. Funding Goals

The objective of funding the Plan is to accumulate sufficient assets during a member’s employment with the City to fully finance the benefits the member receives throughout retirement. In meeting this objective, the Pension Plan will strive to meet the following funding goals:

- To maintain a pattern of stable contribution rates as a percentage of member’s payroll;
- To maintain an increasing funded ratio absent the impact of any changes to the assumptions or benefit provisions;
- To maintain adequate assets so that benefit payments can be paid to members and their beneficiaries as they become due.

III. Benchmarks

To track progress in achieving the previously outlined funding goals, the following benchmarks will be measured annually as part of the actuarial valuation with recognition that a single year’s results may not be indicative of long-term trends.

Funded Ratio: The funded ratio, defined as the actuarial value of assets divided by the actuarial accrued liability, should be increasing over time, before any adjustments for changes in benefits, actuarial methods, or actuarial assumptions.

City’s Contribution: An Actuarial Valuation Report shall be prepared annually, as of the City’s fiscal year-end date, to calculate the Actuarially Determined Employer Contribution for the fiscal year ending two years after the valuation date. For example, the Actuarially Determined Employer Contribution for the fiscal year September 1, 20XX+1 to August 31, 20XX+2 shall be based on metrics in the August 31, 20XX Actuarial Valuation Report. The Actuarial Valuation Report shall be based on the actuarial assumptions and methods, as approved by the Plan Administrator. The Actuarially Determined Employer Contribution Rate shall be the greater of the Employer Normal Cost Rate or the sum of the Employer Normal Cost rate and the UAAL contribution rate. A negative amortization payment shall only be applied if the plan has been at least 115 percent funded for the current and prior two years. The dollar amount of the Employer Contribution shall





APPENDIX E – FUNDING POLICY

If the valuation shows a surplus, i.e., funded ratio above 100%, the prior amortization bases will be eliminated and one base equal to the amount of surplus shall be established. The amortization period of a surplus shall be a 20-year open period.

The amortization payment on each UAAL base will be calculated as a level percent of valuation payroll using the actuarial assumption for future payroll growth. Such calculation is consistent with the development of the normal cost rate and is intended to serve as a method to provide stability to the actuarial contribution rate.

Risk Control: The Plan Administrator will carefully monitor the key risk measures of funding the system and shall consider steps to mitigate risk, particularly as the funded ratio increases. Risk mitigation may involve such things as a reduction in the assumed rate of investment return, review of asset allocation with a goal of reducing the standard deviation of the portfolio return, establishment of a contribution rate stabilization reserve, and other strategies identified by the Plan Administrator.

V. Funding Policy Review

The Plan Administrator may periodically conduct special studies to provide insight into whether the goals and objectives established in this Policy are being met. These special studies may include asset liability studies, projection modeling studies, and sensitivity analysis of key risk factors. These special studies may be performed at the Plan Administrator's discretion.

It is recognized that this funding policy may need to be amended in the future as the funding of the Plan is a dynamic process which is dependent on a number of variables. Therefore, the funding policy will be reviewed by the Plan Administrator not less frequently than every five years following the actuarial experience study. Proposed amendments to the funding policy shall be forwarded to the City Council for their consideration and approval. (Ord. 20495; May 15, 2017).





City of Omaha
John W. Ewing, Jr. Mayor

October 3, 2025

VIA email to: bballard@leg.ne.gov

Senator Beau Ballard, Chairman
Nebraska Retirement Systems Committee
PO BOX 94604
State Capitol
Lincoln, NE 68509-4604

Dear Senator Ballard:

NEB. REV. STAT. § 13-2402(3) requires a governing entity that offers a defined benefit retirement plan to file a report if the funded ratio of the plan is less than eighty percent. The City of Omaha is submitting this report regarding the City of Omaha Employees Retirement System (COERS) because the funded ratio is less than eighty percent.

The City through its negotiations with the bargaining groups has made efforts to address the funding shortfall in COERS. Some of those efforts are addressed below. The attached table compares the actuarial data for plan years 2021 through current plan year 2025.

COERS has been underfunded for a number of years and the circumstances leading to it being underfunded are varied. When the system was fully funded in the late 1990s, benefits were increased and even though the actuarial cost was calculated, the benefits appear to have exceeded those costs. There also have been some years where the investment loss was historically large. Other factors include reduction in the number of civilian employees over the past 20 years, lack of wage increases in some instances, and the delay in replacing retired personnel.

As a result of an Experience Study for 2020-2024 which was accepted on July 17, 2025, a number of changes to the actuarial assumptions were adopted by the Board. A copy of the Experience Study is included with this report. No economic assumption changes were made recommended:

There were also some changes to the Demographic assumptions, the most significant of which was a change to the mortality assumption moving to the Pub-2016 General Mortality Tables with MP-2021 projection scale. There was also a slight decrease in termination rates for males and females, a modification of the retirement rates for various age/service combinations, and a slight increase in early retirements with a reduced benefit. Lastly, there was a decrease in the assumed rate that individuals between 64 and 71 would retire when first eligible.

Finance Department

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Stephen B. Curtiss
Finance Director
Acting City Comptroller

In an effort to improve the condition of the system, the City entered into new labor agreements with all its civilian bargaining groups at the end of 2014/beginning of 2015. These bargaining agreements addressed payroll years 2013 through 2017 and included increased contributions by the City for wages paid from 2013 until the contracts became effective. The City now does an actuarial projection in each of its annual valuation reports. When the pension changes were originally approved, they contemplated fully funded status by 2048. The projection in the Actuarial Report effective January 1, 2025 contemplates fully funded status on January 1, 2044, an improvement from last year.

The summary of some of the changes made for the 2013 to 2017 agreements addressing civilian employees are:

- Contributions by the City increased 7% over the four years of the agreements from 11.775% to 18.775%.
- Existing employees will receive 1.9% per year for future years of service instead of 2.25%.
- The City went from the Rule of 80 to the Rule of 85 and raised the minimum retirement age with some grandfathering of these provisions. The retirement age went from 60 to 65 over the course of the agreements.
- The smoothing of the salary on which a person's pension was calculated from a highest one year in your last five years to the average of your last five years of employment.
- Dramatically decreased the disability benefit for all employees.
- Implementing a Cash Balance Plan for employees hired on or after 03/01/2015. A cash balance plan is a type of defined benefit plan which allows for the employer and employee to share some of the risk of poor investment returns. The pay credit for the plan starts at 13% and goes up 1% for each 8 years of service. The interest credit is guaranteed at 4% with an additional amount being three quarters of the amount earned by the Plan over 7% on a 5 year rolling average, with the interest credit being capped at 7%. One had to have 10 years of service to vest initially.

The City has agreements with all its civilian bargaining groups until the end of the 2025 payroll year. There were no additional pension changes/reform in the agreements that have been negotiated and approved in the last year. There was one change to the system and it did result in both the City and the employees increasing their contributions by 0.055% respectively. This was to account for changing the period of time for vesting in the Cash Balance Plan from 10 years to 5 years.

As of January 1, 2025, the system had a market value of \$275 million in assets and an actuarial value of \$288 million in assets and a funded ratio of 54.3%. It had a funded ratio of 54.0% in 2024 and 53.4% in 2023. The actuarially determined required contribution to the system has improved for a number of years, primarily due to the increase in the number of participants in the cash value plan, and the shortfall in the actuarial required contribution improved from 1.177% in 2024 to a shortfall of 0.405% in 2025. Additional savings should be seen in the future years as members covered by the provisions of the Cash Balance Plan continue to grow. The most recent projection shows the system will reach fully funded status in 19 years (2044). The assumed rate of return for the system is 7.5%, a 1/2% decrease from years prior to 2018.

The unfunded actuarial liability (UAL) is funded on a "layered" basis, with the initial base being funded as a level-percent of payroll over a 25-year closed period that began January 1, 2016. The base attributable to the increase in the UAL due to the changed assumptions in the 2022 valuation is amortized over a closed

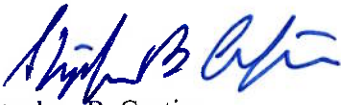
Senator Beau Ballard
October 3, 2025
Page 3

20-year period. In addition, a new base is created in each valuation period which is equal to the unexpected change in the UAL from actual versus expected experience, as measured in that valuation period.

As requested, we enclose the most recent Actuarial Experience Study which was approved on July 16, 2025 and the Actuarial Valuation Report effective January 1, 2025.

If you or the Committee should have any questions regarding this report please let me know.

Sincerely,



Stephen B. Curtiss
Acting City Comptroller

Enclosures

c: Trevor Fitzgerald, Committee Legal Counsel at tfitzgerald@leg.ne.gov
Bernard J. in den Bosch, Deputy City Attorney

COERS EXHIBIT 1

ITEM	2021		2022		2023		2024		2025	
Net Assets (actuarial value)	1/1/21	\$ 260,980,355	1/1/22	\$ 274,543,515	1/1/23	\$ 277,286,721	1/1/24	\$ 281,951,725	1/1/25	\$ 288,499,298
Unfunded Actuarial Accrued Liability	1/1/21	\$ 229,116,410	1/1/22	\$ 236,464,731	1/1/23	\$ 241,565,989	1/1/24	\$ 240,651,043	1/1/25	\$ 242,407,396
1a Funding Status	1/1/21	53.30%	1/1/22	53.70%	1/1/23	53.40%	1/1/24	54.00%	1/1/25	54.30%
1b Assumed Rate of Return	1/1/21	7.5%	1/1/22	7.5%	1/1/23	7.5%	1/1/24	7.5%	1/1/25	7.5%
1c Actual Investment Return	FYE 12/31/21	17.98%	FYE 12/31/22	-8.01%	FYE 12/31/23	5.50%	FYE 12/31/24	5.92%	FYE 12/31/25	Pending
Normal Cost (\$)	1/1/21	\$ 8,175,376	1/1/22	\$ 8,162,934	1/1/23	\$ 8,755,034	1/1/24	\$ 9,225,599	1/1/25	\$ 10,695,591
1e Normal Cost (%)	1/1/21	10.335%	1/1/22	10.229%	1/1/23	10.139%	1/1/24	10.088%	1/1/25	9.929%
1f Actuarial Rate of Contribution (ARC)	1/1/21	30.269%	1/1/22	31.319%	1/1/23	30.696%	1/1/24	30.137%	1/1/25	29.365%
1d Member Contribution Rate	1/1/21	10.075%	1/1/22	10.130%	1/1/23	10.130%	1/1/24	10.130%	1/1/25	10.130%
1d Employer Contribution Rate	1/1/21	18.775%	1/1/22	18.830%	1/1/23	18.830%	1/1/24	18.830%	1/1/25	18.830%
Contribution Margin (Shortfall)	1/1/21	-1.419%	1/1/22	-2.359%	1/1/23	-1.736%	1/1/24	-1.177%	1/1/25	-0.405%
1f Actuarially Determined Contribution	FYE 12/31/21	\$ 17,400,605	FYE 12/31/22	\$ 18,393,098	FYE 12/31/23	\$ 19,351,351	FYE 12/31/24	\$ 19,962,296	FYE 12/31/25	\$ 20,720,089
1g Employer Actual Dollars Contributed	FYE 12/31/21	\$ 15,354,180	FYE 12/31/22	\$ 16,662,274	FYE 12/31/23	\$ 17,807,395	FYE 12/31/24	\$ 19,413,341	FYE 12/31/25	Pending
1g % of ADC by Employer Contribution	FYE 12/31/21	88.24%	FYE 12/31/22	90.59%	FYE 12/31/23	92.02%	FYE 12/31/24	97.25%	FYE 12/31/25	Pending

City of Omaha Employees' Retirement System

Actuarial Valuation as of January 1, 2025
To Determine Funding for Fiscal Year 2025

Prepared by

Rebecca A. Sielman, FSA

Consulting Actuary

R. Ryan Falls, FSA

Consulting Actuary

Yelena Pelletier, ASA

Consulting Actuary



Issued September 15, 2025



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Certification

As part of our engagement with the City of Omaha ("City") and the City of Omaha Employees Retirement System ("System"), we have performed an actuarial valuation of the Plan as of January 1, 2025. Our findings are set forth in this actuary's report. The main purposes of this valuation are to evaluate funding for fiscal year 2025, to review the Plan's experience since the prior valuation, and to assess the funded position of the Plan.

Actuarial computations presented in this report are for the purposes of determining the recommended funding amounts for the Plan. The calculations in this report have been made on a basis consistent with our understanding of the Plan's funding policy and on our understanding of the plan provisions as summarized in this report. Determinations for purposes other than meeting these requirements, such as for financial reporting in accordance with GASB standards, may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

We believe that the measures of funded status contained herein are appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations and for assessing the need for or the amount of future contributions. Note that a Plan's funded status is dependent on the selection of both the actuarial cost method and the asset smoothing method; different measurements would result if, for instance, the Market Value of Assets were used in place of the Actuarial Value of Assets.

Actuarial assumptions, including interest rates, mortality tables, and others identified in this report, and actuarial cost methods are adopted by the City, who is responsible for selecting the Plan's funding policy, actuarial cost methods, asset valuation methods, and actuarial assumptions. The policies, methods, and assumptions used in this valuation are those that have been so adopted and are described in this report. The City is solely responsible for communicating to Milliman any changes thereto. All costs, liabilities, rates of interest, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods which, in our professional opinion, are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated future experience affecting the Plan and are expected to have no significant bias.

This valuation is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, 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 or modifications to contribution calculations based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of future measurements.

Certification (continued)

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the City and the System. This information includes, but is not limited to, benefit provisions, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different, and our calculations may need to be revised. Figures for periods prior to January 1, 2021 have been obtained from actuarial valuation reports prepared by Cavanaugh Macdonald Consulting LLC and from the City's Comprehensive Annual Financial Reports.

Milliman's work is prepared solely for the use and benefit of the City and the System. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) the City may provide a copy of Milliman's work, in its entirety, to the City's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the City; and (b) the City may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the *Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States*, published by the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.



Rebecca A. Sielman, FSA
Consulting Actuary



R. Ryan Falls, FSA
Consulting Actuary



Yelena Pelletier, ASA
Consulting Actuary

i. Summary of Principal Results

Actuarial Valuation Results As Of	January 1, 2024	January 1, 2025
Membership		
Active Members	1,335	1,388
Terminated Members	253	213
Members in Pay Status	<u>1,456</u>	<u>1,469</u>
Total Count	3,044	3,070
Covered Payroll	\$99,759,781	\$107,718,115
Assets and Liabilities		
Market Value of Assets	\$269,349,141	\$275,189,949
Actuarial Value of Assets	281,951,725	288,499,298
Accrued Liability for Active Members	154,143,318	163,712,394
Accrued Liability for Terminated Members	10,019,823	8,716,445
Accrued Liability for Members in Pay Status	<u>358,439,627</u>	<u>358,477,855</u>
Total Accrued Liability	522,602,768	530,906,694
Unfunded Accrued Liability	240,651,043	242,407,396
Funded Ratio	54.0%	54.3%
Contribution Rate for Fiscal Year		
	2024	2025
Contribution Rate Sufficiency		
Ordinance Employee Contribution Rate	10.130%	10.130%
Ordinance Employer Contribution Rate	<u>18.830%</u>	<u>18.830%</u>
Total Ordinance Contribution Rate	28.960%	28.960%
Total Normal Cost Rate	10.088%	9.929%
UAL Amortization Rate	<u>20.049%</u>	<u>19.436%</u>
Actuarially Determined Total Contribution Rate	30.137%	29.365%
Contribution Rate (Shortfall)/Margin	-1.177%	-0.405%
Actuarially Determined Contribution		
Actuarially Determined Total Contribution	\$29,226,320	\$31,631,934
Expected Employee Contributions	<u>(9,264,024)</u>	<u>(10,911,845)</u>
Actuarially Determined Employer Contribution	19,962,296	20,720,089

This work product was prepared solely for the City and the System for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

ii. Changes Since the Prior Valuation

Plan Experience

From January 1, 2024 to January 1, 2025, the plan's assets earned 5.92% on a Market Value basis and 5.90% on an Actuarial Value basis. The interest rate assumption for this period was 7.50%; the result is an asset loss of about \$4.2 million on a Market Value basis and a loss of about \$4.4 million on an Actuarial Value basis.

From January 1, 2024 to January 1, 2025, the Accrued Liability was expected to grow from \$522.6 million to \$530.6 million, based on expected changes in the plan's membership per the actuarial assumptions. Actual changes in the plan's membership during this period resulted in an Accrued Liability as of January 1, 2025 of \$534.3 million (measured before any changes in the plan provisions or the actuarial methods and assumptions). This difference of \$3.7 million between the expected Accrued Liability and the actual Accrued Liability is termed a 'liability loss'. The primary factors contributing to this liability loss were: (1) a loss from salary growth, with larger pay increases than expected; (2) a loss from retirement experience, with fewer retirements than expected; and (3) a loss from mortality experience, with fewer retiree deaths than expected.

Plan Changes

None.

Changes in Actuarial Assumptions

This valuation reflects changes recommended in connection with the recent experience study, including a change from the PubG-2010 Mortality Table to the PubG-2016 Mortality Table, and modifications to the assumed rates of termination and retirement. These changes in combination caused the Unfunded Accrued Liability to decrease by about \$3.4 million and the Actuarially Determined Employer Contribution to decrease by about \$0.3 million.

Changes in Actuarial Methods

None.

Other Significant Changes

None.

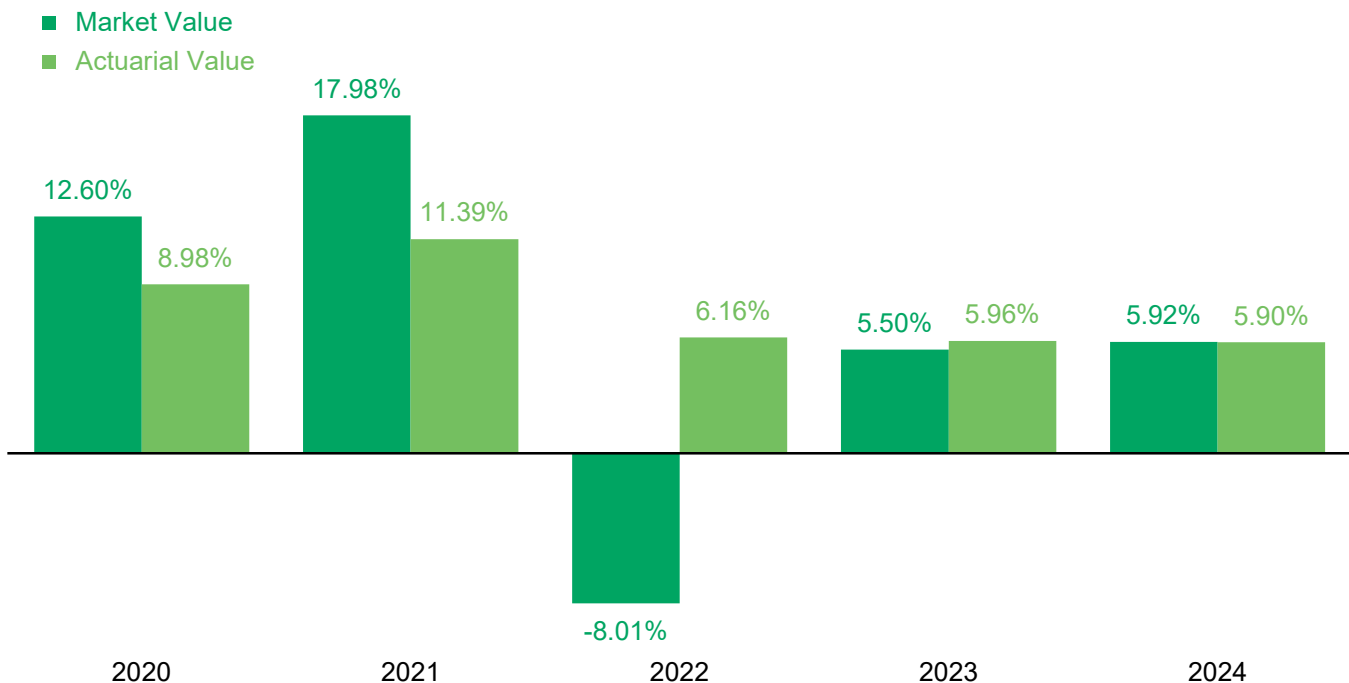
iii. Asset Performance

There are two different measures of the plan's assets that are used throughout this report. The Market Value is a snapshot of the plan's investments as of the valuation date. The Actuarial Value is a smoothed asset value designed to temper the volatile fluctuations in the market by recognizing investment gains or losses asymptotically over four years.

	Market Value	Actuarial Value
Value as of January 1, 2024	\$269,349,141	\$281,951,725
City Contributions and Member Contributions	29,867,276	29,867,276
Investment Income	15,642,255	16,349,020
Benefit Payments	(39,668,723)	(39,668,723)
Value as of January 1, 2025	275,189,949	288,499,298

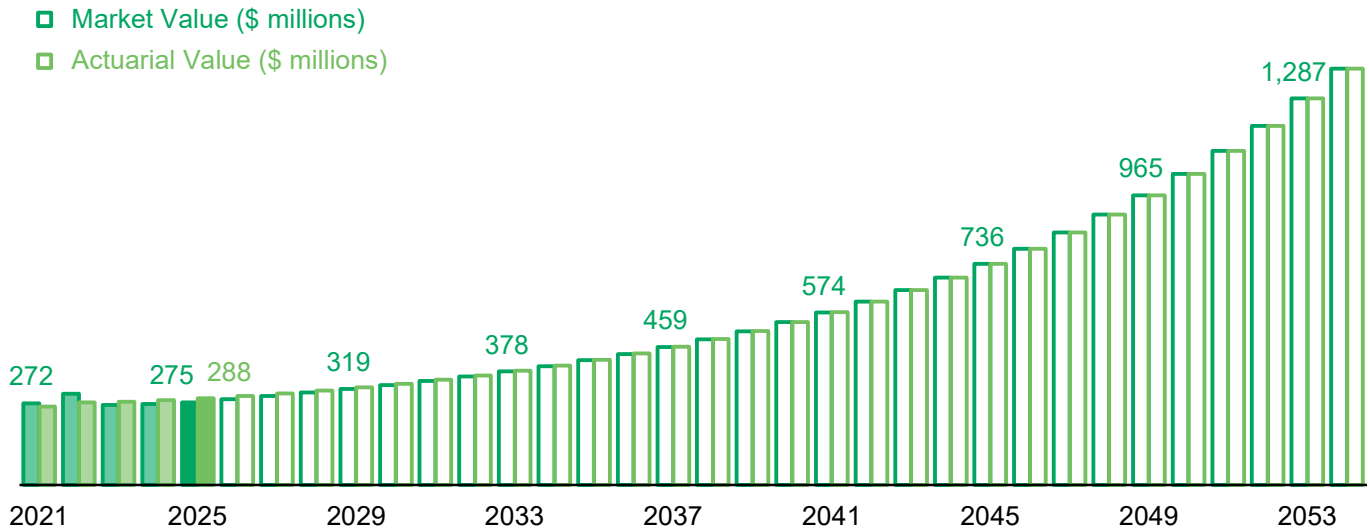
The Actuarial Value currently exceeds the Market Value by \$13.3 million. This figure represents investment losses that will be gradually recognized in future years. This process will exert upward pressure on the City's contribution, unless there are offsetting market gains.

Historical rates of return are shown in the graph below:

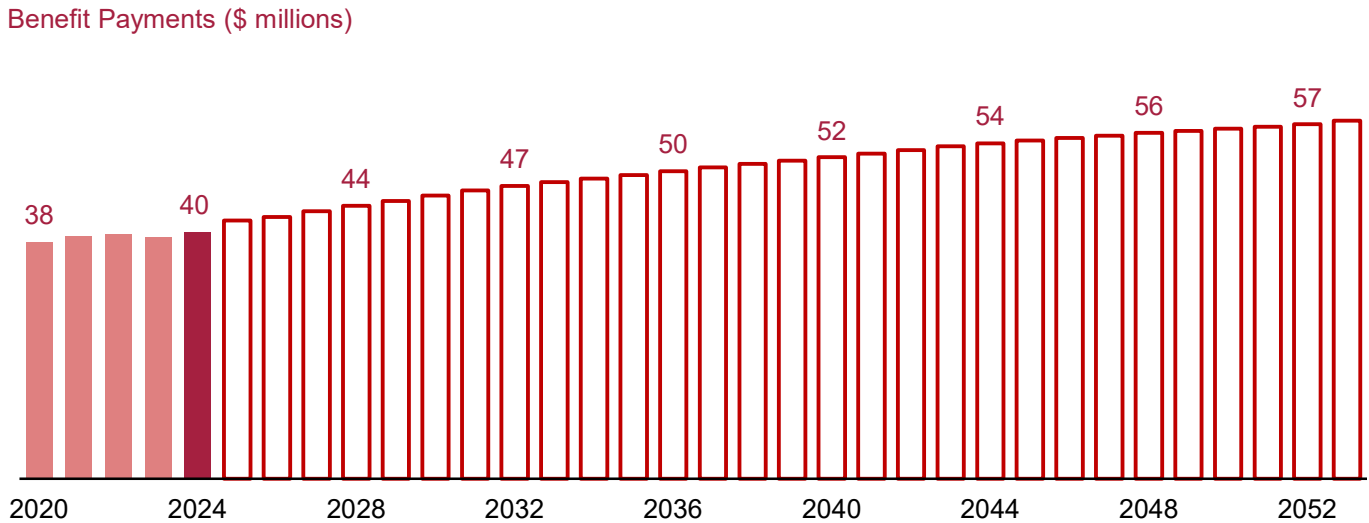


iv. Asset Forecast

The graph below shows how this year's asset values compare to where the plan's assets have been over the past several years and how they are projected to change over the next 30 years. For purposes of this projection, we have assumed that the City always contributes the 2025 City Ordinance Rate and the investments always earn the assumed interest rate each year.



In 2024, the plan paid out \$39.7 million in benefits to members. Over the next 30 years, the plan is projected to pay out a total of \$1,509 million in benefits to members.

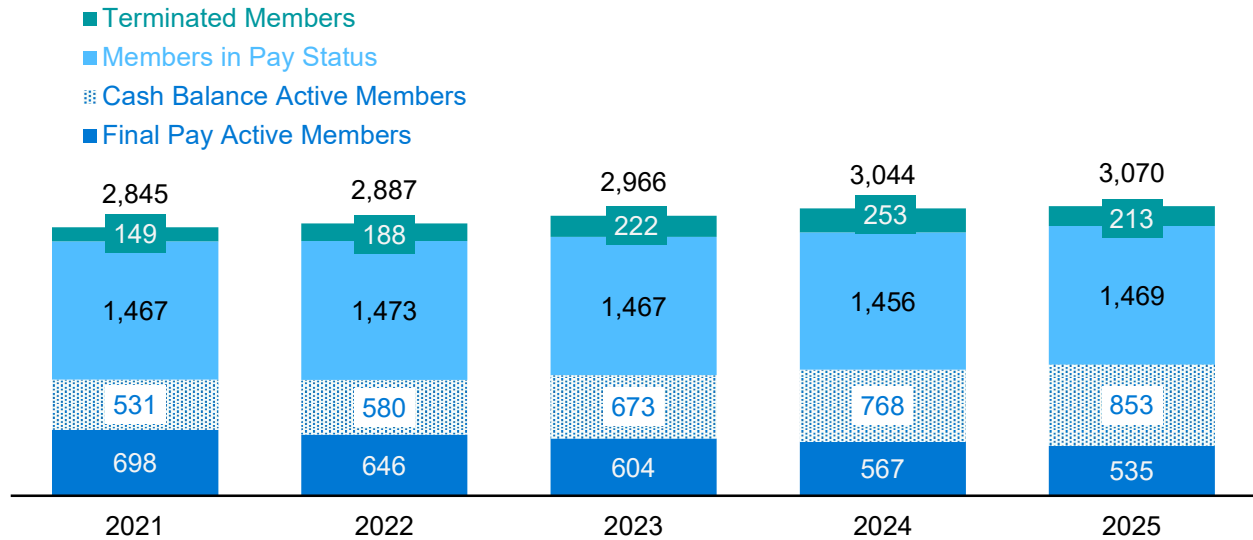


To the extent that there are future investment or liability gains or losses, changes in the actuarial assumptions or methods, or plan changes, the actual valuation results will differ from these forecasts. Please see Appendix A for more details of the long range forecast.

v. Membership

Overview

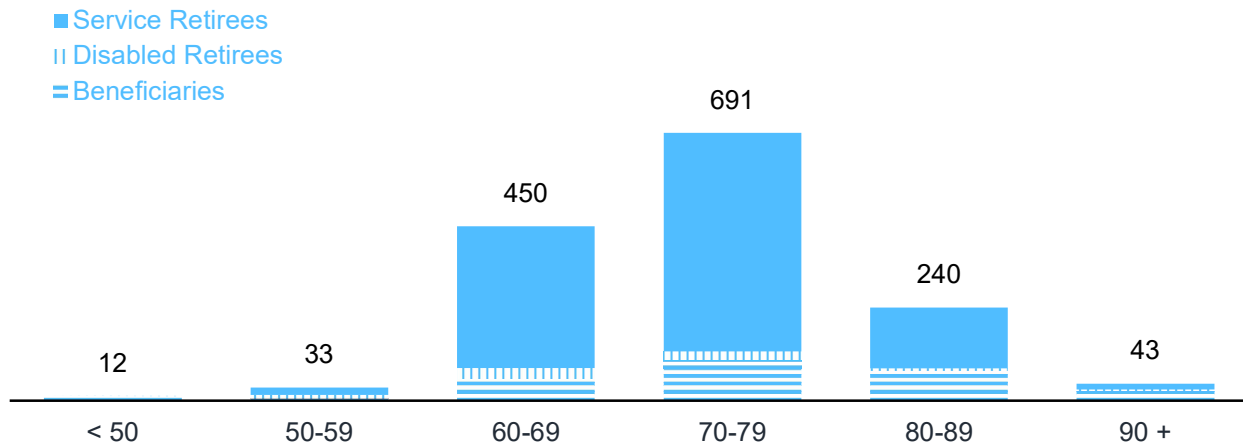
There are four basic categories of plan members included in the valuation: (1) members who are currently receiving monthly pension benefits, (2) former employees who have a right to benefits but have not yet started collecting, (3) Cash Balance active employees who have met the eligibility requirements for membership, and (4) Final Pay active employees who have met the eligibility requirements for membership.



Members in Pay Status on January 1, 2025

Service Retirees	1,121	Average Age	73.3
Disabled Retirees	68	Total Annual Benefit	\$38,308,861
Beneficiaries	280	Average Annual Benefit	26,078
Total	1,469		

The members in pay status fall across a wide distribution of ages:



v. Membership (continued)

Terminated Vested Members on January 1, 2025

Count	108
Average Age	48.4
Total Annual Benefit	\$1,622,895
Average Annual Benefit	15,027

Nonvested Members Due Refunds on January 1, 2025

Count	105
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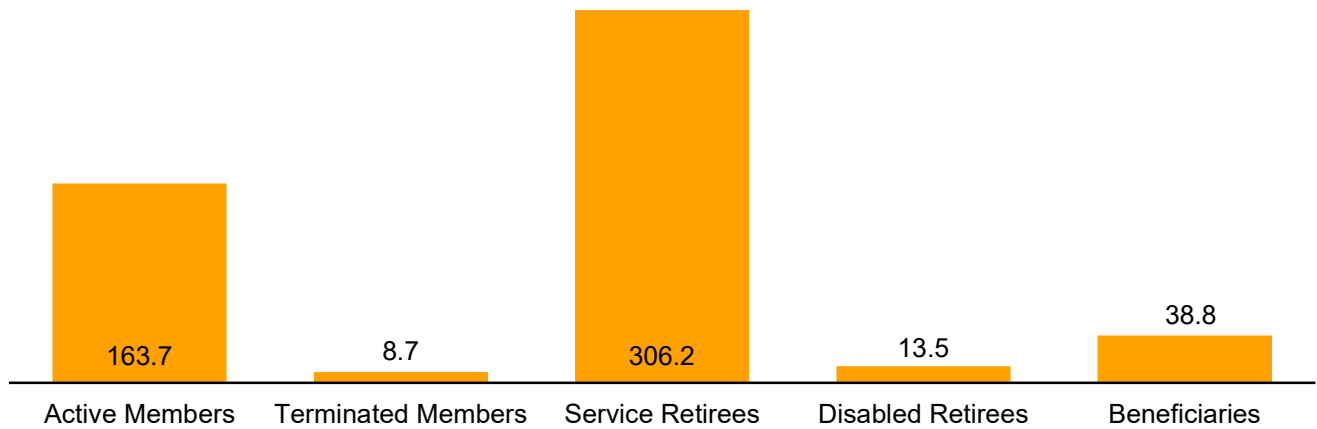
Active Members on January 1, 2025

	Final Pay	Cash Balance	Total
Count	535	853	1,388
Average Age	52.0	40.9	45.2
Average Service	17.6	3.9	9.2
Covered Payroll	\$48,352,126	\$59,365,989	\$107,718,115
Average Payroll	90,378	69,597	77,607

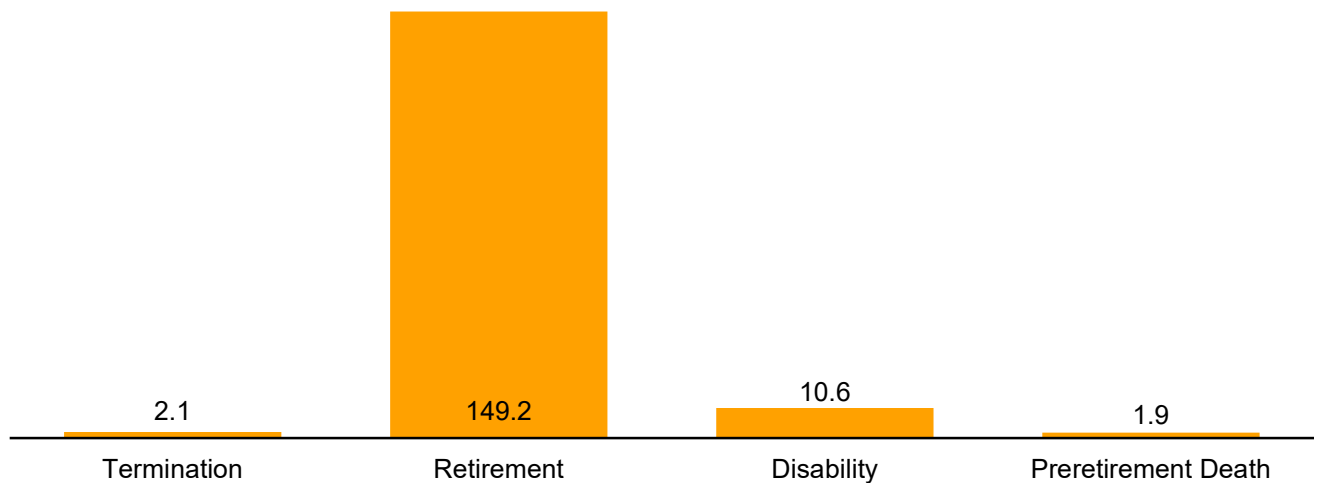
Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	55							55
25-29	96	12						108
30-34	101	34	14					149
35-39	81	63	37	8				189
40-44	70	61	42	26	3			202
45-49	52	36	34	39	8	6		175
50-54	42	23	36	39	16	15	1	172
55-59	32	32	18	33	20	21	8	164
60-64	20	32	21	27	6	4	9	119
65+	7	8	10	12	4	5	9	55
Total	556	301	212	184	57	51	27	1,388

vi. Accrued Liability

The Accrued Liability as of January 1, 2025 equals \$530,906,694, which consists of the following pieces (in \$ millions):



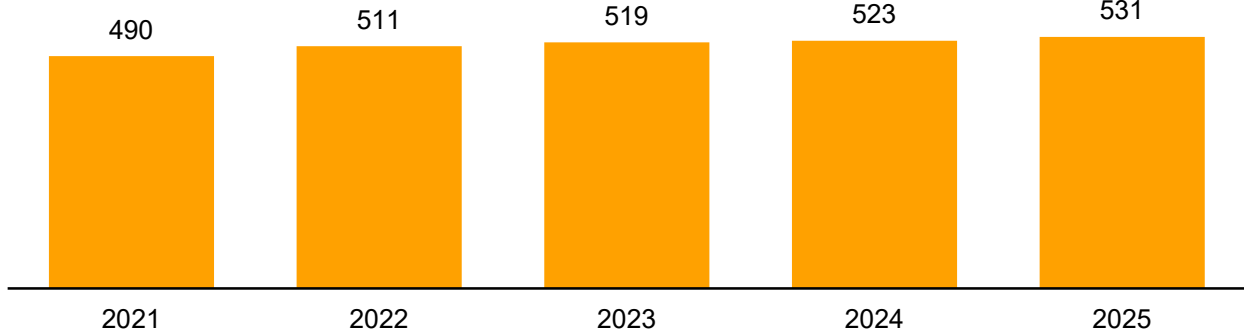
The Accrued Liability for active members can be broken down further by the different types of benefits provided by the plan:



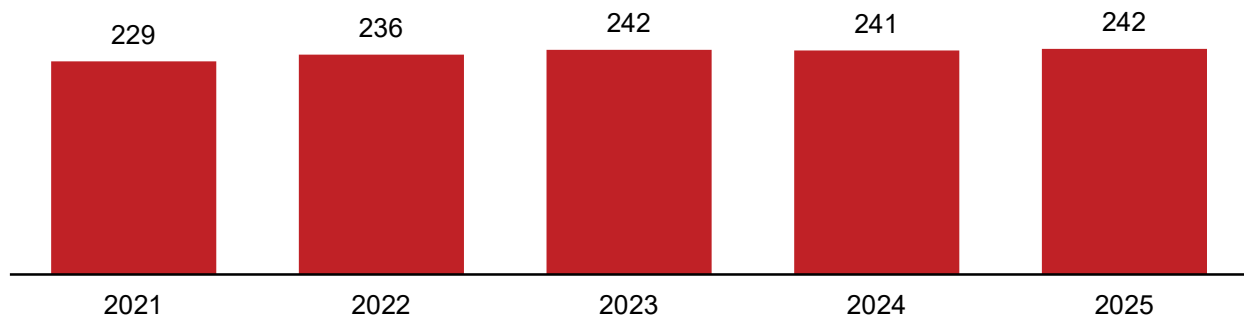
vii. Funded Status

The Accrued Liability grows over time as active members earn additional benefits, and goes down over time as members in pay status receive benefits; it may also change when there are changes to the plan provisions or changes in the actuarial assumptions. The Unfunded Accrued Liability is the dollar difference between the Accrued Liability and the Actuarial Value of Assets; the Funded Ratio is the ratio of the two.

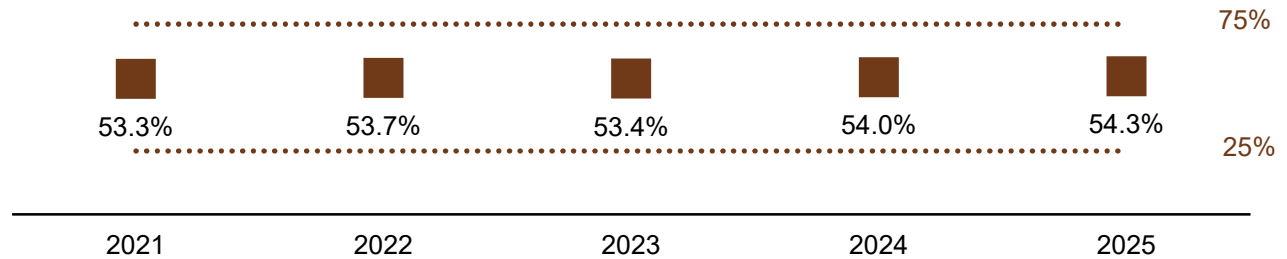
Accrued Liability (\$ millions)



Unfunded Accrued Liability (\$ millions)

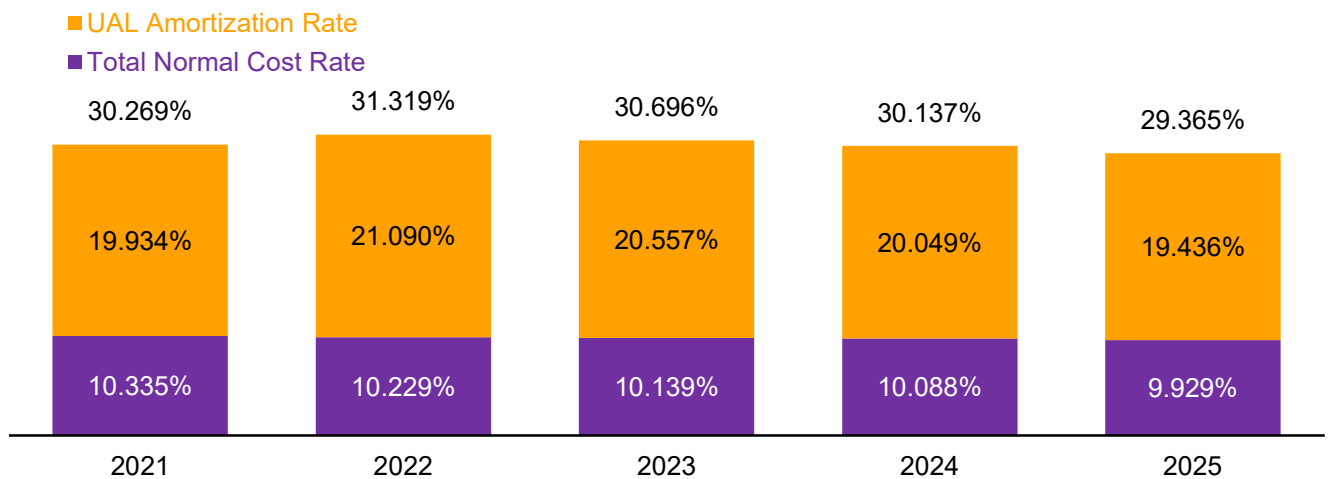


Funded Ratio



viii. Actuarially Determined Total Contribution (ADTC)

In order to determine if the Ordinance contribution rates are sufficient to bring the plan to a fully funded status within a reasonable period of time, we compare those rates to the Actuarially Determined Total Contribution. The Actuarially Determined Total Contribution consists of two pieces: a Normal Cost payment to fund the benefits earned each year and an amortization payment to gradually fund the remainder of the Unfunded Accrued Liability (UAL) over a period of years. These figures are first calculated as dollar amounts. The dollar amounts are then divided by the expected payroll for active members to arrive at a contribution rate. The Actuarially Determined Total Contribution Rate for the current valuation and the prior four valuations are shown below.



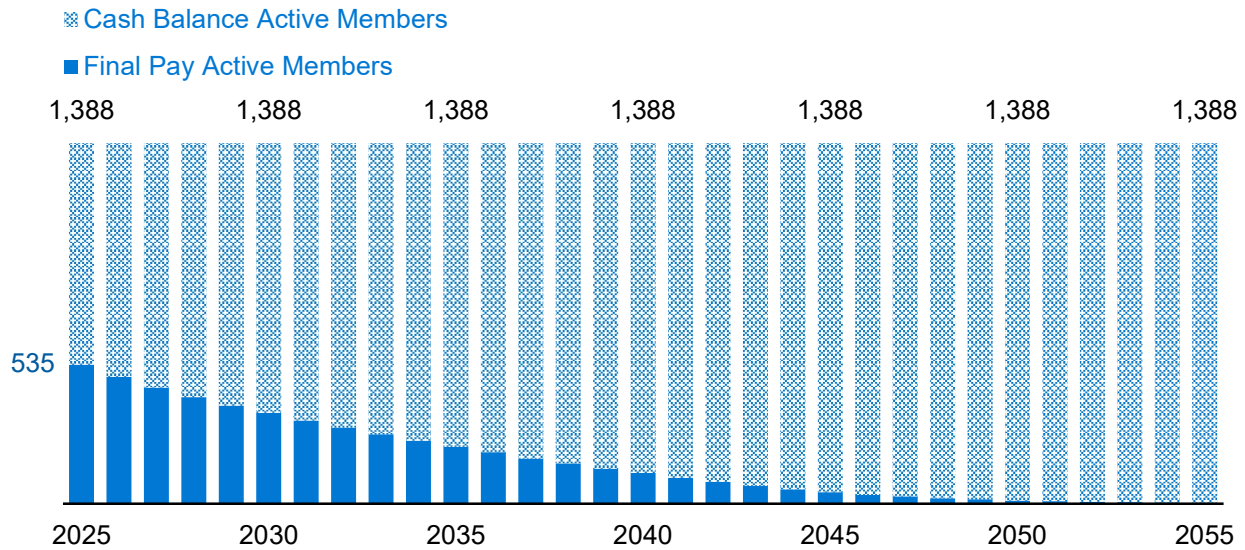
Per Ordinance Section 22-26, both active plan members and the City contribute a specified percentage of each active member's pensionable earnings, which is designed to fund the Normal Cost plus the UAL amortization payments. In any given year, the sum of these fixed contributions may be more or less than the Actuarially Determined Total Contribution:

	2024	2025
City Ordinance Employee Contribution Rate	10.130%	10.130%
City Ordinance Employer Contribution Rate	<u>18.830%</u>	<u>18.830%</u>
(A) Total Ordinance Contribution Rate	28.960%	28.960%
Total Normal Cost Rate	10.088%	9.929%
UAL Amortization Rate	<u>20.049%</u>	<u>19.436%</u>
(B) Actuarially Determined Total Contribution Rate	30.137%	29.365%
Contribution Rate (Shortfall)/Margin = (A) - (B)	-1.177%	-0.405%

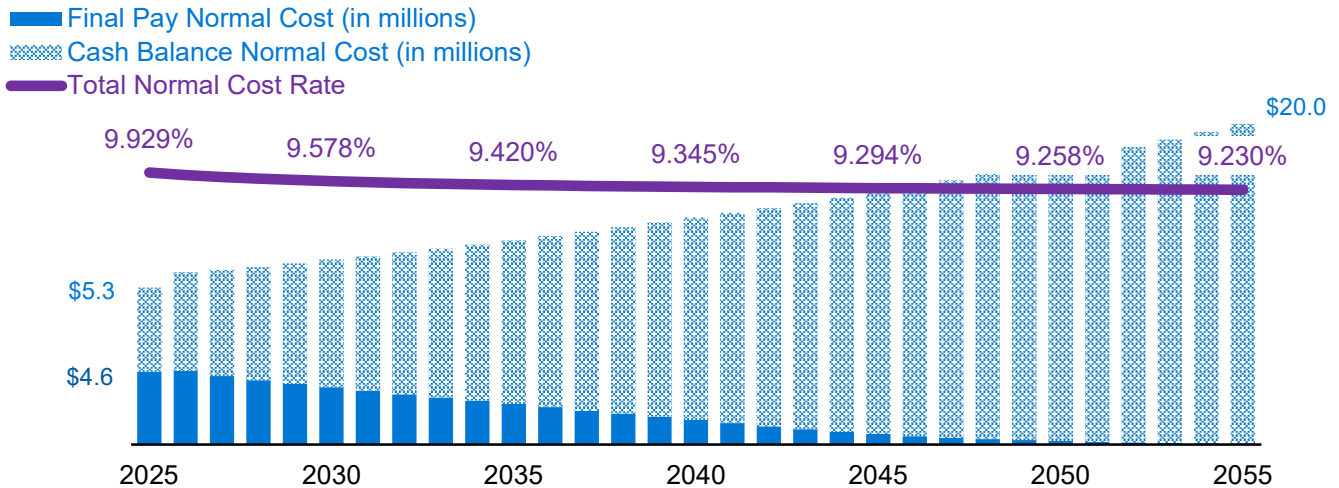
Actuarial Standard of Practice (ASOP) No. 4 requires the actuary to calculate and disclose a 'reasonable' ADTC, which considers whether the actuarial methods and actuarial assumptions are in compliance with all applicable ASOPs. Based on the actuarial assumptions and methods used in this report, we believe the ADTC meets this standard and reflects a balance among benefit security for plan members, intergenerational equity among stakeholders, and stability of periodic costs.

ix. Long-Range Forecast

For purposes of our long-range forecast, we assume that the overall number of active members remains constant. However, over time the composition of the active membership will change, as terminating and retiring Final Pay members are replaced with employees who are covered by the lower cost Cash Balance plan. This shift is illustrated in the graph below.



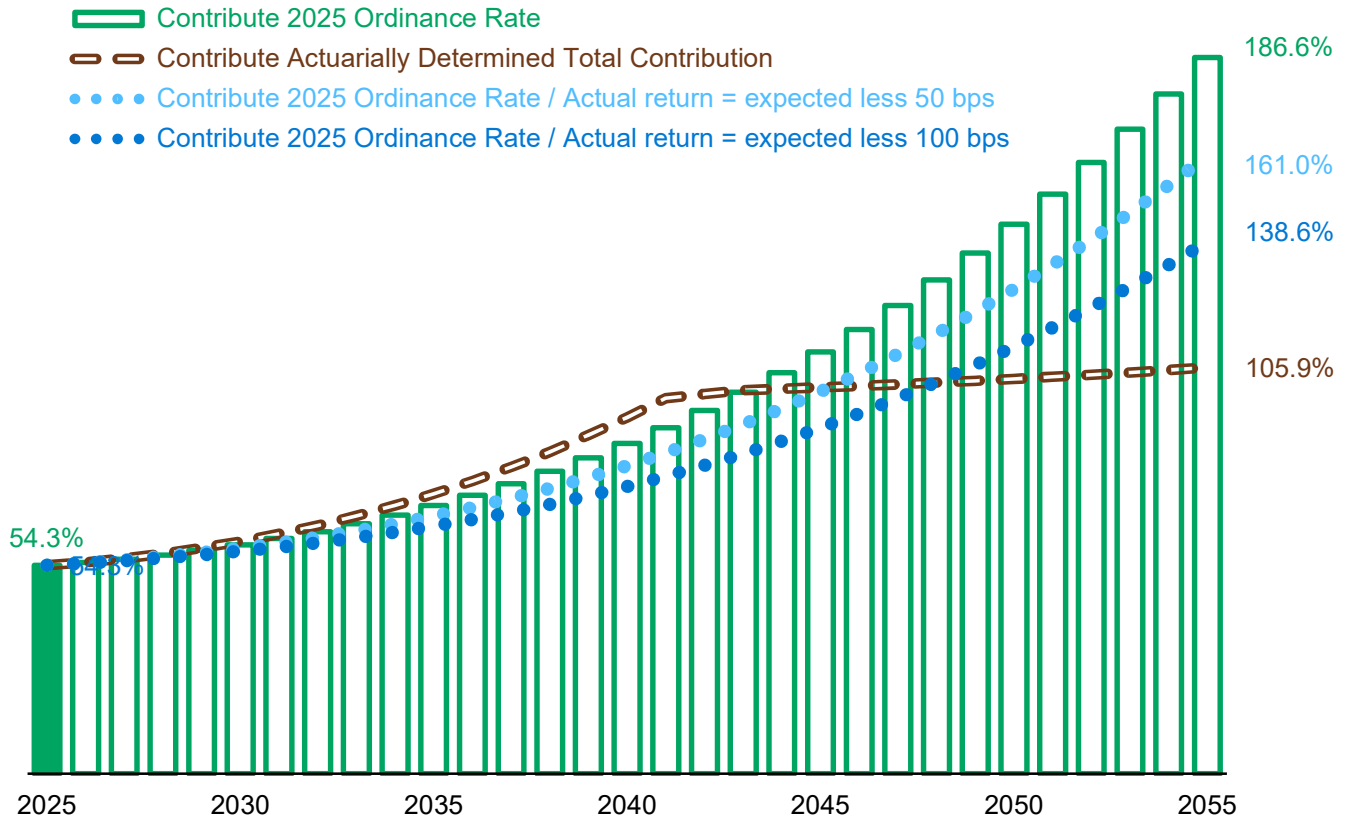
The Normal Cost Rate component of the Actuarially Determined Total Contribution will reflect this shift, as Final Pay active members with higher Normal Costs are gradually replaced by Cash Balance active members with lower Normal Costs. Note that each individual active member's Normal Cost (in dollars) is expected to go up over time with salary growth, so for the plan as a whole the Normal Cost (in dollars) is projected to increase over the long term while the Normal Cost Rate (the purple line below) is expected to decline.



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ix. Long-Range Forecast (continued)

Pension benefits are paid for through a combination of contributions from the City and from active members, and investment income. If the plan receives less than the Actuarially Determined Total Contribution (ADTC) each year, or if the investments persistently earn less than the assumed interest rate, then the plan's funded status would suffer. The impact on the plan's funded ratio of contributing an amount different than the ADTC and underearning are illustrated in the hypothetical scenarios below:



On the basis of this forecast, if the plan receives the 2025 Ordinance contribution rates each year and actual future investment returns equal the interest return assumption, the Unfunded Accrued Liability is expected to be fully amortized by 2044 and the Actuarially Determined Employer Contribution is expected to exceed the sum of the Normal Cost plus one year's interest on the Unfunded Accrued Liability by the year 2034.

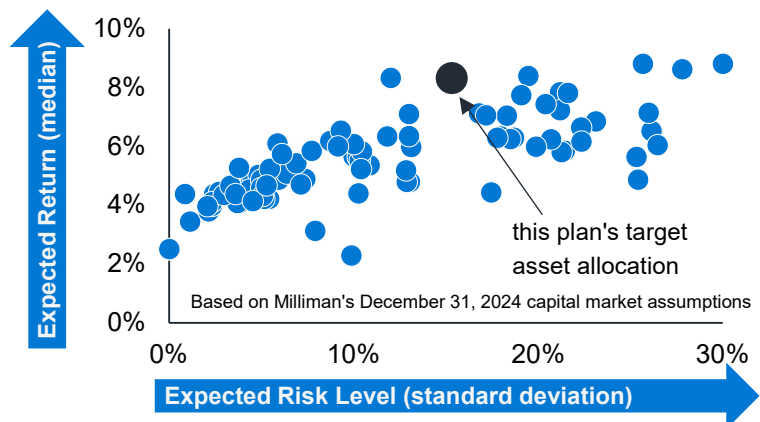
The scenarios illustrated above are based on deterministic projections that assume emerging plan experience always exactly matches the actuarial assumptions; in particular that actual asset returns will be constant in every year of the projection period. Variation in asset returns, contribution amounts, and many other factors may have a significant impact on the long-term financial health of the plan, the liquidity constraints on plan assets, and the City's future contribution levels. Stochastic projections could be prepared that would enable the City to understand the potential range of future results based on the expected variability in asset returns and other factors. Such analysis was beyond the scope of this engagement.

x. Asset Allocation Considerations

Monies that flow out of a pension plan (benefits and expenses) must be matched over the long term by monies that flow into the plan (contributions and investment income). This is expressed in a classic equation: **B** (benefits) + **E** (expenses) = **C** (contributions) + **I** (investment income).

Actuarial assumptions enable us to anticipate the long-term levels of **B** (benefits) and **E** (expenses) that will be paid out of the plan. In order to determine the appropriate level of **C** (contributions) that should come in to the plan, we must first anticipate the long-term level of **I** (investment income) the plan is likely to receive. That is why, for purposes of determining future funding levels, we measure *this* plan's liability using the long-term rate of investment returns *this* plan's portfolio is expected to generate.

Pension plans construct their portfolios by allocating assets across a wide range of asset classes with different risk and return profiles; the graph includes nearly 100 asset classes that pension plans invest in. As the graph illustrates, asset classes with higher expected returns also have higher risk levels; that is, a higher likelihood of experiencing both very good returns and very bad returns. Asset classes with lower expected returns also have lower risk levels.



The plan's target allocation represents a balance. Investing in lower-returning asset classes should reduce future investment returns and therefore increase future City contributions, but the lower risk levels would result in lower year-over-year volatility in the Actuarially Determined Employer Contribution and might provide more benefit security for plan members. Conversely, investing in higher-returning asset classes should increase future investment returns and therefore reduce future City contributions, but would also increase the volatility of those contributions and potentially reduce benefit security for plan members.

In the graph above, the asset class with the lowest risk level is US Cash, and the asset class with the highest risk level is Private Equity. If the plan were invested 100% in either of these extremes, it would impact the interest rate assumption and therefore the Accrued Liability, Funded Ratio, and ultimately the City's annual contributions; the volatility of the contributions would also change based on the risk level of the portfolio:

	100% US Cash *	Plan's Interest Rate Assumption	100% Private Equity
Expected long-term return (median)	3.4%	7.50%	8.8%
Expected risk level (standard deviation)	1.1%	15.3%	30.0%
Accrued Liability on January 1, 2025 **	\$776.0 million	\$530.9 million	\$469.7 million
Funded Ratio on January 1, 2025 ***	37%	54%	61%

* This would be considered a "low-default-risk obligation measure" (LDRM) using the language of ASOP 4.

** Calculated using the same actuarial assumptions and methods that were used for this valuation, except for the interest rate; the plan's duration on the valuation date, as measured for GASB 68 purposes, was used to estimate the impact of the interest rate difference relative to the valuation interest rate assumption.

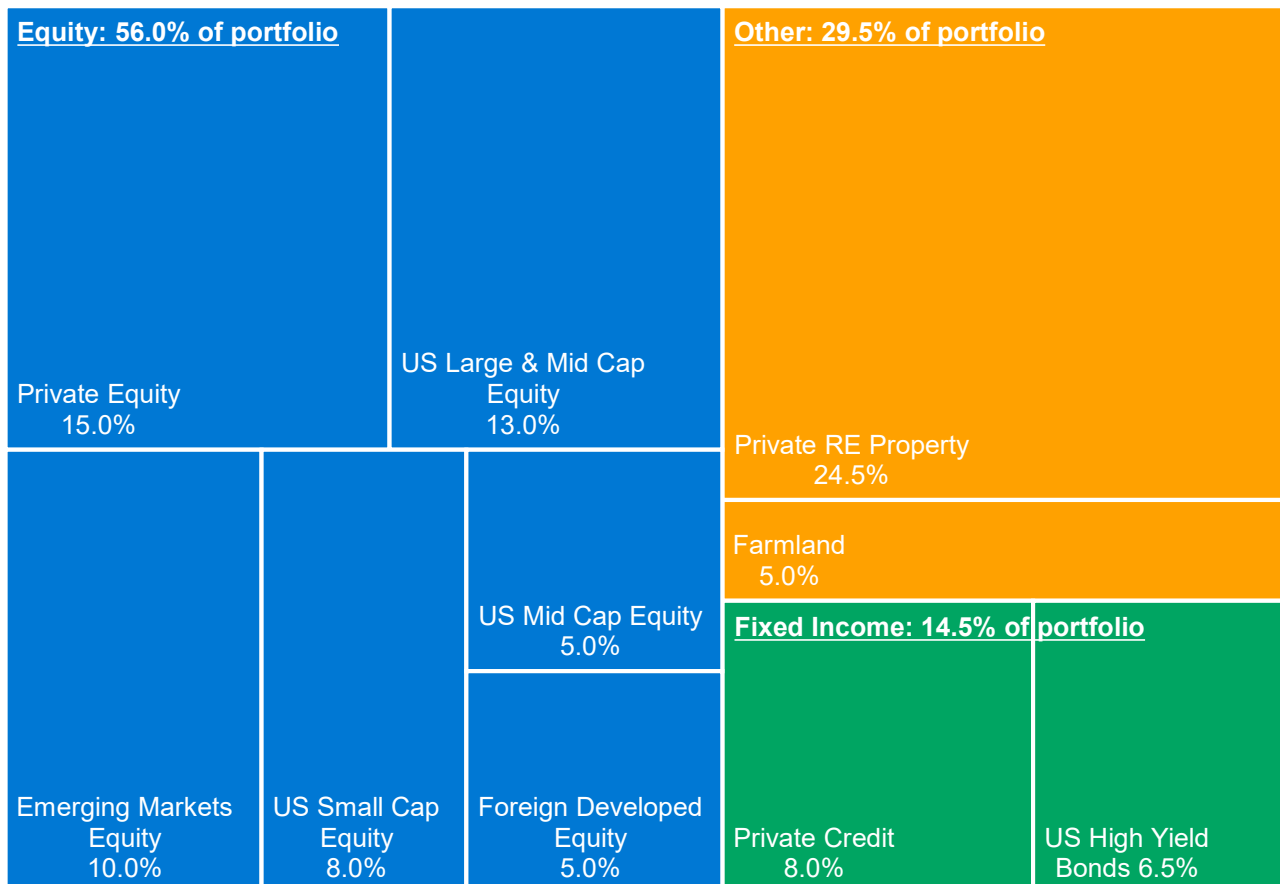
*** Measured using the Actuarial Value of Assets

1. Summary of Fund Transactions

Market Value as of January 1, 2024	\$269,349,141
City Contributions	19,413,341
Member Contributions	10,453,935
Net Investment Income	15,642,255
Benefit Payments	(39,668,723)
Administrative Expenses	0
 Market Value as of December 31, 2024	 275,189,949
Expected Return on Market Value of Assets	19,817,046
Market Value (Gain)/Loss	4,174,791
Approximate Rate of Return *	5.92%

* The rate shown here is not the dollar or time weighted investment yield rate which measures investment performance. It is an approximate net return assuming all activity occurred on average midway through the year.

Target Asset Allocation as of December 31, 2024



2. Development of Actuarial Value of Assets

In order to minimize the impact of market fluctuations on the contribution level, we use an Actuarial Value of Assets that recognizes gains and losses asymptotically over a four year period. The Actuarial Value of Assets as of January 1, 2025 is determined below.

1.	Expected Actuarial Value of Assets:	
	a. Actuarial Value of Assets as of January 1, 2024	\$281,951,725
	b. City Contributions and Member Contributions	29,867,276
	c. Benefit Payments	(39,668,723)
	d. Expected Earnings Based on 7.50% Interest	<u>20,785,470</u>
	e. Expected Actuarial Value of Assets as of January 1, 2025	292,935,748
2.	Market Value of Assets as of January 1, 2025	275,189,949
3.	Unrecognized Gains/(Losses): (2) - (1e)	(17,745,799)
4.	Amount Recognized as of January 1, 2025: 25% of (3)	(4,436,450)
5.	Preliminary Actuarial Value of Assets as of January 1, 2025: (1e) + (4)	288,499,298
6.	Preliminary Actuarial Value of Assets as a % of Market Value: (5) / (2)	104.8%
7.	Actuarial Value of Assets as of January 1, 2025: (5), within +/- 20% of (2)	288,499,298
8.	Actual Earnings on Actuarial Value of Assets: (7) - [(1a) + (1b) + (1c)]	16,349,020
9.	Approximate Rate of Return on Actuarial Value of Assets	5.90%
10.	Actuarial Value (Gain)/Loss: (1d) - (8)	4,436,450

3. Actuarial Balance Sheet

The Actuarial Balance Sheet sets forth the value in today's dollars of all benefits that are expected to be paid from the plan over the course of the current members' combined lifetimes. It also identifies the sources of assets that are available or will be required in future years in order to fully fund all of the benefits.

	January 1, 2024	January 1, 2025
Liabilities: Present Value of Future Benefits		
Active Members	\$231,772,483	\$246,529,945
Terminated Members	10,019,823	8,716,445
Service Retirees	306,319,653	306,243,380
Disabled Retirees	13,334,225	13,460,883
Beneficiaries	<u>38,785,749</u>	<u>38,773,592</u>
Total Liabilities	600,231,933	613,724,245
Assets		
Actuarial Value of Current Assets (see Exhibit 2)	\$281,951,725	\$288,499,298
Present value of future employer normal costs	(4,077,473)	(5,019,700)
Present value of future active member contributions	81,706,638	87,837,251
Present value of future UAL amortization payments	<u>240,651,043</u>	<u>242,407,396</u>
Total Assets	600,231,933	613,724,245

Per Ordinance Section 22-26, both active plan members and the City contribute a specified percentage of each active member's pensionable earnings, which is designed to fund the Normal Cost plus the UAL amortization payments. In any given year, the sum of these fixed contributions may be more or less than the Actuarially Determined Total Contribution. If the present value of future contributions per these specified rates is lower than the present value of future UAL amortization payments plus the present value of future normal costs shown above, then the Plan may experience a shortfall of Assets relative to Liabilities. Based on the January 1, 2025 valuation, the sum of the Ordinance Contribution Rates is lower than the Actuarially Determined Total Contribution Rate by 0.405%, indicating that such a shortfall may occur.

4. Unfunded Accrued Liability

Exhibit 3 set forth the Plan's Present Value of Future Benefits. The actuarial cost method used to calculate the Actuarially Determined Contribution is the Entry Age Normal Cost Method. Under this method, the Present Value of Future Benefits for each active member is allocated as a level percentage of earnings to past years of service (the Accrued Liability), the current year (the Normal Cost), and future years. That is, the Accrued Liability for active members is equal to the portion of the Present Value of Future Benefits that will not be funded through future Normal Cost payments. For each non-active member, the Accrued Liability is equal to the Present Value of Future Benefits. The Actuarial Value of Assets is subtracted from the Accrued Liability to determine the Unfunded Accrued Liability.

	January 1, 2024	January 1, 2025
1. Present Value of Future Benefits (see Exhibit 3)	\$600,231,933	\$613,724,245
2. Present Value of Future Normal Costs	77,629,165	82,817,551
3. Accrued Liability		
Active Members	154,143,318	163,712,394
Terminated Members	10,019,823	8,716,445
Service Retirees	306,319,653	306,243,380
Disabled Retirees	13,334,225	13,460,883
Beneficiaries	<u>38,785,749</u>	<u>38,773,592</u>
Total = (1) - (2)	522,602,768	530,906,694
4. Actuarial Value of Assets (see Exhibit 2)	281,951,725	288,499,298
5. Unfunded Accrued Liability: (3) - (4)	240,651,043	242,407,396
6. Funded Ratio: (4) / (3)	54.0%	54.3%

5. Actuarial Gains / Losses

From one valuation to the next, the Accrued Liability and the Actuarial Value of Assets may change in ways that were not anticipated by the actuarial assumptions that were used in the last valuation. If the Accrued Liability is lower than expected or the Actuarial Value of Assets is higher than expected, we say that the plan has experienced an 'actuarial gain', and if the Accrued Liability is higher than expected or the Actuarial Value of Assets is lower than expected, we say that the plan has experienced an 'actuarial loss'. The actuarial gains / (losses) that arose during 2024 are shown below, along with the impact of plan changes and changes in the actuarial assumptions and method. Please see page 4 for more details on any changes since the last valuation.

	Accrued Liability A	Actuarial Value of Assets B	Unfunded Accrued Liability = A - B
1. Value as of January 1, 2024	\$522,602,768	\$281,951,725	\$240,651,043
2. Normal Cost as of January 1, 2024	9,225,599		9,225,599
3. City Contributions during 2024		19,413,341	(19,413,341)
4. Member Contributions during 2024		10,453,935	(10,453,935)
5. Benefit Payments during 2024	(39,668,723)	(39,668,723)	0
6. Administrative Expenses during 2024		0	0
7. One year of interest on (1) thru (2) at 7.50%	39,887,128	21,146,379	18,740,749
8. Half year of interest on (3) thru (6) at 7.50%	<u>(1,487,577)</u>	<u>(360,909)</u>	<u>(1,126,668)</u>
9. Expected value as of January 1, 2025	530,559,195	292,935,748	237,623,447
10. Actual value as of January 1, 2025 before any plan, assumption, or method changes	534,331,012	288,499,298	245,831,714
11. Experience gains / losses: (10) - (9)	3,771,817	(4,436,450)	8,208,267
12. Impact of plan changes (see page 4)	0	0	0
13. Impact of assumption changes (see page 4)	(3,424,318)	0	(3,424,318)
14. Impact of method changes (see page 4)	0	0	0
15. Final value as of January 1, 2025	530,906,694	288,499,298	242,407,396

6. UAL Amortization Payments

The Unfunded Accrued Liability that is developed in Exhibit 4 is amortized as follows. The initial base was funded as a level percent of payroll over a 25-year closed period that began January 1, 2016. A new base is created in each subsequent year based on any change in the Unfunded Accrued Liability that arises from actual experience being different than is expected based on the actuarial method and assumptions; this amount is amortized as a level percent over a closed 20-year period. If assumption changes are made, the resulting change in the Unfunded Accrued Liability is amortized as a level percent over a closed period selected by the Board.

1. Amortization Bases Established in Prior Years

Date Established	(a) Outstanding Balance January 1, 2025	Years Remaining January 1, 2025	(b) Annual Amortization Payment
January 1, 2016	\$193,673,954	16	\$16,964,256
January 1, 2017	991,270	12	107,185
January 1, 2018	27,620,711	18	2,232,990
January 1, 2018	(3,879,178)	13	(394,806)
January 1, 2019	7,874,062	14	758,674
January 1, 2020	(2,562,923)	15	(234,942)
January 1, 2021	(920,606)	16	(80,638)
January 1, 2022	7,849,252	17	659,425
January 1, 2023	6,296,459	18	509,036
January 1, 2024	1,019,681	19	79,563
Total	237,962,682		20,600,743
2. Unfunded Accrued Liability as of January 1, 2025 (see Exhibit 4)			242,407,396
3. New Amortization Based Established January 1, 2025: (2) - (1a Total)			4,444,714
4. Amortization Period for New Amortization Base			20
5. Amortization Growth Rate			3.00%
6. Amortization Payment for January 1, 2025: (3) amortized over (4)			335,600
7. Total UAL Amortization Payments: (1b Total) + (6)			20,936,343
8. Covered Payroll for Active Members			107,718,115
9. UAL Amortization Payment Rate: (7) ÷ (8)			19.44%

7. Normal Cost

The Normal Cost is the portion of the Present Value of Future Benefits that is allocated to the current year for active members.

	2024	2025
1. Total Normal Cost by Group		
Final Pay Actives	\$4,684,832	\$4,969,148
Cash Balance Actives	<u>4,540,767</u>	<u>5,726,443</u>
Total	9,225,599	10,695,591
2. Covered Payroll for Active Members (Expected Payroll for 2024)		
Final Pay	\$44,239,198	\$48,352,126
Cash Balance	<u>47,212,168</u>	<u>59,365,989</u>
Total	91,451,366	107,718,115
3. Total Normal Cost Rate: Total Normal Cost ÷ Expected Payroll		
Final Pay	10.590%	10.277%
Cash Balance	9.618%	9.646%
Total	10.088%	9.929%

8. Employee Contributions

A portion of the Normal Cost is funded through employee contributions from active members.

	2024	2025
1. Employee Contribution Rate		
Final Pay	10.130%	10.130%
Cash Balance	10.130%	10.130%
2. Covered Payroll for Active Members (Expected Payroll for 2024)		
Final Pay	\$44,239,198	\$48,352,126
Cash Balance	<u>47,212,168</u>	<u>59,365,989</u>
Total	91,451,366	107,718,115
3. Expected Employee Contributions in Current Year: (1) x (2)		
Final Pay	\$4,481,431	\$4,898,070
Cash Balance	<u>4,782,593</u>	<u>6,013,775</u>
Total	9,264,024	10,911,845

9. City Contributions Per Ordinance

Per Ordinance Section 22-26(b), the City contributes a specified percentage of each active member's pensionable earnings, which is designed to fund the employer portion of the Normal Cost plus the UAL amortization payments.

	2024	2025
1. City Contribution Rate Per Ordinance		
Final Pay	18.830%	18.830%
Cash Balance	18.830%	18.830%
2. Covered Payroll for Active Members		
Final Pay	\$48,417,885	\$48,352,126
Cash Balance	<u>51,341,896</u>	<u>59,365,989</u>
Total	99,759,781	107,718,115
3. Expected City Contribution Dollars: (1) x (2)		
Final Pay	\$9,117,088	\$9,104,705
Cash Balance	<u>9,667,679</u>	<u>11,178,616</u>
Total	18,784,767	20,283,321

10. Actuarially Determined Contribution

	2024	2025
In Dollars		
1. Actuarially Determined Total Contribution		
a. Total Normal Cost (see Exhibit 7)	\$9,225,599	\$10,695,591
b. UAL Amortization Payment (see Exhibit 6)	<u>20,000,721</u>	<u>20,936,343</u>
c. Total	29,226,320	31,631,934
2. Expected Employee Contributions (see Exhibit 8)	9,264,024	10,911,845
3. Expected City Contributions per Ordinance (see Exhibit 9)	18,784,767	20,283,321
4. Total Expected Contributions: (2) + (3)	28,048,791	31,195,166
5. Contribution (Shortfall) / Margin: (4) - (1c)	(1,177,529)	(436,768)
As a Percentage of Covered Payroll		
1. Actuarially Determined Total Contribution Rate		
a. Total Normal Cost Rate (see Exhibit 7)	10.088%	9.929%
b. UAL Amortization Rate (see Exhibit 6)	<u>20.049%</u>	<u>19.436%</u>
c. Total	30.137%	29.365%
2. Employee Contribution Rate per Ordinance (see Exhibit 8)	10.130%	10.130%
3. City Contribution Rate per Ordinance (see Exhibit 9)	18.830%	18.830%
4. Total Contribution Rate: (2) + (3)	28.960%	28.960%
5. Contribution Rate (Shortfall) / Margin: (4) - (1c)	-1.177%	-0.405%

11. Long Range Funded Status Forecast

This forecast is based on the results of the January 1, 2025 actuarial valuation and assumes that the City will pay the City Ordinance Rate each year, the assets will return the assumed interest rate on a market value basis each year, and there are no future changes in the actuarial methods or assumptions or in the plan provisions. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets. Amounts are shown in millions.

Valuation Date	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio
1/1/2025	\$530.9	\$288.5	\$242.4	54.3%
1/1/2026	537.9	295.8	242.1	55.0%
1/1/2027	545.0	304.5	240.5	55.9%
1/1/2028	551.8	314.2	237.7	56.9%
1/1/2029	558.4	324.9	233.5	58.2%
1/1/2030	564.9	336.8	228.1	59.6%
1/1/2031	571.3	349.9	221.4	61.3%
1/1/2032	577.5	364.3	213.2	63.1%
1/1/2033	583.6	380.0	203.6	65.1%
1/1/2034	589.8	397.3	192.5	67.4%
1/1/2035	596.1	416.3	179.8	69.8%
1/1/2036	602.6	437.2	165.3	72.6%
1/1/2037	609.1	460.1	149.0	75.5%
1/1/2038	615.8	485.1	130.7	78.8%
1/1/2039	622.7	512.4	110.3	82.3%
1/1/2040	629.9	542.2	87.7	86.1%
1/1/2041	637.3	574.7	62.5	90.2%
1/1/2042	644.9	610.2	34.8	94.6%
1/1/2043	652.9	648.8	4.1	99.4%
1/1/2044	661.1	690.7	(29.6)	104.5%
1/1/2045	669.8	736.4	(66.6)	109.9%
1/1/2046	679.0	786.3	(107.2)	115.8%
1/1/2047	688.9	840.6	(151.8)	122.0%
1/1/2048	699.5	900.0	(200.5)	128.7%
1/1/2049	710.8	964.7	(253.9)	135.7%
1/1/2050	723.1	1,035.3	(312.2)	143.2%
1/1/2051	736.3	1,112.2	(375.9)	151.0%
1/1/2052	750.7	1,196.0	(445.3)	159.3%
1/1/2053	766.1	1,287.2	(521.0)	168.0%
1/1/2054	782.6	1,386.1	(603.5)	177.1%

This forecast has been developed by assuming that members will terminate, retire, become disabled, and die according to the actuarial assumptions with respect to these causes of decrement, and that pay increases, cost of living adjustments, and so forth will likewise occur according to the actuarial assumptions. For those unions whose new employees are eligible to participate in this plan, members who are projected to leave active employment are assumed to be replaced by new active members with the same age, service, gender, and pay characteristics as those hired in the past few years. The forecasts assume the current blended member and City contribution rates remain fixed during the projection period.

12. Long Range Cash Flow Forecast

This forecast is based on the results of the January 1, 2025 actuarial valuation and assumes that the City will pay the City Ordinance Rate each year, the assets will return the assumed interest rate on a market value basis each year, and there are no future changes in the actuarial methods or assumptions or in the plan provisions. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets. Amounts are shown in millions.

Fiscal Year	City Contributions	Member Contributions	Benefit Payments	Net Cash Flows
2025	\$20.3	\$10.9	\$41.5	(\$10.3)
2026	20.7	11.1	42.1	(10.2)
2027	21.2	11.4	43.1	(10.5)
2028	21.7	11.7	43.9	(10.6)
2029	22.2	12.0	44.7	(10.5)
2030	22.8	12.3	45.6	(10.5)
2031	23.3	12.5	46.4	(10.5)
2032	23.9	12.8	47.1	(10.4)
2033	24.4	13.1	47.8	(10.2)
2034	25.0	13.5	48.3	(9.9)
2035	25.6	13.8	48.9	(9.5)
2036	26.2	14.1	49.5	(9.2)
2037	26.8	14.4	50.1	(8.9)
2038	27.4	14.7	50.7	(8.6)
2039	28.0	15.1	51.2	(8.1)
2040	28.7	15.4	51.8	(7.7)
2041	29.3	15.8	52.3	(7.3)
2042	30.0	16.1	52.9	(6.8)
2043	30.6	16.5	53.5	(6.4)
2044	31.3	16.9	54.0	(5.8)
2045	32.1	17.3	54.5	(5.1)
2046	32.8	17.7	54.9	(4.4)
2047	33.6	18.1	55.2	(3.5)
2048	34.5	18.5	55.7	(2.7)
2049	35.3	19.0	56.0	(1.7)
2050	36.2	19.5	56.3	(0.7)
2051	37.1	20.0	56.7	0.4
2052	38.0	20.5	57.1	1.4
2053	39.0	21.0	57.6	2.4
2054	40.0	21.5	58.2	3.3

This forecast has been developed by assuming that members will terminate, retire, become disabled, and die according to the actuarial assumptions with respect to these causes of decrement, and that pay increases, cost of living adjustments, and so forth will likewise occur according to the actuarial assumptions. For those unions whose new employees are eligible to participate in this plan, members who are projected to leave active employment are assumed to be replaced by new active members with the same age, service, gender, and pay characteristics as those hired in the past few years. The forecasts assume the current blended member and City contribution rates remain fixed during the projection period.

13. History of Funded Status

Valuation Date	Actuarial Value of Assets	Accrued Liability	Unfunded Accrued Liability	Funded Ratio
January 1, 2011	\$240,291,310	\$409,442,601	\$169,151,291	58.7%
January 1, 2012	236,741,347	420,810,359	184,069,012	56.3%
January 1, 2013	235,591,941	436,270,409	200,678,468	54.0%
January 1, 2014	237,579,690	442,754,113	205,174,423	53.7%
January 1, 2015	242,248,074	431,160,038	188,911,964	56.2%
January 1, 2016	244,543,841	437,133,012	192,589,171	55.9%
January 1, 2017	246,234,597	443,771,621	197,537,024	55.5%
January 1, 2018	251,320,837	474,607,516	223,286,679	53.0%
January 1, 2019	249,518,547	482,025,309	232,506,762	51.8%
January 1, 2020	253,722,439	483,904,703	230,182,264	52.4%
January 1, 2021	260,980,355	490,096,765	229,116,410	53.3%
January 1, 2022	274,543,515	511,008,246	236,464,731	53.7%
January 1, 2023	277,286,721	518,852,710	241,565,989	53.4%
January 1, 2024	281,951,725	522,602,768	240,651,043	54.0%
January 1, 2025	288,499,298	530,906,694	242,407,396	54.3%

14. History of City Contributions

Fiscal Year	Actuarially Determined Employer Contribution	Actual City Contribution	Payroll	Actual Contribution as a Percent of Payroll
2012	\$15,658,045	\$7,216,050	\$62,825,685	11.5%
2013	17,406,168	7,194,482	63,327,394	11.4%
2014	17,162,883	12,326,643	63,413,206	19.4%
2015	14,676,786	12,401,231	64,876,227	19.1%
2016	11,794,456	12,779,968	69,005,865	18.5%
2017	12,383,422	13,227,230	70,873,306	18.7%
2018	14,990,504	13,645,009	72,754,142	18.8%
2019	17,313,632	15,028,329	75,407,531	19.9%
2020	17,297,752	15,120,763	79,047,555	19.1%
2021	17,400,605	15,354,180	86,257,017	17.8%
2022	18,393,098	16,662,274	86,837,521	19.2%
2023	19,351,351	17,807,395	94,093,244	18.9%
2024	19,962,296	19,413,341	99,759,781	19.5%
2025	20,720,089	TBD	107,718,115	TBD

15. Reconciliation of Membership from Prior Valuation

Details of the changes in the plan's membership since the last valuation are shown below. Additional details on the membership are provided in the following exhibits.

	Active Members	Terminated Vested Members	Nonvested Members Due Refunds	Service Retirees	Disabled Retirees	Beneficiaries	Total
Count 1/1/2024	1,335	108	145	1,107	69	280	3,044
Terminated							
- no benefit due							0
- refund due	(39)		39				0
- paid refund	(33)	(5)	(76)				(114)
- vested benefit due	(12)	12					0
Retired	(31)	(7)		38			0
Died							
- with beneficiary	(1)			(13)	(2)	16	0
- no beneficiary				(11)		(17)	(28)
Benefits expired						(1)	(1)
New member	161						161
Rehired	8		(3)				5
New Alt. Payee							0
Correction					1	2	3
Count 1/1/2025	1,388	108	105	1,121	68	280	3,070

16. Statistics of Active Membership

		January 1, 2024	January 1, 2025
Number of Active Members	Final Pay	567	535
	Cash Balance	<u>768</u>	<u>853</u>
	Total	1,335	1,388
<hr/>			
Average Age	Final Pay	51.5	52.0
	Cash Balance	40.8	40.9
	Total	45.3	45.2
<hr/>			
Average Service	Final Pay	16.8	17.6
	Cash Balance	3.6	3.9
	Total	9.2	9.2
<hr/>			
Covered Payroll	Final Pay	\$48,417,885	\$48,352,126
	Cash Balance	<u>51,341,896</u>	<u>59,365,989</u>
	Total	99,759,781	107,718,115
<hr/>			
Average Covered Payroll	Final Pay	\$85,393	\$90,378
	Cash Balance	66,851	69,597
	Total	74,726	77,607
<hr/>			

17. Distribution of Active Members as of January 1, 2025

Final Pay

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25								0
25-29								0
30-34		1	14					15
35-39			37	8				45
40-44		2	42	26	3			73
45-49			34	39	8	6		87
50-54		1	35	39	16	15	1	107
55-59			18	33	20	21	8	100
60-64		2	20	26	6	4	9	67
65+		1	10	12	4	5	9	41
Total	0	7	210	183	57	51	27	535

Cash Balance

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	55							55
25-29	96	12						108
30-34	101	33						134
35-39	81	63						144
40-44	70	59						129
45-49	52	36						88
50-54	42	22	1					65
55-59	32	32						64
60-64	20	30	1	1				52
65+	7	7						14
Total	556	294	2	1	0	0	0	853

18. Statistics of Inactive Membership

	January 1, 2024	January 1, 2025
Terminated Vested Members		
Number	108	108
Total Annual Benefit	\$1,682,550	\$1,622,895
Average Annual Benefit	15,579	15,027
Average Age	48.7	48.4
Nonvested Members Due Refunds		
Number	145	105
Service Retirees		
Number	1,107	1,121
Total Annual Benefit	\$31,070,490	\$31,574,784
Average Annual Benefit	28,067	28,167
Average Age	72.4	73.0
Disabled Retirees		
Number	69	68
Total Annual Benefit	\$1,821,838	\$1,724,187
Average Annual Benefit	26,403	25,356
Average Age	68.2	68.9
Beneficiaries		
Number	280	280
Total Annual Benefit	\$4,954,695	\$5,009,890
Average Annual Benefit	17,695	17,892
Average Age	75.2	75.4

19. Distribution of Inactive Membership as of January 1, 2025

	Age	Number	Annual Benefits
Terminated Vested Members	< 50	53	\$713,671.80
	50 - 59	53	892,589.76
	60 - 69	2	16,633.56
	70 - 79	0	0.00
	80 - 89	0	0.00
	90 +	<u>0</u>	<u>0.00</u>
	Total	108	1,622,895.12
<hr/>			
Service Retirees	< 50	0	\$0.00
	50 - 59	19	882,827.76
	60 - 69	366	10,734,465.96
	70 - 79	564	16,104,283.44
	80 - 89	157	3,618,764.76
	90 +	<u>15</u>	<u>234,441.48</u>
	Total	1,121	31,574,783.40
<hr/>			
Disabled Retirees	< 50	1	
	50 - 59	9	
	60 - 69	28	breakdown not available
	70 - 79	22	available
	80 - 89	7	
	90 +	<u>1</u>	
	Total	68	1,724,187.00
<hr/>			
Beneficiaries	< 50	11	\$22,116.60
	50 - 59	5	60,936.84
	60 - 69	56	1,015,933.08
	70 - 79	105	1,827,389.52
	80 - 89	76	1,503,607.80
	90 +	<u>27</u>	<u>579,906.48</u>
	Total	280	5,009,890.32

Appendix A - Actuarial Funding Method

Cost Method

The actuarial cost method used in the valuation of this Plan is known as the Entry Age Normal Method. The Actuarially Determined Total Contribution consists of two pieces: a Normal Cost plus an amortization payment to gradually eliminate the Unfunded Accrued Liability (UAL) over a period of years. Amounts contributed by active members are netted out of this amount to arrive at the Actuarially Determined Employer Contribution (ADEC).

The Normal Cost is determined by calculating the present value of future benefits for present Active Members that will become payable as the result of death, disability, retirement or termination. This cost is then spread as a level percentage of earnings from entry age to termination for each individual. If Normal Costs had been paid at this level for all prior years, a fund would have accumulated. Because this fund represents the portion of benefits that would have been funded to date, it is termed the Accrued Liability. In fact, it is calculated by adding the present value of benefits for Members in Pay Status and Terminated Members to the present value of benefits for Active Members and subtracting the present value of future Normal Cost contributions.

The funding cost of the Plan is derived by making certain specific assumptions as to rates of interest, mortality, turnover, etc. which are assumed to hold for many years into the future. Since actual experience may differ somewhat from the assumptions, the costs determined by the valuation must be regarded as estimates of the true costs of the Plan.

Asset Smoothing Method

The Actuarial Value of Assets is determined by recognizing market gains and losses asymptotically over a four year period, with the result constrained to within +/- 20% of the Market Value of Assets.

Amortization Method

The Unfunded Accrued Liability is the excess of the Accrued Liability over the assets which have been accumulated for the plan. The initial base was funded as a level percent of payroll over a 25-year closed period that began January 1, 2016. A new base is created in each subsequent year based on any change in the Unfunded Accrued Liability that arises from actual experience being different than is expected based on the actuarial method and assumptions; this amount is amortized as a level percent over a closed 20 year period. If assumption changes are made, the resulting change in the Unfunded Accrued Liability is amortized as a level percent over a closed period selected by the Board.

Long-Range Forecast

The long-range forecasts included in this report have been developed by assuming that members will terminate, retire, become disabled, and die according to the actuarial assumptions with respect to these causes of decrement, and that pay increases, cost of living adjustments, and so forth will likewise occur according to the actuarial assumptions. For those unions whose new employees are eligible to participate in this plan, members who are projected to leave active employment are assumed to be replaced by new active members with the same age, service, gender, and pay characteristics as those hired in the past few years.

Appendix B - Actuarial Assumptions

Each of the assumptions used in this valuation was set based on a formal study of the plan's experience for the period ending December 31, 2023 which reflected industry standard published tables and data, the particular characteristics of the plan, relevant information from the plan sponsor or other sources about future expectations, and our professional judgment regarding future plan experience. We believe the assumptions are reasonable for the contingencies they are measuring, and are not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

Interest Rate 7.50%

Inflation 2.50%

**Amortization
Growth Rate** 3.00%

**Salary
Increases** Annual increases consisting of 2.50% inflation, 0.60% productivity, and merit/longevity that reflect length of service; combined impact of these factors are per the table below:

Service	Increase
0	9.00%
1	8.00%
2	7.00%
3	6.00%
4	5.50%
5	4.50%
6	4.50%
7-11	4.00%
12-15	3.75%
16-34	3.25%
35 or more	3.10%

Mortality PubG-2016 Mortality Table with generational projection per the MP-2021 scale, with employee rates before benefit commencement and healthy, disabled and contingent annuitant rates after benefit commencement. This assumption includes a margin for mortality improvement beyond the valuation date.

**Interest
Credited to
Cash Balance
Accounts** 5.25%

**Decrement
Timing** Middle of year.

Appendix B - Actuarial Assumptions

Spouse Age Difference Males are assumed to be 3 years older than Females.

Percent Married 75% of members are assumed to be married at death or retirement.

Children 0 children are assumed per member.

Termination	Service	Male	Female
	0	12.00%	12.00%
	1	11.00%	12.00%
	2	10.00%	12.00%
	3	9.00%	11.00%
	4	8.00%	9.00%
	5	6.00%	8.00%
	6	5.00%	7.00%
	7	5.00%	6.00%
	8	4.00%	5.00%
	9	4.00%	5.00%
	10	4.00%	5.00%
	11	4.00%	5.00%
	12	3.00%	4.50%
	13	3.00%	4.50%
	14	3.00%	4.00%
	15	3.00%	3.00%
	16	2.25%	2.00%
	17+	2.00%	2.00%

Vested Terminations 50% of members hired prior to March 1, 2015 are assumed to elect a refund of contributions.

Electing Refund Members hired on or after March 1, 2015 are assumed to elect the more valuable of a refund of contributions or the present value of an annuity at age 60. The basis for comparing the value of the two benefits is the valuation interest rate and regular mortality assumption.

Disability	Age	Rate	
	20	0.11%	20% of disabilities are assumed to be service connected. No Social Security offset is assumed.
	30	0.14%	
	40	0.19%	
	50	0.41%	
	60	1.48%	

Appendix B - Actuarial Assumptions

Retirement

Active members who were within 5 years of Unreduced Retirement Eligibility as of March 1, 2015:

Members eligible for Unreduced Retirement

Age	1st Year	Subsequent Years
50-53	35%	25%
54-55	40%	20%
56-58	35%	20%
59-60	25%	20%
61	25%	20%
62	25%	25%
63	25%	20%
64	25%	20%
65-69	50%	20%
70-71	75%	50%
72	100%	100%

Members eligible for Early but not Unreduced Retirement
 6.0% per year from ages 55-59

Active members who were within 6-10 years of Unreduced Retirement Eligibility as of March 1, 2015:

Members eligible for Unreduced Retirement

Age	1st Year	Subsequent Years
55	40%	20%
56-58	35%	20%
59-60	25%	20%
61	25%	20%
62	25%	25%
63	25%	20%
64	25%	20%
65-69	50%	20%
70-71	75%	50%
72	100%	100%

Members eligible for Early but not Unreduced Retirement
 6.0% per year from ages 57-61

Appendix B - Actuarial Assumptions

Retirement
(continued)

Active members who
were more than 10
years from Unreduced
Retirement Eligibility
as of March 1, 2015:

Members eligible for Unreduced Retirement

Age	1st Year	Subsequent Years
55	40%	20%
56-58	35%	20%
59-60	25%	20%
61	25%	20%
62	25%	25%
63	25%	20%
64	25%	20%
65	50%	20%
66-69	50%	20%
70-71	75%	50%
72	100%	100%

Members eligible for Early but not Unreduced Retirement
6.0% per year from ages 60-64

Active members who
were hired on or after
March 1, 2015:

Age	Rate
55-59	5%
60-61	7%
62-64	20%
65	20%
66	20%
67-69	20%
70-71	50%
72	100%

Deferred vested
members:

100% are assumed to commence receiving benefits at age 60.

Appendix B - Actuarial Assumptions

Changes in Assumptions From Prior Year

The following assumptions were used in the prior year actuarial valuation:

Mortality PubG-2010 Mortality Table with generational projection per the MP-2021 scale, with employee rates before benefit commencement and healthy, disabled and contingent annuitant rates after benefit commencement. This assumption includes a margin for mortality improvement beyond the valuation date.

Termination	Service	Male	Female
	0	11.00%	12.00%
	1	10.00%	12.00%
	2	8.25%	12.00%
	3	7.25%	10.50%
	4	6.25%	9.00%
	5	5.50%	8.00%
	6	5.00%	7.00%
	7	4.50%	6.00%
	8	4.25%	5.00%
	9	4.00%	4.50%
	10	3.75%	4.30%
	11	3.50%	4.00%
	12	3.25%	3.80%
	13	3.00%	3.50%
	14	2.75%	3.00%
	15	2.50%	2.50%
	16	2.25%	2.00%
	17+	2.00%	2.00%

Appendix B - Actuarial Assumptions

Changes in Assumptions From Prior Year (continued)

Retirement

Active members who were within 5 years of Unreduced Retirement Eligibility as of March 1, 2015:

Members eligible for Unreduced Retirement

Age	1st Year	Subsequent Years
50-53	35%	25%
54-55	40%	20%
56-58	35%	20%
59-60	25%	20%
61	25%	20%
62	25%	25%
63	25%	20%
64	25%	30%
65-69	50%	30%
70-71	75%	75%
72	100%	100%

Members eligible for Early but not Unreduced Retirement
 5.0% per year from ages 55-59

Active members who were within 6-10 years of Unreduced Retirement Eligibility as of March 1, 2015:

Members eligible for Unreduced Retirement

Age	1st Year	Subsequent Years
55	40%	20%
56-58	35%	20%
59-60	25%	20%
61	25%	20%
62	25%	25%
63	25%	20%
64	25%	30%
65-69	50%	30%
70-71	75%	75%
72	100%	100%

Members eligible for Early but not Unreduced Retirement
 5.0% per year from ages 57-61

Appendix B - Actuarial Assumptions

Changes in Assumptions From Prior Year (continued)

Retirement (continued)	Active members who were more than 10 years from Unreduced Retirement Eligibility as of March 1, 2015:	Members eligible for Unreduced Retirement
-----------------------------------	--	--

Age	1st Year	Subsequent Years
55	40%	20%
56-58	35%	20%
59-60	25%	20%
61	25%	20%
62	25%	25%
63	25%	20%
64	25%	30%
65	50%	30%
66-69	50%	30%
70-71	75%	75%
72	100%	100%

Members eligible for Early but not Unreduced Retirement
 5.0% per year from ages 60-64

**Active members who
were hired on or after
March 1, 2015:**

Age	Rate
55-59	5%
60-61	7%
62-64	20%
65	35%
66	25%
67-69	20%
70-71	75%
72	100%

Appendix C - Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan. It is not intended to be, nor should it be interpreted as a complete statement of all plan provisions. All eligibility requirements and benefit amounts shall be determined in strict accordance with the plan document itself. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.

Eligibility	All full-time city employees except police, fire and contract employees are eligible at date of hire.
Compensation	Included pay types for pensionable pay are defined in the Omaha City Ordinance and listed in an Appendix of the latest collective bargaining agreements. Certain overtime pay is excluded.
Final Average Compensation (FAC)	Members who were within 5 years of normal retirement as of March 1, 2015: Compensation during the highest 78 of the employee's last 130 pay periods divided by 3. All others: Compensation during the last 130 pay periods divided by 5. The minimum FAC for all employees is the FAC as of February 29, 2015 (Compensation during the highest 26 consecutive of the last 130 pay periods as of February 28, 2015 divided by 5).
Member Contributions	10.13% of Compensation.
Interest on Member Contributions	Members who were hired prior to March 1, 2015: the interest rate on member contributions is set annually for the Board with a minimum of 1% and a maximum of 5%. Members who were hired after March 1, 2015: 4%.
City Contributions	Beginning January 1, 2022 the City contributes 18.83% of each employee's total compensation.
Service	Members receive service for each full pay period of employment. Military service is included if the member returns to work within 90 days of honorable discharge. Service continues to accrue for members receiving disability retirement; however total service will not exceed 30 years unless more than 30 years was earned as an active member prior to disability.
Cost of Living Adjustments	Cost of living adjustments (COLAs) begin five years after benefit commencement for all retirees and beneficiaries who retired prior to January 28, 1998. COLAs are equal to the lesser of 3% or \$50 per month.

Appendix C - Summary of Plan Provisions

Service Retirement Eligibility

Members who were within 5 years of normal retirement as of March 1, 2015: the earliest of

- (a) Age 60 with 5 years of service
- (b) The date at which the sum of a member's age and service is equal to 80 (Rule of 80) with minimum age 50
- (c) Age 55 with 5 years of service; benefits are reduced by 8% per year prior to age 60

Members who were more than 5 but less than 10 years away from normal retirement as of March 1, 2015: the earliest of

- (a) Age 62 with 5 years of service
- (b) The date at which the sum of a member's age and service is equal to 85 (Rule of 85) with minimum age 55
- (c) Age 57 with 5 years of service; benefits are reduced by 8% per year prior to age 62

Members who were hired before March 1, 2015 and were more than 10 years away from normal retirement as of March 1, 2015: the earliest of

- (a) Age 65 with 5 years of service
- (b) The date at which the sum of a member's age and service is equal to 85 (Rule of 85) with minimum age 55
- (c) Age 60 with 5 years of service; benefits are reduced by 8% per year prior to age 65

Members who were hired on or after March 1, 2015: age 55 with 10 years of service

Service Retirement Benefit

Members who were hired prior to March 1, 2015: 2.25% of FAC multiplied by years of service prior to March 1, 2015 plus 1.90% of FAC multiplied by years of service after March 1, 2015.

Members who were hired on or after March 1, 2015: a notional cash balance account is established for each employee equal to the sum of (a) and (b):

- (a) Interest credits and dividends: On the last day of each plan year, each cash balance account shall receive an interest credit equal to 4.0% of the balance at the beginning of the plan year. Additionally, each account may be credited with a dividend of 75% of the System's investment return in excess of 7.0% on a rolling 5-year market value basis. This dividend is capped at 3.0%. There is no dividend cap after January 1, 2020.
- (b) Pay credits are credited at the end of each plan year as follows:

Service	Percent
Less than 8	13%
8 - 15	14%
16 - 23	15%
24 and more	16%

A member may receive benefit payments from their cash balance account as a single life annuity, life annuity with 10 or 15 years certain, or 50%, 75% or 100% Joint and Survivor annuity; the annuity conversion factor is based on 5% interest and the RP 2000 Mortality Table projected to 2034 using Scale AA with a 67%/33% male/female blend.

Appendix C - Summary of Plan Provisions

Non-Service Disability	<p>Members are eligible after 5 years of service.</p> <p>The benefit is 1.50% of FAC multiplied by years of service. This benefit is reduced for Social Security disability retirement benefits. This benefit is payable until age 65, at which point the service retirement pension starts. Service credits accrue while receiving a disability pension.</p>
Service-Related Disability	<p>Members are eligible after 6 months of service.</p> <p>The benefit is 1.75% of FAC multiplied by years of service. This benefit is reduced for worker's compensation and/or Social Security disability retirement benefits. This benefit is payable until age 65, at which point the service retirement pension starts. Service credits accrue while receiving a disability pension.</p>
Surviving Spouse's Benefit	<p>Members who were hired before March 1, 2015:</p> <p>75% of the member's accrued pension paid to the surviving spouse until death or remarriage if the member had completed 5 years of service or suffered a service-connected death and had completed 6 months of service.</p> <p>If the surviving spouse was married to the member for at least one year, and the member was eligible for retirement or retired on their date of death, the surviving spouse is eligible to receive 75% of the benefit that the member was receiving or entitled to receive. All spousal benefits cease upon remarriage.</p> <p>Members who were hired on or after March 1, 2015:</p> <p>For death of a member prior to retirement a lump sum of the member's cash balance account will be paid to the surviving spouse if the member had completed 5 years of service or suffered a service-connected death and had completed 6 months of service. If the member had completed fewer than 5 years of service the surviving spouse will receive a lump sum equal to the member's contributions with 4.0% interest. For death of a member post retirement, the spouse's benefit depends on the optional form of payment elected.</p>
Lump Sum Death Benefits	<p>\$5,000</p> <p>The beneficiary of an active or retired member without eligible dependents will also receive the accumulated member's contributions less any previous pension payments made.</p>

Appendix C - Summary of Plan Provisions

Children's Benefit

Members who were hired before March 1, 2015:

Dependent Children	% of Accrued Benefit*	* until age 18
1	5%	
2	10%	
3	15%	
4 or more	20%	

If the member was eligible for retirement on their date of death and there is no eligible surviving spouse, surviving children (in total) are also eligible to receive 75% of the benefit that the member was receiving or entitled to receive until age 18.

Members who were hired on or after March 1, 2015:

For death of a member prior to retirement a lump sum of the member's cash balance account will be paid to member's surviving children if the member had completed 5 years of service or suffered a service-connected death and had completed 6 months of service and there is no eligible surviving spouse. If the member had completed fewer than 5 years of service the children will receive a lump sum equal to the member's contributions with 4.0% interest.

Vesting

5 Years

Termination Benefit

Members who were hired before March 1, 2015:

A member who severs employment with less than 5 years of service will receive a refund of the employee's employee contributions with interest.

A member who severs employment with more than 5 years of service but prior to service retirement eligibility may elect a deferred retirement, reduced for early retirement if applicable.

Members who were hired on or after March 1, 2015:

A member who severs employment with less than 5 years of service will receive a refund of the employee's employee contributions with 4.0% interest.

A member who severs employment with more than 5 years of service but prior to service retirement eligibility may elect a deferred retirement.

Appendix D - Risk Disclosure - Introduction

The results of this actuarial valuation are based on one set of reasonable assumptions. However, it is almost certain that future experience will not exactly match these assumptions. As an example, the plan's investments may perform better or worse than assumed in any single year and over any longer time horizon. It is therefore important to consider the potential impacts of these likely differences when making decisions that may affect the future financial health of the plan, or of the plan's members.

In addition, as plans mature they accumulate larger pools of assets and liabilities. The increase in size in turn increases the potential magnitude of adverse experience. As an example, the dollar impact of a 10% investment loss on a plan with \$1 billion in assets and liabilities is much greater than the dollar impact for a plan with \$1 million in assets and liabilities. Since pension plans make long-term promises and rely on long-term funding, it is important to consider how mature the plan is today, and how mature it may become in the future.

Actuarial Standard of Practice No. 51 (ASOP 51) directs actuaries to provide pension plan sponsors with information concerning the risks associated with the plan:

- Identify risks that may be significant to the plan.
- Assess the risks identified as significant to the plan. The assessment does not need to include numerical calculations.
- Disclose plan maturity measures and historical information that are significant to understanding the plan's risks.

This section of the report uses the framework of ASOP 51 to communicate important information about significant risks to the plan, the plan's maturity, and relevant historical plan data.

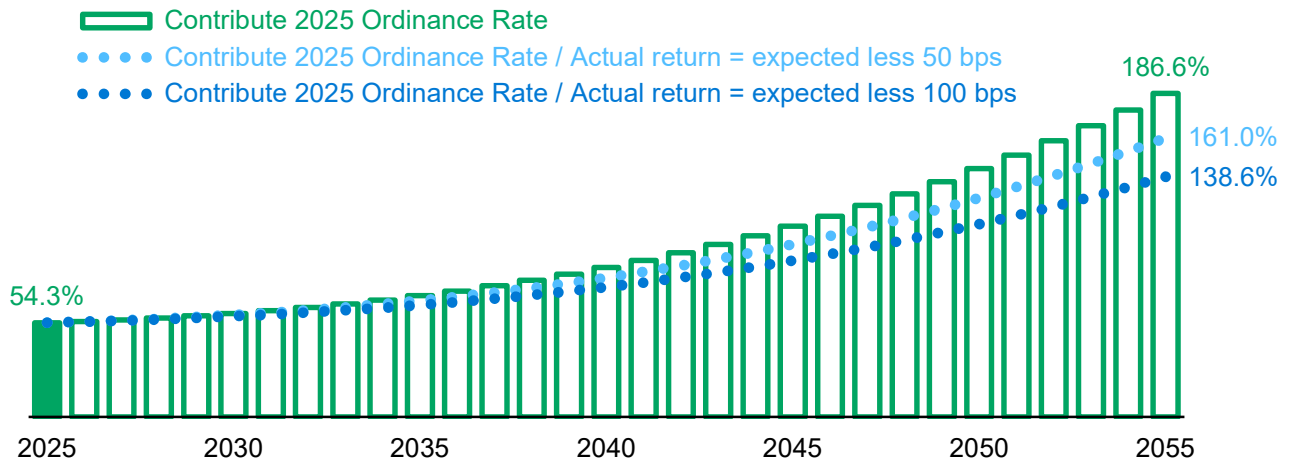
Please see Appendix A for more information on the basis for the projected results shown on the following pages.

Appendix D - Risk Disclosure - Identification and Assessment

Investment Risk

Definition: This is the potential that investment returns will be different than expected.

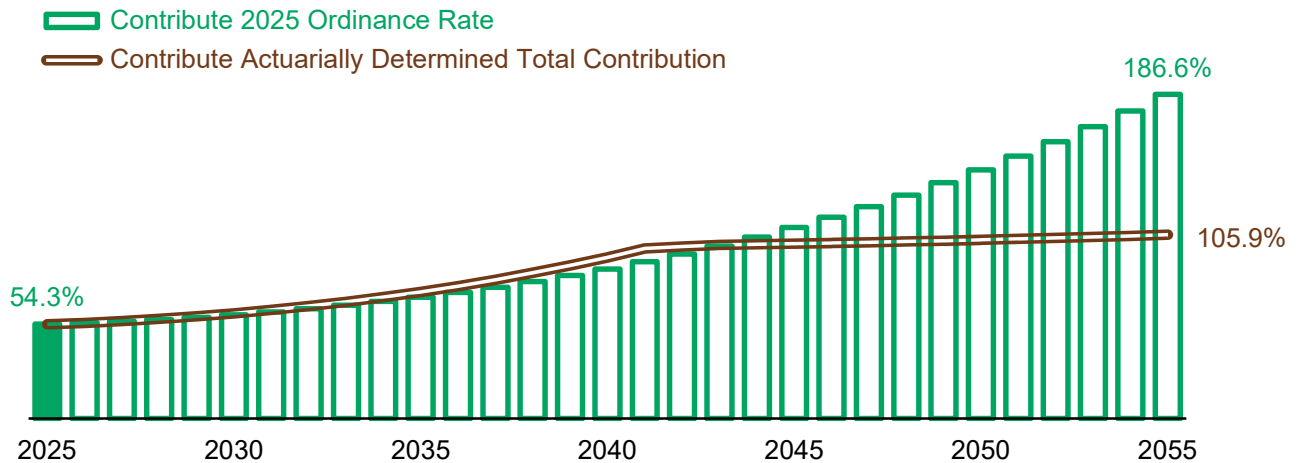
Identification: To the extent that actual investment returns differ from the assumed investment return, the plan's future assets, Actuarially Determined Employer Contributions, and funded status may differ significantly from those presented in this valuation. The consequences of persistent underperformance on future funded ratio levels are illustrated below:



Contribution Risk

Definition: This is the potential that actual future contributions will be less than the Actuarially Determined Employer Contribution.

Identification: Over the past 11 years, actual City contributions (in dollars) have been 95.0% of the Actuarially Determined Employer Contribution in total. The consequences of contributing an amount different than the Actuarially Determined Contribution on future funded ratio levels are illustrated below:



Appendix D - Risk Disclosure - Identification and Assessment

Liquidity Risk

Definition: This is the potential that assets must be liquidated at a loss earlier than planned in order to pay for the plan's benefits and operating costs. This risk is heightened for plans with negative cash flows, in which contributions are not sufficient to cover benefit payments plus expenses.

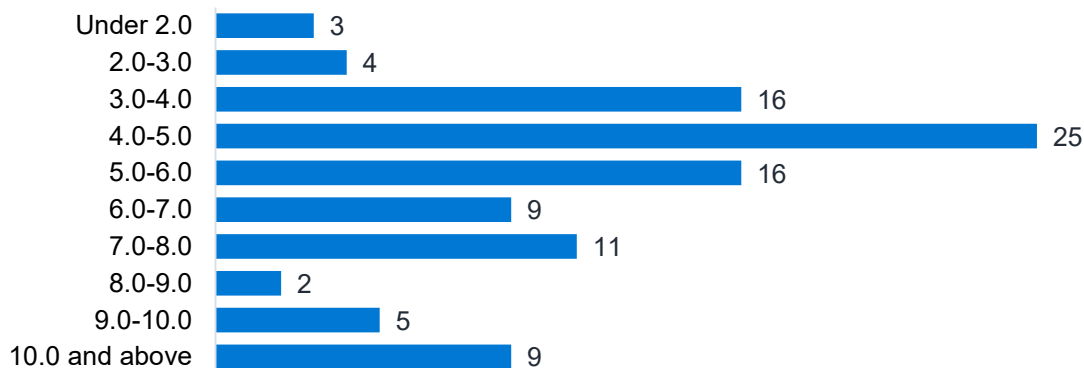
Identification: In 2024, the plan had negative cash flow, with city contributions and member contributions to the plan of \$29,867,276 compared to \$39,668,723 of benefit payments paid out of the plan. We suggest that you consult with your investment advisors with respect to the liquidity characteristics of the plan's investment holdings.

Maturity Risk

Definition: This is the potential for total plan liabilities to become more heavily weighted toward inactive liabilities over time, and for plan assets and/or liabilities to become larger relative to the liability for active members.

Identification: The plan is subject to maturity risk because as plan assets and liabilities continue to grow, the dollar impact of any gains or losses on the assets or liabilities also becomes larger.

Assessment: As of January 1, 2025, the plan's Asset Volatility Ratio (the ratio of the market value of plan assets to payroll) is 2.6. According to Milliman's 2024 Public Pension Funding Study, the 100 largest US public pension plans have the following range of Asset Volatility Ratios:



Inflation Risk

Definition: This is the potential for a pension to lose purchasing power over time due to inflation.

Identification: The members of pension plans without fully inflation-indexed benefits are subject to the risk that their purchasing power will be reduced over time due to inflation.

Assessment: This plan provides for some postretirement benefit increases, but the increases are not directly tied to each year's rate of actual inflation; this leaves members bearing some inflation risk.

Appendix D - Risk Disclosure - Identification and Assessment

Insolvency Risk

Definition: This is the potential that a plan will become insolvent; that is, assets will be fully depleted.

Identification: If a plan becomes insolvent, contractually required benefits must be paid from the plan sponsor's other remaining assets.

Assessment: Under the GASB 68 depletion date methodology, the plan is not projected to become insolvent. Please see the GASB 68 report for more details on the underlying analysis.

Demographic Risks

Definition: This is the potential that mortality, turnover, retirement, or other demographic experience will be different than expected.

Identification: The pension liabilities reported herein have been calculated by assuming that members will follow patterns of demographic experience as described in Appendix B. If actual demographic experience or future demographic assumptions are different from what is assumed to occur in this valuation, future pension liabilities, Actuarially Determined Employer Contribution, and funded status may differ significantly from those presented in valuation. Formal Experience Studies performed on a regular basis are helpful in ensuring that the demographic assumptions reflect emerging plan experience.

Retirement Risk

Definition: This is the potential for members to retire and receive subsidized benefits that are more valuable than expected.

Identification: This plan permits members with long service to retire at relatively young ages. If members retire at earlier ages than are anticipated by the actuarial assumptions, this will put upward pressure on subsequent Actuarially Determined Contributions.

Pensionable Earnings Risk

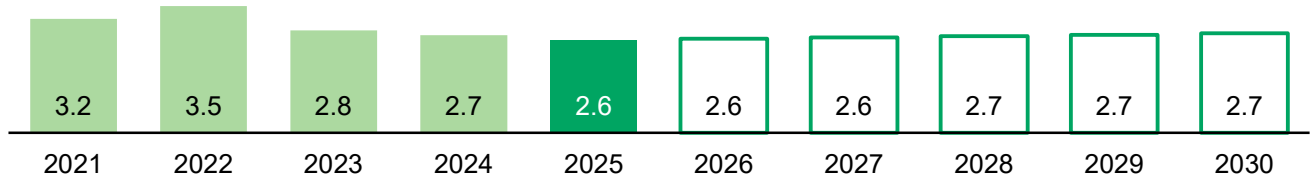
Definition: This is the potential for active members to add items to their pensionable earnings and receive pension benefits that are higher than expected.

Identification: This plan allows for some overtime pay for some members to be included in pensionable earnings. If members retire with higher pensionable earnings than are anticipated by the actuarial assumptions, this will put upward pressure on subsequent Actuarially Determined Contributions.

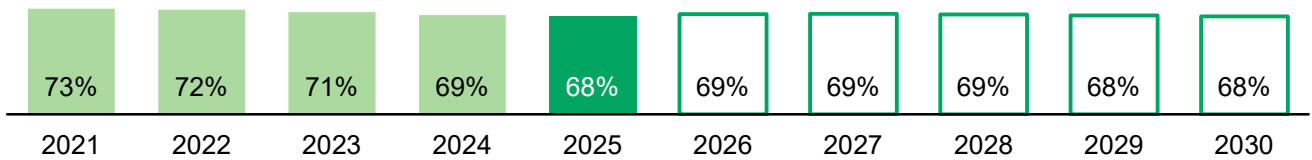
Appendix D - Risk Disclosure - Maturity Metrics

The metrics presented below are different ways of understanding the plan's maturity level, both in the past and as it is expected to change in the coming years.

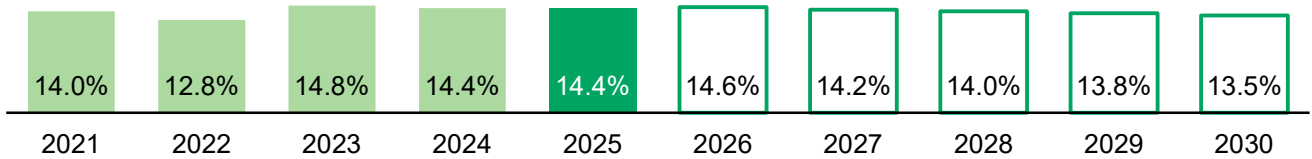
Asset Volatility Ratio: Market Value of Assets compared to Payroll



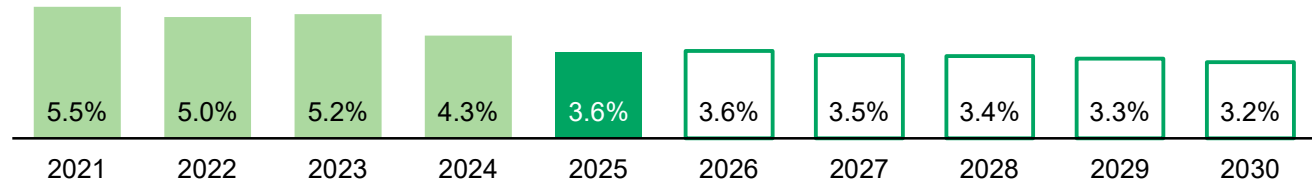
Accrued Liability for Members in Pay Status compared to total Accrued Liability



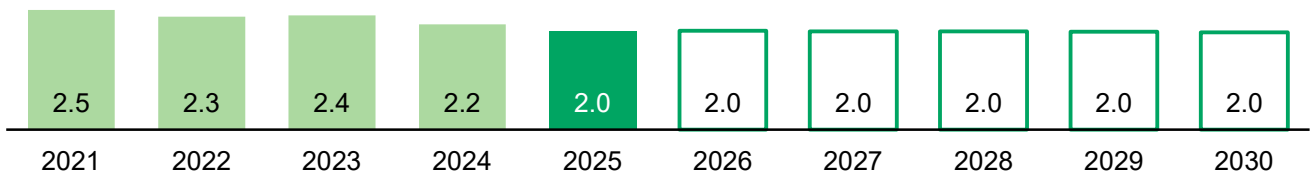
Benefit Payments compared to Market Value of Assets



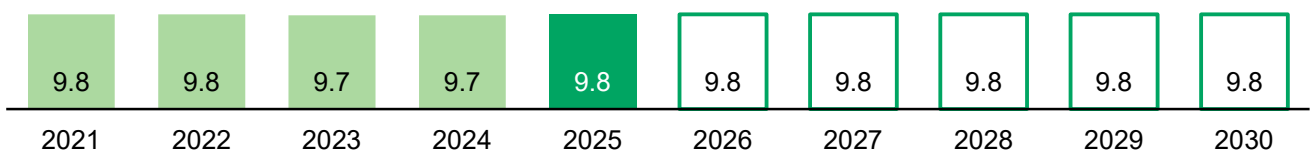
Net Cash Flows compared to Market Value of Assets



Benefit Payments compared to City Contributions



Duration of Accrued Liability (based on GASB 68 sensitivity disclosures)



Appendix E - Glossary

Actuarial Cost Method	This is a procedure for determining the Actuarial Present Value of Benefits and allocating it to time periods to produce the Accrued Liability and the Normal Cost.
Accrued Liability	This is the portion of the Actuarial Present Value of Benefits attributable to periods prior to the valuation date by the Actuarial Cost Method (i.e., that portion not provided by future Normal Costs).
Actuarial Assumptions	With any valuation of future benefits, assumptions of anticipated future events are required. If actual events differ from the assumptions made, the actual cost of the plan will vary as well. Some examples of key assumptions include the interest rate, salary scale, and rates of mortality, turnover and retirement.
Actuarial Present Value of Benefits	This is the present value, as of the valuation date, of future payments for benefits and expenses under the Plan, where each payment is: a) multiplied by the probability of the event occurring on which the payment is conditioned, such as the probability of survival, death, disability, termination of employment, etc.; and b) discounted at the assumed interest rate.
Actuarial Value of Assets	This is the value of cash, investments and other property belonging to the plan, typically adjusted to recognize investment gains or losses over a period of years to dampen the impact of market volatility on the Actuarially Determined Employer Contribution.
Attribution Period	The period of an active member's service to which the expected benefit obligation for that member is assigned. The beginning of the attribution period is the member's date of hire and costs are spread across all service.
Covered Payroll	This is the total projected pensionable earnings for all active members.
Expected Payroll	This is the total projected pensionable earnings for active members who have not yet reached the age where 100% are assumed to retire.
Interest Rate	This is the long-term expected rate of return on any investments set aside to pay for the benefits. In a financial reporting context (e.g., GASB 68) this is termed the Discount Rate.
Normal Cost	This is the portion of the Actuarial Present Value of Benefits allocated to a valuation year by the Actuarial Cost Method.
Past Service Cost	This is a catch-up payment to fund the Unfunded Accrued Liability over time (generally 10 to 30 years). A closed amortization period is a specific number of years counted from one date and reducing to zero with the passage of time; an open amortization period is one that begins again or is recalculated at each valuation date. Also known as the Amortization Payment.
Return on Plan Assets	This is the actual investment return on plan assets during the fiscal year.
Unfunded Accrued Liability	This is the excess of the Accrued Liability over the Actuarial Value of Assets.

City of Omaha Employees Retirement System 2025 Experience Study

Rebecca A. Sielman, FSA Principal and Consulting Actuary

R. Ryan Falls, FSA Principal and Consulting Actuary

Yelena Pelletier, ASA Consulting Actuary

JULY 16, 2025

Topics

1

Overview of an Experience Study

2

Economic assumptions

3

Demographic assumptions

4

Funding method

5

Impact of proposed changes on valuation results

Experience Study

▪ Objectives

- Bring actuarial assumptions in line with recent experience
- Reflect emerging long-term trends

▪ Scope

- Economic assumptions: inflation, interest rate, cash balance interest crediting rate, pay increases
- Demographic assumptions: mortality, turnover, retirement, disability
- Funding method: cost method, amortization method, asset smoothing method

▪ Sources of data

- Census data from 2020-2024 valuations
- Social Security Administration annual trustees report
- Milliman's Capital Market Assumptions

Topics

1 Overview of an Experience Study

2 Economic assumptions

3 Demographic assumptions

4 Funding method

5 Impact of proposed changes on valuation results

Economic Assumptions - Inflation

Current assumption: 2.50%

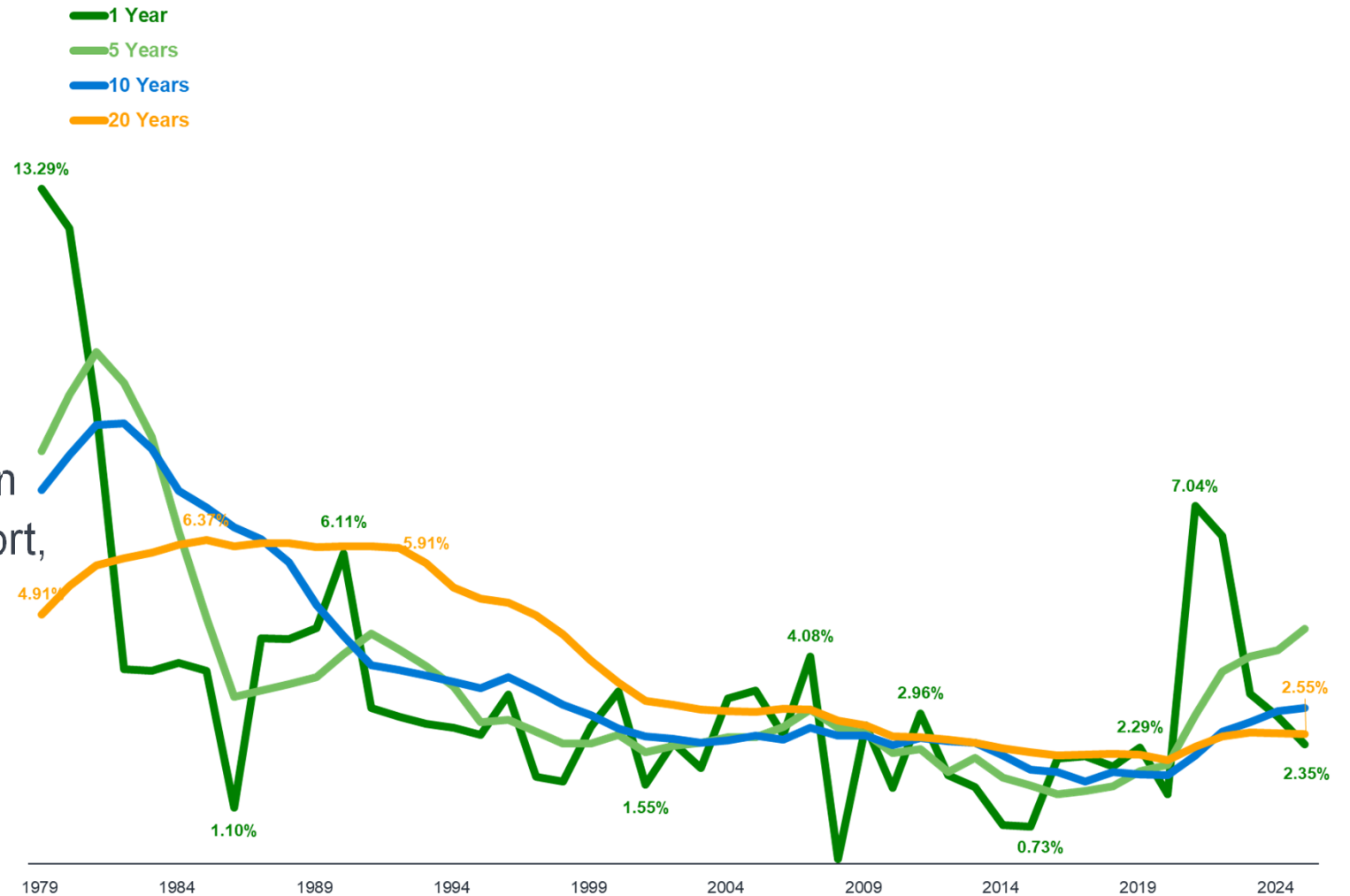
Analysis

The graph at right shows historical CPI-U through 2024; there is a clear pattern of declining inflation over the past 40+ years, with a jump in the last few years.

The Social Security Administration studies long-term inflation trends and projections on an annual basis. In the 2025 Trustees report, the projected annual inflation for 2027 and thereafter under the intermediate cost assumptions was 2.40%.

Proposed assumption: no change

Consumer Price Index - All Urban Consumers (CPI-U)



Economic Assumptions – Interest Rate

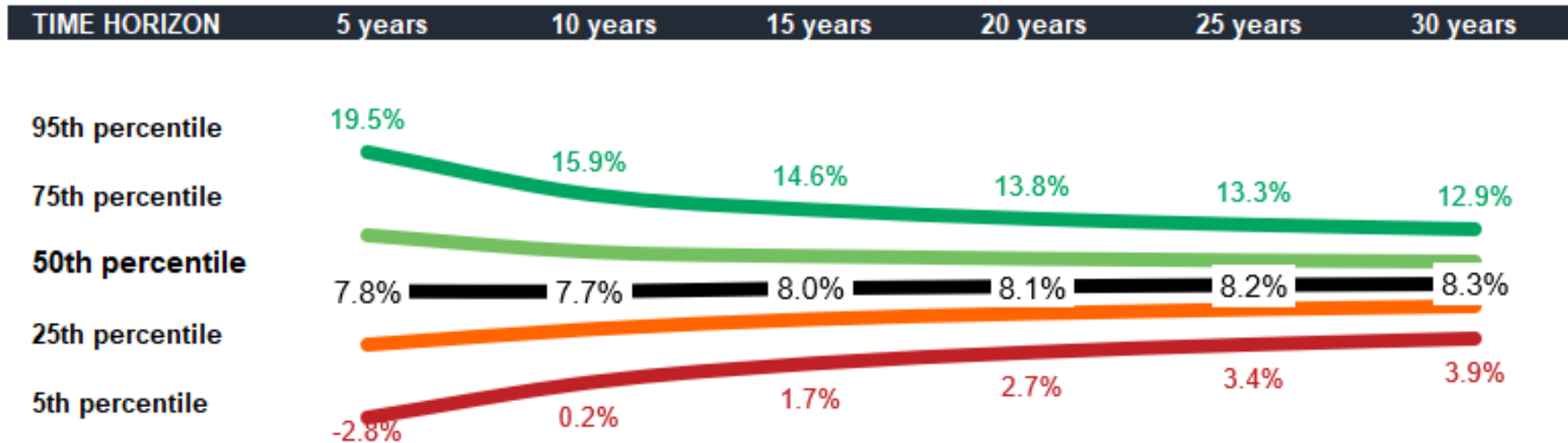
Current assumption: 7.50%

Analysis

Using Milliman’s December 31, 2024 capital market assumptions and the current 2.50% inflation rate, the expected long-term return for the target asset allocation (without margin for manager alpha) is 8.3%.

Proposed assumption: no change

Expected compound annual nominal returns based on System’s target asset allocation, Milliman’s December 31, 2024 Capital Market Assumptions and 2.50% inflation



Economic Assumptions – Cash Balance Interest Crediting Rate

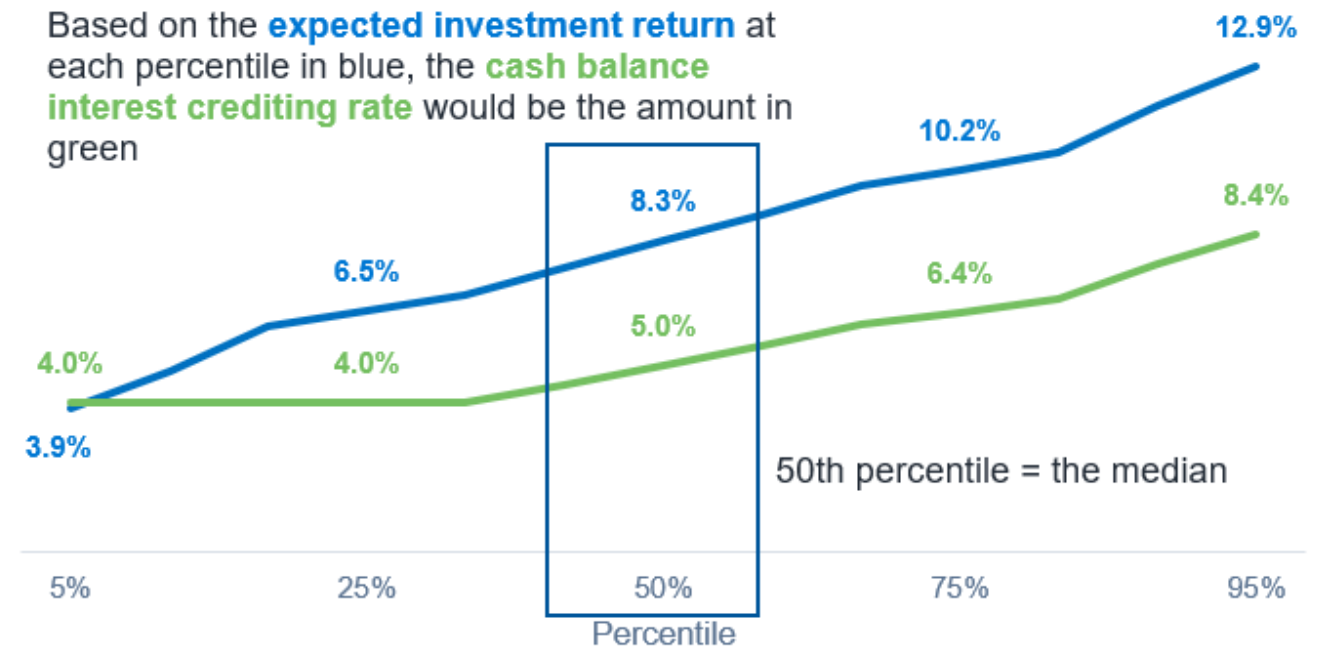
Current assumption: 5.25%

Analysis

On the last day of each plan year, each cash balance account receives an interest credit equal to 4.0% of the balance at the beginning of the plan year. Additionally, each account may be credited with a dividend of 75% of the System's investment return in excess of 7.0% on a rolling 5-year market value basis. Based on the 30-year expected return at the 50th percentile (the “median” return), the interest crediting rate would be 5.0%.

Proposed assumption: no change

Relationship of Investment Return to Interest Crediting Rate



Economic Assumptions – Pay Increases

Current assumption: graded based on service from 9.0% to 3.1%

Analysis

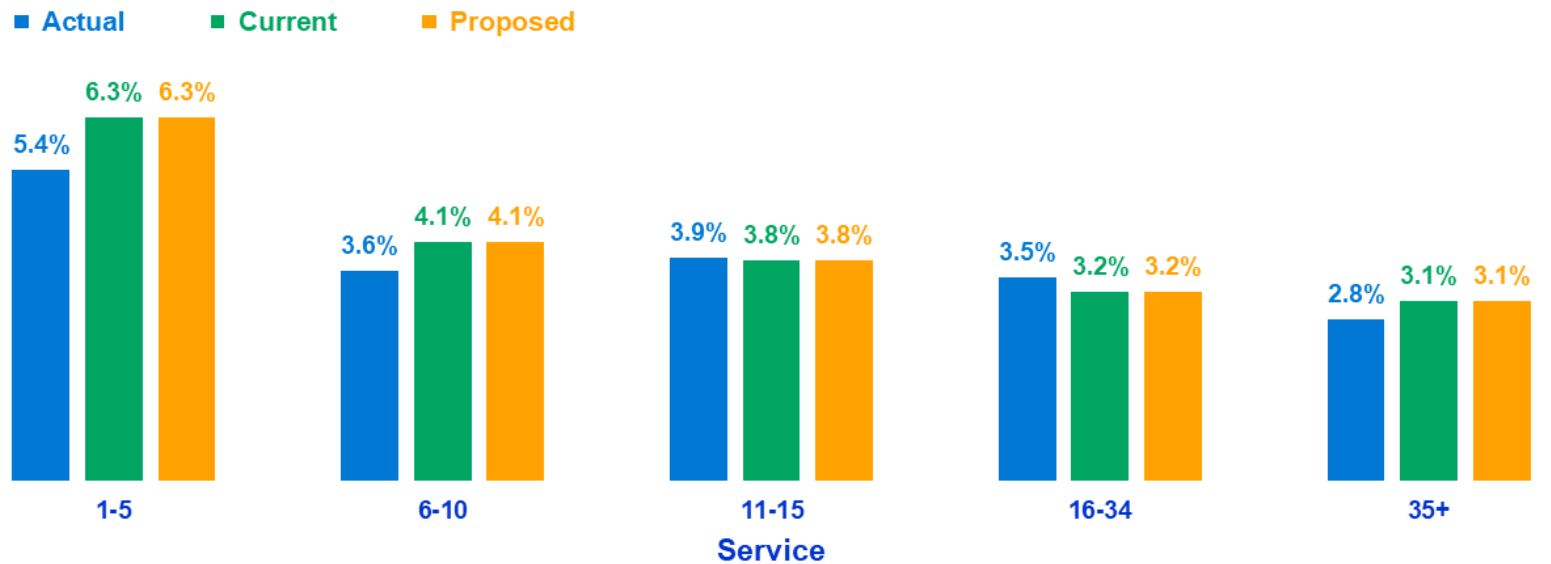
The graph at right shows that actual pay increases have been close to what was anticipated by the current assumptions at most levels of service.

For all service levels* combined, the expected salaries were 99.7% of the actual salaries during the period we studied.

Proposed assumption: no change

*Note: we excluded members with less than one year of service from our analysis because partial earnings in the first year cause distorted results.

Annual pay increases by length of service



Topics

1 Overview of an Experience Study

2 Economic assumptions

3 Demographic assumptions

4 Funding method

5 Impact of proposed changes on valuation results

Demographic Assumptions – Mortality

Current assumption (adopted in 2022):

- Pub-2010 General Mortality Table
- Generational projection of future improvements in longevity using the MP-2021 projection scale
- Employee rates before retirement; healthy or disabled annuitant rates after retirement

Analysis

The System does not have enough members for its mortality experience to be considered “credible”. As a result, we look to large-scale studies of mortality to set this assumption.

The Society of Actuaries recently released the Pub-2016 mortality tables, an update to the Pub-2010 tables which use mortality data solely from public pension plans. The MP-2021 Scale is the latest scale that the Society of Actuaries has released.

The Society is expected to release an updated public plan table every 5 years.

Proposed assumption: Pub-2016 General Mortality Table with MP-2021 projection scale

→ **Very small decrease in Accrued Liability**

Demographic Assumptions – Turnover

Current assumption: decreasing rates based on years of service, different rates for males and females

Analysis

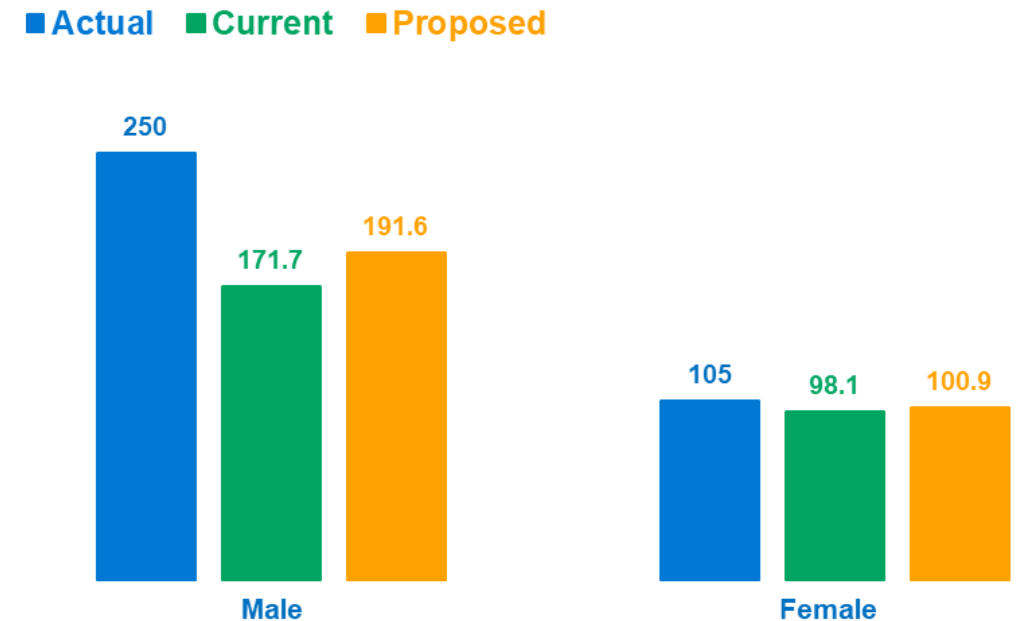
Turnover patterns varied by gender. For males, there were more terminations (250) than expected (171.7), especially in the first 5 years of service. For females, there were slightly more terminations (105) than expected (98.1).

The study period covered the “Great Resignation” during the COVID-19 pandemic, which is likely not representative of future turnover rates.

Proposed assumption: slight increase in termination rates for both males and females

→ Very small decrease in Accrued Liability

Number of terminations by gender



Demographic Assumptions – Retirement

Current assumption: varies by Tier, age and retirement eligibility period with all assumed to retire by age 72

Analysis

We analyzed only members that are in the "within 5 years of normal retirement as of March 1, 2015" or "within 6-10 years" group. There is very little or no retirement experience in the other groups yet. Overall there were fewer retirements (117) than expected (173.9). Retirements were lower than expected at most ages, except for members retiring with a reduced benefit.

We looked at retirement patterns in three different periods: the years in which a member is eligible to retire early with a reduced benefit, the year in which a member is first eligible for an unreduced benefit (where there is typically a spike in retirements), and the years after a member is first eligible for an unreduced benefit.

Proposed assumption: modify the rates for certain age/service combinations

→ Very small decrease in Accrued Liability

Demographic Assumptions – Retirement (continued)

Years when member is eligible for early retirement with a reduced benefit

There were more retirements (22) than expected (15.3) during this period.

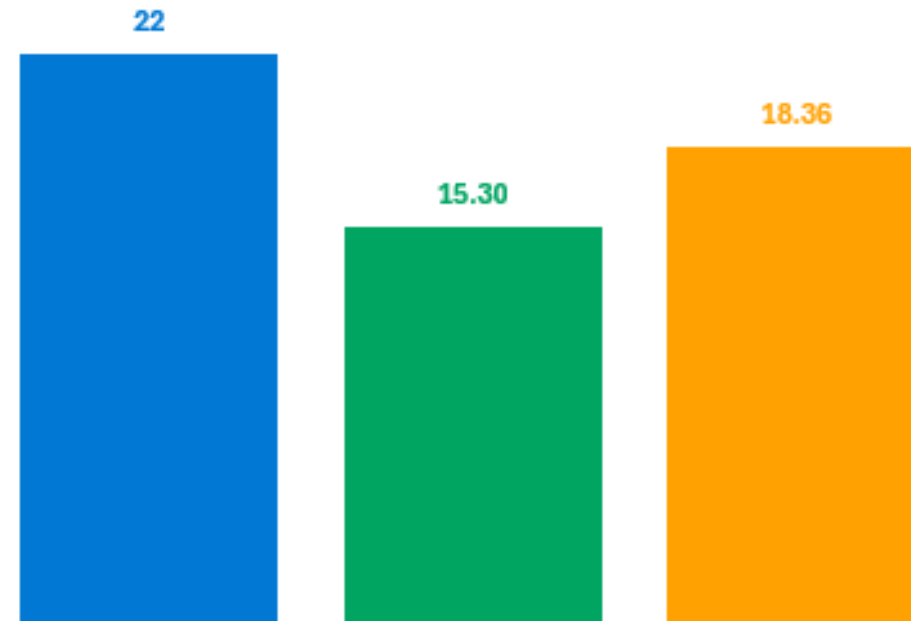
Current: 5.0%

Proposed: 6.0%

Note: this assumption only applies to members hired before 3/1/2015

Number of retirements

■ Actual ■ Current ■ Proposed



Demographic Assumptions – Retirement (continued)

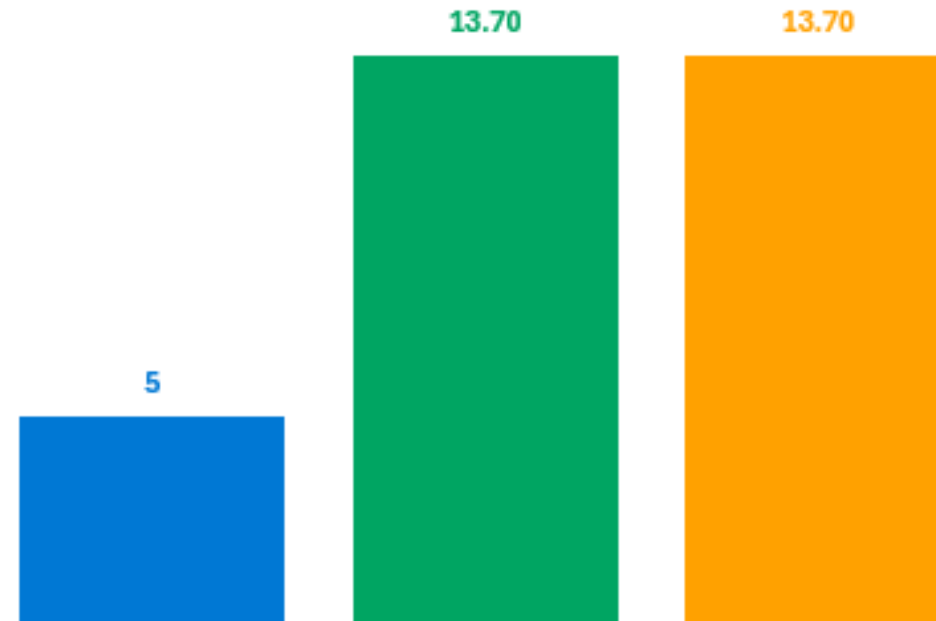
Year in which a member is first eligible for unreduced benefits

There were fewer retirements (5) than expected (13.7). Very few members reached first eligibility during the study period. This is a result of the different retirement eligibility under the two tiers (those within 5 years as of 3/1/2015 are now past first eligibility and the next tier is just starting to reach eligibility)

Proposed assumption: no change

Number of retirements

■ Actual ■ Current ■ Proposed



Note: The current and proposed rates above are for members who were within 5 years of unreduced retirement eligibility as of 3/1/2015. We propose the same adjustments to the assumptions for the other groups of members hired before 3/1/2015. There is no separate assumption for the year in which a member is first eligible for unreduced benefits for members hired after 3/1/2015 and we propose no change to that assumption.

Demographic Assumptions – Retirement (continued)

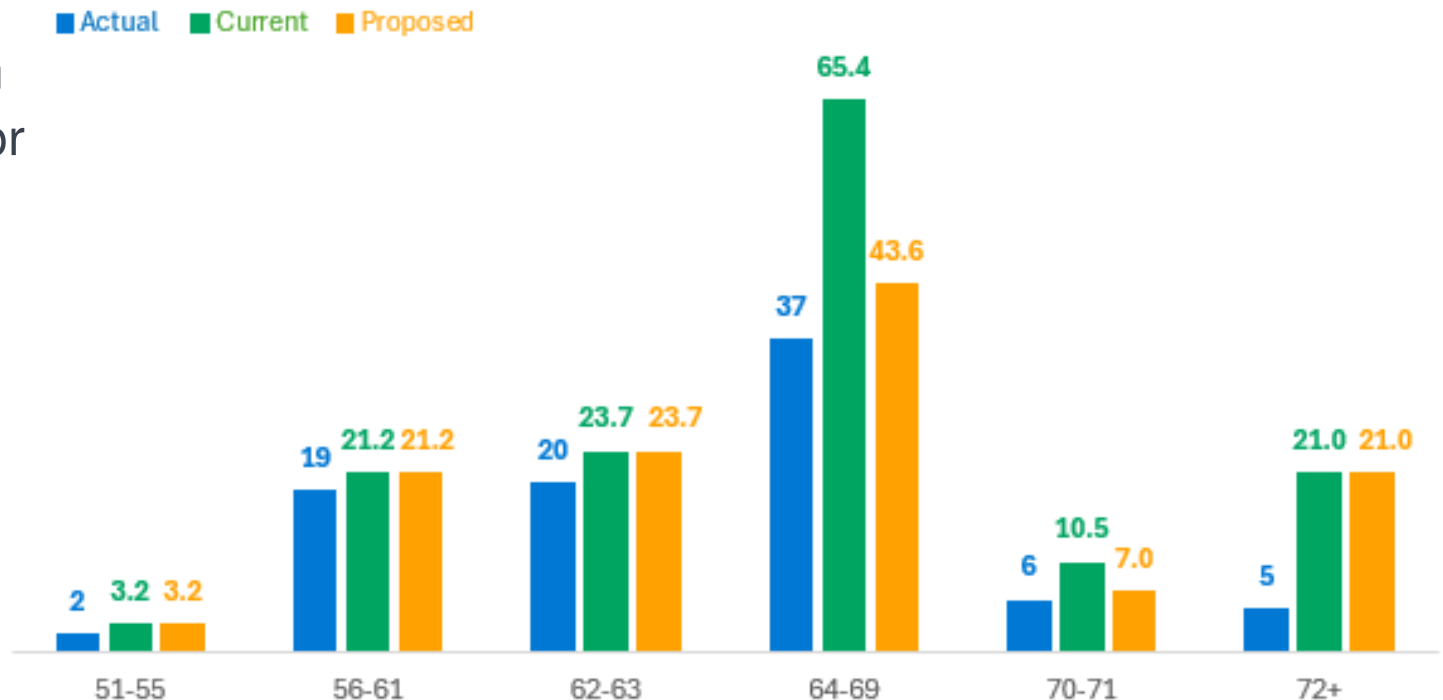
Years after a member is first eligible for unreduced benefits

Overall, there were fewer retirements (89) than expected (144.9). This was most pronounced for members aged 64-71 (43 actual vs. 75.9 expected).

Proposed assumption: decrease rates for this age group

Age	Current	Proposed
55-61	20%	20%
62	25%	25%
63	20%	20%
64-69	30%	20%
70-71	75%	50%
72	100%	100%

Number of retirements



Note: The current and proposed rates above are for members who were within 5 years of unreduced retirement eligibility as of 3/1/2015. We propose the same adjustments to the assumptions for the other groups of members hired before 3/1/2015. For those hired or on or after 3/1/2015, we propose no change to the current assumption.

Demographic Assumptions – Disability

Current assumption: various rates starting at 0.11% at age 20 and increasing by to 1.48% at age 60

Analysis

The data is thin for this group. There were no disability retirements during the study period.

Proposed assumption: no change

Topics

1 Overview of an Experience Study

2 Economic assumptions

3 Demographic assumptions

4 **Funding method**

5 Impact of proposed changes on valuation results

Funding Method – Cost Method

Current method: Entry Age Normal

Analysis

Entry Age Normal is the most common method used by public pension funds for analyzing the funding of the plan and is the method prescribed by GASB 67/68 for financial reporting purposes,

Entry Age Normal provides a stable progression of costs over a member's working lifetime.

Proposed method: no change

Funding Method – Amortization Method

Current method: level percent with layered 20 year bases

Analysis

Level percent amortization means that the annual amortization payment is expected to increase at a predictable rate (3.0%).

Layered bases means that a new amortization base is established each year for the actuarial gains or losses that emerged since the last valuation.

The amortization period is 20 years; this period is reasonable given the demographic profile of the plan's active membership.

Proposed method: no change

Funding Method – Asset Smoothing Method

Current method: four year asymptotic smoothing with a +/- 20% corridor

Analysis

Five years is the predominant period for asset smoothing and provides a nice balance between dampening market fluctuations while not straying too far from market value. Four years provides somewhat less smoothing. Consideration should be given to lengthening the smoothing period to five years.

“Asymptotic” smoothing means that each year the actuarial value moves 25% of the way towards the market value. A market gain or loss in any given year is therefore recognized 25% in the first year, 18.75% in the second year, 14.06% in the third year, and so on in increasingly small amounts each year. This approach provides good smoothing but can be difficult for stakeholders to understand. Consideration should be given to moving to “non-asymptotic” smoothing.

A 20% corridor means that the actuarial value of assets can never stray more than 20% away from the market value of assets. This is the predominant corridor for plans that use one.

Proposed method: No change

Topics

1 Overview of an Experience Study

2 Economic assumptions

3 Demographic assumptions

4 Funding method

5 Impact of proposed changes on valuation results

Impact of Proposed Changes Based on January 1, 2024 Valuation

	Baseline	Proposed Changes
Accrued Liability	\$522,602,768	\$519,420,035
Actuarial Value of Assets	281,951,725	281,951,725
Unfunded Accrued Liability	240,651,043	237,468,310
Funded Ratio	54.0%	54.3%
Total Normal Cost Rate	10.088%	10.071%
UAL Amortization Rate	<u>20.049%</u>	<u>19.808%</u>
Actuarially Determined Total Contribution Rate	30.137%	29.879%
Employee Contribution Rate	<u>-10.130%</u>	<u>-10.130%</u>
Actuarially Determined Employer Contribution Rate	20.007%	19.749%
City Ordinance Contribution Rate	18.830%	18.830%
Contribution Rate (Shortfall)/Margin	-1.177%	-0.919%



This work product was prepared solely for the City and the System for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

Summary of Proposed Changes

Current Assumption

Mortality **PubG-2010** Mortality Table with generational projection per the MP-2021 scale, with employee rates before benefit commencement and healthy, disabled and contingent annuitant rates after benefit commencement. This assumption includes a margin for mortality improvement beyond the valuation date.

Proposed Assumption

PubG-2016 Mortality Table with generational projection per the MP-2021 scale, with employee rates before benefit commencement and healthy, disabled and contingent annuitant rates after benefit commencement. This assumption includes a margin for mortality improvement beyond the valuation date.

Termination	Current Assumption			Proposed Assumption		
	Service	Male	Female	Service	Male	Female
0	11.00%	12.00%	12.00%	9	4.00%	4.50%
1	10.00%	12.00%	12.00%	10	3.75%	4.30%
2	8.25%	12.00%	12.00%	11	3.50%	4.00%
3	7.25%	10.50%	12.00%	12	3.25%	3.80%
4	6.25%	9.00%	12.00%	13	3.00%	3.50%
5	5.50%	8.00%	12.00%	14	2.75%	3.00%
6	5.00%	7.00%	12.00%	15	2.50%	2.50%
7	4.50%	6.00%	12.00%	16	2.25%	2.00%
8	4.25%	5.00%	12.00%	17+	2.00%	2.00%

Summary of Proposed Changes

Retirement

Active members who were within 5 years of Unreduced Retirement Eligibility as of March 1, 2015

Members eligible for Unreduced Retirement:

<u>Current Assumptions</u>		
Age	1st Year	Subsequent Years
50-53	35%	25%
54-55	40%	20%
56-58	35%	20%
59-60	25%	20%
61	25%	20%
62	25%	25%
63	25%	20%
64	25%	30%
65-69	50%	30%
70-71	75%	75%
72	100%	100%

<u>Proposed Assumptions</u>		
Age	1st Year	Subsequent Years
50-53	35%	25%
54-55	40%	20%
56-58	35%	20%
59-60	25%	20%
61	25%	20%
62	25%	25%
63	25%	20%
64	25%	20%
65-69	50%	20%
70-71	75%	50%
72	100%	100%

Members eligible for Early but not Unreduced Retirement:

5.0% per year from ages 55-59

6.0% per year from ages 55-59

Active members who were within 6-10 years of Unreduced Retirement Eligibility as of March 1, 2015:

Members eligible for Unreduced Retirement:

Age	1st Year	Subsequent Years
55	40%	20%
56-58	35%	20%
59-60	25%	20%
61	25%	20%
62	25%	25%
63	25%	20%
64	25%	30%
65-69	50%	30%
70-71	75%	75%
72	100%	100%

Age	1st Year	Subsequent Years
55	40%	20%
56-58	35%	20%
59-60	25%	20%
61	25%	20%
62	25%	25%
63	25%	20%
64	25%	20%
65-69	50%	20%
70-71	75%	50%
72	100%	100%

Members eligible for Early but not Unreduced Retirement:

5.0% per year from ages 57-61

6.0% per year from ages 57-61



Summary of Proposed Changes

Retirement (continued)

Active members who were more than 10 years from Unreduced Retirement Eligibility as of March 1, 2015: Members eligible for Unreduced Retirement:

<u>Current Assumptions</u>		
Age	1st Year	Subsequent Years
55	40%	20%
56-58	35%	20%
59-60	25%	20%
61	25%	20%
62	25%	25%
63	25%	20%
64	25%	30%
65	50%	30%
66-69	50%	30%
70-71	75%	75%
72	100%	100%

<u>Proposed Assumptions</u>		
Age	1st Year	Subsequent Years
55	40%	20%
56-58	35%	20%
59-60	25%	20%
61	25%	20%
62	25%	25%
63	25%	20%
64	25%	20%
65	50%	20%
66-69	50%	20%
70-71	75%	50%
72	100%	100%

Members eligible for Early but not Unreduced Retirement:

5.0% per year from ages 60-64

6.0% per year from ages 60-64

Active members who were hired on or after March 1, 2015:

Age	Rate
55-59	5%
60-61	7%
62-64	20%
65	35%
66	25%
67-69	20%
70-71	75%
72	100%

Age	Rate
55-59	5%
60-61	7%
62-64	20%
65	20%
66	20%
67-69	20%
70-71	50%
72	100%



Caveats

In preparing this study, we relied without audit on information furnished by the City as of each valuation date from January 1, 2020 through January 1, 2024. This information includes, but is not limited to, plan provisions, employee data, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the study results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. If any data or other information is inaccurate or incomplete, our calculations may need to be revised. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

The calculations reported herein have been made on a basis consistent with our understanding of the plan provisions of The City of Omaha Employees' Retirement System. Furthermore, the calculations were determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations of the American Academy of Actuaries.

The study results were developed using models that use standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice (ASOP). The models, including all input, calculations, and output may not be appropriate for any other purpose.

Milliman's work is prepared solely for the internal business use of the City of Omaha and the City of Omaha Employees Retirement System. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) the City or System may provide a copy of Milliman's work, in its entirety, to their professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the City or System; and (b) the City or System may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs. If this report is distributed to other parties, we request that it be copied in its entirety and distributed along with a copy of the January 1, 2024 actuarial valuation report in its entirety as well, because that document provides background information that is important in understanding the basis for the results contained herein.

Caveats

The cost calculations reported herein have been made on a basis consistent with our understanding of the actuarial methods and assumptions adopted by the City and the System. Additional determinations may be needed for other purposes, such as judging benefit security at plan termination or meeting employer accounting requirements. On the basis of the foregoing, we hereby certify that, to the best of our knowledge, this report is complete and accurate and all costs and liabilities were determined in conformance with generally accepted actuarial principles and practices. We further certify that, in our opinion, each actuarial assumption, method and technique used is reasonable taking into account the experience of the Plan and reasonable expectations or would, in the aggregate, result in a total contribution equivalent to that which would be determined if each such assumption, method, or technique were reasonable. Differences between our projections and actual amounts depend on the extent to which future experience conforms to the assumptions made for this analysis. Actual experience will not conform exactly to the assumptions made for this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Rebecca A. Sielman, FSA, Principal and Consulting Actuary

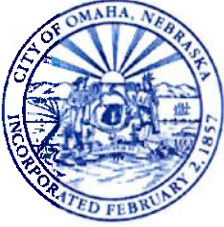
R. Ryan Falls, FSA, Principal and Consulting Actuary

Yelena Pelletier, ASA, Consulting Actuary

Questions?



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City of Omaha
John W. Ewing, Jr. Mayor

October 3, 2025

VIA email to: bballard@leg.ne.gov

Senator Beau Ballard, Chairman
Nebraska Retirement Systems Committee
PO BOX 94604
State Capitol
Lincoln, NE 68509-4604

Dear Senator Ballard:

NEB. REV. STAT. § 13-2402(3) requires a governing entity that offers a defined benefit retirement plan to file a report if the funded ratio of the plan is less than eighty percent. The City of Omaha is submitting this report regarding the City of Omaha Police & Fire Retirement System (COPFRS) because the funded ratio is less than eighty percent.

The City through its negotiations with the public safety bargaining groups has made efforts to address the funding shortfall in COPFRS. Some of those efforts are addressed below. The attached table compares the actuarial data for plan years 2021 through current plan year 2025.

In 2015, the Actuarial Committee of COPFRS elected to change the valuation methodology for the members who were participating or were expected to participate in the Deferred Retirement Option Plan (DROP). Under the methodology, the Entry Age Normal Cost calculation spreads the cost of benefits over the member's entire career. As part of the change in methodology, certain actuarial assumptions related to the DROP were developed. These include the percentage of eligible members assumed to elect to participate in the DROP, the DROP period, and the interest rate assumed to be credited to the DROP account.

As a result of an Experience Study for 2020-2024 which was accepted on July 17, 2025, a number of changes to the actuarial assumptions were adopted by the Board. A copy of the Experience Study is included with this report. The following changes were made to the economic assumptions effective January 1, 2025 actuarial valuation:

- Pay increase (Police) – years 0 to 2 – decreased by 1.7% per year.
- Pay increase (Police) – years 9 to 11 – decreased by 0.5% per year.
- Pay increases (Fire) – years 0 to 3 – increased by 1.4% per year.
- Pay increases (Fire) – years 6 to 8 – decreased by 1.6% per year.

There were also some changes to the Demographic assumptions, the most significant of which was a change to the mortality assumption moving to the Pub-2016 General Mortality Tables with MP-2021 projection scale. For police, there was a slight increase in termination rates for males and females. In addition, for fire there is an increase in termination rates for males and females. A change was made to the Career Overtime Average (COTA) to assume COTA will increase pay at retirement by 12.5% for police and 5% for fire. A change was made to the Career Overtime Average (COTA) to assume COTA will increase pay at retirement by 12.5% for police and 5% for fire.

Finance Department

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Stephen B. Curtiss
Finance Director
Acting City Comptroller

There are numerous circumstances that led to the current underfunding. When the system was fully funded in the late 1990s, benefits were increased and even though the actuarial cost was calculated, the benefits appear to have exceeded those costs. There also have been some years where the investment loss was historically large. During the economic downturn of the early 2000s, there were some additional benefits (compensatory time paid at end of career) negotiated as part of wage and other compensation deferments. It was anticipated that people would take advantage of the additional time off, but many did not, resulting in an increase in the compensation amount upon which a pension was calculated. Another factor had been that wages were not increased at the rate in the actuarial assumptions.

Significant efforts were made to address the funding status of COPFRS starting in 2008. In 2008, then Mayor Mike Fahey established the Bates Commission to examine the issue. The Bates Commission, made up of business leaders, union leaders, and City leaders, made a number of recommendations in their final report. The report was the impetus for collaborative efforts between the City and its public safety unions to address the funding issue in labor negotiations. In an effort to improve the funding status, the City increased contributions and modified pension benefits through labor agreements with the police union in October, 2010 and with the fire union in December, 2012. The changes in contributions and benefits included:

- Changing minimum retirement age from 45 to 50
- Requiring 30 years of service instead of 25 years to get the maximum benefit
- Implementing a Career Overtime Average (COTA) so that employees could not artificially enhance their pension by working a lot of overtime or selling comp time in their last year of employment
- Smoothing the salary on which a pension calculation was based from highest 1 year to highest 3 years
- Pensions for new hires was based only on base salary
- For all groups excluding the police union, capping pension for new hires at 65% and requiring 30 years of service
- Increased City contributions to the system by 13% to 14%

The employees who are part of the COPFRS are from four (4) bargaining groups. The Omaha Police Officer's Association has a Collective Bargaining Agreement for 2021 through 2025. As part of that Collective Bargaining Agreement, the City and the employees agreed to contribute an additional 0.75% of wages into the system from 2021 to 2025. The Agreement also made another prospective change providing that COPFRS is no longer responsible for medical payments for those who receive service connected disability pensions and where those bills are not covered under workers' compensation. Police Management has negotiated a new collective bargaining agreement for 2022 through 2025 which did not include any additional pension contributions.

The City has entered a Collective Bargaining Agreement with the Professional Firefighters' Association for a term of 2024 to 2027. That Agreement did include one change to the pension system. It changed the widow's pension of Tier 3 pension plan participants to match Tier 1 and 2 plan participants. The cost

Senator Beau Ballard

October 3, 2025

Page 3

of this change was actuarially determined to be 0.25% of payroll which cost was divided equally by the City and the Employee through additional contributions of 0.125%. The City has a Collective Bargaining Agreement with the Fire Management group for a term of 2025 through 2027 and did not include any additional pension contributions or any changes to the pension system.

The Trustees of the System and the City believe some of the changes described above are starting to see a positive effect. As of January 1, 2025, the system had market assets of approximately \$1.034 billion and an actuarial value of assets of \$1.072 billion and a funded ratio of 58.2%. The system had a funded ratio of 58.4% in 2024 and a funded ration of 58.0% in 2023. The actuarially determined contribution rate for the system on 01/01/2025 was 54.634% and the total amount being contributed was 51.225%. This contribution shortfall was a decrease from 2024. The unfunded actuarial liability is amortized, as a level percentage of payroll, over a closed 30-year period that began on January 1, 2014.

The most recent projection included in the Actuarial Report effective January 1, 2024 shows the system fully funded in 2050, a decrease from the 2024 projection (2054). As requested, we enclose the most recent Actuarial Experience Study which was approved by COPFRS on July 17, 2025 and the Actuarial Valuation Report effective January 1, 2025.

If you or the Committee should have any questions regarding this report please let me know.

Sincerely,



Stephen B. Curtiss
Finance Director

Enclosures

c: Trevor Fitzgerald, Committee Legal Counsel at tfitzgerald@leg.ne.gov
Bernard J. in den Bosch, Deputy City Attorney

COPFRS EXHIBIT 1

ITEM	2021		2022		2023		2024		2025	
Net Assets (actuarial value)	1/1/21	\$ 849,308,716	1/1/22	\$ 936,545,978	1/1/23	\$ 983,258,448	1/1/24	\$ 1,023,979,490	1/1/25	\$ 1,071,679,215
Unfunded Actuarial Accrued Liability	1/1/21	\$ 693,166,515	1/1/22	\$ 691,081,221	1/1/23	\$ 711,451,034	1/1/24	\$ 728,491,626	1/1/25	\$ 768,714,777
1a Funding Status	1/1/21	55.10%	1/1/22	57.50%	1/1/23	58.00%	1/1/24	58.40%	1/1/25	58.20%
1b Assumed Rate of Return	1/1/21	7.75%	1/1/22	7.75%	1/1/23	7.75%	1/1/24	7.75%	1/1/25	7.75%
1c Actual Investment Return	FYE 12/31/21	22.15%	FYE 12/31/22	-6.55%	FYE 12/31/23	4.87%	FYE 12/31/24	6.83%	FYE 12/31/25	Pending
Normal Cost (\$)	1/1/21	\$ 29,426,766	1/1/22	\$ 28,814,814	1/1/23	\$ 28,235,971	1/1/24	\$ 28,944,849	1/1/25	\$ 32,467,421
1e Normal Cost (%)	1/1/21	21.291%	1/1/22	20.231%	1/1/23	20.110%	1/1/24	19.604%	1/1/25	18.929%
1f Actuarial Rate of Contribution (ARC)	1/1/21	53.874%	1/1/22	52.819%	1/1/23	54.973%	1/1/24	54.691%	1/1/25	54.634%
1d Member Contribution Rate	1/1/21	16.10%-17.15%	1/1/22	16.10%-17.15%	1/1/23	16.10%-17.15%	1/1/24	16.10%-17.15%	1/1/25	16.10%-17.15%
1d Employer Contribution Rate	1/1/21	32.97%-34.42%	1/1/22	32.97%-34.42%	1/1/23	32.97%-34.42%	1/1/24	32.97%-34.42%	1/1/25	32.97%-34.42%
Contribution Margin (Shortfall)	1/1/21	-2.649%	1/1/22	-1.620%	1/1/23	-3.77%	1/1/24	-3.523%	1/1/25	-3.409%
1f Actuarially Determined Contribution	FYE 12/31/21	\$ 55,590,405	FYE 12/31/22	\$ 55,488,305	FYE 12/31/23	\$ 58,266,876	FYE 12/31/24	\$ 60,759,283	FYE 12/31/25	\$ 65,201,805
1g Employer Actual Dollars Contributed	FYE 12/31/21	\$ 52,983,676	FYE 12/31/22	\$ 53,664,911	FYE 12/31/23	\$ 54,279,778	FYE 12/31/24	\$ 59,076,010	FYE 12/31/25	Pending
1g % of ADC by Employer Contribution	FYE 12/31/21	95.31%	FYE 12/31/22	96.71%	FYE 12/31/23	93.16%	FYE 12/31/24	97.23%	FYE 12/31/25	Pending

The City of Omaha Police & Fire Retirement System

Actuarial Valuation as of January 1, 2025
To Determine Funding for Fiscal Year 2025

Prepared by

Rebecca A. Sielman, FSA

Consulting Actuary

R. Ryan Falls, FSA

Consulting Actuary

Yelena Pelletier, ASA

Consulting Actuary



Issued September 15, 2025



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Certification

As part of our engagement with the City of Omaha ("City") and the City of Omaha Police and Fire Retirement System ("System"), we have performed an actuarial valuation of the Plan as of January 1, 2025. Our findings are set forth in this actuary's report. The main purposes of this valuation are to evaluate funding for fiscal year 2025, to review the Plan's experience since the prior valuation, and to assess the funded position of the Plan.

Actuarial computations presented in this report are for the purposes of determining the recommended funding amounts for the Plan. The calculations in this report have been made on a basis consistent with our understanding of the Plan's funding policy and on our understanding of the plan provisions as summarized in this report. Determinations for purposes other than meeting these requirements, such as for financial reporting in accordance with GASB standards, may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

We believe that the measures of funded status contained herein are appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations and for assessing the need for or the amount of future contributions. Note that a Plan's funded status is dependent on the selection of both the actuarial cost method and the asset smoothing method; different measurements would result if, for instance, the Market Value of Assets were used in place of the Actuarial Value of Assets.

Actuarial assumptions, including interest rates, mortality tables, and others identified in this report, and actuarial cost methods are adopted by the City, who is responsible for selecting the Plan's funding policy, actuarial cost methods, asset valuation methods, and actuarial assumptions. The policies, methods, and assumptions used in this valuation are those that have been so adopted and are described in this report. The City is solely responsible for communicating to Milliman any changes thereto. All costs, liabilities, rates of interest, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods which, in our professional opinion, are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated future experience affecting the Plan and are expected to have no significant bias.

This valuation is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, 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 or modifications to contribution calculations based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of future measurements.

Certification (continued)

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the City and the System. This information includes, but is not limited to, benefit provisions, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different, and our calculations may need to be revised. Figures for periods prior to January 1, 2021 have been obtained from actuarial valuation reports prepared by Cavanaugh Macdonald Consulting LLC and from the City's Comprehensive Annual Financial Reports.

Milliman's work is prepared solely for the use and benefit of the City and the System. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) the City may provide a copy of Milliman's work, in its entirety, to the City's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the City; and (b) the City may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

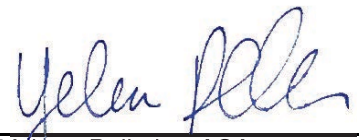
On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the *Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States*, published by the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.



Rebecca A. Sielman, FSA
Consulting Actuary



R. Ryan Falls, FSA
Consulting Actuary



Yelena Pelletier, ASA
Consulting Actuary

i. Summary of Principal Results

Actuarial Valuation Results As Of	January 1, 2024	January 1, 2025
Membership		
Active Members Not In DROP Program	1,371	1,359
Active Members in DROP Program	120	134
Terminated Members	34	26
Members in Pay Status	<u>1,656</u>	<u>1,694</u>
Total Count	3,181	3,213
Assets and Liabilities		
Market Value of Assets	\$984,713,107	\$1,033,195,644
Actuarial Value of Assets	1,023,979,490	1,071,679,215
Accrued Liability for Active Members Not In DROP Program	514,311,781	533,001,676
Accrued Liability for Active Members in DROP Program	156,214,520	177,875,963
Accrued Liability for Terminated Members	4,550,724	4,257,756
Accrued Liability for Members in Pay Status	<u>1,077,394,091</u>	<u>1,125,258,597</u>
Total Accrued Liability	1,752,471,116	1,840,393,992
Unfunded Accrued Liability	728,491,626	768,714,777
Funded Ratio	58.4%	58.2%
Contribution Rate for Fiscal Year		
	2024	2025
Contribution Rate Sufficiency		
Ordinance Employee Contribution Rate	16.564%	16.620%
Ordinance Employer Contribution Rate	33.776%	33.831%
Prior Service Rate	<u>0.828%</u>	<u>0.774%</u>
Total Ordinance Contribution Rate	51.168%	51.225%
Total Normal Cost Rate	19.604%	18.929%
Prior Service Rate	0.828%	0.774%
UAL Amortization Rate	<u>34.259%</u>	<u>34.931%</u>
Actuarially Determined Total Contribution Rate	54.691%	54.634%
Contribution Rate (Shortfall)/Margin	-3.523%	-3.409%
Actuarially Determined Contribution		
Actuarially Determined Total Contribution	\$85,215,486	\$93,709,270
Expected Employee Contributions	<u>(24,456,203)</u>	<u>(28,507,465)</u>
Actuarially Determined Employer Contribution	60,759,283	65,201,805

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ii. Changes Since the Prior Valuation

Plan Experience

From January 1, 2024 to January 1, 2025, the plan's assets earned 6.83% on a Market Value basis and 6.49% on an Actuarial Value basis. The interest rate assumption for this period was 7.75%; the result is an asset loss of about \$9.0 million on a Market Value basis and a loss of about \$12.8 million on an Actuarial Value basis.

From January 1, 2024 to January 1, 2025, the Accrued Liability was expected to grow from \$1.75 billion to \$1.81 billion, based on expected changes in the plan's membership per the actuarial assumptions. Actual changes in the plan's membership during this period resulted in an Accrued Liability as of January 1, 2025 of \$1.82 billion (measured before any changes in the plan provisions or the actuarial methods and assumptions). This difference of \$9.2 million between the expected Accrued Liability and the actual Accrued Liability is termed a 'liability loss'. The primary factors contributing to this liability loss were: (1) a significant loss from salary growth, with larger pay increases than expected; (2) a small loss from mortality, with fewer deaths than expected; and (3) a small loss from retirement experience.

Plan Changes

This valuation reflects two plan provision changes for Fire members: the Joint & Survivor continuation percentage for Tier III members increased from 50% to 90%, and the contribution rates increased from 17.15% to 17.275% for members and from 32.965% to 33.090% for the City. This change caused the Unfunded Accrued Liability to increase by about \$0.4 million and the Actuarially Determined Employer Contribution to increase by about \$0.1 million.

Changes in Actuarial Assumptions

This valuation reflects changes recommended in connection with the recent experience study, including a change from the PubS-2010 Mortality Table to the PubS-2016 Mortality Table, and modifications to the assumed rates of termination, salary increases, and COTA load. For Fire members, we assumed an additional 1% salary increase from 2024 to 2025 based on the actual 2025 wages in the current contract. For Police members, we assumed an additional 2.7% salary increase from 2024 to 2025 and an additional 2.33% increase from 2025 to 2026. The Police increases are based on the actual increases to contract wages for 2025 and the expected increases for 2026 that resulted from Ordinance No. 44254. These changes in combination caused the Unfunded Accrued Liability to increase by about \$19.9 million and the Actuarially Determined Employer Contribution to increase by about \$1.3 million.

Changes in Actuarial Methods

None.

Other Significant Changes

None.

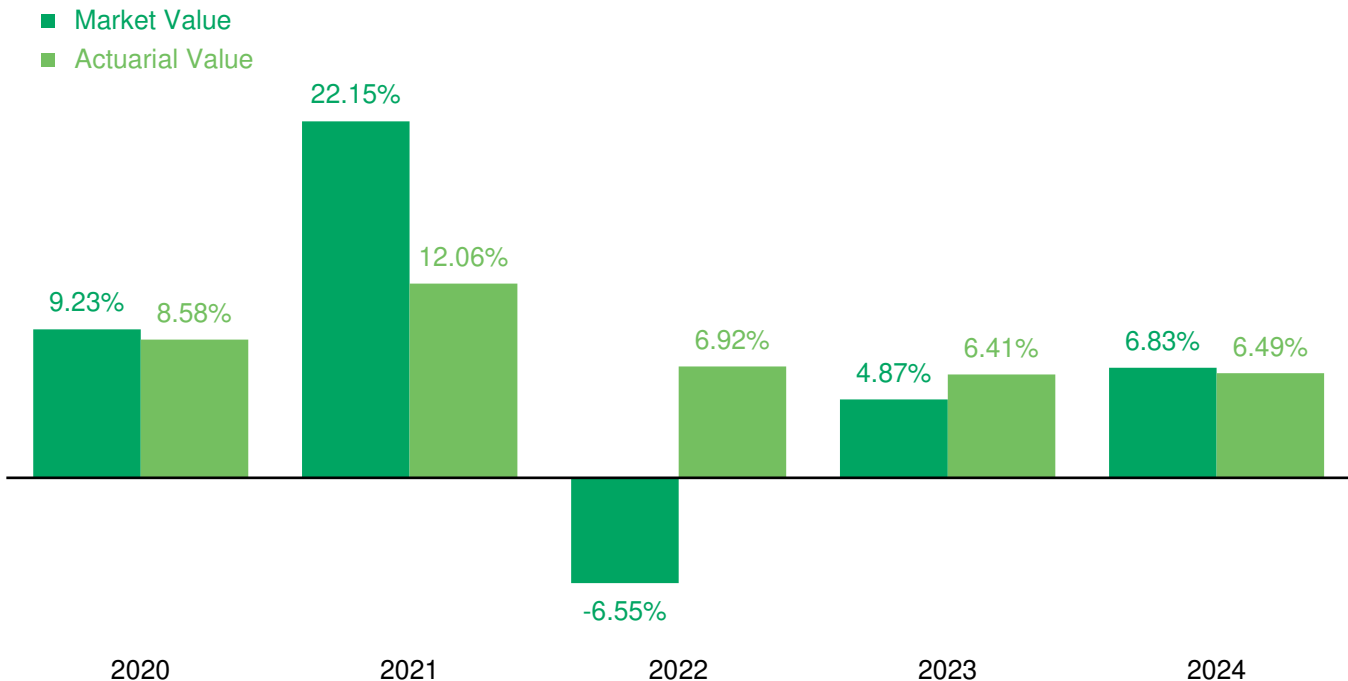
iii. Asset Performance

There are two different measures of the plan's assets that are used throughout this report. The Market Value is a snapshot of the plan's investments as of the valuation date. The Actuarial Value is a smoothed asset value designed to temper the volatile fluctuations in the market by recognizing investment gains or losses asymptotically over four years.

	Market Value	Actuarial Value
Value as of January 1, 2024	\$984,713,107	\$1,023,979,490
City Contributions and Member Contributions	86,337,710	86,337,710
Investment Income	66,623,519	65,840,707
Benefit Payments	(104,478,692)	(104,478,692)
Value as of January 1, 2025	1,033,195,644	1,071,679,215

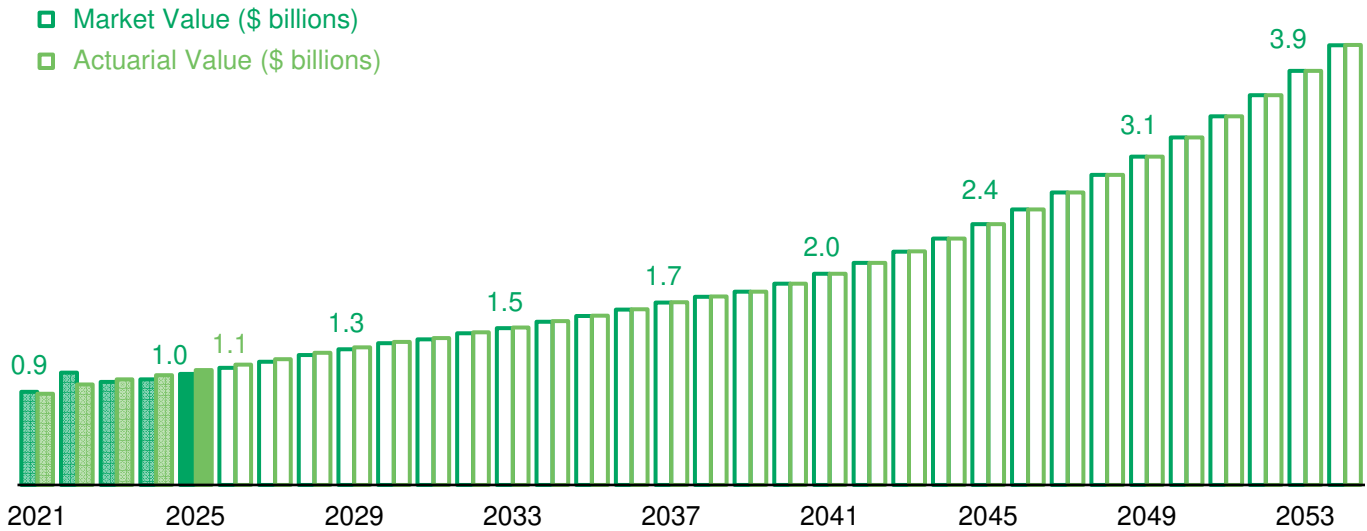
The Actuarial Value currently exceeds the Market Value by \$38.5 million. This figure represents investment losses that will be gradually recognized in future years. This process will exert upward pressure on the City's contribution, unless there are offsetting market gains.

Historical rates of return are shown in the graph below:

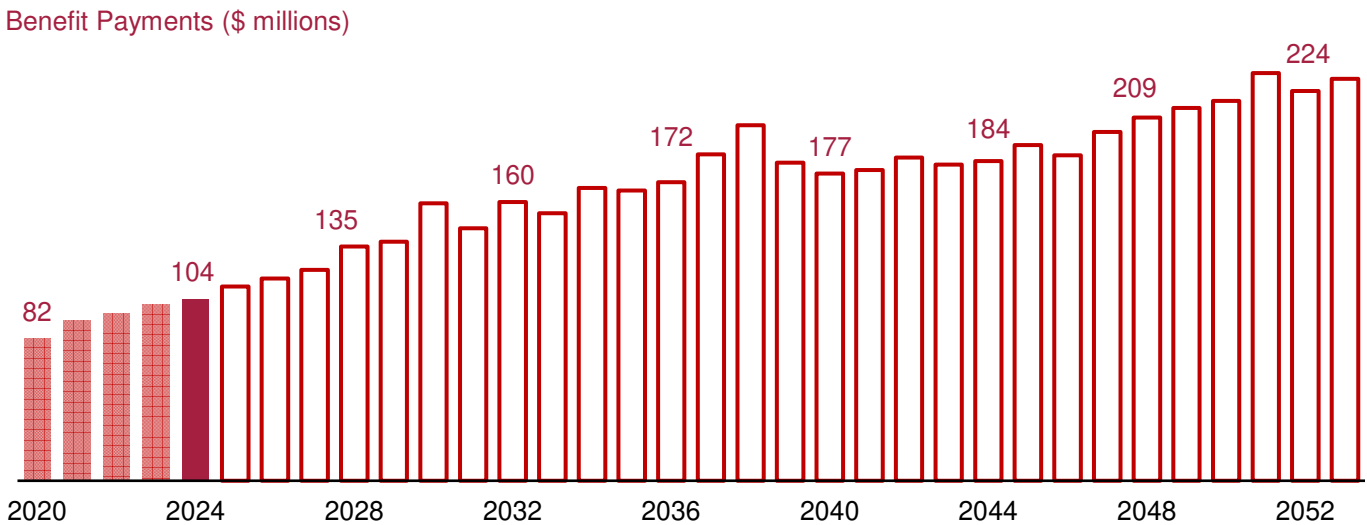


iv. Asset Forecast

The graph below shows how this year's asset values compare to where the plan's assets have been over the past several years and how they are projected to change over the next 30 years. For purposes of this projection, we have assumed that the City always contributes the 2025 City Ordinance Rate and the investments always earn the assumed interest rate each year.



In 2024, the plan paid out \$104.5 million in benefits to members. Over the next 30 years, the plan is projected to pay out a total of \$5.2 billion in benefits to members.

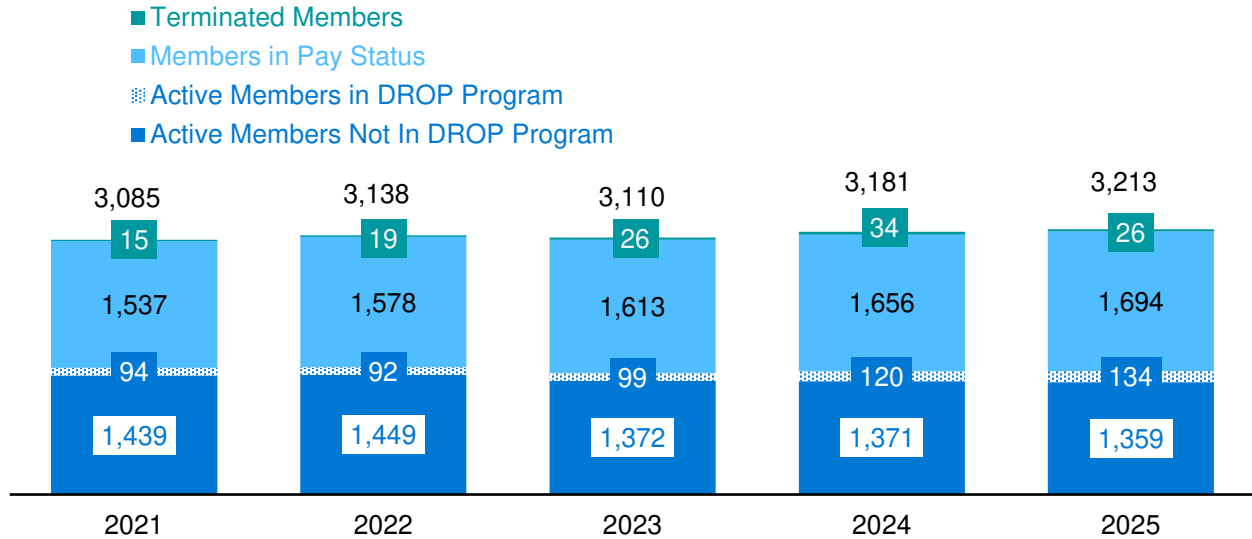


To the extent that there are future investment or liability gains or losses, changes in the actuarial assumptions or methods, or plan changes, the actual valuation results will differ from these forecasts. Please see Appendix A for more details of the long range forecast.

v. Membership

Overview

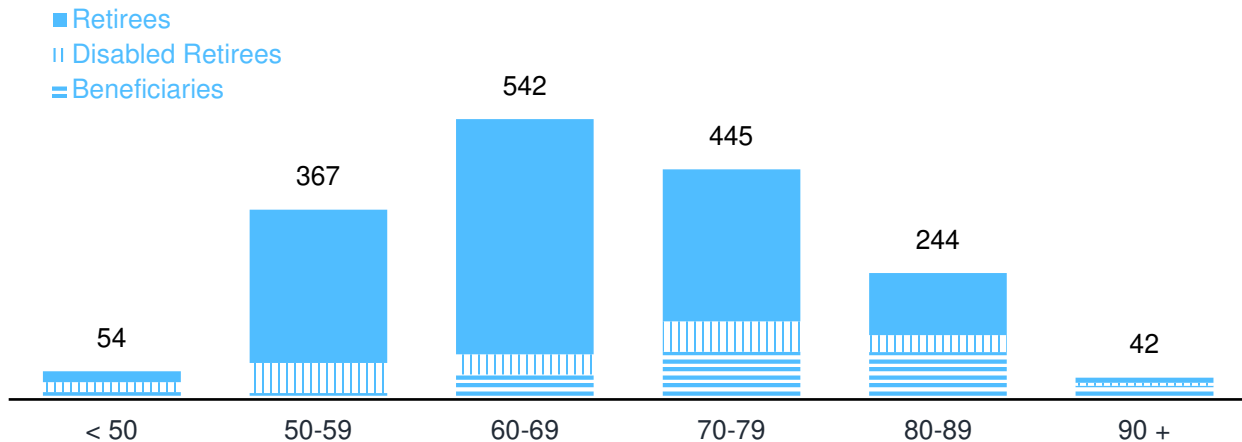
There are four basic categories of plan members included in the valuation: (1) former employees who have a right to benefits but have not yet started collecting, (2) members who are receiving monthly pension benefits, (3) members who have elected to participate in the DROP but have not yet retired, and (4) active employees who have met the eligibility requirements for membership.



Members in Pay Status on January 1, 2025

Retirees	1,197	Average Age	68.4
Disabled Retirees	214	Total Annual Benefit	\$100,037,342
Beneficiaries	283	Average Annual Benefit	59,054
Total	1,694		

The members in pay status fall across a wide distribution of ages:



v. Membership (continued)

Terminated Vested Members on January 1, 2025

Count	11
Average Age	47.4
Total Annual Benefit	\$372,034
Average Annual Benefit	33,821

Nonvested Members Due Refunds on January 1, 2025

Count	15
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Active Members on January 1, 2025

	Police		Fire		Total
	Tier I & II	Tier III	Tier I & II	Tier III	
Count	301	456	308	294	1,359
Average Age	47.2	36.2	47.6	33.4	40.6
Average Service	19.4	6.7	19.0	4.9	11.9
Covered Payroll (\$ millions)	\$40.6	\$48.7	\$39.0	\$27.6	\$155.9
Average Covered Payroll	134,895	106,880	126,604	93,868	114,740

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	50							50
25-29	112	22						134
30-34	88	99	19					206
35-39	51	104	55	38				248
40-44	11	44	49	136	17			257
45-49	6	14	27	96	86	8		237
50-54		13	10	53	86	10		172
55-59		4	1	12	28	2		47
60-64				4	2	2		8
65+								0
Total	318	300	161	339	219	22	0	1,359

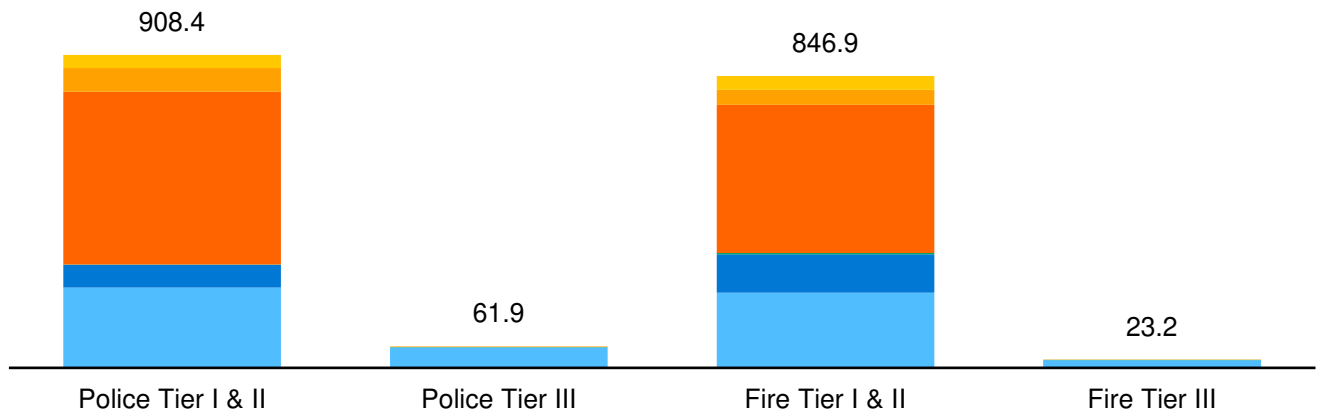
Active Members in DROP Program on January 1, 2025

Count	134
Average Age	54.4
Average Service	27.3
Covered Payroll (\$ millions)	\$15.592
Average Payroll	116,361
Total DROP Account Balance (\$ millions)	\$26.832
Average Account Balance	200,240

vi. Accrued Liability

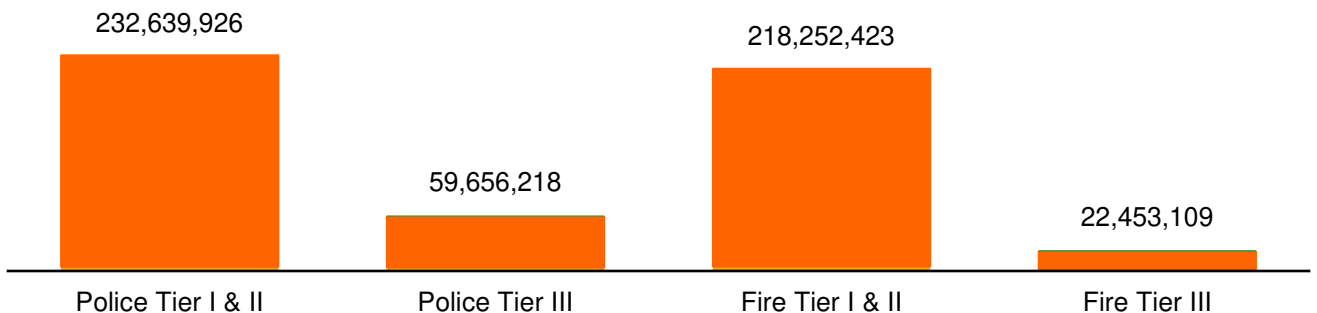
The Accrued Liability as of January 1, 2025 equals \$1,840,393,992, which consists of the following pieces (in \$ millions):

- Beneficiaries = \$78.2 million
- Disabled Retirees = \$115.0 million
- Retirees = \$932.1 million
- Terminated Members = \$4.3 million
- Active Members in DROP Program = \$177.9 million
- Active Members Not In DROP Program = \$533.0 million



The Accrued Liability for active members who are not in the DROP program can be broken down further by the different types of benefits provided by the plan:

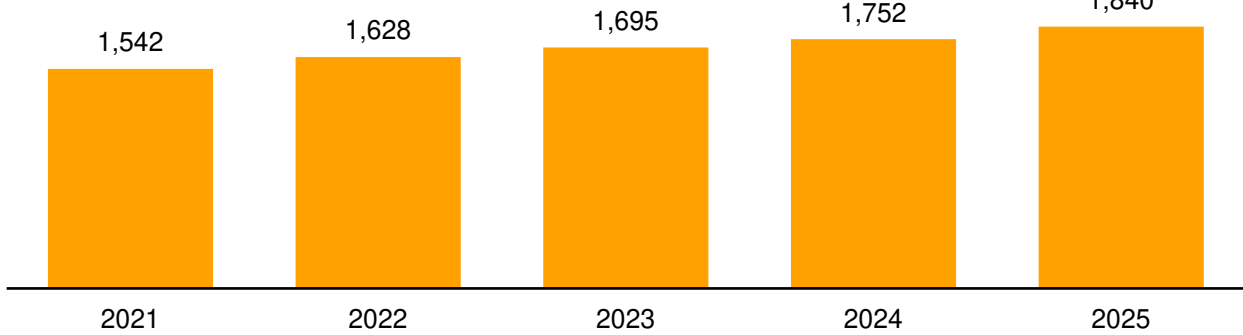
- Preretirement Death = \$1.4 million
- Disability = \$12.5 million
- Retirement = \$518.0 million
- Termination = \$1.1 million



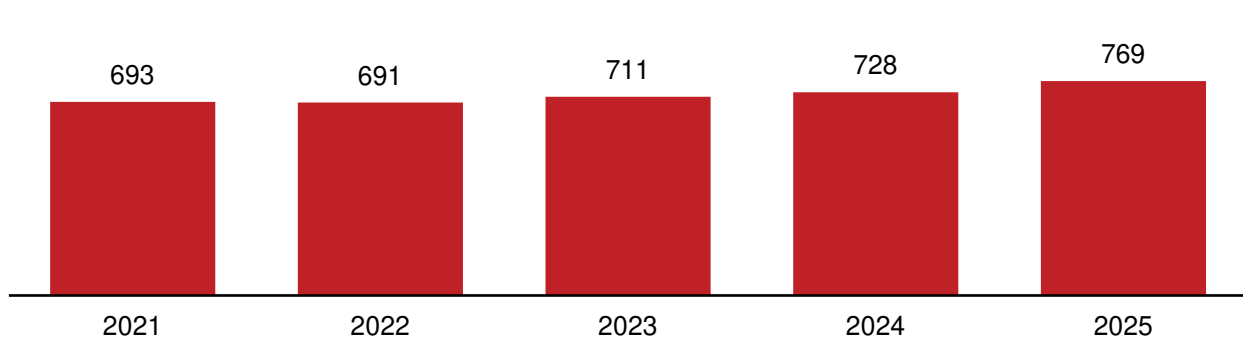
vii. Funded Status

The Accrued Liability grows over time as active members earn additional benefits, and goes down over time as members in pay status receive benefits; it may also change when there are changes to the plan provisions or changes in the actuarial assumptions. The Unfunded Accrued Liability is the dollar difference between the Accrued Liability and the Actuarial Value of Assets; the Funded Ratio is the ratio of the two.

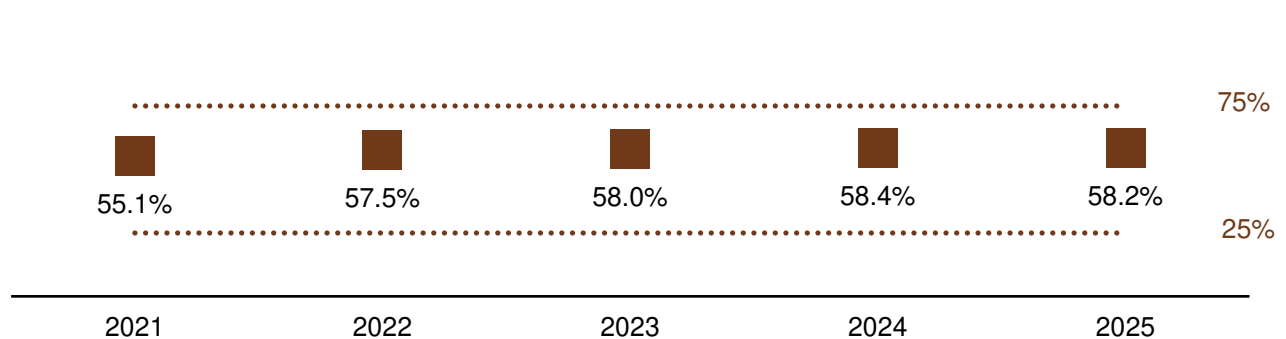
Accrued Liability (\$ millions)



Unfunded Accrued Liability (\$ millions)

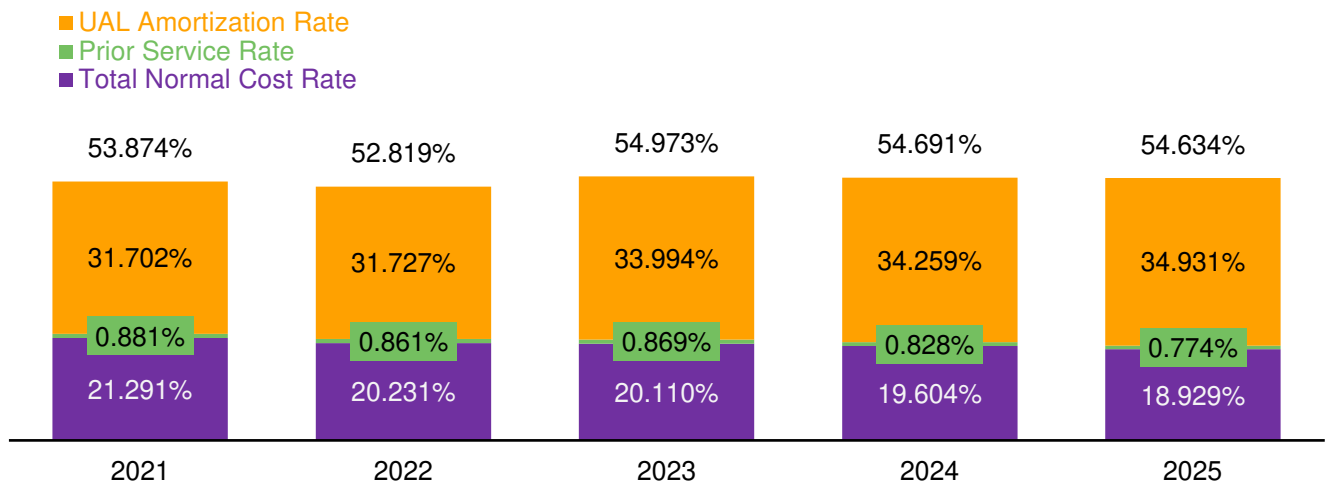


Funded Ratio



viii. Actuarially Determined Total Contribution (ADTC)

In order to determine if the Ordinance contribution rates are sufficient to bring the plan to a fully funded status within a reasonable period of time, we compare those rates to the Actuarially Determined Total Contribution. The Actuarially Determined Total Contribution consists of three pieces: a Normal Cost payment to fund the benefits earned each year, a special fixed series of small "prior service" City payments through 2028 and an amortization payment to gradually fund the remainder of the Unfunded Accrued Liability (UAL) over a period of years. These figures are first calculated as dollar amounts. The dollar amounts are then divided by the expected payroll for active members to arrive at a contribution rate. The Actuarially Determined Total Contribution Rate for the current valuation and the prior four valuations are shown below.



Per Ordinance Section 22-26, both active plan members and the City contribute a specified percentage of each active member's pensionable earnings, which is designed to fund the Normal Cost plus the UAL amortization payments. In any given year, the sum of these fixed contributions may be more or less than the Actuarially Determined Total Contribution:

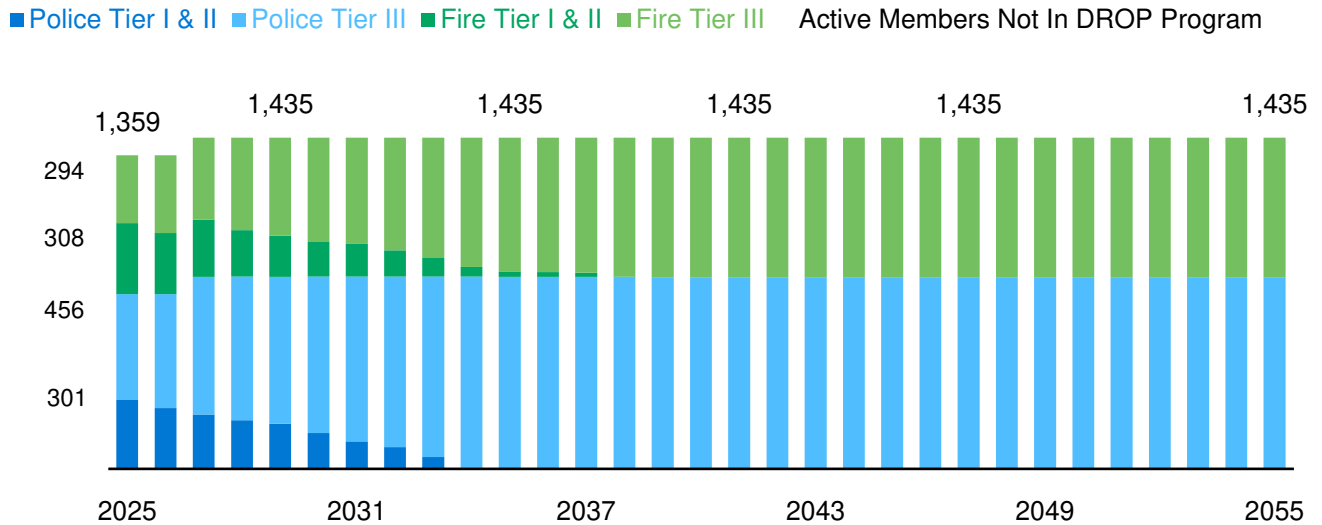
	2024	2025
City Ordinance Employee Contribution Rate	16.564%	16.620%
City Ordinance Employer Contribution Rate	33.776%	33.831%
Prior Service Rate	<u>0.828%</u>	<u>0.774%</u>
(A) Total Ordinance Contribution Rate	51.168%	51.225%
Total Normal Cost Rate	19.604%	18.929%
UAL Amortization Rate	34.259%	34.931%
Prior Service Rate	<u>0.828%</u>	<u>0.774%</u>
(B) Actuarially Determined Total Contribution Rate	54.691%	54.634%
Contribution Rate (Shortfall)/Margin = (A) - (B)	-3.523%	-3.409%

Actuarial Standard of Practice (ASOP) No. 4 requires the actuary to calculate and disclose a 'reasonable' ADTC, which considers whether the actuarial methods and actuarial assumptions are in compliance with all applicable ASOPs. Based on the actuarial assumptions and methods used in this report, we believe the ADTC meets this standard and reflects a balance among benefit security for plan members, intergenerational equity among stakeholders, and stability of periodic costs.

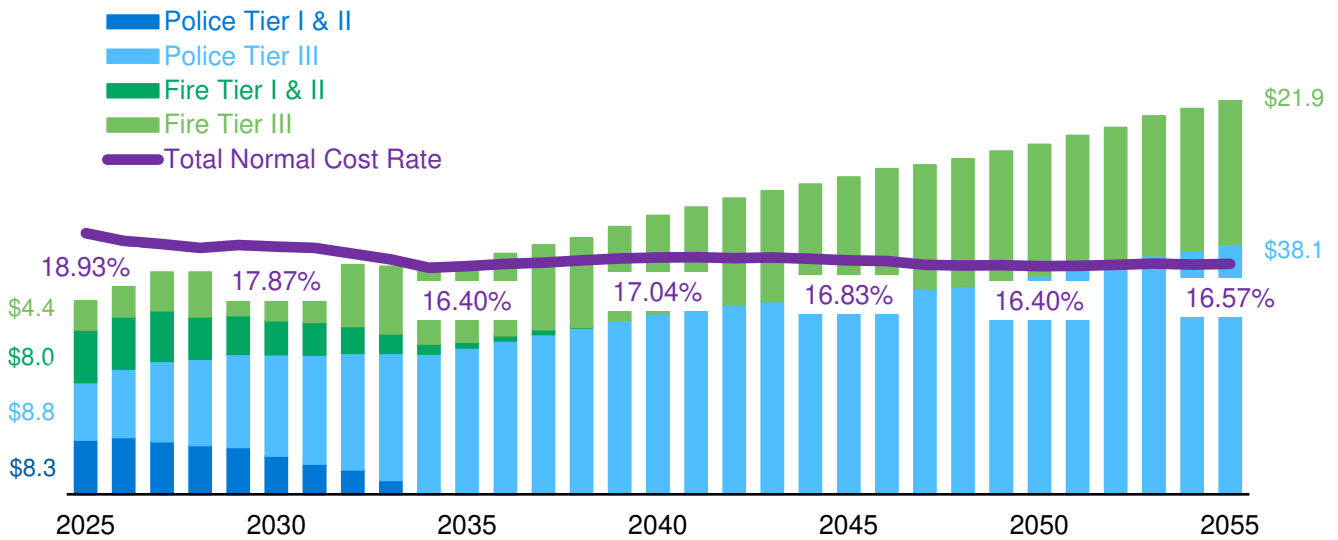
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ix. Long-Range Forecast

We assume that the number of active Police members during 2026 increases by 10% from the number as of 1/1/2025 and then remains constant in each group (Police and Fire) for the remainder of the forecast. However, over time the composition of the active membership will change, as terminating and retiring Tier I and Tier II members are replaced with employees who are covered by the lower cost Tier III. This shift is illustrated in the graph below.



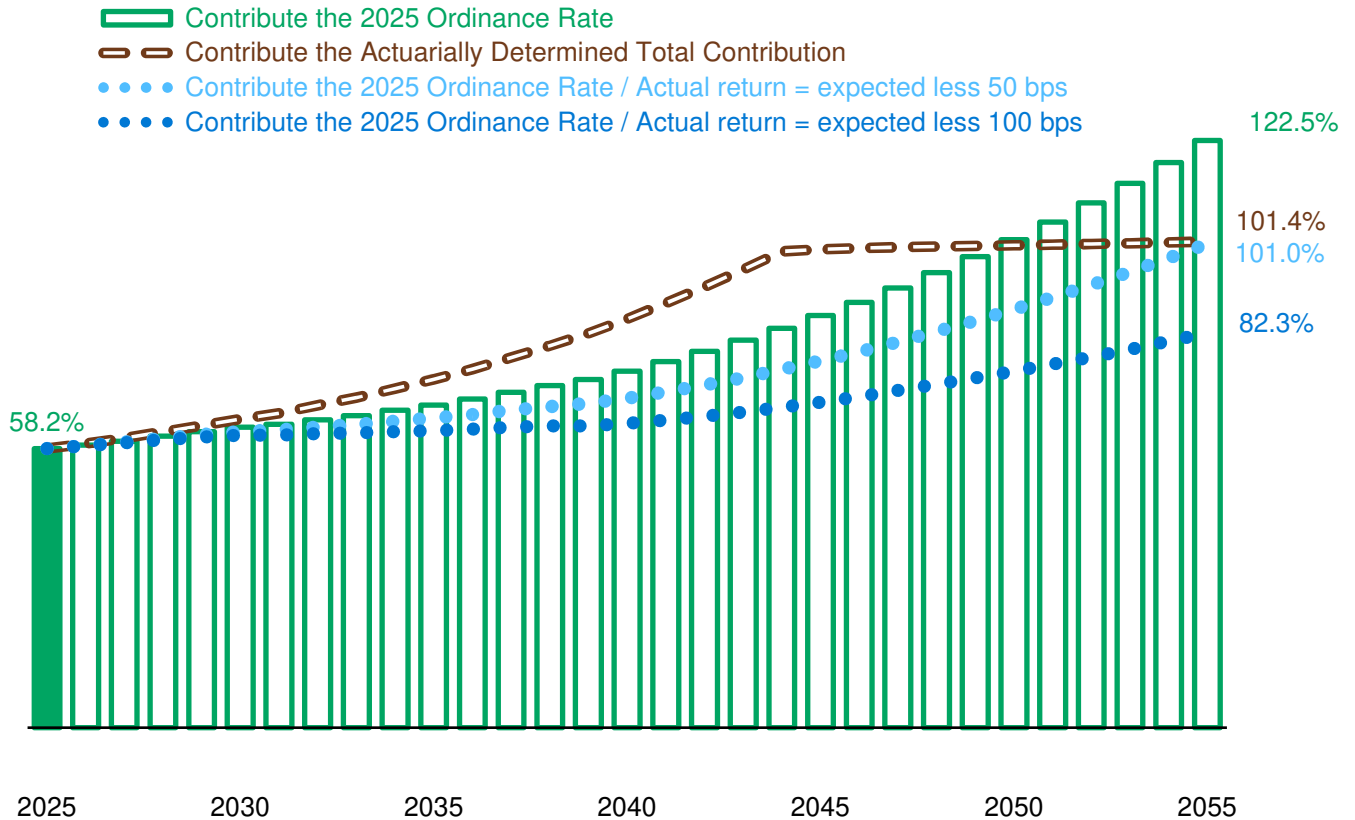
The Normal Cost Rate component of the Actuarially Determined Total Contribution will reflect this shift, as Tier I & II active members with higher Normal Costs are gradually replaced by Tier III active members with lower Normal Costs. Note that each individual active member's Normal Cost (in dollars) is expected to go up over time with salary growth, so for the plan as a whole the Normal Cost (in dollars) is projected to increase over the long term while the Normal Cost Rate (the purple line below) is expected to decline. The Normal Cost by group is shown below in millions.



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ix. Long-Range Forecast (continued)

Pension benefits are paid for through a combination of contributions from the City and from active members, and investment income. If the plan receives less than the Actuarially Determined Total Contribution (ADTC) each year, or if the investments persistently earn less than the assumed interest rate, then the plan's funded status would suffer. The impact on the plan's funded ratio of contributing an amount different than the ADTC and underearning are illustrated in the hypothetical scenarios below:



On the basis of this forecast, if the plan receives the 2025 Ordinance contribution rates each year and actual future investment returns equal the interest return assumption, the Unfunded Accrued Liability is expected to be fully amortized by 2050 and the Actuarially Determined Employer Contribution is expected to exceed the sum of the Normal Cost plus one year's interest on the Unfunded Accrued Liability by the year 2035.

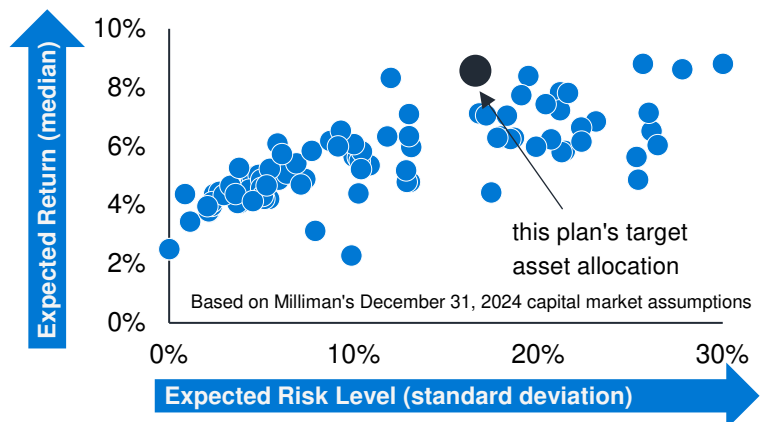
The scenarios illustrated above are based on deterministic projections that assume emerging plan experience always exactly matches the actuarial assumptions; in particular that actual asset returns will be constant in every year of the projection period. Variation in asset returns, contribution amounts, and many other factors may have a significant impact on the long-term financial health of the plan, the liquidity constraints on plan assets, and the City's future contribution levels. Stochastic projections could be prepared that would enable the City to understand the potential range of future results based on the expected variability in asset returns and other factors. Such analysis was beyond the scope of this engagement.

x. Asset Allocation Considerations

Monies that flow out of a pension plan (benefits and expenses) must be matched over the long term by monies that flow into the plan (contributions and investment income). This is expressed in a classic equation: **B** (benefits) + **E** (expenses) = **C** (contributions) + **I** (investment income).

Actuarial assumptions enable us to anticipate the long-term levels of **B** (benefits) and **E** (expenses) that will be paid out of the plan. In order to determine the appropriate level of **C** (contributions) that should come in to the plan, we must first anticipate the long-term level of **I** (investment income) the plan is likely to receive. That is why, for purposes of determining future funding levels, we measure *this* plan's liability using the long-term rate of investment returns *this* plan's portfolio is expected to generate.

Pension plans construct their portfolios by allocating assets across a wide range of asset classes with different risk and return profiles; the graph includes nearly 100 asset classes that pension plans invest in. As the graph illustrates, asset classes with higher expected returns also have higher risk levels; that is, a higher likelihood of experiencing both very good returns and very bad returns. Asset classes with lower expected returns also have lower risk levels.



The plan's target allocation represents a balance. Investing in lower-returning asset classes should reduce future investment returns and therefore increase future City contributions, but the lower risk levels would result in lower year-over-year volatility in the Actuarially Determined Employer Contribution and might provide more benefit security for plan members. Conversely, investing in higher-returning asset classes should increase future investment returns and therefore reduce future City contributions, but would also increase the volatility of those contributions and potentially reduce benefit security for plan members.

In the graph above, the asset class with the lowest risk level is US Cash, and the asset class with the highest risk level is Private Equity. If the plan were invested 100% in either of these extremes, it would impact the interest rate assumption and therefore the Accrued Liability, Funded Ratio, and ultimately the City's annual contributions; the volatility of the contributions would also change based on the risk level of the portfolio:

	100% US Cash *	Plan's Interest Rate Assumption	100% Private Equity
Expected long-term return (median)	3.4%	7.75%	8.8%
Expected risk level (standard deviation)	1.1%	16.6%	30.0%
Accrued Liability on January 1, 2025 **	\$2,830.1 million	\$1,840.4 million	\$1,655.6 million
Funded Ratio on January 1, 2025 ***	38%	58%	65%

* This would be considered a "low-default-risk obligation measure" (LDROM) using the language of ASOP 4.

** Calculated using the same actuarial assumptions and methods that were used for this valuation, except for the interest rate; the plan's duration on the valuation date, as measured for GASB 68 purposes, was used to estimate the impact of the interest rate difference relative to the valuation interest rate assumption.

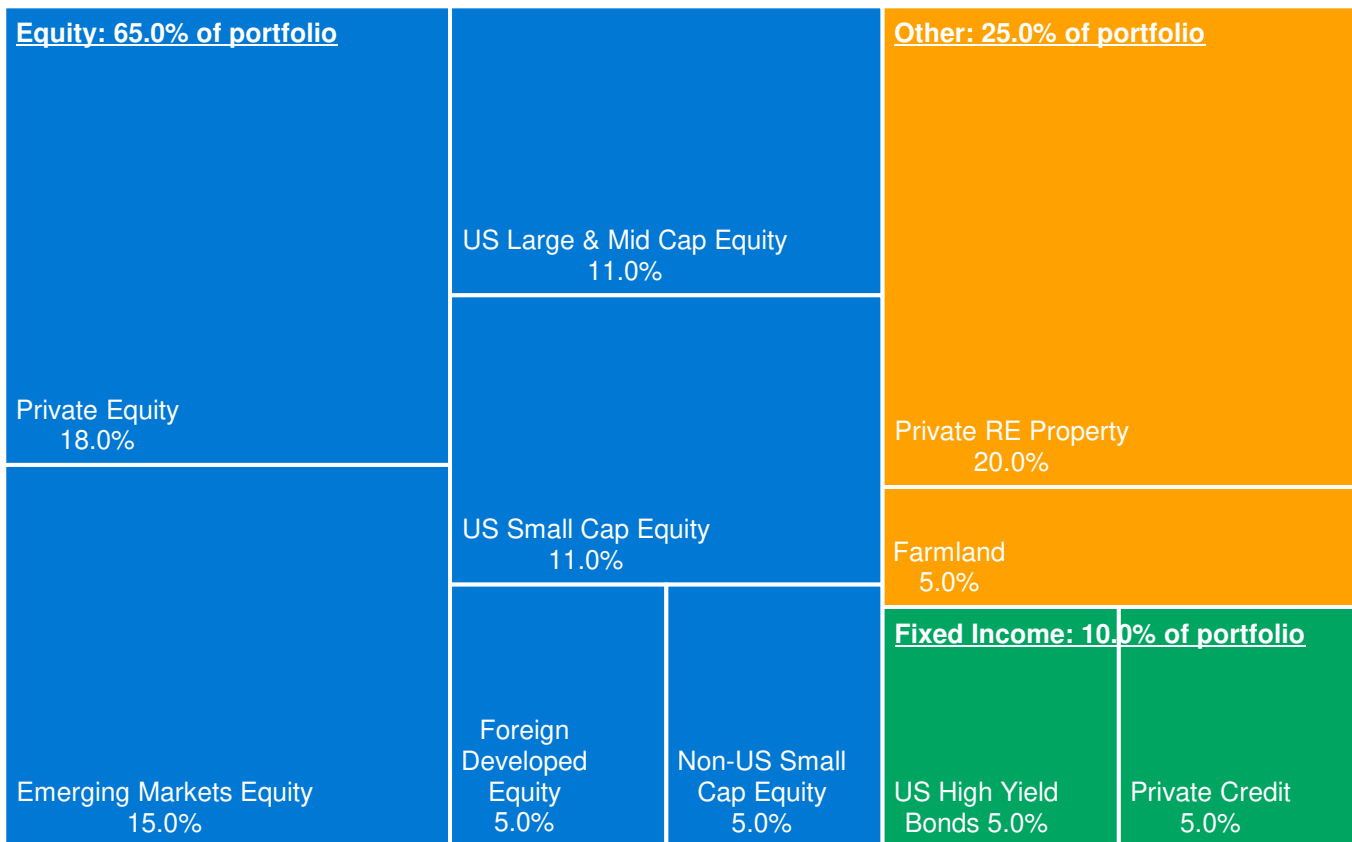
*** Measured using the Actuarial Value of Assets

1. Summary of Fund Transactions

Market Value as of January 1, 2024	\$984,713,107
City Contributions	59,076,010
Member Contributions	27,261,700
Net Investment Income	66,623,519
Benefit Payments	(104,478,692)
Administrative Expenses	0
 Market Value as of December 31, 2024	 1,033,195,644
Expected Return on Market Value of Assets	75,597,697
Market Value (Gain)/Loss	8,974,178
Approximate Rate of Return *	6.83%

* The rate shown here is not the dollar or time weighted investment yield rate which measures investment performance. It is an approximate net return assuming all activity occurred on average midway through the year.

Target Asset Allocation as of December 31, 2024



2. Development of Actuarial Value of Assets

In order to minimize the impact of market fluctuations on the contribution level, we use an Actuarial Value of Assets that recognizes gains and losses asymptotically over a four year period. The Actuarial Value of Assets as of January 1, 2025 is determined below.

1.	Expected Actuarial Value of Assets:	
	a. Actuarial Value of Assets as of January 1, 2024	\$1,023,979,490
	b. City Contributions and Member Contributions	86,337,710
	c. Benefit Payments	(104,478,692)
	d. Expected Earnings Based on 7.75% Interest	<u>78,668,564</u>
	e. Expected Actuarial Value of Assets as of January 1, 2025	1,084,507,072
2.	Market Value of Assets as of January 1, 2025	1,033,195,644
3.	Unrecognized Gains/(Losses): (2) - (1e)	(51,311,428)
4.	Amount Recognized as of January 1, 2025: 25% of (3)	(12,827,857)
5.	Preliminary Actuarial Value of Assets as of January 1, 2025: (1e) + (4)	1,071,679,215
6.	Preliminary Actuarial Value of Assets as a % of Market Value: (5) / (2)	103.7%
7.	Actuarial Value of Assets as of January 1, 2025: (5), within +/- 20% of (2)	1,071,679,215
8.	Actual Earnings on Actuarial Value of Assets: (7) - [(1a) + (1b) + (1c)]	65,840,707
9.	Approximate Rate of Return on Actuarial Value of Assets	6.49%
10.	Actuarial Value (Gain)/Loss: (1d) - (8)	12,827,857

3. Actuarial Balance Sheet

The Actuarial Balance Sheet sets forth the value in today's dollars of all benefits that are expected to be paid from the plan over the course of the current members' combined lifetimes. It also identifies the sources of assets that are available or will be required in future years in order to fully fund all of the benefits.

	January 1, 2024	January 1, 2025
Liabilities: Present Value of Future Benefits		
Active Members Not In DROP Program	\$763,789,171	\$788,905,266
Active Members in DROP Program	156,214,520	177,875,963
Terminated Vested Members	3,850,102	3,814,171
Nonvested Members Due Refunds	700,622	443,585
Retirees	889,319,641	932,091,715
Disabled Retirees	111,127,484	115,004,990
Beneficiaries	<u>76,946,966</u>	<u>78,161,892</u>
Total Liabilities	2,001,948,506	2,096,297,582
Assets		
Actuarial Value of Current Assets (see Exhibit 2)	\$1,023,979,490	\$1,071,679,215
Present value of future employer normal costs	43,002,515	35,166,148
Present value of future active member contributions	206,474,875	220,737,442
Present value of future prior service payments	5,538,739	4,589,906
Present value of future UAL amortization payments	<u>722,952,887</u>	<u>764,124,871</u>
Total Assets	2,001,948,506	2,096,297,582

Per Ordinance Section 22-26, both active plan members and the City contribute a specified percentage of each active member's pensionable earnings, which is designed to fund the Normal Cost plus the UAL amortization payments. In any given year, the sum of these fixed contributions may be more or less than the Actuarially Determined Total Contribution. If the present value of future contributions per these specified rates is lower than the present value of future UAL amortization payments plus the present value of future normal costs shown above, then the Plan may experience a shortfall of Assets relative to Liabilities. Based on the January 1, 2025 valuation, the sum of the Ordinance Contribution Rates is lower than the Actuarially Determined Total Contribution Rate by 3.409%, indicating that such a shortfall may occur.

4. Unfunded Accrued Liability

Exhibit 3 set forth the Plan's Present Value of Future Benefits. The actuarial cost method used to calculate the Actuarially Determined Contribution is the Entry Age Normal Cost Method. Under this method, the Present Value of Future Benefits for each active member is allocated as a level percentage of earnings to past years of service (the Accrued Liability), the current year (the Normal Cost), and future years. That is, the Accrued Liability for active members is equal to the portion of the Present Value of Future Benefits that will not be funded through future Normal Cost payments. For each non-active member, the Accrued Liability is equal to the Present Value of Future Benefits. The Actuarial Value of Assets is subtracted from the Accrued Liability to determine the Unfunded Accrued Liability. And as a final step, the present value of future Prior Service payments is subtracted to arrive at the amount that must be funded through future UAL amortization payments.

	January 1, 2024	January 1, 2025
1. Present Value of Future Benefits (see Exhibit 3)	\$2,001,948,506	\$2,096,297,582
2. Present Value of Future Normal Costs	249,477,390	255,903,590
3. Accrued Liability		
Active Members Not In DROP Program	514,311,781	533,001,676
Active Members in DROP Program	156,214,520	177,875,963
Terminated Members	3,850,102	3,814,171
Nonvested Members Due Refunds	700,622	443,585
Retirees	889,319,641	932,091,715
Disabled Retirees	111,127,484	115,004,990
Beneficiaries	<u>76,946,966</u>	<u>78,161,892</u>
Total = (1) - (2)	1,752,471,116	1,840,393,992
4. Actuarial Value of Assets (see Exhibit 2)	1,023,979,490	1,071,679,215
5. Unfunded Accrued Liability: (3) - (4)	728,491,626	768,714,777
6. Funded Ratio: (4) / (3)	58.4%	58.2%
7. Prior Service Payments	1,327,600	1,327,600
8. Remaining Years of Prior Service Payments	5	4
9. Present Value of Prior Service Payments	5,538,739	4,589,906
10. Adjusted Unfunded Accrued Liability to be funded with UAL Amortization Payments: (5) - (9)	722,952,887	764,124,871

5. Actuarial Gains / Losses

From one valuation to the next, the Accrued Liability and the Actuarial Value of Assets may change in ways that were not anticipated by the actuarial assumptions that were used in the last valuation. If the Accrued Liability is lower than expected or the Actuarial Value of Assets is higher than expected, we say that the plan has experienced an 'actuarial gain', and if the Accrued Liability is higher than expected or the Actuarial Value of Assets is lower than expected, we say that the plan has experienced an 'actuarial loss'. The actuarial gains / (losses) that arose during 2024 are shown below, along with the impact of plan changes and changes in the actuarial assumptions and method. Please see page 4 for more details on any changes since the last valuation.

	Accrued Liability A	Actuarial Value of Assets B	Unfunded Accrued Liability = A - B
1. Value as of January 1, 2024	\$1,752,471,116	\$1,023,979,490	\$728,491,626
2. Normal Cost as of January 1, 2024	28,944,849		28,944,849
3. City Contributions during 2024		59,076,010	(59,076,010)
4. Member Contributions during 2024		27,261,700	(27,261,700)
5. Benefit Payments during 2024	(104,478,692)	(104,478,692)	0
6. Administrative Expenses during 2024		0	0
7. One year of interest on (1) thru (2) at 7.75%	138,059,737	79,358,410	58,701,327
8. Half year of interest on (3) thru (6) at 7.75%	<u>(4,048,549)</u>	<u>(689,846)</u>	<u>(3,358,703)</u>
9. Expected value as of January 1, 2025	1,810,948,461	1,084,507,072	726,441,389
10. Actual value as of January 1, 2025 before any plan, assumption, or method changes	1,820,060,495	1,071,679,215	748,381,280
11. Experience gains / losses: (10) - (9)	9,112,034	(12,827,857)	21,939,891
12. Impact of plan changes (see page 4)	399,858	0	399,858
13. Impact of assumption changes (see page 4)	19,933,639	0	19,933,639
14. Impact of method changes (see page 4)	0	0	0
15. Final value as of January 1, 2025	1,840,393,992	1,071,679,215	768,714,777

6. UAL Amortization Payments

The Unfunded Accrued Liability that is developed in Exhibit 4 is amortized as follows. The initial base was funded as a level percent of payroll over a 26-year closed period that began January 1, 2018. A new base is created in each subsequent year based on any change in the Unfunded Accrued Liability that arises from actual experience being different than is expected based on the actuarial method and assumptions; this amount is amortized as a level percent over a closed 20-year period. If assumption changes are made, the resulting change in the Unfunded Accrued Liability is amortized as a level percent over a closed period selected by the Board.

1. Amortization Bases Established in Prior Years

Date Established	(a) Outstanding Balance January 1, 2025	Years Remaining January 1, 2025	(b) Annual Amortization Payment
January 1, 2018	\$662,304,662	19	\$51,697,141
January 1, 2019	13,865,998	14	1,336,768
January 1, 2020	(10,263,847)	15	(941,383)
January 1, 2021	24,763,022	16	2,170,107
January 1, 2022	(4,812,772)	17	(404,510)
January 1, 2023	18,896,457	18	1,528,314
January 1, 2024	17,195,861	19	1,342,248
Total	721,949,381		56,728,685
2. Unfunded Accrued Liability as of January 1, 2025 (see Exhibit 4)			764,124,871
3. New Amortization Based Established January 1, 2025: (2) - (1a Total)			42,175,490
4. Amortization Period for New Amortization Base			20
5. Amortization Growth Rate			3.25%
6. Amortization Payment for January 1, 2025: (3) amortized over (4)			3,185,564
7. Total UAL Amortization Payments: (1b Total) + (6)			59,914,249
8. Covered Payroll for Active and DROP Members			171,524,069
9. UAL Amortization Payment Rate: (7) ÷ (8)			34.931%
10. Prior Service Payments (see Exhibit 4)			1,327,600
11. Prior Service Payment Rate: (10) ÷ (8)			0.774%

7. Normal Cost

The Normal Cost is the portion of the Present Value of Future Benefits that is allocated to the current year for active members.

	2024	2025
1. Total Normal Cost by Group and Tier		
Police Tier I & II	\$9,082,533	\$9,512,138
Police Tier III	7,712,957	9,250,818
Fire Tier I & II	8,713,865	9,095,715
Fire Tier III	<u>3,435,494</u>	<u>4,608,749</u>
Total	28,944,849	32,467,421
2. Covered Payroll for non-DROP Active Members (Expected Payroll for Active and DROP Members for 2024)		
Police Tier I & II	\$42,882,427	\$40,603,313
Police Tier III	39,576,379	48,737,255
Fire Tier I & II	44,122,379	38,993,890
Fire Tier III	<u>21,069,076</u>	<u>27,597,302</u>
Total	147,650,261	155,931,760
3. Total Normal Cost Rate: (1) / (2)		
Police Tier I & II	21.180%	23.427%
Police Tier III	19.489%	18.981%
Fire Tier I & II	19.749%	23.326%
Fire Tier III	16.306%	16.700%
Total	19.604%	20.822%
4. Covered Payroll for Active and DROP Members	n/a	171,524,069
5. Normal Cost Rate Allocated Across all Payroll (1 Total) / (4)	19.604%	18.929%

8. Employee Contributions

A portion of the Normal Cost is funded through employee contributions from active members, including members in the DROP Program.

	2024	2025
1. Employee Contribution Rate		
Police Tier I & II	16.100%	16.100%
Police Tier III	16.100%	16.100%
Fire Tier I & II	17.150%	17.275%
Fire Tier III	17.150%	17.275%
2. Covered Payroll for Active and DROP Members (Expected Payroll for 2024)		
Police Tier I & II	\$42,882,427	\$46,864,345
Police Tier III	39,576,379	48,737,255
Fire Tier I & II	44,122,379	48,325,167
Fire Tier III	<u>21,069,076</u>	<u>27,597,302</u>
Total	147,650,261	171,524,069
3. Expected Employee Contributions in Current Year: (1) x (2)		
Police Tier I & II	\$6,904,071	\$7,545,160
Police Tier III	6,371,797	7,846,698
Fire Tier I & II	7,566,988	8,348,173
Fire Tier III	<u>3,613,347</u>	<u>4,767,434</u>
Total	24,456,203	28,507,465
4. Blended Employee Contribution Rate: (3 Total) ÷ (2 Total)	16.564%	16.620%

9. City Contributions Per Ordinance

Per Ordinance Section 22-73(b), the City contributes a specified percentage of each active member's pensionable earnings (including members in the DROP Program), which is designed to fund the employer portion of the Normal Cost plus the UAL amortization payments.

	2024	2025
1. City Contribution Rate Per Ordinance		
Police Tier I & II	34.420%	34.420%
Police Tier III	34.420%	34.420%
Fire Tier I & II	32.965%	33.090%
Fire Tier III	32.965%	33.090%
2. Covered Payroll for Active and DROP Members		
Police Tier I & II	\$47,768,846	\$46,864,345
Police Tier III	41,585,046	48,737,255
Fire Tier I & II	49,000,678	48,325,167
Fire Tier III	<u>22,022,953</u>	<u>27,597,302</u>
Total	160,377,523	171,524,069
3. Expected City Contribution Dollars: (1) x (2)		
Police Tier I & II	\$16,442,037	\$16,130,708
Police Tier III	14,313,573	16,775,363
Fire Tier I & II	16,153,074	15,990,798
Fire Tier III	<u>7,259,866</u>	<u>9,131,947</u>
Total	54,168,550	58,028,816
4. City Contribution Rate Per Ordinance: (3 Total) ÷ (2 Total)	33.776%	33.831%

10. Actuarially Determined Contribution

	2024	2025
In Dollars		
1. Actuarially Determined Total Contribution		
a. Total Normal Cost (see Exhibit 7)	\$28,944,849	\$32,467,421
b. Prior Service Payment (see Exhibit 6)	1,327,600	1,327,600
c. UAL Amortization Payment (see Exhibit 6)	<u>54,943,037</u>	<u>59,914,249</u>
d. Total	85,215,486	93,709,270
2. Expected Employee Contributions (see Exhibit 8)	24,456,203	28,507,465
3. Expected City Contributions per Ordinance (see Exhibit 9)	54,168,550	58,028,816
4. Total Expected Contributions: (1b) + (2) + (3)	79,952,353	87,863,881
5. Contribution (Shortfall) / Margin: (4) - (1d)	(5,263,133)	(5,845,389)
As a Percentage of Expected Payroll		
1. Actuarially Determined Total Contribution Rate		
a. Total Normal Cost Rate (see Exhibit 7)	19.604%	18.929%
b. Prior Service Payment Rate (see Exhibit 6)	0.828%	0.774%
c. UAL Amortization Rate (see Exhibit 6)	<u>34.259%</u>	<u>34.931%</u>
d. Total	54.691%	54.634%
2. Employee Contribution Rate per Ordinance (see Exhibit 8)	16.564%	16.620%
3. City Contribution Rate per Ordinance (see Exhibit 9)	33.776%	33.831%
4. Total Contribution Rate: (1b) + (2) + (3)	51.168%	51.225%
5. Contribution Rate (Shortfall) / Margin: (4) - (1d)	-3.523%	-3.409%

11. Long Range Funded Status Forecast

This forecast is based on the results of the January 1, 2025 actuarial valuation and assumes that the City will pay the City Ordinance Rate each year, the assets will return the assumed interest rate on a market value basis each year, and there are no future changes in the actuarial methods or assumptions or in the plan provisions. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets. Amounts are shown in millions.

Valuation Date	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio
1/1/2025	\$1,840.4	\$1,071.7	\$768.7	58.2%
1/1/2026	1,900.3	1,119.7	780.6	58.9%
1/1/2027	1,960.9	1,171.4	789.5	59.7%
1/1/2028	2,021.7	1,228.6	793.1	60.8%
1/1/2029	2,073.1	1,279.4	793.6	61.7%
1/1/2030	2,126.2	1,331.6	794.6	62.6%
1/1/2031	2,160.2	1,366.4	793.9	63.3%
1/1/2032	2,212.6	1,420.7	791.9	64.2%
1/1/2033	2,253.6	1,466.7	786.9	65.1%
1/1/2034	2,304.9	1,525.1	779.8	66.2%
1/1/2035	2,343.7	1,576.6	767.2	67.3%
1/1/2036	2,387.8	1,636.6	751.2	68.5%
1/1/2037	2,430.9	1,700.3	730.6	69.9%
1/1/2038	2,462.1	1,755.7	706.4	71.3%
1/1/2039	2,479.2	1,800.4	678.8	72.6%
1/1/2040	2,522.3	1,875.4	646.9	74.4%
1/1/2041	2,576.5	1,967.3	609.2	76.4%
1/1/2042	2,634.9	2,068.1	566.8	78.5%
1/1/2043	2,690.7	2,173.8	516.9	80.8%
1/1/2044	2,756.3	2,295.5	460.8	83.3%
1/1/2045	2,826.2	2,428.2	398.0	85.9%
1/1/2046	2,893.0	2,566.2	326.9	88.7%
1/1/2047	2,971.8	2,725.4	246.4	91.7%
1/1/2048	3,043.5	2,887.6	155.9	94.9%
1/1/2049	3,113.0	3,057.2	55.7	98.2%
1/1/2050	3,183.1	3,238.1	(55.0)	101.7%
1/1/2051	3,255.5	3,432.7	(177.2)	105.4%
1/1/2052	3,317.8	3,629.9	(312.1)	109.4%
1/1/2053	3,397.7	3,856.2	(458.5)	113.5%
1/1/2054	3,477.4	4,097.2	(619.8)	117.8%

This forecast has been developed by assuming that members will terminate, retire, become disabled, and die according to the actuarial assumptions with respect to these causes of decrement, and that pay increases, cost of living adjustments, and so forth will likewise occur according to the actuarial assumptions. For those unions whose new employees are eligible to participate in this plan, members who are projected to leave active employment are assumed to be replaced by new active members with the same age, service, gender, and pay characteristics as those hired in the past few years. The forecasts assume the current blended member and City contribution rates remain fixed during the projection period.

12. Long Range Cash Flow Forecast

This forecast is based on the results of the January 1, 2025 actuarial valuation and assumes that the City will pay the City Ordinance Rate each year, the assets will return the assumed interest rate on a market value basis each year, and there are no future changes in the actuarial methods or assumptions or in the plan provisions. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets. Amounts are shown in millions.

Fiscal Year	City Contributions	Member Contributions	Benefit Payments	Net Cash Flows
2025	\$59.4	\$28.5	\$111.6	(\$23.8)
2026	61.2	29.4	116.2	(25.7)
2027	64.4	31.0	121.2	(25.8)
2028	65.6	31.6	134.6	(37.5)
2029	64.7	31.8	137.4	(41.0)
2030	65.1	32.0	159.5	(62.4)
2031	65.9	32.4	145.1	(46.8)
2032	67.5	33.2	160.2	(59.5)
2033	68.7	33.7	153.8	(51.4)
2034	70.7	34.8	168.3	(62.8)
2035	72.5	35.6	166.8	(58.6)
2036	74.9	36.8	171.6	(59.8)
2037	77.0	37.9	187.6	(72.8)
2038	78.5	38.6	204.5	(87.4)
2039	81.3	39.9	182.9	(61.6)
2040	84.2	41.4	176.5	(51.0)
2041	86.7	42.6	178.6	(49.3)
2042	89.6	44.0	185.9	(52.3)
2043	91.8	45.1	181.7	(44.8)
2044	94.2	46.3	183.8	(43.3)
2045	97.1	47.7	193.1	(48.2)
2046	100.0	49.1	187.1	(38.1)
2047	102.9	50.6	200.5	(47.0)
2048	105.1	51.7	208.9	(52.1)
2049	107.6	52.8	214.3	(53.9)
2050	110.1	54.1	218.4	(54.2)
2051	112.8	55.4	234.4	(66.3)
2052	114.7	56.4	224.0	(53.0)
2053	117.7	57.8	231.2	(55.7)
2054	120.4	59.1	245.9	(66.4)

This forecast has been developed by assuming that members will terminate, retire, become disabled, and die according to the actuarial assumptions with respect to these causes of decrement, and that pay increases, cost of living adjustments, and so forth will likewise occur according to the actuarial assumptions. For those unions whose new employees are eligible to participate in this plan, members who are projected to leave active employment are assumed to be replaced by new active members with the same age, service, gender, and pay characteristics as those hired in the past few years. The forecasts assume the current blended member and City contribution rates remain fixed during the projection period.

13. History of Funded Status

Valuation Date	Actuarial Value of Assets	Accrued Liability	Unfunded Accrued Liability	Funded Ratio
January 1, 2011	\$456,158,774	\$1,028,866,353	\$572,707,579	44.3%
January 1, 2012	467,375,458	1,077,607,299	610,231,841	43.4%
January 1, 2013	495,847,234	1,108,874,778	613,027,544	44.7%
January 1, 2014	548,360,223	1,170,967,753	622,607,530	46.8%
January 1, 2015	590,191,585	1,189,002,221	598,810,636	49.6%
January 1, 2016	621,403,975	1,223,966,110	602,562,135	50.8%
January 1, 2017	656,171,797	1,267,909,175	611,737,378	51.8%
January 1, 2018	706,595,615	1,355,429,537	648,833,922	52.1%
January 1, 2019	737,383,005	1,406,832,664	669,449,659	52.4%
January 1, 2020	787,558,791	1,451,452,832	663,894,041	54.3%
January 1, 2021	849,308,716	1,542,475,231	693,166,515	55.1%
January 1, 2022	936,545,978	1,627,627,199	691,081,221	57.5%
January 1, 2023	983,258,448	1,694,709,482	711,451,034	58.0%
January 1, 2024	1,023,979,490	1,752,471,116	728,491,626	58.4%
January 1, 2025	1,071,679,215	1,840,393,992	768,714,777	58.2%

This work product was prepared solely for the City and the System for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

14. History of City Contributions

Fiscal Year	Actuarially Determined Employer Contribution	Actual City Contribution	Covered Payroll	Actual Contribution as a Percent of Covered Payroll
2012	\$54,310,693	\$35,302,037	\$110,027,537	32.1%
2013	52,895,180	43,838,750	116,056,740	37.8%
2014	43,524,890	41,851,986	124,051,668	33.7%
2015	41,910,737	42,138,403	126,843,763	33.2%
2016	42,468,180	43,235,242	129,633,658	33.4%
2017	45,939,660	46,608,741	133,044,481	35.0%
2018	50,677,368	48,796,603	137,647,929	35.5%
2019	51,822,865	49,779,284	143,575,171	34.7%
2020	55,078,027	51,858,647	147,301,421	35.2%
2021	55,590,405	52,983,676	150,609,022	35.2%
2022	55,488,305	53,664,911	154,224,674	34.8%
2023	58,266,876	54,279,778	152,835,450	35.5%
2024	60,759,283	59,076,010	160,377,523	36.8%
2025	65,201,805	TBD	171,524,069	TBD

15. Reconciliation of Membership from Prior Valuation

Details of the changes in the plan's membership since the last valuation are shown below. Additional details on the membership are provided in the following exhibits.

	Active Members Not In DROP Program	Active Members in DROP Program	Terminated Vested Members	Nonvested Members Due Refunds	Retirees	Disabled Retirees	Beneficiaries	Total
Count 1/1/2024	1,371	120	11	23	1,160	211	285	3,181
Terminated								
- no benefit due								0
- refund due	(4)			4				0
- paid refund	(6)			(10)				(16)
- vested benefit due	(1)		1					0
Entered DROP program	(33)	33						0
Normal retirement	(40)	(19)	(1)		60			0
Disability retirement	(4)					4		0
Died								
- with beneficiary	(1)				(15)	(3)	19	0
- no beneficiary	(1)				(5)	(1)	(22)	(29)
Benefits expired							(1)	(1)
New member	72							72
Rehired	6			(2)				4
New Alt. Payee								0
Correction					(3)	3	2	2
Count 1/1/2025	1,359	134	11	15	1,197	214	283	3,213

16. Statistics of Active Membership Not in DROP Program

		January 1, 2024	January 1, 2025
Number of Active Members	Police Tier I & II	338	301
	Police Tier III	426	456
	Fire Tier I & II	350	308
	Fire Tier III	<u>257</u>	<u>294</u>
	Total	1,371	1,359
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Average Age	Police Tier I & II	46.9	47.2
	Police Tier III	35.8	36.2
	Fire Tier I & II	47.4	47.6
	Fire Tier III	33.2	33.4
	Total	41.0	40.6
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Average Service	Police Tier I & II	19.0	19.4
	Police Tier III	6.2	6.7
	Fire Tier I & II	18.7	19.0
	Fire Tier III	4.7	4.9
	Total	12.3	11.9
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Covered Payroll	Police Tier I & II	\$42,680,406	\$40,603,313
	Police Tier III	41,585,046	48,737,255
	Fire Tier I & II	40,890,176	38,993,890
	Fire Tier III	<u>22,022,953</u>	<u>27,597,302</u>
	Total	147,178,581	155,931,760
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Average Covered Payroll	Police Tier I & II	\$126,273	\$134,895
	Police Tier III	97,617	106,880
	Fire Tier I & II	116,829	126,604
	Fire Tier III	85,692	93,868
	Total	107,351	114,740

17. Distribution of Active Police Members as of January 1, 2025

Police Tier I & II

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25								0
25-29								0
30-34								0
35-39				27				27
40-44			1	75	15			91
45-49				45	39	4		88
50-54				29	34	6		69
55-59				6	12	2		20
60-64				2	2	2		6
65+								0
Total	0	0	1	184	102	14	0	301

Police Tier III

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	25							25
25-29	47	15						62
30-34	36	64	7					107
35-39	31	84	32					147
40-44	4	33	26					63
45-49	5	10	18					33
50-54		10	5					15
55-59		3	1					4
60-64								0
65+								0
Total	148	219	89	0	0	0	0	456

18. Distribution of Active Fire Members as of January 1, 2025

Fire Tier I & II

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25								0
25-29								0
30-34			5					5
35-39			9	11				20
40-44			10	61	2			73
45-49			3	51	47	4		105
50-54			1	24	52	4		81
55-59				6	16			22
60-64				2				2
65+								0
Total	0	0	28	155	117	8	0	308

Fire Tier III

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	25							25
25-29	65	7						72
30-34	52	35	7					94
35-39	20	20	14					54
40-44	7	11	12					30
45-49	1	4	6					11
50-54		3	4					7
55-59		1						1
60-64								0
65+								0
Total	170	81	43	0	0	0	0	294

19. Statistics of Active Membership in DROP Program

		January 1, 2024	January 1, 2025
Number of Active Members	Police Tier I & II	45	52
	Police Tier III	0	0
	Fire Tier I & II	75	82
	Fire Tier I & II	<u>0</u>	<u>0</u>
	Total	120	134
<hr/>			
Average Age	Police Tier I & II	53.5	53.8
	Police Tier III	0.0	0.0
	Fire Tier I & II	54.8	54.8
	Fire Tier I & II	0.0	0.0
	Total	54.3	54.4
<hr/>			
Average Service	Police Tier I & II	27.6	27.3
	Police Tier III	0.0	0.0
	Fire Tier I & II	27.0	27.3
	Fire Tier I & II	0.0	0.0
	Total	27.2	27.3
<hr/>			
Covered Payroll	Police Tier I & II	\$5,088,440	\$6,261,032
	Police Tier III	0	0
	Fire Tier I & II	8,110,502	9,331,277
	Fire Tier I & II	<u>0</u>	<u>0</u>
	Total	13,198,942	15,592,309
<hr/>			
DROP Account Balances*	Police Tier I & II	\$8,347,098	\$9,880,098
	Police Tier III	0	0
	Fire Tier I & II	13,149,019	16,952,101
	Fire Tier I & II	<u>0</u>	<u>0</u>
	Total	21,496,118	26,832,199

*Balances are as of the valuation date and do not include interest for the prior calendar year that may have been credited after the valuation date.

20. Statistics of Inactive Membership

	January 1, 2024	January 1, 2025
Terminated Vested Members		
Number	11	11
Total Annual Benefit	\$377,816	\$372,034
Average Annual Benefit	34,347	33,821
Average Age	46.8	47.4
Nonvested Members Due Refunds		
Number	23	15
Retirees		
Number	1,160	1,197
Total Annual Benefit	\$77,035,804	\$80,939,812
Average Annual Benefit	66,410	67,619
Average Age	66.9	67.1
Disabled Retirees		
Number	211	214
Total Annual Benefit*	\$9,805,078	\$10,254,733
Average Annual Benefit	46,470	47,919
Average Age	67.1	67.4
Beneficiaries		
Number	285	283
Total Annual Benefit	\$8,529,396	\$8,842,797
Average Annual Benefit	29,928	31,247
Average Age	74.8	74.9

* includes 5% medical expense load

21. Distribution of Inactive Membership as of January 1, 2025

	Age	Number	Annual Benefits
Terminated Vested Members	< 50	8	\$296,262.17
	50 - 59	3	75,772.32
	60 - 69	0	0.00
	70 - 79	0	0.00
	80 - 89	0	0.00
	90 +	<u>0</u>	<u>0.00</u>
	Total	11	372,034.49
<hr/>			
Retirees	< 50	21	\$1,382,847.12
	50 - 59	297	21,507,174.84
	60 - 69	455	34,036,443.60
	70 - 79	294	18,062,855.76
	80 - 89	120	5,595,134.16
	90 +	<u>10</u>	<u>355,356.60</u>
	Total	1,197	80,939,812.08
<hr/>			
Disabled Retirees*	< 50	19	\$934,091.77
	50 - 59	58	3,319,164.45
	60 - 69	39	2,016,460.15
	70 - 79	59	2,621,532.82
	80 - 89	33	1,223,101.53
	90 +	<u>6</u>	<u>140,382.77</u>
	Total	214	10,254,733.49
<hr/>			
Beneficiaries	< 50	14	\$326,930.28
	50 - 59	12	463,607.76
	60 - 69	48	2,003,990.10
	70 - 79	92	3,301,530.15
	80 - 89	91	2,243,247.96
	90 +	<u>26</u>	<u>503,491.08</u>
	Total	283	8,842,797.33

* includes 5% medical expense load

Appendix A - Actuarial Funding Method

Cost Method

The actuarial cost method used in the valuation of this Plan is known as the Entry Age Normal Method. The Actuarially Determined Employer Contribution consists of three pieces: a Normal Cost, plus a special fixed series of "prior service" City payments through 2028, plus an amortization payment to gradually eliminate the Unfunded Accrued Liability (UAL) over a period of years. Amounts contributed by active members are netted out of this amount.

The Normal Cost is determined by calculating the present value of future benefits for present Active Members that will become payable as the result of death, disability, retirement or termination. This cost is then spread as a level percentage of earnings from entry age to termination for each individual. If Normal Costs had been paid at this level for all prior years, a fund would have accumulated. Because this fund represents the portion of benefits that would have been funded to date, it is termed the Accrued Liability. In fact, it is calculated by adding the present value of benefits for Members in Pay Status and Terminated Members to the present value of benefits for Active Members and subtracting the present value of future Normal Cost contributions.

The funding cost of the Plan is derived by making certain specific assumptions as to rates of interest, mortality, turnover, etc. which are assumed to hold for many years into the future. Since actual experience may differ somewhat from the assumptions, the costs determined by the valuation must be regarded as estimates of the true costs of the Plan.

Asset Smoothing Method

The Actuarial Value of Assets is determined by recognizing market gains and losses asymptotically over a four year period, with the result constrained to within +/- 20% of the Market Value of Assets.

Amortization Method

The Unfunded Accrued Liability is the excess of the Accrued Liability over the assets which have been accumulated for the plan. The initial base was funded as a level percent of payroll over a 26-year closed period that began January 1, 2018. A new base is created in each subsequent year based on any change in the Unfunded Accrued Liability that arises from actual experience being different than is expected based on the actuarial method and assumptions; this amount is amortized as a level percent over layered 20-year periods. If assumption changes are made, the resulting change in the Unfunded Accrued Liability is amortized as a level percent over a closed period selected by the Board.

Long-Range Forecast

The long-range forecasts included in this report have been developed by assuming that members will terminate, retire, become disabled, and die according to the actuarial assumptions with respect to these causes of decrement, and that pay increases, cost of living adjustments, and so forth will likewise occur according to the actuarial assumptions. For those unions whose new employees are eligible to participate in this plan, members who are projected to leave active employment are assumed to be replaced by new active members with the same age, service, gender, and pay characteristics as those hired in the past few years. The forecasts assume the current blended member and City contribution rates remain fixed during the projection period.

Appendix B - Actuarial Assumptions

Each of the assumptions used in this valuation was set based on a formal study of the plan's experience for the period ending December 31, 2023 which reflected industry standard published tables and data, the particular characteristics of the plan, relevant information from the plan sponsor or other sources about future expectations, and our professional judgment regarding future plan experience. We believe the assumptions are reasonable for the contingencies they are measuring, and are not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

Interest Rate 7.75%

Inflation 2.50%

**Amortization
Growth Rate** 3.25%

**Salary
Increases** Annual increases consisting of 2.50% inflation, 0.75% productivity, and merit/longevity that reflect length of service; combined impact of these factors are per the table below:

Fire		Police	
Service	Rate	Service	Rate
0-1	11.00%	0-2	11.00%
2-3	9.00%	3	9.25%
4	7.75%	4	8.25%
5	7.50%	5	7.25%
6-9	5.00%	6-8	6.50%
10-16	4.00%	9-12	4.00%
17 or more	3.25%	13-20	3.75%
		21-23	3.50%
		24 or more	3.25%
Plus an additional 1% increase for all Fire members from 2024 to 2025.		Plus an additional 2.7% increase for all Police members from 2024 to 2025 and an additional 2.33% increase from 2025 to 2026.	

COTA Adjustment Earnings are loaded in order to approximate the expected impact of COTA at retirement. The load is 12.5% for Police members and 5.0% for Fire members.

Decrement Timing Middle of year.

Mortality PubS-2016 Mortality Table with generational projection per the MP-2021 scale, with employee rates before benefit commencement and healthy, disabled and contingent annuitant rates after benefit commencement. This assumption includes a margin for mortality improvement beyond the valuation date.

85% of active deaths are assumed to occur in the line of duty.

Appendix B - Actuarial Assumptions

Retirement

Police Tier I							
Age	Service						
	19	20	21	22	23	24	25+
45-61	0%	3%	3%	10%	10%	10%	100%
62+	0%	100%	100%	100%	100%	100%	100%

Fire Tier I							
Age	Service						
	19	20	21	22	23	24	25+
45-49	0%	0%	0%	0%	0%	0%	100%
50-61	0%	15%	15%	15%	15%	15%	100%
62+	0%	100%	100%	100%	100%	100%	100%

Police Tier II							
Age	Service						
	19	20	21	22-24	25	26	27+
45-61	0%	3%	3%	10%	90%	90%	100%
62+	0%	100%	100%	100%	100%	100%	100%

Fire Tier II							
Age	Service						
	19	20	21	22-24	25	26	27+
45-49	0%	0%	0%	0%	90%	90%	100%
50-61	0%	15%	15%	15%	90%	90%	100%
62+	0%	100%	100%	100%	100%	100%	100%

Police Tier III and Fire Tier III

100% are assumed to retire at the earlier of age 50 with 30 years of service or age 55 with 10 years of service.

DROP Participation 80% of retirement-eligible Police members and 90% of retirement-eligible Fire members are assumed to enter DROP.

DROP Period 5 years but not beyond age 60.

DROP Interest 4% per year

Appendix B - Actuarial Assumptions

Turnover	Fire		Police		
	Service	Males	Females	Males	Females
	0-1	2.0%	4.0%	3.0%	4.0%
	2-3	1.5%	4.0%	2.0%	3.0%
	4-9	1.0%	2.5%	2.0%	2.5%
	10-15	0.6%	0.6%	0.8%	0.8%
	16-19	0.5%	0.5%	0.5%	0.5%
	20 or more	0.0%	0.0%	0.0%	0.0%

Disability Rates based on age; sample rates are shown in the following table:

Age	Rate
20	0.12%
30	0.14%
40	0.25%
50	0.82%
60	0.92%

85% of disabilities are assumed to occur in the line of duty.

The liability for current and future disabled members is increased by 5% to reflect medical expenses for disabilities that are incurred in the line of duty.

Interest on Member Contributions 4% per year

Spouse Age Difference Husbands are assumed to be three years older than wives.

Percent Married 75% of members are assumed to be married at death or retirement.

Appendix B - Actuarial Assumptions

Changes in Assumptions From Prior Year

The following assumptions were used in the prior year actuarial valuation:

Salary Increases Annual increases consisting of 2.50% inflation, 0.75% productivity, and merit/longevity that reflect length of service; combined impact of these factors are per the table below:

Fire		Police			
Service	Rate	Service	Pre-2024	2024	Post-2024
0-3	8.25%	0	15.25%	37.00%	13.25%
4	7.75%	1	13.25%	22.00%	13.25%
5	7.50%	2	12.25%	22.00%	12.25%
6	7.00%	3	9.25%	13.75%	9.25%
7	6.75%	4	8.25%	12.75%	8.25%
8	6.00%	5	7.25%	11.75%	7.25%
9	5.00%	6-8	6.50%	11.00%	6.50%
10-16	4.00%	9	5.25%	9.75%	5.25%
17 or more	3.25%	10	4.45%	8.95%	4.45%
		11	4.21%	8.71%	4.21%
		12	4.00%	8.50%	4.00%
		13-20	3.75%	8.25%	3.75%
		21-23	3.50%	8.00%	3.50%
		24 or more	3.25%	8.00%	3.25%

COTA Adjustment Earnings are loaded in order to approximate the expected impact of COTA at retirement. The load is 12% for Police members and 4.5% for Fire members.

Mortality PubS-2010 Mortality Table with generational projection per the MP-2021 scale, with employee rates before benefit commencement and healthy, disabled and contingent annuitant rates after benefit commencement. This assumption includes a margin for mortality improvement beyond the valuation date.

Turnover	Fire		Police	
	Service	Unisex	Males	Females
	0-1	1.5%	3.0%	4.0%
	2-3	1.5%	1.8%	2.2%
	4-9	1.0%	1.5%	1.8%
	10-15	0.6%	0.8%	0.8%
	16-19	0.5%	0.3%	0.3%
	20 or more	0.0%	0.0%	0.0%

Appendix C - Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan. It is not intended to be, nor should it be interpreted as a complete statement of all plan provisions. All eligibility requirements and benefit amounts shall be determined in strict accordance with the plan document itself. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.

Effective Date of the Plan	7/1/1961
Eligibility	All current, probationary, and regular uniformed personnel of the police and fire departments of the City are eligible at date of hire.
Tier I	Police members hired prior to 1/1/2010 with 20+ years of service as of 9/19/2010 Fire members hired prior to 1/1/2013 with 15+ years of service as of 1/1/2013
Tier II	Police members hired prior to 1/1/2010 with less than 20 years of service as of 9/19/2010 Fire members hired prior to 1/1/2013 with less than 15 years of service as of 1/1/2013
Tier III	Police members hired on or after 1/1/2010 Fire members hired on or after 1/1/2013
Compensation	Included pay types for pensionable pay are defined in the Omaha City Ordinance and listed in an Appendix of the latest collective bargaining agreements. Certain overtime pay is excluded.
Final Average Compensation (FAC)	<p>Police Highest 26 pay periods out last 130 pay periods of service for members hired prior to 1/1/2010 who were at least age 45 with at least 20 years of service as of 9/19/2010. Highest 78 pay periods out of last 130 pay periods divided by 3 for all others.</p> <p>Fire Highest 26 pay periods out last 130 pay periods of service for members hired prior to 1/1/2013 who were at least age 45 with at least 25 years of service (or age 50 with at least 20 years of service) as of 1/2/2013. Highest 78 pay periods out of last 130 pay periods divided by 3 for all others.</p> <p>An additional amount, the Career Overtime Average (COTA), is included in the Final Average Compensation for Tier I & II members. COTA is calculated by adding up all hours a member earns for overtime from their date of hire or 1/1/1991 (whichever is later) and dividing by the number of years the employee worked after 12/31/1990 and multiplying that balance by the member's average hourly rate.</p>
Service	Elapsed time from date of hire or appointment (in qualifying position) to last date of employment. Breaks greater than 2 pay periods will reduce service unless for authorized military leave.

Appendix C - Summary of Plan Provisions

Service Retirement Eligibility

Police

Tier I & II members are eligible to retire at the earlier of age 55 with 10 years of service or age 45 with 20 years of service.

Tier III members are eligible to retire at the earlier of age 50 with 20 years of service or age 55 with 10 years of service.

Fire

Tier I & II members are eligible to retire at the earlier of age 55 with 10 years of service, age 50 with 20 years of service or age 45 with 25 years of service.

Tier III members are eligible to retire at the earlier of age 50 with 20 years of service or age 55 with 10 years of service.

Service Retirement Benefit

A percentage of FAC based on years of service per the table below:

Years of Service	Tier I Police/ Fire	Tier II Police/ Fire	Tier III Police	Tier III Fire
10-14	20%	20%	20%	20%
15-19	30%	30%	30%	30%
20	55%	50%	50%	45%
21	59%	54%	53%	45%
22	63%	58%	56%	45%
23	67%	62%	59%	45%
24	71%	66%	62%	45%
25	75%	70%	65%	55%
26	75%	72%	67%	57%
27	75%	74%	69%	59%
28	75%	74%	71%	61%
29	75%	75%	73%	63%
30 or more	75%	75%	75%	65%

Members earn a pro-rata percentage towards the total multiplier for each additional six months of service as follows:

Tier I Police/Fire - after 20 years up to 25 years.

Tier II Police/Fire - after 20 years up to 30 years.

Tier III Police - after 20 years up to 30 years.

Tier III members retiring with less than 30 years of service have a 7% benefit reduction applied for each year prior to age 55.

Appendix C - Summary of Plan Provisions

Deferred Retirement Option Program (DROP)	Members may participate in the DROP for three to five years once they reach retirement eligibility with a minimum of 25 years of service. The City and the member continue to make contributions during the DROP period. During the DROP period, a member account is credited with the benefits that would have been paid if the member had retired at the start of the DROP period, along with interest accrued at the end of each year. At the end of the DROP period, the member ends employment, receives the DROP account balance, and begins to receive monthly benefits that would have been paid if the member had retired at the start of the DROP period.										
Interest on DROP Accounts	The interest rate on member contributions is set annually by the Board between 0% and 7%. The rate chosen can be no more than 50% of the annual return on the trust's assets for the prior year.										
Cost of Living Adjustments	Monthly pension benefits are increased by the lesser of 3% or \$50 (\$65 for Fire retirements after 6/30/2007). The increase is made annually, beginning in the 13th month of retirement.										
Member Contributions	Police - 16.10% of each member's pensionable earnings. Fire - 17.275% of each member's pensionable earnings. (Prior: 17.15%)										
Interest on Member Contributions	The interest rate on member contributions is set annually by the Board with a minimum of 1% and a maximum of 5%. Refunds include half a year's worth of interest on current contributions.										
City Contributions	Police - 34.420% of each member's pensionable earnings. Fire - 33.090% of each member's pensionable earnings. (Prior: 32.965%) In addition, the City shall make contributions of \$1,327,600 annually through the year 2028.										
Disability Benefits (Service Related)	Less than 20 years of service: 50% of Final Average Compensation. 20 or more years of service: service retirement benefit calculated as of the disability date without reduction for early commencement.										
Disability Benefits (Non-Service Related)	A percentage of FAC based on years of service per the table below: <table border="1" style="margin-left: 20px; border-collapse: collapse; width: 100%;"> <thead> <tr> <th style="text-align: left;">Years of Service</th> <th style="text-align: left;">Benefit</th> </tr> </thead> <tbody> <tr> <td>0-9</td> <td>10%</td> </tr> <tr> <td>10-14</td> <td>20%</td> </tr> <tr> <td>15-19</td> <td>30%</td> </tr> <tr> <td>20 or more</td> <td>45%</td> </tr> </tbody> </table> <p>or a service retirement benefit without reduction for early commencement, if greater</p>	Years of Service	Benefit	0-9	10%	10-14	20%	15-19	30%	20 or more	45%
Years of Service	Benefit										
0-9	10%										
10-14	20%										
15-19	30%										
20 or more	45%										

Appendix C - Summary of Plan Provisions

Preretirement Surviving Spouse's Benefit (Service Related; Pre-Retirement Eligible) Less than 25 years of service: 49% of FAC (52% for certain Fire* members).
 25 or more years of service: 69% of FAC (72% for certain Fire* members).

Preretirement Surviving Spouse's Benefit (Non-Service Related; Pre-Retirement Eligible) A percentage of FAC based on years of service per the table below:

Years of Service	Certain Members*	All Others
3-10	38.0%	35.0%
11	39.4%	36.4%
12	40.8%	37.8%
13	42.2%	39.2%
14	43.6%	40.6%
15	45.0%	42.0%
16	46.4%	43.4%
17	47.8%	44.8%
18	49.2%	46.2%
19	50.6%	47.6%
20-25	52.0%	49.0%
25+	72.0%	69.0%

*Fire members who were age 45 with 25 years of service or age 50 with 20 years of service as of most recent contract date.

Surviving Spouse's Benefit (Retirement Eligible Or After Retirement) A percentage of the benefit the member was eligible to receive at the time of death per the table below:

Police Tier I & II	75%
Police Tier III	50%
Fire Tier I & II retired before 7/1/2007	75%
Fire Tier I & II retired after 7/1/2007	90%
Fire Tier III	90% (Prior: 50%)

Benefits cease upon remarriage.

Children's Benefits Upon the death of an active or retired member, the following benefits are due until age 18:

Number of Dependents	% of FAC
1	15%
2	30%
3	45%
4 or more	50%

Appendix C - Summary of Plan Provisions

Lump Sum Death Benefits For active members who are eligible for retirement, with a surviving spouse or child(ren), a lump sum equal to one year's salary.

For retired members with a surviving spouse or child(ren), \$1,000 (\$5,000 for Fire members who retired after 6/30/2005) or remaining contributions with interest, whichever is greater.

For active or retired members with no surviving spouse or child(ren), \$500 or remaining contributions with interest, whichever is greater.

Vesting 10 years of service.

Termination Benefit Members with less than 10 years of service receive a refund of their accumulated contributions.

Members with at least 10 years of service who have not met the requirements for service retirement may elect a monthly benefit commencing at age 55 equal to a percentage of FAC per the table below:

Years of Service	Benefit
10-14	20%
15-19	30%
20-24	55%
25 or more	75%

The schedules shown under service retirement apply to all Tier II and III Police and Fire members.

Appendix D - Risk Disclosure - Introduction

The results of this actuarial valuation are based on one set of reasonable assumptions. However, it is almost certain that future experience will not exactly match these assumptions. As an example, the plan's investments may perform better or worse than assumed in any single year and over any longer time horizon. It is therefore important to consider the potential impacts of these likely differences when making decisions that may affect the future financial health of the plan, or of the plan's members.

In addition, as plans mature they accumulate larger pools of assets and liabilities. The increase in size in turn increases the potential magnitude of adverse experience. As an example, the dollar impact of a 10% investment loss on a plan with \$1 billion in assets and liabilities is much greater than the dollar impact for a plan with \$1 million in assets and liabilities. Since pension plans make long-term promises and rely on long-term funding, it is important to consider how mature the plan is today, and how mature it may become in the future.

Actuarial Standard of Practice No. 51 (ASOP 51) directs actuaries to provide pension plan sponsors with information concerning the risks associated with the plan:

- Identify risks that may be significant to the plan.
- Assess the risks identified as significant to the plan. The assessment does not need to include numerical calculations.
- Disclose plan maturity measures and historical information that are significant to understanding the plan's risks.

This section of the report uses the framework of ASOP 51 to communicate important information about significant risks to the plan, the plan's maturity, and relevant historical plan data.

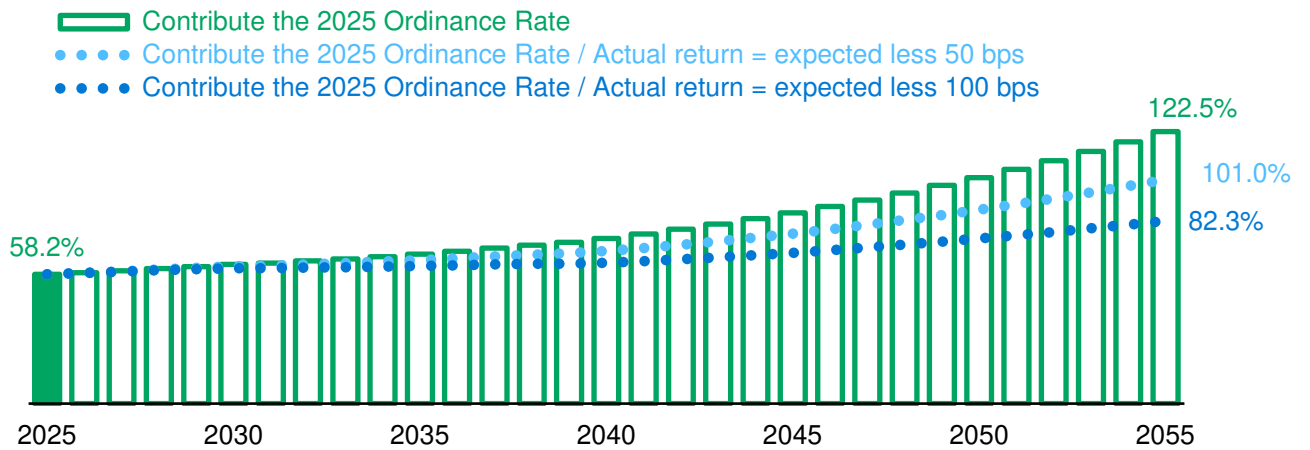
Please see Appendix A for more information on the basis for the projected results shown on the following pages.

Appendix D - Risk Disclosure - Identification and Assessment

Investment Risk

Definition: This is the potential that investment returns will be different than expected.

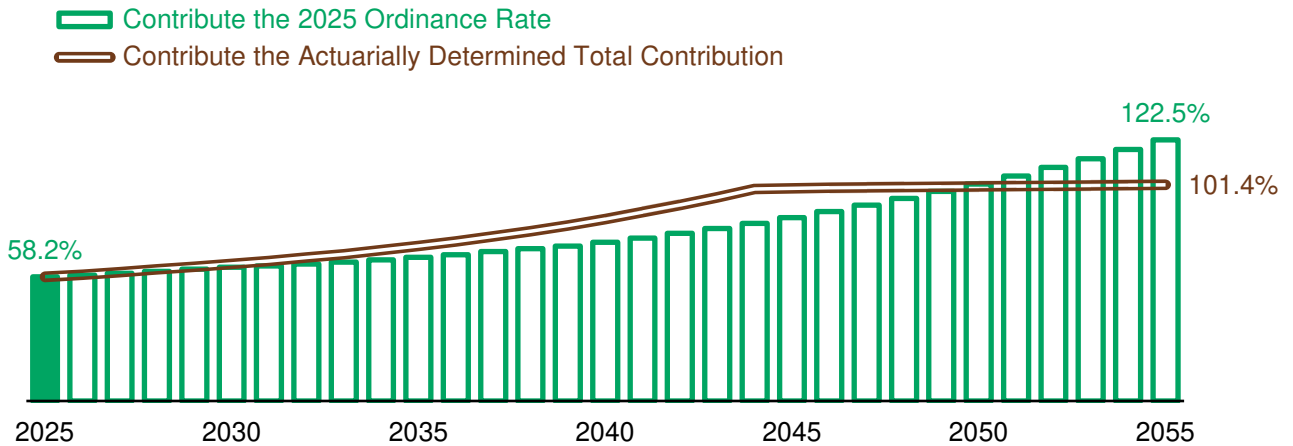
Identification: To the extent that actual investment returns differ from the assumed investment return, the plan's future assets, Actuarially Determined Employer Contributions, and funded status may differ significantly from those presented in this valuation. The consequences of persistent underperformance on future funded ratio levels are illustrated below:



Contribution Risk

Definition: This is the potential that actual future contributions will be less than the Actuarially Determined Employer Contribution.

Identification: Over the past 11 years, actual City contributions (in dollars) have been 100.0% of the Actuarially Determined Employer Contribution in total. The consequences of contributing an amount different than the Actuarially Determined Contribution on future funded ratio levels are illustrated below:



Appendix D - Risk Disclosure - Identification and Assessment

Liquidity Risk

Definition: This is the potential that assets must be liquidated at a loss earlier than planned in order to pay for the plan's benefits and operating costs. This risk is heightened for plans with negative cash flows, in which contributions are not sufficient to cover benefit payments plus expenses.

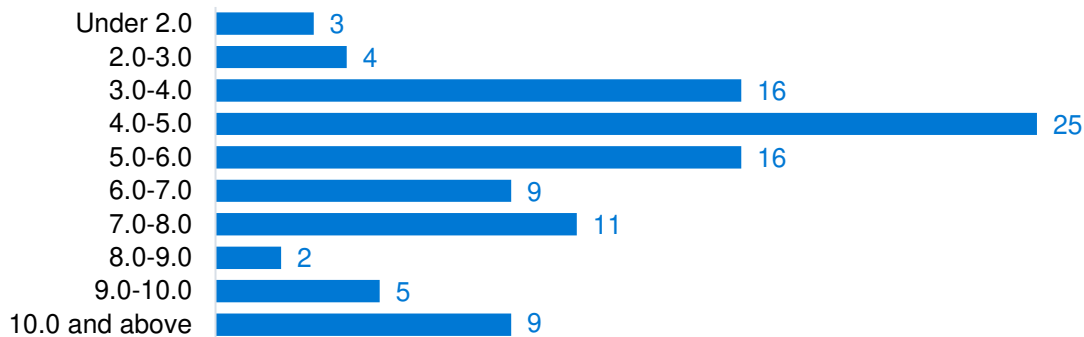
Identification: In 2024, the plan had negative cash flow, with city contributions and member contributions to the plan of \$86,337,710 compared to \$104,478,692 of benefit payments paid out of the plan. We suggest that you consult with your investment advisors with respect to the liquidity characteristics of the plan's investment holdings.

Maturity Risk

Definition: This is the potential for total plan liabilities to become more heavily weighted toward inactive liabilities over time, and for plan assets and/or liabilities to become larger relative to the liability for active members.

Identification: The plan is subject to maturity risk because as plan assets and liabilities continue to grow, the dollar impact of any gains or losses on the assets or liabilities also becomes larger.

Assessment: As of January 1, 2025, the plan's Asset Volatility Ratio (the ratio of the market value of plan assets to payroll) is 6.0. According to Milliman's 2024 Public Pension Funding Study, the 100 largest US public pension plans have the following range of Asset Volatility Ratios:



Inflation Risk

Definition: This is the potential for a pension to lose purchasing power over time due to inflation.

Identification: The members of pension plans without fully inflation-indexed benefits are subject to the risk that their purchasing power will be reduced over time due to inflation.

Assessment: This plan provides for some postretirement benefit increases, but the increases are not directly tied to each year's rate of actual inflation; this leaves members bearing some inflation risk.

Appendix D - Risk Disclosure - Identification and Assessment

Insolvency Risk

Definition: This is the potential that a plan will become insolvent; that is, assets will be fully depleted.

Identification: If a plan becomes insolvent, contractually required benefits must be paid from the plan sponsor's other remaining assets.

Assessment: Under the GASB 68 depletion date methodology, the plan is not projected to become insolvent. Please see the GASB 68 report for more details on the underlying analysis.

Demographic Risks

Definition: This is the potential that mortality, turnover, retirement, or other demographic experience will be different than expected.

Identification: The pension liabilities reported herein have been calculated by assuming that members will follow patterns of demographic experience as described in Appendix B. If actual demographic experience or future demographic assumptions are different from what is assumed to occur in this valuation, future pension liabilities, Actuarially Determined Employer Contribution, and funded status may differ significantly from those presented in this valuation. Formal Experience Studies performed on a regular basis are helpful in ensuring that the demographic assumptions reflect emerging plan experience.

Retirement Risk

Definition: This is the potential for members to retire and receive subsidized benefits that are more valuable than expected.

Identification: This plan permits members with long service to retire at relatively young ages. If members retire at earlier ages than are anticipated by the actuarial assumptions, this will put upward pressure on subsequent Actuarially Determined Contributions. This plan also permits members to elect to participate in a DROP program. If usage of the DROP program is different than is anticipated by the actuarial assumptions, this may put upward pressure on subsequent Actuarially Determined Contributions.

Pensionable Earnings Risk

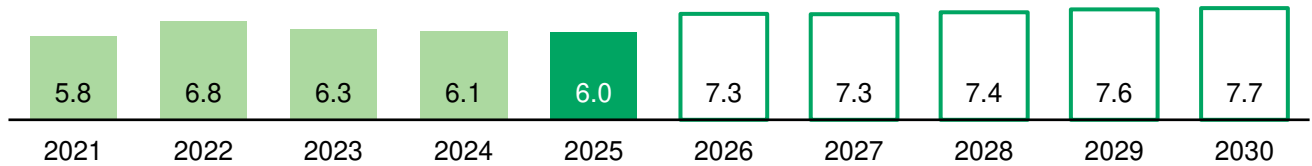
Definition: This is the potential for active members to add items to their pensionable earnings and receive pension benefits that are higher than expected.

Identification: This plan allows for some overtime pay for some members to be included in pensionable earnings. If members retire with higher pensionable earnings than are anticipated by the actuarial assumptions, this will put upward pressure on subsequent Actuarially Determined Contributions.

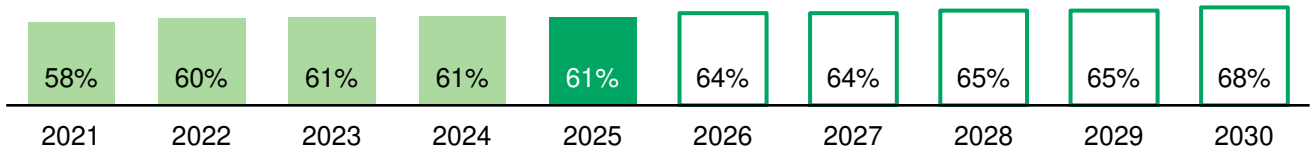
Appendix D - Risk Disclosure - Maturity Metrics

The metrics presented below are different ways of understanding the plan's maturity level, both in the past and as it is expected to change in the coming years.

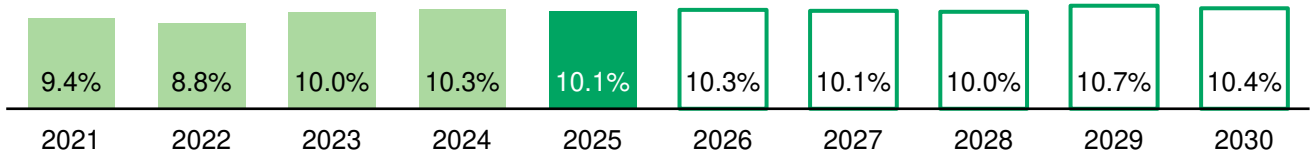
Asset Volatility Ratio: Market Value of Assets compared to Payroll



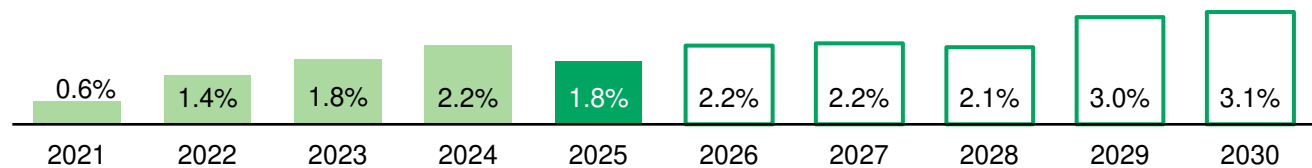
Accrued Liability for Members in Pay Status compared to total Accrued Liability



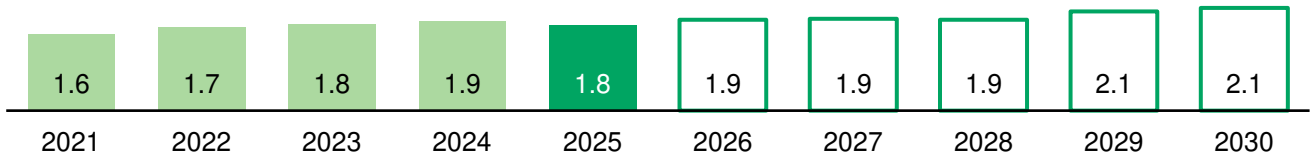
Benefit Payments compared to Market Value of Assets



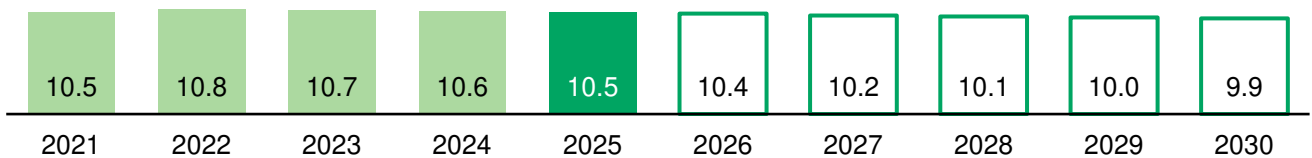
Net Cash Flows compared to Market Value of Assets



Benefit Payments compared to City Contributions



Duration of Accrued Liability (based on GASB 68 sensitivity disclosures)



Appendix E - Glossary

Actuarial Cost Method	This is a procedure for determining the Actuarial Present Value of Benefits and allocating it to time periods to produce the Accrued Liability and the Normal Cost.
Accrued Liability	This is the portion of the Actuarial Present Value of Benefits attributable to periods prior to the valuation date by the Actuarial Cost Method (i.e., that portion not provided by future Normal Costs).
Actuarial Assumptions	With any valuation of future benefits, assumptions of anticipated future events are required. If actual events differ from the assumptions made, the actual cost of the plan will vary as well. Some examples of key assumptions include the interest rate, salary scale, and rates of mortality, turnover and retirement.
Actuarial Present Value of Benefits	This is the present value, as of the valuation date, of future payments for benefits and expenses under the Plan, where each payment is: a) multiplied by the probability of the event occurring on which the payment is conditioned, such as the probability of survival, death, disability, termination of employment, etc.; and b) discounted at the assumed interest rate.
Actuarial Value of Assets	This is the value of cash, investments and other property belonging to the plan, typically adjusted to recognize investment gains or losses over a period of years to dampen the impact of market volatility on the Actuarially Determined Employer Contribution.
Attribution Period	The period of an active member's service to which the expected benefit obligation for that member is assigned. The beginning of the attribution period is the member's date of hire and costs are spread across all service.
Covered Payroll	This is the total projected pensionable earnings for all active members.
Expected Payroll	This is the total projected pensionable earnings for active members who have not yet reached the age where 100% are assumed to retire.
Interest Rate	This is the long-term expected rate of return on any investments set aside to pay for the benefits. In a financial reporting context (e.g., GASB 68) this is termed the Discount Rate.
Normal Cost	This is the portion of the Actuarial Present Value of Benefits allocated to a valuation year by the Actuarial Cost Method.
Past Service Cost	This is a catch-up payment to fund the Unfunded Accrued Liability over time (generally 10 to 30 years). A closed amortization period is a specific number of years counted from one date and reducing to zero with the passage of time; an open amortization period is one that begins again or is recalculated at each valuation date. Also known as the Amortization Payment.
Return on Plan Assets	This is the actual investment return on plan assets during the fiscal year.
Unfunded Accrued Liability	This is the excess of the Accrued Liability over the Actuarial Value of Assets.

City of Omaha Police & Fire Retirement System 2025 Experience Study

Rebecca A. Sielman, FSA Principal and Consulting Actuary

R. Ryan Falls, FSA Principal and Consulting Actuary

Yelena Pelletier, ASA Consulting Actuary

JULY 17, 2025



Topics

1 Overview of an Experience Study

2 Economic assumptions

3 Demographic assumptions

4 Funding method

5 Impact of proposed changes on valuation results

Experience Study

▪ Objectives

- Bring actuarial assumptions in line with recent experience
- Reflect emerging long-term trends

▪ Scope

- Economic assumptions: inflation, interest rate, DROP interest rate, pay increases
- Demographic assumptions: mortality, turnover, retirement, disability, COTA “load”, DROP election rate
- Funding method: cost method, amortization method, asset smoothing method

▪ Sources of data

- Census data from 2020-2024 valuations
- Social Security Administration annual trustees report
- Milliman’s Capital Market Assumptions

Topics

1 Overview of an Experience Study

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Economic Assumptions - Inflation

Current assumption: 2.50%

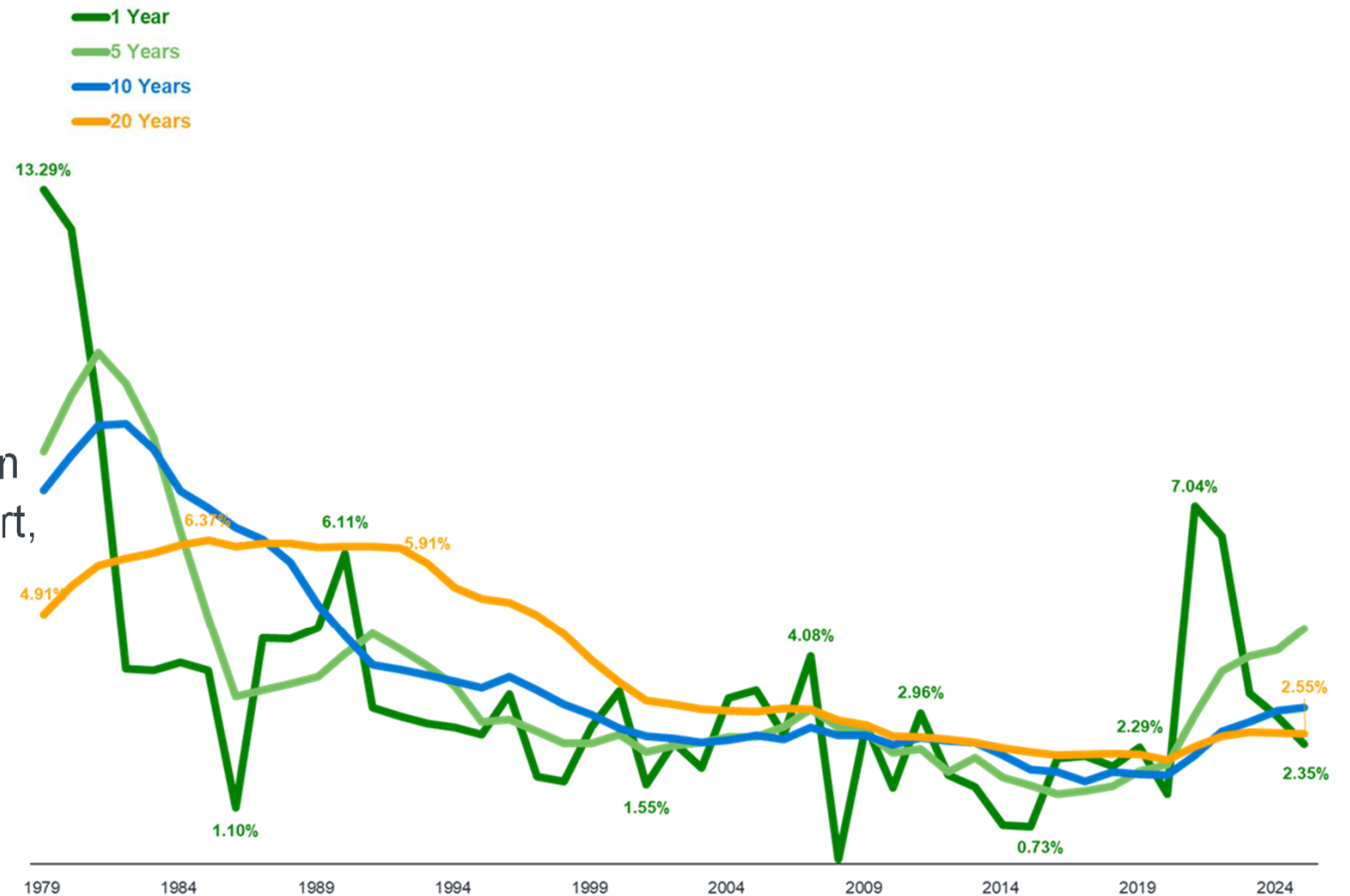
Analysis

The graph at right shows historical CPI-U through 2024; there is a clear pattern of declining inflation over the past 40+ years.

The Social Security Administration studies long-term inflation trends and projections on an annual basis. In the 2025 Trustees report, the projected annual inflation for 2027 and thereafter under the intermediate cost assumptions was 2.40%.

Proposed assumption: no change

Consumer Price Index - All Urban Consumers (CPI-U)



Economic Assumptions – Interest Rate

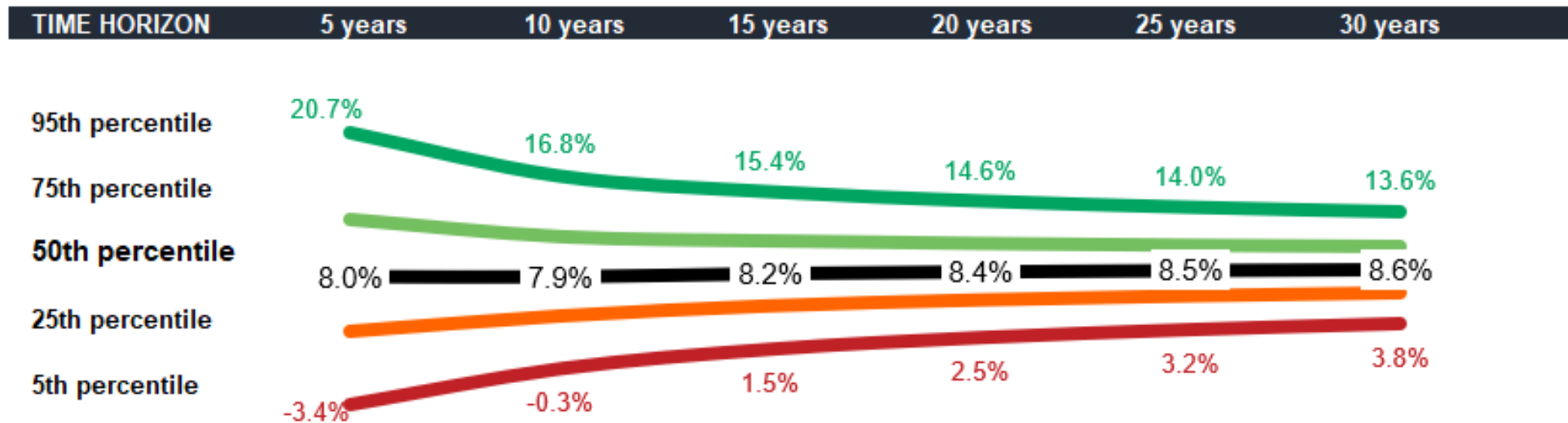
Current assumption: 7.75%

Analysis

Using Milliman’s December 31, 2024 capital market assumptions and the current 2.50% inflation rate, the expected long-term return for the target asset allocation (without margin for manager alpha) is 8.6%.

Proposed assumption: no change

Expected compound annual nominal returns based on System’s target asset allocation, Milliman’s December 31, 2024 Capital Market Assumptions and 2.50% inflation



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Economic Assumptions – DROP Interest Crediting Rate

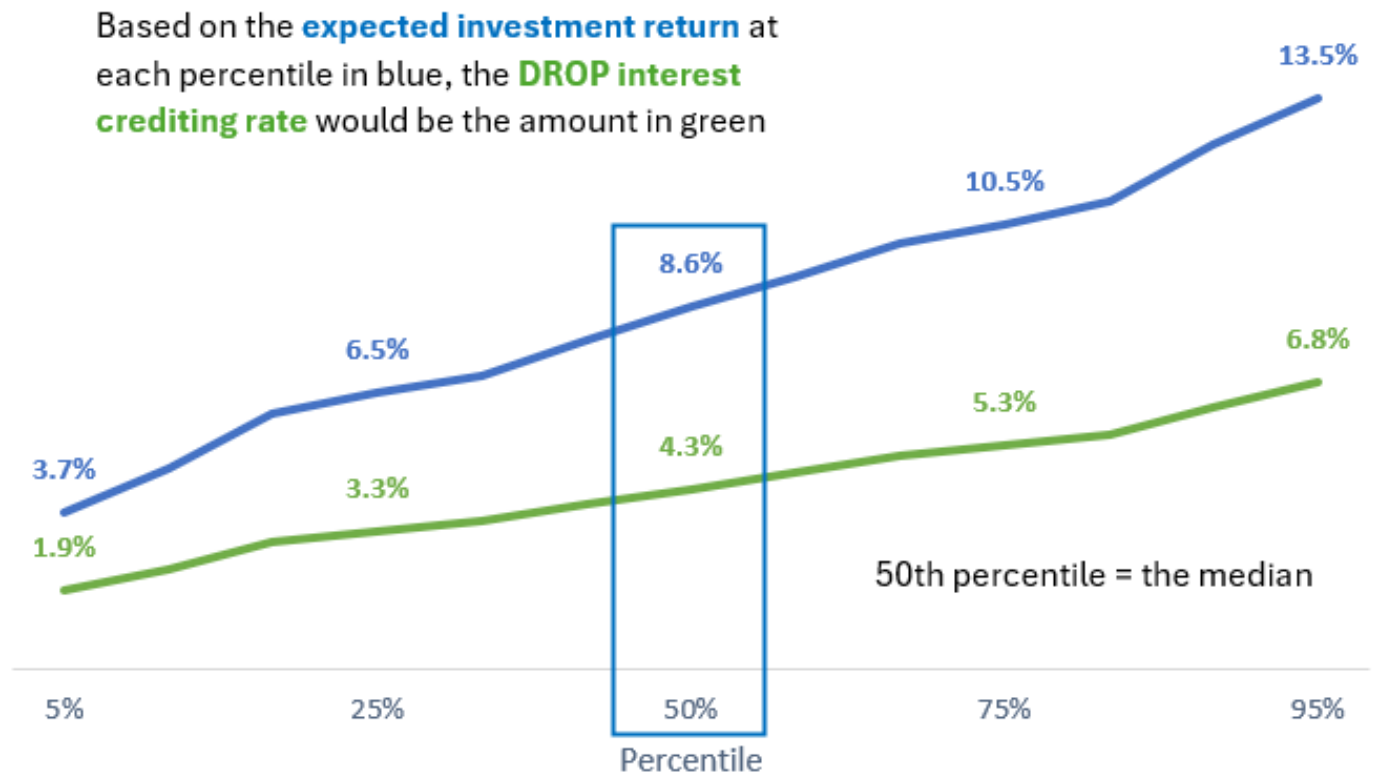
Current assumption: 4.00%

Analysis

The interest rate on DROP accounts is set annually by the Board and is between 0% and 7%. The rate chosen can be no more than 50% of the annual return on the trust’s assets for the prior year. Based on the 30-year expected return at the 50th percentile (the “median” return), the maximum interest crediting rate would be 4.3%.

Proposed assumption: no change

Relationship of investment return to Interest Crediting Rate



Economic Assumptions – Pay Increases (Police)

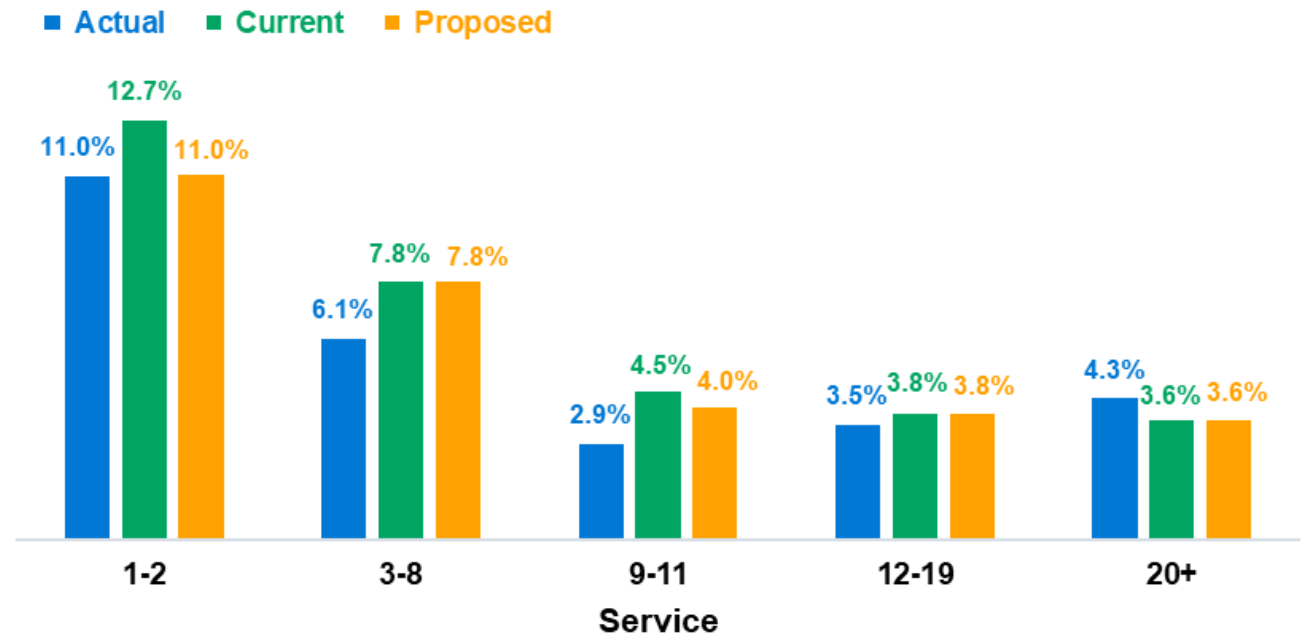
Current assumption: graded based on service from 13.25% to 3.25%

Analysis

Our current assumption reflects both historic pay patterns as well as changes in the pay structure that went into effect as of January 1, 2024. In order to assess the continued adequacy of the assumption, it is useful to analyze the pre-2024 experience, as summarized in the chart.

For all service levels* combined, the actual salaries were 99.2% of the expected salaries during the period we studied. For increases at service levels of 0-2 and 9-11 years, the actual increases were significantly lower than expected. Using the proposed assumption results in actual salaries equal to 99.5% of expected.

Annual pay increases by length of service



Proposed assumption: decrease salary increase rates for 0-2 and 9-11 years of service.

Note: we excluded members with less than one year of service from our analysis because partial earnings in the first year cause distorted results. Also, there was a 27th paycheck in calendar year 2020, which resulted in a distortion of annual pay changes. We adjusted our analysis accordingly.

Economic Assumptions – Pay Increases (Police)

Analysis

Our assumption is based both on experience data and the step increases in the current contract.

<u>Service</u>	<u>Step</u>	<u>2024 Officer Base Pay</u>	<u>% Increase</u>	<u>Step Increase Plus 3.25%*</u>	<u>Proposed Assumption</u>
	A	\$70,928			
0	B	75,150	6.0%	9.2%	11.00%
1	C	79,373	5.6%	8.9%	11.00%
2	D	82,389	3.8%	7.0%	11.00%
3	E	85,904	4.3%	7.5%	9.25%
4	F	87,630	2.0%	5.3%	8.25%
5	G	90,813	3.6%	6.9%	7.25%
6	H	94,940	4.5%	7.8%	6.50%
7	I	98,259	3.5%	6.8%	6.50%

*3.25% is our assumption for inflation plus productivity increases which is the rate at which the step schedule should increase over time.

<u>Service</u>	<u>Actual</u>	<u>Current</u>	<u>Proposed</u>
0		13.25%	11.00%
1	9.9%	13.25%	11.00%
2	11.8%	12.25%	11.00%
3	7.7%	9.25%	9.25%
4	5.2%	8.25%	8.25%
5	6.1%	7.25%	7.25%
6-8	5.4%	6.50%	6.50%
9	2.3%	5.25%	4.00%
10	3.2%	4.45%	4.00%
11	2.9%	4.21%	4.00%
12	3.4%	4.00%	4.00%
13-20	3.5%	3.75%	3.75%
21-23	4.5%	3.50%	3.50%
24+	6.9%	3.25%	3.25%

Note: There were very few people in the 24+ years of service category

Economic Assumptions – Pay Increases (Fire)

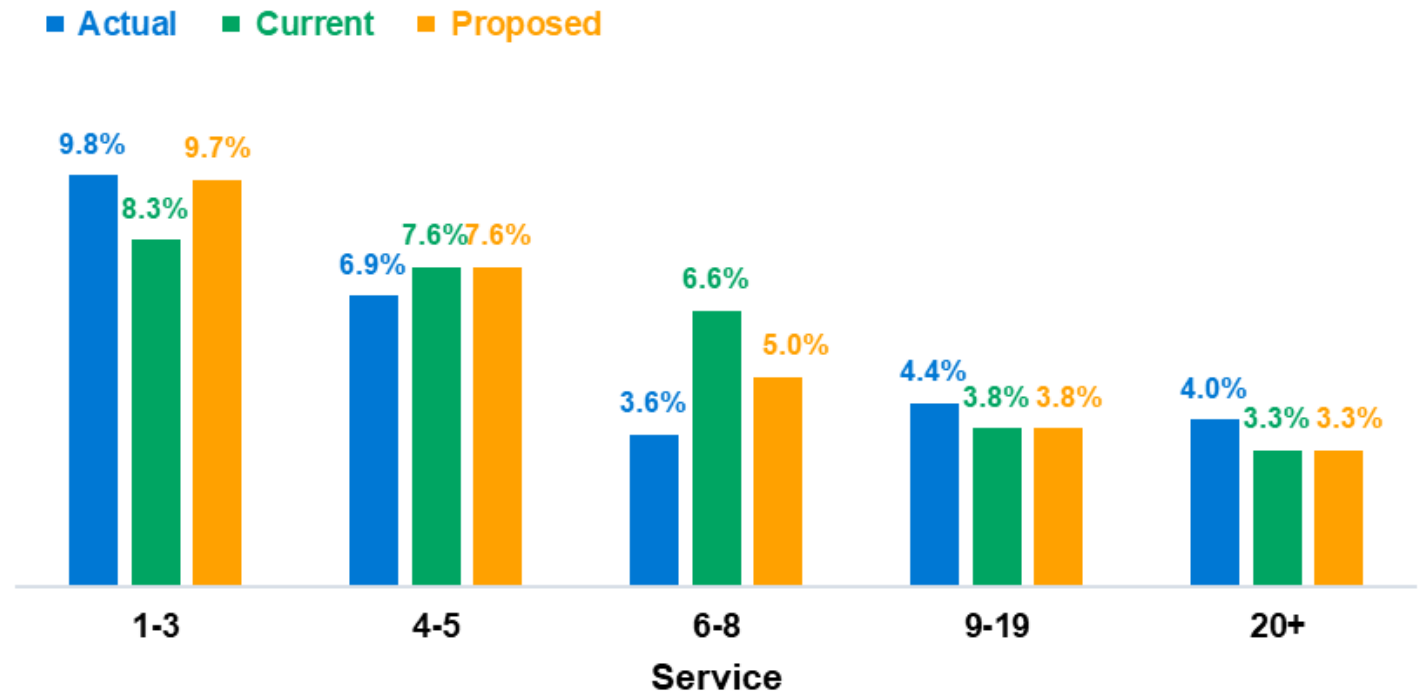
Current assumption: graded based on service from 8.25% to 3.25%

Analysis

The graph at right shows that actual pay increases were higher than expected at 1-3 years of service but lower than expected at 6-8 years.

For all service levels* combined, the actual salaries were 100.3% of the expected salaries during the period we studied.

Annual pay increases by length of service



Proposed assumption: increase salary increase rates for 0-3 and decrease for 6-8 years of service

→ Combined impact for Police and Fire is a very small increase in Accrued Liability

Note: we excluded members with less than one year of service from our analysis because partial earnings in the first year cause distorted results. Also, there was a 27th paycheck in calendar year 2020, which resulted in a distortion of annual pay changes. We adjusted our analysis accordingly.

Economic Assumptions – Pay Increases (Fire)

Analysis

Our assumption is based both on experience data and the step increases in the current contract.

<u>Service</u>	<u>Step</u>	<u>2024 Firefighter Base Pay</u>	<u>% Increase</u>	<u>Step Increase Plus 3.25%**</u>	<u>Proposed Assumption</u>
	T	\$64,734			
0*	A	67,879	4.9%	8.15%	11.00%
1	B	71,635	5.5%	8.75%	11.00%
2	C	75,537	5.4%	8.65%	9.00%
3	D	79,323	5.0%	8.25%	9.00%
4	E	83,167	4.8%	8.05%	7.75%
5	F	86,981	4.6%	7.85%	7.50%
6	G	90,767	4.4%	7.65%	5.00%

<u>Service</u>	<u>Actual</u>	<u>Current</u>	<u>Proposed</u>
0		8.25%	11.00%
1	10.8%	8.25%	11.00%
2	9.0%	8.25%	9.00%
3	9.5%	8.25%	9.00%
4	7.0%	7.75%	7.75%
5	6.9%	7.50%	7.50%
6	4.0%	7.00%	5.00%
7	3.4%	6.75%	5.00%
8	3.5%	6.00%	5.00%
9	2.8%	5.00%	5.00%
10-16	4.4%	4.00%	4.00%
17+	4.3%	3.25%	3.25%

*Members spend 6 months in Step T. Therefore, depending on timing of hire and valuation date, a new hire may be at Step T or Step A.

**3.25% is our assumption for inflation plus productivity increases which is the rate at which the step schedule should increase over time.

Topics

1 Overview of an Experience Study

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3 Demographic assumptions

4 Funding method

5 Impact of proposed changes on valuation results

Demographic Assumptions – Mortality

Current assumption (adopted in 2022):

- Pub-2010 Public Safety Mortality Table
- Generational projection of future improvements in longevity using the MP-2021 projection scale
- Employee rates before retirement; healthy or disabled annuitant rates after retirement

Analysis

The System does not have enough members for its mortality experience to be considered “credible”. As a result, we look to large-scale studies of mortality to set this assumption.

The Society of Actuaries recently released the Pub-2016 mortality tables, an update to the Pub-2010 tables which use mortality data solely from public pension plans. The MP-2021 Scale is the latest scale that the Society of Actuaries has released.

The Society is expected to release an updated public plan table every 5 years.

Proposed assumption: Pub-2016 Public Safety Mortality Table with MP-2021 projection scale

→ Very small increase in Accrued Liability



Demographic Assumptions – Turnover (Police)

Current assumption: decreasing rates based on years of service, separate rates for males and females

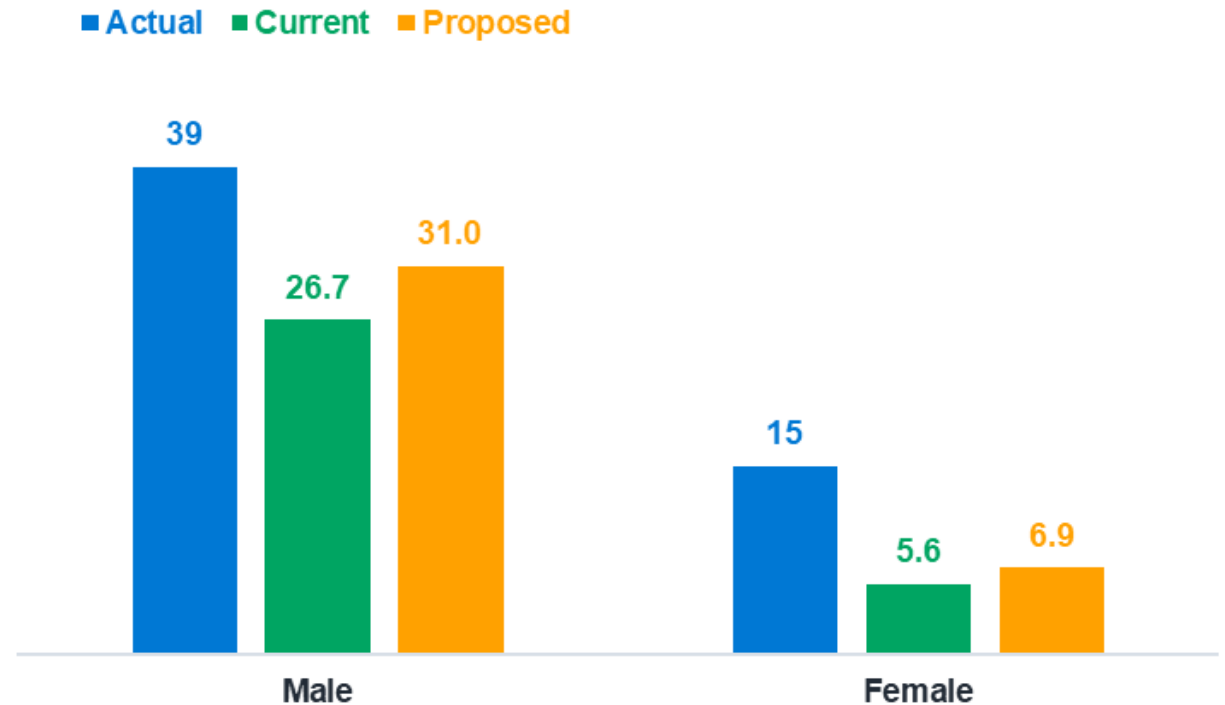
Analysis

Overall there were more terminations (54) than expected (32.3). In particular, more terminations than expected occurred for those with less than 10 years of service, especially for females.

The study period covered the “Great Resignation” during the COVID-19 pandemic, which is likely not representative of future turnover rates.

Proposed assumption: slight increase in termination rates for both males and females at various ages

Number of terminations



Demographic Assumptions – Turnover (Fire)

Current assumption: decreasing rates based on years of service, same rates for males and females

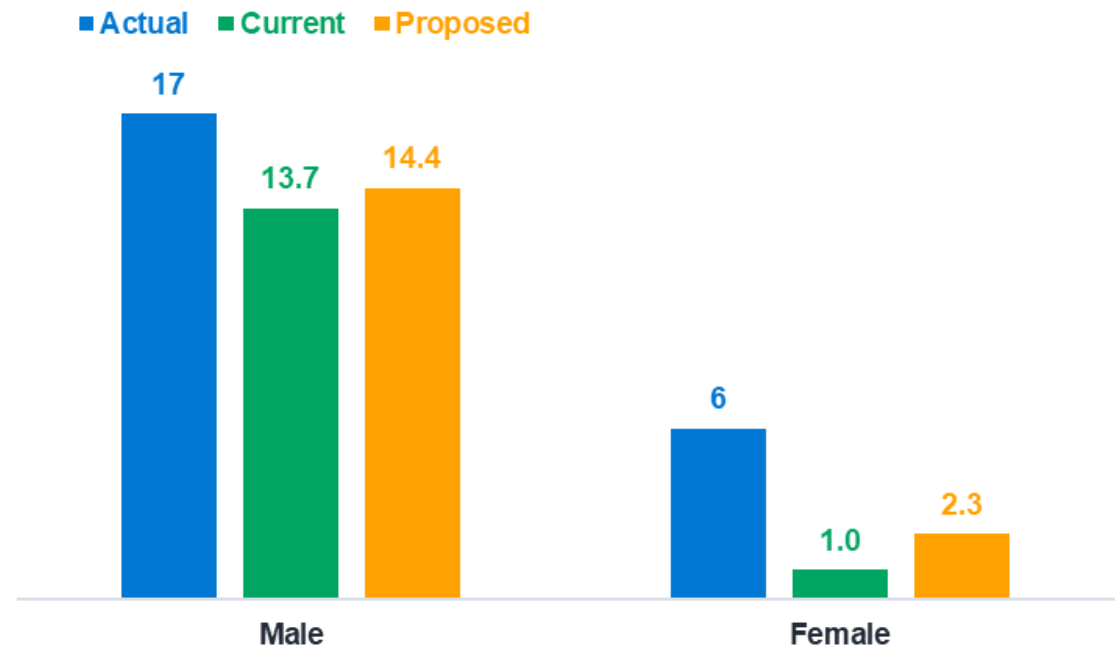
Analysis

Overall there were more terminations (23) than expected (14.7). Looking at males and females separately, more males terminated than expected, and significantly more females terminated than expected.

Proposed assumption: increase in termination rates for various years of service, separate rates for males and females

→ **Combined impact for Police and Fire is a very small increase in Accrued Liability**

Number of terminations



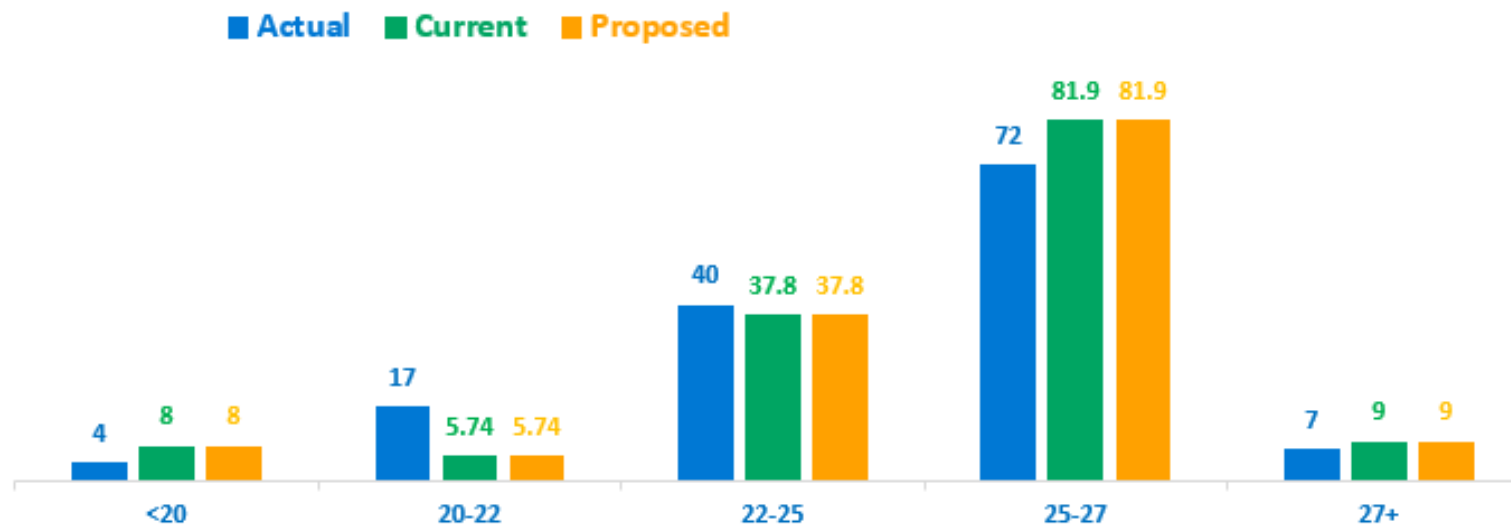
Demographic Assumptions – Retirement (Police)

Current assumption: varies by Tier and service with all assumed to retire once they reach 25 years of service (27 years of service for those hired after 1/1/2010)

Analysis: We analyzed only members that were hired prior to 1/1/2010 (Tier I and Tier II). There is no experience for those hired after 1/1/2010 (Tier III) yet; we suggest revisiting the assumption for this group with the next experience study. Overall, actual retirements (140) were very close to expected (142.4). Retirements were similar to expected at most age and service levels.

Proposed assumption: no change

Number of retirements by service



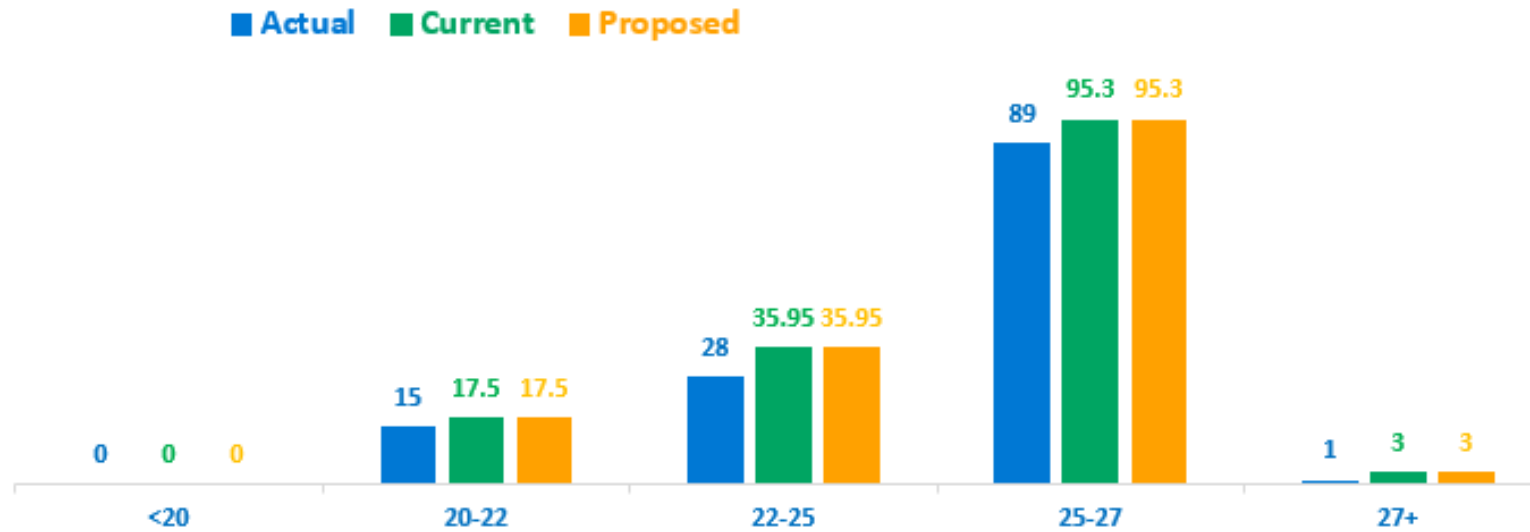
Demographic Assumptions – Retirement (Fire)

Current assumption: varies by Tier and service with all assumed to retire once they reach 25 years of service (27 years of service for those hired after 1/1/2013)

Analysis: We analyzed only members that were hired prior to 1/1/2013 (Tier I and Tier II). There is no experience for those hired after 1/1/2013 (Tier III) yet; we suggest revisiting the assumption for this group with the next experience study. Overall, there were slightly fewer retirements (133) than expected (151.8). Retirements were similar to expected at most age and service levels.

Proposed assumption: no change

Number of retirements by service



Demographic Assumptions – Disability

Current assumption: various rates starting at 0.12% at age 20 and increasing to 0.92% at age 60

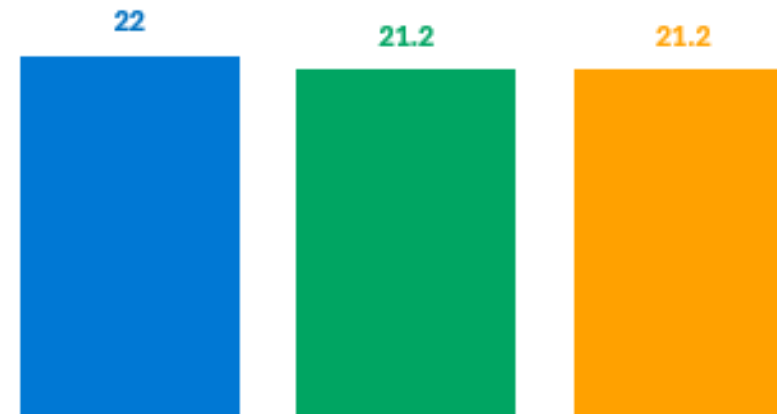
Analysis

Overall, actual disabilities (22) were very close to expected (21.2).

Proposed assumption: no change

Number of disabilities

■ Actual ■ Current ■ Proposed



Demographic Assumptions – COTA Load

Current assumption: Earnings are loaded in order to approximate the expected impact of COTA at retirement. The load is 12% for Police members and 4.5% for Fire members.

Analysis

For members who are eligible for COTA, we analyzed the ratio of pay with COTA to pay without COTA by age and service. For Police members, COTA increases pay on average by 11.9% and by 12.7% for those eligible to retire. For Fire members, COTA increases pay on average by 4.4% and by 5.3% for those eligible to retire.

COTA “load” by age and service

Police Service	Age							Total
	35-39	40-44	45-49	50-54	55-59	60-64	65+	
10-14		6.2%						6.2%
15-19	10.9%	12.6%	11.3%	9.6%	9.0%	8.6%		11.4%
20-24		11.0%	15.0%	12.7%	11.7%	12.7%		13.3%
25+			10.4%	10.8%	11.0%	12.0%	7.3%	10.7%
Total	10.9%	12.4%	12.6%	11.2%	11.0%	11.4%	7.3%	11.9%

Fire Service	Age							Total
	30-34	35-39	40-44	45-49	50-54	55-59	60+	
10-14	2.0%	4.7%	3.4%	4.1%	10.7%			4.0%
15-19		2.9%	3.7%	4.6%	3.8%	3.2%	7.8%	4.0%
20-24			5.8%	4.3%	4.6%	5.9%	4.0%	4.8%
25+				6.8%	4.3%	9.0%	14.0%	6.2%
Total	2.0%	3.5%	3.9%	4.6%	4.4%	5.7%	7.5%	4.4%

Members eligible to retire

For retirement eligible members only

	A = Total Base Pay	B = Total Pay with COTA	Load = B/A-1
Police	13,597,388	15,326,201	12.7%
Fire	11,995,234	12,626,128	5.3%

Proposed assumption: Increase load to 12.5% for Police, 5% for Fire

→ Small increase in Accrued Liability



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Demographic Assumptions – DROP Election

Current assumption: 80% of retirement-eligible Police members and 90% of retirement-eligible Fire members are assumed to enter DROP

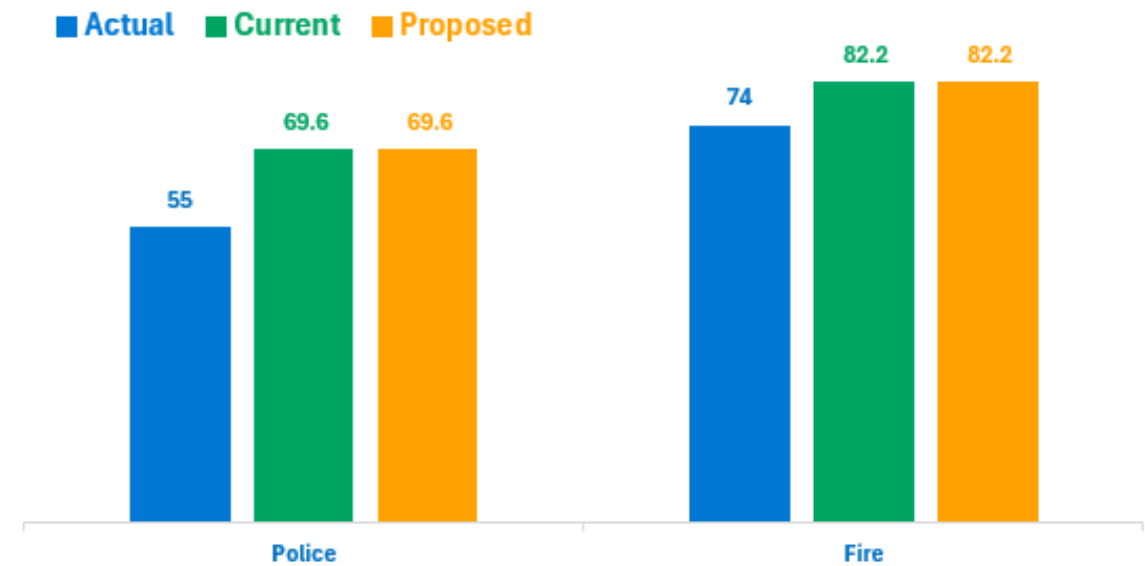
Analysis

Our analysis is based on members in Tiers I and II since Tier III has had no DROP experience yet. For Police members, a lower percentage (70%) elected the DROP than expected (80%).

For Fire members, a slightly lower percentage (82%) elected the DROP than expected (90%).

Proposed assumption: no change

Number of members electing the DROP



Topics

1 Overview of an Experience Study

2 Economic assumptions

3 Demographic assumptions

4 **Funding method**

5 Impact of proposed changes on valuation results

Funding Method – Cost Method

Current method: Entry Age Normal

Analysis

Entry Age Normal is the most common method used by public pension funds for analyzing the funding of the plan and is the method prescribed by GASB 67/68 for financial reporting purposes,

Entry Age Normal provides a stable progression of costs over a member's working lifetime.

Proposed method: no change

Funding Method – Amortization Method

Current method: level percent with layered 20 year bases

Analysis

Level percent amortization means that the annual amortization payment is expected to increase at a predictable rate (3.0%).

Layered bases means that a new amortization base is established each year for the actuarial gains or losses that emerged since the last valuation.

The amortization period is 20 years; this period is reasonable given the demographic profile of the plan's active membership.

Proposed method: no change

Funding Method – Asset Smoothing Method

Current method: four year asymptotic smoothing with a +/- 20% corridor

Analysis

Five years is the predominant period for asset smoothing and provides a nice balance between dampening market fluctuations while not straying too far from market value. Four years provides somewhat less smoothing. Consideration should be given to lengthening the smoothing period to five years.

“Asymptotic” smoothing means that each year the actuarial value moves 25% of the way towards the market value. A market gain or loss in any given year is therefore recognized 25% in the first year, 18.75% in the second year, 14.06% in the third year, and so on in increasingly small amounts each year. This approach provides good smoothing but can be difficult for stakeholders to understand. Consideration should be given to moving to “non-asymptotic” smoothing.

A 20% corridor means that the actuarial value of assets can never stray more than 20% away from the market value of assets. This is the predominant corridor for plans that use one.

Proposed method: No change

Topics

1 Overview of an Experience Study

2 Economic assumptions

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Impact of Proposed Changes Based on January 1, 2024 Valuation

	Baseline	Proposed Changes
Accrued Liability	\$1,752,471,116	\$1,761,165,452
Actuarial Value of Assets	1,023,979,490	1,023,979,490
Unfunded Accrued Liability	728,491,626	737,185,962
Funded Ratio	58.4%	58.1%
Total Normal Cost Rate	19.604%	19.470%
Prior Service Payment Rate	0.828%	0.825%
UAL Amortization Rate	<u>34.259%</u>	<u>34.552%</u>
Actuarially Determined Total Contribution Rate	54.691%	54.847%
Employee Contribution Rate	<u>-16.564%</u>	<u>-16.563%</u>
Actuarially Determined Employer Contribution Rate	38.127%	38.284%
City Ordinance Contribution Rate	33.776%	33.775%
Contribution Rate (Shortfall)/Margin	-3.523%	-3.684%

Summary of Proposed Changes

Current Assumption

Proposed Assumption

Mortality

PubS-2010 Mortality Table with generational projection per the MP-2021 scale, with employee rates before benefit commencement and healthy, disabled and contingent annuitant rates after benefit commencement. This assumption includes a margin for mortality improvement beyond the valuation date.

PubS-2016 Mortality Table with generational projection per the MP-2021 scale, with employee rates before benefit commencement and healthy, disabled and contingent annuitant rates after benefit commencement. This assumption includes a margin for mortality improvement beyond the valuation date.

Turnover

Service	Fire	Police	
	Unisex	Males	Females
0-1	1.5%	3.0%	4.0%
2-3	1.5%	1.8%	2.2%
4-9	1.0%	1.5%	1.8%
10-15	0.6%	0.8%	0.8%
16-19	0.5%	0.3%	0.3%
20 or more	0.0%	0.0%	0.0%

Service	Fire		Police	
	Males	Females	Males	Females
0-1	2.0%	4.0%	3.0%	4.0%
2-3	1.5%	4.0%	2.0%	3.0%
4-9	1.0%	2.5%	2.0%	2.5%
10-15	0.6%	0.6%	0.8%	0.8%
16-19	0.5%	0.5%	0.5%	0.5%
20 or more	0.0%	0.0%	0.0%	0.0%

COTA Adjustment

Earnings are loaded in order to approximate the expected impact of COTA at retirement. The load is **12% for Police members and 4.5% for Fire members.**

Earnings are loaded in order to approximate the expected impact of COTA at retirement. The load is **12.5% for Police members and 5% for Fire members.**

Summary of Proposed Changes

Current Assumption

Proposed Assumption

Salary Increases

Fire		Police	
Service	Rate	Service	Rate
0-3	8.25%	0	13.25%
4	7.75%	1	13.25%
5	7.50%	2	12.25%
6	7.00%	3	9.25%
7	6.75%	4	8.25%
8	6.00%	5	7.25%
9	5.00%	6-8	6.50%
10-16	4.00%	9	5.25%
17+	3.25%	10	4.45%
		11	4.21%
		12	4.00%
		13-20	3.75%
		21-23	3.50%
		24+	3.25%

Fire		Police	
Service	Rate	Service	Rate
0-1	11.00%	0-2	11.00%
2-3	9.00%	3	9.25%
4	7.75%	4	8.25%
5	7.50%	5	7.25%
6-8	5.00%	6-8	6.50%
9	5.00%	9-12	4.00%
10-16	4.00%	13-20	3.75%
17+	3.25%	21-23	3.50%
		24+	3.25%

Caveats

In preparing this study, we relied without audit on information furnished by the City as of each valuation date from January 1, 2020 through January 1, 2024. This information includes, but is not limited to, plan provisions, employee data, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the study results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. If any data or other information is inaccurate or incomplete, our calculations may need to be revised. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

The calculations reported herein have been made on a basis consistent with our understanding of the plan provisions of The City of Omaha Employees' Retirement System. Furthermore, the calculations were determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations of the American Academy of Actuaries.

The study results were developed using models that use standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice (ASOP). The models, including all input, calculations, and output may not be appropriate for any other purpose.

Milliman's work is prepared solely for the internal business use of the City of Omaha and the City of Omaha Police and Fire Retirement System. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) the City or System may provide a copy of Milliman's work, in its entirety, to the City or System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the City or System; and (b) the City or System may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs. If this report is distributed to other parties, we request that it be copied in its entirety and distributed along with a copy of the January 1, 2024 actuarial valuation report in its entirety as well, because that document provides background information that is important in understanding the basis for the results contained herein.

Caveats

The cost calculations reported herein have been made on a basis consistent with our understanding of the actuarial methods and assumptions adopted by the City and the System. Additional determinations may be needed for other purposes, such as judging benefit security at plan termination or meeting employer accounting requirements. On the basis of the foregoing, we hereby certify that, to the best of our knowledge, this report is complete and accurate and all costs and liabilities were determined in conformance with generally accepted actuarial principles and practices. We further certify that, in our opinion, each actuarial assumption, method and technique used is reasonable taking into account the experience of the Plan and reasonable expectations or would, in the aggregate, result in a total contribution equivalent to that which would be determined if each such assumption, method, or technique were reasonable. Differences between our projections and actual amounts depend on the extent to which future experience conforms to the assumptions made for this analysis. Actual experience will not conform exactly to the assumptions made for this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Rebecca A. Sielman, FSA, Principal and Consulting Actuary

R. Ryan Falls, FSA, Principal and Consulting Actuary

Yelena Pelletier, ASA, Consulting Actuary

Questions?



This work product was prepared solely for the City and the System for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.



October 15, 2025

Senator Beau Ballard, Chairperson
Nebraska Retirement Systems Committee
Nebraska Legislature
State Capitol
P. O. Box 94604
Lincoln, NE 68509-4604

RE: Neb. Rev. Stat. § 13-2402 - Reporting Requirements - Defined Benefit Plans

Dear Senator Ballard:

I am responding on behalf of the Omaha Public Power District (OPPD) to your letter dated September 3, 2025, regarding reporting requirements under Section 13-2402 of the Nebraska Revised Statutes. This letter, along with enclosed attachments, provides the requested information.

OPPD has provided and will continue to disclose information describing the organization's defined benefit Retirement Plan to the Board of Directors, in annual reports, in bond offering documents, and in annual newsletters provided to plan participants. We are pleased to provide similar information to the Nebraska Retirement Systems Committee.

As requested, OPPD's Chief Financial Officer, Bradley R. Underwood, will appear before the Committee in mid-November to present the information requested by the Committee and answer questions about OPPD's defined benefit plan status.

If you have any further questions, or need additional information, please do not hesitate to contact me. Thank you for the opportunity to present this information to the Committee.

Sincerely,

A handwritten signature in black ink, appearing to read "L. Javier Fernandez", is written over a horizontal line.

L. Javier Fernandez,
President and Chief Executive Officer

cc: Trevor Fitzgerald – Senior Research Consultant and Committee Legal Counsel

2025 Reporting Form for Underfunded Political Subdivision Pension Plans Omaha Public Power District

1. Please list the following information for plan years 2021 through current plan year 2025:

a. Funding Status – There are currently multiple ways to identify and value funded status. For your consideration, the district is aware of two and they are as follows:

i. **Present Value of Accrued Plan Benefits:** present value of benefits based on compensation and service to the date of the actuarial valuation.

Funded Ratio	2021	2022	2023	2024	2025
PVAPB (%)	78.6	82.2	79.9	80.6	79.0

ii. **Actuarial Accrued Liability:** present value of retirement benefits adjusted for assumptions for future increases in compensation and service attributable to past accounting periods.

Funded Ratio	2021	2022	2023	2024	2025
AAL (%)	72.0	75.5	73.5	74.3	73.2

b. Assumed rate of return – The discount rate of return is itemized in the table below:

	2021	2022	2023	2024	2025
Discount Return %	7.0	6.5	6.5	6.5	6.5

c. Actual investment return – The actual return is itemized in the table below:

	2021	2022	2023	2024	2025
Actual Return %	6.4	-14.4	11.9	7.6	Not Yet Available

d. Member and employer contributions rates - percentage

	2021	2022	2023	2024	2025
Employee Contributions (%)	8.3	9.0	9.0	9.0	9.0

The OPPD percentage rate is calculated by dividing the Annual Required Contribution into the Valuation Compensation as follows:

	2021	2022	2023	2024	2025
Employer Contributions (%)	29.4	28.0	28.7	27.3	27.7

e. Normal cost – percentage

	2021	2022	2023	2024	2025
Covered Compensation (%)	12.2	13.4	13.1	12.9	12.7

f. Actuarial required contribution – percentage & dollar amount

Assumed percentage of covered compensation

	2021	2022	2023	2024	2025
ARC (%)	29.4	28.0	28.7	27.3	27.7

Dollar amount in millions

	2021	2022	2023	2024	2025
ARC (\$)	56.5	55.8	61.5	63.2	68.2

g. Actuarially required contribution - actual dollars contributed and percentage of actuarial required contribution contributed.

	2021	2022	2023	2024	2025
ARC (\$) made	56.5	55.8	61.5	63.2	68.2
ARC Made (%)	100	100	100	100	Not Yet Available

2. Please provide a brief narrative of the circumstances that led to the current underfunding of the retirement plan.

The primary reasons for the pension's present funding level are lower investment performance from 2000-2008, an increase in life expectancy and reduction of the plan's projected earnings rate (discount rate). All of these items have impacted the funding status for the universe of defined benefit plans.

3. Have there been any changes in the actuarial methods and/or assumptions since the previous actuarial valuation report? If so, please describe.

There were no assumption changes since the prior valuation.

4. In what year is the plan's future funding ratio expected to reach 100%?

The plan's funding ratio is expected to reach 100% in 2045.

5. What is the method used to amortize the unfunded actuarial liability?

The unfunded liability is amortized over 20 years as a level dollar amount. A new amortization base is established each year for unexpected changes in the unfunded liability (i.e., plan amendments, assumption changes, or gains/losses). Because of the 20-year amortization period, the plan is not projected to be fully funded until the end of the last amortization period, which is 2045 based on the new amortization bases that were effective January 1, 2025.

6. Please provide a description of corrective actions implemented to improve the funding status of the plan including, but not limited to, benefit changes, increased contribution rates and/or employer contributions. Please include any actuarial projections based on these changes and attach a copy of the actuarial projections.

- a. In 2012, the OPPD Board of Directors approved a change in the retirement benefit for employees hired after December 31, 2012. Employees hired on January 1, 2013 and later accrue a retirement benefit using a cash balance model instead of a benefit using final average compensation. In addition to providing more convenience to future employees, there was a decrease in actuarially projected plan costs which is expected to reduce future pension costs.
- b. In 2013, the District changed early retirement eligibility, which generally prevents employees from receiving early retirement benefits before the age of 55.
- c. The employee contribution rate increased from 6.2% to 6.7% in 2018, 7.2% in 2019, 7.7% in 2020, 8.3% in 2021 and 9.0% in 2022 and later.
- d. In 2021, the District contributed an additional \$95.0 million more to the Retirement Plan than the \$56.5 million annual required contribution.

e. In 2023, the District contributed an additional \$50.0 million more to the Retirement Plan than the \$61.5 million annual required contribution.

7. Please describe any recent or ongoing negotiations with bargaining groups that may impact the funding of the plan.

The District ratified new agreements with its bargaining groups during 2025. There were no changes to the retirement plan through negotiations.

8. Please attach a copy of the most recent Actuarial Experience Study. When will the next Actuarial Experience Study be completed and available for review by the Committee?

The most recent Actuarial Experience Study was completed in 2021 and was provided with the submittal on October 15, 2021. The next Actuarial Experience Study is expected to be completed in 2026.

9. What is the current assumed rate of return? If the rate has been changed in the past year, or if there are plans to review the rate for the upcoming year, please describe.

The discount rate is currently 6.5%. The rate has not changed in the past year.

10. Please attach the most recent actuarial valuation report. If the valuation report is completed biannually (or less often) please include an updated report for the interim year/s, if available.

The January 1, 2025, actuarial valuation report is attached.

Actuarial Valuation Report

Omaha Public Power District

Retirement Plan

As of January 1, 2025



Introduction

This report documents the results of the January 1, 2025 actuarial valuation of the Omaha Public Power District Retirement Plan (“the Plan”) for the plan sponsor and for Omaha Public Power District (OPPD). The information provided in this report is intended strictly for documenting information relating to contribution and funding requirements for the 2025 plan year.

Determinations for purposes other than the funding valuation may be significantly different from the results in this report. Thus, the use of this report for purposes other than those expressed here may not be appropriate.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board. This plan is a governmental plan as defined in IRC section 414(d), and as such the plan is not subject to the ERISA minimum funding requirements.

A valuation model was used to develop the liabilities for the January 1, 2025 valuation. The valuation model relies on ProVal software, which was developed by Winklevoss Technologies, LLC. Experts within Aon selected this software and determined it is appropriate for performing valuations. The valuation team coded and reviewed the software for the provisions, assumptions, methods, and data of the OPPD Retirement Plan. The valuation team relied on experts at Aon for the development of the capital market assumptions models underlying the interest rate.

Future actuarial measurements may differ significantly from the current measurements presented in this report due (but not limited to) to such factors as the following:

- Plan experience differing from that anticipated by the economic or demographic assumptions;
- Changes in actuarial methods or 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;
- Issuance of additional regulatory guidance.

Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements.

Funded status measurements shown in this report are determined based on various measures of plan assets and liabilities. Plan assets are measured based on the asset valuation method described in the Actuarial Assumptions and Methods section of this report. Plan liabilities are measured based on the interest rates and other assumptions summarized in the Actuarial Assumptions and Methods section of this report. These funded status measurements may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.

In determining contribution requirements for the Plan, Aon may be assisting the appropriate plan fiduciary as it performs tasks that are required for the administration for an employee benefit plan. Aon may also be consulting with the employer/plan sponsor (OPPD) as it considers alternative strategies for funding the plan. Thus, Aon potentially will be providing assistance to OPPD (and/or certain of its employees) acting in a fiduciary capacity (for the benefit of plan participants and beneficiaries) and to OPPD (and/or its executives) acting in a settlor capacity (for the benefit of the employer sponsoring the Plan).

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by OPPD as of the valuation date. While we cannot verify the accuracy of all the information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy or completeness of the information and believe that it has produced appropriate results.

The actuarial assumptions and methods used in this valuation are described in the Actuarial Assumptions and Methods section of this report. OPPD selected the economic and demographic assumptions. With the exception of the assumed active management premium reflected in the interest rate (i.e., expected return on assets), Aon provided guidance with respect to these assumptions, and it is our belief that the assumptions represent reasonable expectations of anticipated plan experience. The interest rate is based on an underlying expected passive return and assumed active management premium. The underlying expected passive return is within the range we would consider to be reasonable based on Aon's forward-looking capital market assumptions as of the measurement date. The active management premium was selected by OPPD in consultation with its investment advisor. We are unable to assess the reasonability of the assumed active management premium, as such an assessment would require a substantial amount of additional work beyond the scope of our assignment, and we do not have the necessary information to perform such an assessment.

For each economic and demographic assumption that has a significant effect on the measurement, and that the actuary has determined does not significantly conflict with what, in the actuary's professional judgment, is reasonable for the purpose of the measurement, the information and analysis used to support this determination are described in more detail in the 2025 Actuarial Assumptions document.

Certain aspects of the funding results included in this report are subject to Actuarial Standard of Practice No. 51 (ASOP 51) on risk assessments for pension funding calculations. The January 1, 2025 ASOP 51 risk assessment analysis for the OPPD Retirement Plan is contained in a separate report.

The undersigned are familiar with the near-term and long-term aspects of pension valuations and collectively meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. The information provided in this report is dependent upon various factors as documented throughout this report, which may be subject to change. Each section of this report is considered to be an integral part of the actuarial opinions.

To our knowledge, no colleague of Aon providing services to OPPD has any material direct or indirect financial interest in OPPD. Thus, we believe there is no relationship existing that might affect our capacity to prepare and certify this actuarial report for OPPD.



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September 2025

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Summary

The following page summarizes the results of the January 1, 2025 actuarial valuation. For comparison purposes, the results of the January 1, 2024 and January 1, 2023 actuarial valuations are also shown.

This plan is a governmental plan as defined in IRC section 414(d), and as such the Plan is not subject to the ERISA minimum funding requirements.

Plan Changes

There have been no plan changes since the prior valuation.

Assumption Changes

There have been no assumption changes since the prior valuation.

Method Changes

There have been no method changes since the prior valuation.

Summary

	January 1, 2023	January 1, 2024	January 1, 2025
Interest Rate	6.50%	6.50%	6.50%
Present Value of Future Benefits (PVB)	\$ 2,034,540,225	\$ 2,092,507,282	\$ 2,144,243,340
Accrued Liability (EAN)	\$ 1,751,138,031	\$ 1,787,738,582	\$ 1,820,775,772
Actuarial Value of Assets	<u>1,286,243,594</u>	<u>1,327,984,062</u>	<u>1,332,174,640</u>
Unfunded Accrued Liability	\$ 464,894,437	\$ 459,754,520	\$ 488,601,132
Gross Normal Cost	\$ 28,158,166	\$ 29,823,074	\$ 31,199,902
As Percentage of Covered Compensation	13.1%	12.9%	12.7%
Annual Required Contribution (ARC) ¹	\$ 61,501,796	\$ 63,227,393	\$ 68,152,937
As Percentage of Covered Compensation	28.7%	27.3%	27.7%
Number of Participants			
Retired and Beneficiaries	2,348	2,385	2,418
Terminated and Vested	495	506	458
Disabled	18	17	18
Active	<u>1,877</u>	<u>1,975</u>	<u>2,125</u>
Total	4,738	4,883	5,019
Valuation Compensation ²	\$ 214,340,174	\$ 232,010,456	\$ 245,867,139

¹ Adjusted to reflect timing of contributions.

² Expected compensation during the plan year for active participants under the 100% assumed retirement age.

Funding Requirements

The Funding Requirements section presents the results of the ongoing plan valuation, which determines the contribution levels.

Included in the Funding Requirements are the following sections:

- **Assets and Liabilities**—This section develops the basic quantities upon which the actual contributions are based.
- **Contributions**—This section shows the development of the contribution amount for the year.
- **Experience**—This section develops and analyzes the actuarial gain or loss during the past year.

Assets and Liabilities

The Asset and Liabilities section includes the following:

- **Unfunded Accrued Liability and Normal Cost**—The actuarial valuation determines the unfunded accrued liability and the normal cost of the plan for the current year. The contribution then consists of the normal cost plus a payment on the unfunded accrued liability, if any.
- For employees already retired or terminated with a vested pension, the benefits to be paid have been determined. For other employees, future benefit payments based on service and projected pay must be estimated. As of the current valuation date, these liabilities have been valued as shown on the following pages.
- **Development of the Actuarial Value of Assets**—The actuarial valuation determines an actuarial value of assets, which has been adjusted to smooth out any significant annual changes in the market value of assets.

Valuation Results

	Before Changes	After Changes
Accrued Liability		
Retirees and Beneficiaries	\$ 1,174,314,618	\$ 1,174,314,618
Terminated Vested	45,228,364	45,228,364
Active and Disabled Employees	<u>601,232,790</u>	<u>601,232,790</u>
Total	\$ 1,820,775,772	\$ 1,820,775,772
Actuarial Value of Assets	<u>1,332,174,640</u>	<u>1,332,174,640</u>
Unfunded Accrued Liability	\$ 488,601,132	\$ 488,601,132
Funded Ratio	73.2%	73.2%
Gross Normal Cost	\$ 31,199,902	\$ 31,119,902
Number of Participants		
Retired and Beneficiaries		2,418
Terminated Vested		458
Disabled		18
Active		<u>2,125</u>
Total		5,019
Valuation Compensation ¹		\$ 245,867,139

¹ Expected compensation during the plan year for active participants under the 100% assumed retirement age.
Proprietary and Confidential
20250929_OPPD_2025 Retirement Plan Actuarial Report.docx

Market Value of Assets

Market Value, 12/31/2024	\$ 1,262,297,045
Receivable for 2024 Plan Year	<u>0</u>
Market Value of Assets, 1/1/2025	\$ 1,262,297,045

Actuarial Value of Assets

The actuarial value of assets phases in the difference between expected and actual asset return over a five-year period. Therefore, only 20% of the prior year's return in excess of (or short of) the expected return is recognized in this year's valuation. Said another way, 80% of the excess (or shortfall) is not recognized. This 80% that is not reflected is decreased 20% in each of the succeeding valuations until it reaches 0%, at which time all of the excess (or shortfall) has been recognized.

Asset (Gain)/Loss

Market Value of Assets, 1/1/2024	\$ 1,203,273,791
OPPD Contributions for 2024	63,227,393
Employee Contributions for 2024	21,007,775
Benefit Payments in 2024	(113,713,123)
Administrative Expenses in 2024	(205,034)
Expected Earnings in 2024	<u>77,454,929</u>
Expected Market Value of Assets, 1/1/2025	\$ 1,251,045,731
Actual Market Value of Assets, 1/1/2025	<u>1,262,297,045</u>
Asset (Gain)/Loss (Expected - Actual)	\$ (11,251,314)

Actuarial Value of Assets

Market Value of Assets, 1/1/2025	\$1,262,297,045
80% of Asset (Gain)/Loss for 2024	(9,001,051)
60% of Asset (Gain)/Loss for 2023	(32,100,709)
40% of Asset (Gain)/Loss for 2022	108,894,990
20% of Asset (Gain)/Loss for 2021	<u>2,084,365</u>
Actuarial Value of Assets, 1/1/2025	\$ 1,332,174,640

The return on the market value of assets during the 2024 Plan Year was approximately 7.45%.

Contributions

This section includes the calculation of the Annual Required Contribution (ARC) applicable to the 2025 Plan Year. The ARC is determined based on OPPD's funding policy. The funding policy is based on the following:

- Entry age normal cost method
- 20-year fresh start of the unfunded accrued liability as of January 1, 2015
- One-year amortization of the increase in accrued liability due to certain plan amendments, including single-year ad hoc retiree cost-of-living adjustments
- 20-year amortization of other plan or assumption changes and actual gains or losses
- Amortizations are closed group amortizations based on level amounts



Annual Required Contribution for 2025

Gross Normal Cost, 1/1/2025	\$ 31,199,902
Expected Employee Contributions during 2025	(22,128,043)
Net Amortization Charges, 1/1/2025	56,499,340
Interest at 6.50% to 12/31/2025	<u>4,981,289</u>
Total Charges at 12/31/2025	\$ 70,552,488
Discount for Monthly Contributions	<u>(2,399,551)</u>
Annual Required Contribution for 2025 Plan Year— Adjusted for Assumed Monthly Contributions	\$ 68,152,937

Schedule of Amortization Payments to be Recognized in the Annual Required Contribution

OPPD has elected to amortize all future gains/losses and plan amendments over a period of 20 years.

Source	Date Established	Original Amount	Remaining Years	Present Value 1/1/2025	Payment Due 1/1/2025
2015 Fresh Start	01/01/2015	\$ 361,570,248	10	\$ 238,916,779	\$ 31,206,051
2016 Plan Amendment	01/01/2016	1,268,369	11	893,161	109,071
2016 Assumption Changes	01/01/2016	50,292,679	11	35,415,188	4,324,816
2016 (Gain)/Loss	01/01/2016	28,105,800	11	19,791,592	2,416,901
2017 Assumption Changes	01/01/2017	(1,501,900)	12	(1,120,395)	(128,943)
2017 (Gain)/Loss	01/01/2017	27,887,279	12	20,803,466	2,394,219
2018 Plan Amendment	01/01/2018	949,609	13	745,510	81,399
2018 Assumption Changes	01/01/2018	(14,359,293)	13	(11,273,025)	(1,230,851)
2018 (Gain)/Loss	01/01/2018	20,544,594	13	16,128,911	1,761,043
2019 Assumption Changes	01/01/2019	33,164,231	14	27,248,126	2,838,422
2019 (Gain)/Loss	01/01/2019	34,126,681	14	28,038,883	2,920,796
2020 Assumption Changes	01/01/2020	(5,488,202)	15	(4,696,694)	(469,020)
2020 (Gain)/Loss	01/01/2020	14,320,622	15	12,255,304	1,223,836
2021 Assumption Changes	01/01/2021	4,428,357	16	3,931,175	377,901
2021 (Gain)/Loss	01/01/2021	(24,995,155)	16	(22,188,892)	(2,133,000)
2022 Assumption Changes	01/01/2022	87,596,277	17	80,378,299	7,464,716
2022 Additional Contribution	01/01/2022	(95,000,000)	17	(87,171,952)	(8,095,641)
2022 (Gain)/Loss	01/01/2022	(1,483,625)	17	(1,361,376)	(126,430)
2023 Plan Amendment	01/01/2023	1,522,013	18	1,441,061	129,702
2023 (Gain)/Loss	01/01/2023	61,726,485	18	58,443,441	5,260,163
2024 (Gain)/Loss	01/01/2024	18,238,230	19	17,768,479	1,554,212
2025 (Gain)/Loss	01/01/2025	54,214,091	20	54,214,091	4,619,977
Total				\$ 488,601,132	\$ 56,499,340

Experience

This section presents the development and analysis of the actuarial gain/loss during the past year. Gains or losses result when actual plan experience over the prior year differs from the Actuarial Assumptions.

Development of Actuarial Gain or Loss for 2024

Unfunded Accrued Liability (Surplus), 1/1/2024	\$ 459,754,520
Plus: Interest to 12/31/2024 at 6.50%	29,884,044
Plus: 2024 Total Normal Cost	29,823,074
Plus: Interest to 12/31/2024 at 6.50%	1,938,500
Less: 2024 OPPD Contributions	(63,227,393)
Less: Interest to 12/31/2024 at 6.50%	(2,214,185)
Less: 2024 Employee Contributions	(21,007,775)
Less: Interest to 12/31/2024 at 6.50%	(672,005)
Less: 2024 Administrative Expenses	205,034
Less: Interest to 12/31/2024 at 6.50%	<u>6,559</u>
Equals: Expected Unfunded Accrued Liability (Surplus), 1/1/2025	\$ 434,490,373
Less: Actual Unfunded Accrued Liability (Surplus) Before Changes, 1/1/2025	<u>488,601,132</u>
Equals: Actuarial (Gain) Loss for 2025 plan year	\$ 54,110,759

Reconciliation of Unfunded Accrued Liability (Surplus)

Unfunded Accrued Liability (Surplus) Before Changes, 1/1/2025	\$ 488,601,132
Change in Unfunded Due to Plan Amendment	0
Change in Unfunded Due to Assumption Change	0
Change Due to Retiree Cost of Living Adjustment (COLA)	<u>0</u>
Actual Unfunded Accrued Liability (Surplus), 1/1/2025	\$ 488,601,132

Accrued Benefit Values

This section presents the results of a separate valuation of the plan's obligations, based only on benefits accrued as of the valuation date of January 1, 2025. The focus of this valuation differs from the calculation of ongoing funding requirements, which anticipates benefits to be earned by future service and salary increases. This accrued benefit valuation assumes an ongoing plan and, therefore, differs from a calculation of termination liabilities which would be based on the benefits and assumptions appropriate for a terminating plan.

The American Academy of Actuaries, in Actuarial Standards of Practice Number 4, has provided recommended procedures for the calculation of the Present Value of Vested Accrued Benefits and the Present Value of Accrued Benefits. The results under both illustrations include the sum of the present value of:

- All benefits expected to be paid to former participants and their beneficiaries; and
- Benefits expected to be paid at a future date to present active participants, based on only service and pay prior to the date of calculation.

The *Present Value of Vested Accrued Benefits* recognizes only the benefits in which an active participant retains a right, independent of continuation of employment, beyond the calculation date. It does not include any additional benefits which might arise because of future death or disability that would not become payable if the participant had terminated employment before the occurrence of the death or disability.

The *Present Value of All Accrued Benefits* recognizes All Accrued Benefits expected to become payable at future dates, including the accrued portion of disability and preretirement death benefits. Thus, the accrued benefit of a non-vested participant is included in this calculation to the extent it will become payable (i.e., vest) upon the occurrence of a future event such as termination, death, disability, or retirement.

The accrued benefit used in these calculations is based on the personnel data supplied by OPPD.

The interest rate used in these calculations is the same as the funding interest rate.

Vested Accrued Benefits, 1/1/2025

Retired and Beneficiaries	\$ 1,174,314,618
Terminated Vested	45,228,364
Active and Disabled Employees	<u>369,648,030</u>
Total Vested	\$ 1,589,191,012
Non-vested Benefits, 1/1/2025	<u>97,949,982</u>
Total Accrued Benefits, 1/1/2025	\$ 1,687,140,994
Interest Rate Used for These Calculations	6.50%

Historical Accrued Benefit Values and Funded Ratios

Valuation Date	Interest Rate	Accrued Benefit Value	Actuarial Assets	Funded Ratio	Market Assets	Funded Ratio
1/1/2025	6.50%	\$ 1,687,140,994	\$ 1,332,174,640	79.0%	\$ 1,262,297,045	74.8%
1/1/2024	6.50%	\$ 1,647,598,128	\$ 1,327,984,062	80.6%	\$ 1,203,273,791	73.0%
1/1/2023	6.50%	\$ 1,609,521,482	\$ 1,286,243,594	79.9%	\$ 1,062,200,518	66.0%
1/1/2022	6.50%	\$ 1,577,593,698	\$ 1,297,473,778	82.2%	\$ 1,289,136,318	81.7%
1/1/2021	7.00%	\$ 1,473,660,125	\$ 1,157,752,902	78.6%	\$ 1,157,752,902	78.6%
1/1/2020	7.00%	\$ 1,436,730,837	\$ 1,079,189,274	75.1%	\$ 1,055,344,216	73.5%
1/1/2019	7.00%	\$ 1,408,802,678	\$ 1,042,187,515	74.0%	\$ 919,804,594	65.3%
1/1/2018	7.00%	\$ 1,347,839,267	\$ 1,033,752,901	76.7%	\$ 1,020,385,607	75.7%
1/1/2017	7.00%	\$ 1,309,514,839	\$ 995,616,705	76.0%	\$ 904,819,988	69.1%
1/1/2016	7.00%	\$ 1,274,917,795	\$ 973,844,079	76.4%	\$ 869,489,088	68.2%
1/1/2015	7.75%	\$ 1,147,857,404	\$ 949,166,647	82.7%	\$ 903,563,000	78.7%
1/1/2014	7.75%	\$ 1,063,458,429	\$ 905,699,590	85.2%	\$ 886,689,000	83.4%
1/1/2013	7.75%	\$ 1,027,634,931	\$ 852,552,291	83.0%	\$ 800,941,000	77.9%
1/1/2012	7.75%	\$ 985,638,320	\$ 805,762,548	81.8%	\$ 711,973,000	72.2%
1/1/2011	7.75%	\$ 929,439,034	\$ 771,588,331	83.0%	\$ 707,943,000	76.2%
1/1/2010	8.00%	\$ 854,121,013	\$ 733,227,289	85.8%	\$ 636,262,350	74.5%
1/1/2009	8.00%	\$ 782,059,197	\$ 698,111,470	89.3%	\$ 505,449,000	64.6%
1/1/2008	8.20%	\$ 702,387,775	\$ 695,741,868	99.1%	\$ 659,737,600	93.9%
1/1/2007	8.20%	\$ 653,802,476	\$ 656,473,880	100.4%	\$ 635,020,300	97.1%
1/1/2006	8.20%	\$ 609,284,807	\$ 611,924,676	100.4%	\$ 574,286,900	94.3%
1/1/2005	8.40%	\$ 553,591,549	\$ 577,885,164	104.4%	\$ 549,264,200	99.2%
1/1/2004	8.40%	\$ 515,350,617	\$ 545,565,278	105.9%	\$ 508,132,200	98.6%
1/1/2003	8.50%	\$ 476,951,308	\$ 519,723,240	109.0%	\$ 433,102,700	90.8%
1/1/2002	8.75%	\$ 425,266,689	\$ 544,184,070	128.0%	\$ 494,471,300	116.3%

Historical Actuarial Accrued Liabilities and Funded Ratios

Valuation Date	Interest Rate	Accrued Benefit Value	Actuarial Assets	Funded Ratio	Market Assets	Funded Ratio
1/1/2025	6.50%	\$ 1,820,775,772	\$ 1,332,174,640	73.2%	\$ 1,262,297,045	69.3%
1/1/2024	6.50%	\$ 1,787,738,582	\$ 1,327,984,062	74.3%	\$ 1,203,273,791	67.3%
1/1/2023	6.50%	\$ 1,751,138,031	\$ 1,286,243,594	73.5%	\$ 1,062,200,518	60.7%
1/1/2022	6.50%	\$ 1,719,541,400	\$ 1,297,473,778	75.5%	\$ 1,289,136,318	75.0%
1/1/2021	7.00%	\$ 1,607,360,663	\$ 1,157,752,902	72.0%	\$ 1,157,752,902	72.0%
1/1/2020	7.00%	\$ 1,567,265,214	\$ 1,079,189,274	68.9%	\$ 1,055,344,216	67.3%
1/1/2019	7.00%	\$ 1,537,959,944	\$ 1,042,187,515	67.8%	\$ 919,804,594	59.8%
1/1/2018	7.00%	\$ 1,476,147,956	\$ 1,033,752,901	70.0%	\$ 1,020,385,607	69.1%
1/1/2017	7.00%	\$ 1,443,717,502	\$ 995,616,705	69.0%	\$ 904,819,988	62.7%
1/1/2016	7.00%	\$ 1,406,958,596	\$ 973,844,079	69.2%	\$ 869,489,088	61.8%
1/1/2015	7.75%	\$ 1,310,736,895	\$ 949,166,647	72.4%	\$ 903,563,000	68.9%
1/1/2014	7.75%	\$ 1,224,899,093	\$ 905,699,590	73.9%	\$ 886,689,000	72.4%
1/1/2013	7.75%	\$ 1,184,996,831	\$ 852,552,291	71.9%	\$ 800,941,000	67.6%
1/1/2012	7.75%	\$ 1,155,410,379	\$ 805,762,548	69.7%	\$ 711,973,000	61.6%
1/1/2011	7.75%	\$ 1,094,908,920	\$ 771,588,331	70.5%	\$ 707,943,000	64.7%
1/1/2010	8.00%	\$ 1,018,913,896	\$ 733,227,289	72.0%	\$ 636,262,350	62.4%
1/1/2009	8.00%	\$ 963,324,892	\$ 698,111,470	72.5%	\$ 505,449,000	52.5%
1/1/2008	8.20%	\$ 868,897,940	\$ 695,741,868	80.1%	\$ 659,737,600	75.9%
1/1/2007	8.20%	\$ 819,314,262	\$ 656,473,880	80.1%	\$ 635,020,300	77.5%
1/1/2006	8.20%	\$ 771,906,685	\$ 611,924,676	79.3%	\$ 574,286,900	74.4%
1/1/2005	8.40%	\$ 702,300,052	\$ 577,885,164	82.3%	\$ 549,264,200	78.2%
1/1/2004	8.40%	\$ 658,260,260	\$ 545,565,278	82.9%	\$ 508,132,200	77.2%
1/1/2003	8.50%	\$ 614,382,408	\$ 519,723,240	84.6%	\$ 433,102,700	70.5%
1/1/2002	8.75%	\$ 548,292,461	\$ 544,184,070	99.3%	\$ 494,471,300	90.2%

Low-Default-Risk Obligation Measure (“LDRM”)

This report documents the Annual Required Contribution (ARC) and Funded Ratio for the OPPD Retirement Plan. For both of these calculations, we use an Actuarial Accrued Liability that represents the present value of the portion of expected future benefit payments accrued under the plan’s actuarial cost method, discounted back to the valuation date using an asset return expectation of 6.50%. The asset return expectation is based on the plan’s diversified asset portfolio and long-term capital market return assumptions for the various asset classes represented in the portfolio. The objective of the portfolio is to maximize investment returns with a reasonable amount of risk.

For all funding valuations with measurement dates on or after February 15, 2023, and for which an actuarial report is issued on or after February 15, 2023, ASOP 4 now requires the calculation and disclosure of an additional measure of the plan’s liability using a discount rate or discount rates derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future.

This additional liability measure is referred to as the Low-Default-Risk Obligation Measure (LDRM). The LDRM shown in this report is based upon the Bond Buyer GO-20 index as of the measurement date, 4.08%, although other discount rates may also be appropriate for this purpose.

The LDRM can be thought of as a measure of what the plan’s funding liability would be if the plan were to use an ultra-low-risk investment policy. Since plan assets are not invested in an all-bond portfolio, the LDRM may not be appropriate for assessing funding status progress on an Actuarial Accrued Liability basis, necessary plan contributions, or the security of participant benefits.

All assumptions and methods other than the asset return assumption are the same for the calculation of Actuarial Accrued Liability and LDRM.

	January 1, 2025
LDRM	\$ 2,367,594,084
Interest Rate	4.08%

Personnel Information

The actuarial valuation was based on personnel data supplied by OPPD. The first of the following tables contains a summary of the total participant group as of January 1, 2025. For comparison purposes, the January 1, 2024 figures are also shown.

Age and service have been determined for each participant in years and completed months as of the valuation date.

Number of Participants

	January 1, 2024	January 1, 2025
Retired and Beneficiaries	2,385	2,418
Terminated Vested	506	458
Disabled	17	18
Active	<u>1,975</u>	<u>2,125</u>
Total	4,883	5,019

Personnel Characteristics of Active Participants as of January 1, 2025

	Number	Average Age	Average Years of Service	Average Entry Age	Average Pay
Male	1,658	44.0	11.7	31.8	—
Female	<u>467</u>	<u>46.1</u>	<u>10.3</u>	<u>35.4</u>	—
Total	2,125	45.5	11.4	32.6	\$ 110,369

Characteristics for Inactive Participants

	Number	Average Age	Average Annual Benefit ¹
Retired and Beneficiaries	2,418	72.8	\$ 46,907
Terminated Vested	458	51.9	\$ 20,204

¹ Does not include terminated vested participants under the cash balance formula.
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Plan Provisions

Plan Name	Omaha Public Power District Retirement Plan.
Effective Date	The original Plan became effective December 31, 1945. The plan was restated effective January 1, 2018.
Plan Year	Calendar year.
Eligibility	Full-time employees become eligible upon date of employment.
Participation	Each eligible employee shall immediately become a participant. A part-time employee may elect not to become a member. As of January 1, 2013 for non-union 763 employees and May 31, 2013 for union 763 employees, all new hires receive cash balance benefits.

Final Average Pay Formula Provisions

Normal Retirement

Eligibility	Age 65.
Benefit	A normal retiree shall receive a monthly benefit equal to 2.25% of the participant's average monthly compensation per year of credited service. Participants who were participants in certain other prior pension plans will have their benefits reduced by prior plan benefits. Certain participants may have additional accrual rates apply by special provisions. A minimum benefit of the actuarial equivalent of a participant's contributions accumulated with interest at 5.5% to date of retirement exists for all participants.

Unreduced Early Retirement

Eligibility	Ninety age/service points.
Benefit	An early retiree shall receive a monthly benefit computed in the same manner as a normal retirement benefit but based on the participant's average monthly compensation and credited service at the time of termination. This benefit is unreduced for early commencement.

Early Retirement

Eligibility

Some grandfathered at age 50 with 10 years of service and 70 age/service points. Else, Union 763 is age 50 with 25 years of service or age 62 with 10 years of service, and all others are age 55 with 20 years of service or age 62 with 10 years of service.

Benefit

An early retiree shall receive a monthly benefit computed in the same manner as a normal retirement benefit but based on the participant's average monthly compensation and credited service at the time of termination. Further, this benefit will be reduced by the lesser of 3% per year from age 62, or 3% per point from 90 age/service points.

Deferred With Vesting

Eligibility

Five years of continuous service.

Benefit

A vested participant who terminates shall be entitled to receive an accrued benefit computed in the same manner as a normal retirement benefit but based on the participant's average monthly compensation and credited service at the time of termination. Benefits may commence for early retirement. This benefit will be reduced 6% for each year the commencement date precedes age 65.

Preretirement Surviving Spouse Benefit

Eligibility

Five years of continuous service.

Benefit

A spouse who survives a vested participant who has not yet retired shall receive one-half of the benefit to which the participant would have been entitled had the participant retired on the day immediately preceding death. The benefit is reduced by 2% for each year that the surviving spouse is more than five years younger than the participant. The benefit continues during the lifetime of the spouse and begins upon the participant's death.

Preretirement Dependent Survivor Benefit

Eligibility

Actively employed full-time district employees.

Benefit

The percent of base pay at time of death paid as a survivor benefit will be 20% for one dependent, 40% for two dependents, and 50% for three or more dependents. The survivor benefit is offset by amounts payable from the preretirement surviving spouse benefit, workers' compensation survivor payments, and payments from other district-sponsored sources.

Return of Contributions

Eligibility

Plan participants not eligible for vested, death, early or normal retirement benefits. Terminated vested participants have the option to receive this benefit in lieu of their accrued benefit.

Benefit

Participant contributions accumulated with 5.5% interest will be returned.

Normal Form of Benefits

An unmarried participant shall receive a Life Annuity. Married participants will receive an unreduced 50% Joint and Survivor Annuity.

Definitions

Continuous Service

Based on elapsed time (years and months) as a full-time employee.

Credited Service

One-twelfth of a year of credited service for each calendar month of Service to the district as a full-time employee or as a member by a part-time employee. For union 763 employees attaining 90 points after May 31, 2013, credited service is frozen upon attaining 90 points.

Compensation

Regular wages for services rendered to the District, including base pay, shift differentials and pay for service as an acting crew leader, but excluding any bonuses, pay for overtime and special pay.

Average Monthly Compensation

Average of compensation for the highest 18 consecutive months.

Employee Contributions

See table below. Rate may be adjusted based on the plan's funded status. For union 763 employees attaining 90 points after May 31, 2013, contributions are stopped upon attaining 90 points.

<u>Year</u>	<u>Rate</u>
2017	6.2%
2018	6.7%
2019	7.2%
2020	7.7%
2021	8.3%
2022+	9.0%

Cash Balance Formula Provisions

Accrued Benefit

Pay Credits

A participant shall receive annual pay credits equal to a percentage of salary based on points (age plus service) as shown in the table below:

Points	2017	2018	2019	2020	2021	2022+
<30	7.0%	8.0%	9.0%	10.0%	10.0%	10.0%
30-39	8.0%	9.0%	10.0%	10.5%	10.5%	10.5%
40-49	9.0%	10.0%	11.0%	11.5%	11.5%	11.5%
50-59	10.0%	10.5%	11.0%	11.5%	11.5%	12.0%
60-69	11.0%	11.5%	12.0%	12.5%	12.5%	12.5%
70-79	13.0%	13.0%	13.0%	13.0%	13.0%	13.0%
80+	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%

Interest Credits

A participant's account will increase annually at an interest crediting rate of 6.00%.

Normal Retirement

Eligibility

Age 65.

Benefit

Lump sum or an actuarial equivalent monthly benefit of their cash balance account.

Early Retirement

Eligibility

Some grandfathered at age 50 with 10 years of service and 70 age/service points. Else, Union 763 is age 50 with 25 years of service or age 62 with 10 years of service, and all others are age 55 with 20 years of service or age 62 with 10 years of service.

Benefit

Lump sum or an actuarial equivalent monthly benefit of their cash balance account.

Deferred With Vesting

Eligibility

Five years of continuous service.

Benefit

Lump sum or an actuarial equivalent monthly benefit of their cash balance account.

Preretirement Surviving Spouse Benefit

Eligibility

Five years of continuous service.

Benefit

Lump sum or an actuarial equivalent monthly benefit of their cash balance account.

Preretirement Dependent Survivor Benefit

Eligibility	Actively employed full-time district employees.
Benefit	The percent of base pay at time of death paid as a survivor benefit will be 20% for one dependent, 40% for two dependents, and 50% for three or more dependents. The survivor benefit is offset by amounts payable from the preretirement surviving spouse benefit, workers' compensation survivor payments, and payments from other district-sponsored sources.

Return of Contributions

Eligibility	Plan participants not eligible for vested, death, early, or normal retirement benefits.
Benefit	Participant contributions accumulated with 5.5% interest will be returned.

Definitions

Continuous Service	Based on elapsed time (years and months) as a full-time employee.
Credited Service	One-twelfth of a year of credited service for each calendar month of Service to the district as a full-time employee or as a member by a part-time employee.
Compensation	Regular wages for services rendered to the District, including base pay, shift differentials and pay for service as an acting crew leader, but excluding any bonuses, pay for overtime and special pay.
Employee Contributions	See table below. Rate may be adjusted based on the plans funded status.

Year	Rate
2017	6.2%
2018	6.7%
2019	7.2%
2020	7.7%
2021	8.3%
2022+	9.0%

Actuarial Assumptions and Methods

The actuarial assumptions and methods used in the January 1, 2025 valuation are stated below.

Interest Rate 6.50%, based on the following factors:

- Passive Return 7.40%
- Active Management Premium 0.00%
- Plan Expenses 0.00%
(immaterial based on recent history and future expectations)

Inflation 2.50%

Salary Scale Rates based on age. Sample rates below.

Age	Annual Increase
25	12.00%
30	6.80%
35	5.80%
40	4.90%
45	4.40%
50	4.00%
55	3.80%
60	3.50%
64	2.50%

Retirement Rates
Actives See Table A.

Terminated Vesteds Age 64.

Healthy Mortality PUB-2010 General table projected using Scale MP-2021 with generational projection.

Disabled Mortality PUB-2010 General Disabled Retiree table projected using Scale MP-2021 with generational projection.

Withdrawal Rates Select and ultimate table (see Table B).

Disability Rates See Table C.

Spousal Benefits 80% of males and 80% of females are assumed to be married. Males are assumed to be two years older than their spouses; females two years younger.

Form of Payment	
Final Average Pay Formula	50% Joint and Survivor if married, else Single Life Annuity. 60% of terminated vested participants are assumed to elect the lump sum return of their contributions with interest.
Cash Balance Formula	100% lump sum.
Asset Valuation Method	Each year's asset gain or loss is spread evenly over five years. Assets were restated to market value January 1, 2021.
Actuarial Method	Entry Age Normal (Level Percent of Pay) Cost Method.
Section 415 Limits	All applicable IRC section 415 limits have been taken into account.

Table A
Retirement Rates¹

Age	Service							
	<20	21	22	23	24	25	26	27
50	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
51	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
52	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
53	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
54	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
55	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
56	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075
57	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
58	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
59	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075
60	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
61	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
62	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
63	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.600
64	0.150	0.150	0.150	0.150	0.150	0.150	0.600	0.600
65	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450
66	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
67	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
68	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
69	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300

Age	Service							
	28	29	30	31	32	33	34	35+
50	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
51	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
52	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
53	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
54	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
55	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.600
56	0.075	0.075	0.075	0.075	0.075	0.075	0.600	0.600
57	0.150	0.150	0.150	0.150	0.150	0.600	0.600	0.400
58	0.200	0.200	0.200	0.200	0.600	0.600	0.400	0.400
59	0.075	0.075	0.075	0.600	0.600	0.400	0.400	0.400
60	0.150	0.150	0.600	0.600	0.400	0.400	0.400	0.400
61	0.150	0.600	0.600	0.400	0.400	0.400	0.400	0.400
62	0.600	0.600	0.400	0.400	0.400	0.400	0.400	0.400
63	0.600	0.400	0.400	0.400	0.400	0.400	0.400	0.400
64	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400
65	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450
66	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
67	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
68	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300
69	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300

¹ Rates assume early retirement eligibility requirement is met.

Table B

Withdrawal Rates (prior to Eligibility for Early Retirement)

Age	Total	Age	Total
20	.0625	45	.0190
21	.0575	46	.0190
22	.0525	47	.0190
23	.0475	48	.0190
24	.0425	49	.0190
25	.0375	50	.0190
26	.0370	51	.0190
27	.0365	52	.0190
28	.0360	53	.0190
29	.0355	54	.0190
30	.0350	55	.0190
31	.0345	56	.0190
32	.0340	57	.0190
33	.0310	58	.0190
34	.0280	59	.0190
35	.0250	60	.0190
36	.0220	61	.0190
37	.0190	62	.0190
38	.0190	63	.0190
39	.0190	64	.0190
40	.0190		
41	.0190		
42	.0190		
43	.0190		
44	.0190		

Select turnover rates shown below are used for the first three years of employment.

	Service		
	1	2	3
All	.0750	.0750	.0750

Table C
Disability Rates

Age	Male	Female	Age	Male	Female
20	.00030	.00030	45	.00160	.00240
21	.00030	.00030	46	.00180	.00270
22	.00030	.00030	47	.00210	.00300
23	.00030	.00030	48	.00250	.00330
24	.00030	.00030	49	.00280	.00360
25	.00030	.00030	50	.00330	.00400
26	.00030	.00030	51	.00390	.00440
27	.00030	.00040	52	.00460	.00490
28	.00030	.00040	53	.00530	.00540
29	.00030	.00040	54	.00610	.00590
30	.00030	.00040	55	.00690	.00640
31	.00030	.00050	56	.00770	.00690
32	.00030	.00050	57	.00860	.00740
33	.00030	.00060	58	.00950	.00800
34	.00030	.00060	59	.01050	.00850
35	.00040	.00070	60	.01150	.00900
36	.00040	.00080	61	.01260	.00960
37	.00050	.00090	62	.01380	.01010
38	.00060	.00100	63	.01510	.01050
39	.00070	.00120	64	.01640	.01090
40	.00080	.00130			
41	.00090	.00150			
42	.00100	.00170			
43	.00120	.00190			
44	.00140	.00220			

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October 3, 2025

Senator Beau Ballard
District 21
State Capitol
PO Box 94604
Lincoln, NE 68509-4604

Senator Ballard,

As requested in your letter dated September 3, 2025, included herein is the information required for the *2025 Reporting Form for Underfunded Political Subdivision Pension Plans*.

1. Please list the following information for plan years 2021 through current plan year 2025:

a. Funding status

Information for OSERS is shown below. Dollar amounts are shown in millions.

	<u>1/1/2021</u>	<u>1/1/2022</u>	<u>1/1/2023</u>	<u>1/1/2024</u>	<u>1/1/2025</u>
<u>Actuarial Value of Assets:</u>					
Funded Ratio (AVA/AAL)	62%	63%	61%	60%	60%
Unfunded AAL (AAL-AVA)	\$914	\$913	\$1,035	\$1,110	\$1,184
<u>Market Value of Assets:</u>					
Funded Ratio (MVA/AAL)	59%	66%	54%	57%	58%
Unfunded AAL (AAL-MVA)	\$976	\$850	\$1,214	\$1,190	\$1,222

b. Assumed rate of return

The assumed rate of return was 7.5% from January 1, 2019 to January 1, 2021. The assumed rate of return has been adjusted as follows based on the December 6, 2021, Experience Study issued by Cavanaugh Macdonald:

January 1, 2022	7.40%
January 1, 2023	7.30%
January 1, 2024	7.20%
January 1, 2025	7.00%

Every student. Every day.
Prepared for success.

c. **Actual investment return**

The dollar-weighted annualized rate of return, net of investment and administrative expenses, measured on the actuarial value of assets.

2020	6.0%
2021	8.9%
2022	3.5%
2023	5.6%
2024	6.4%

d. **Member and employer contribution rates – percentage**

From 2014 forward, the statutory member and employer contribution rates are 9.78% and 9.8778%, respectively. The District also makes an additional contribution if the statutory rates are less than the full actuarial contribution rate (see section 1(g)).

e. **Normal cost – percentage**

The following is from the January 1, 2021 actuarial valuation through the January 1, 2025 actuarial valuation:

1/1/2021	12.76%
1/1/2022	12.59%
1/1/2023	12.61%
1/1/2024	12.74%
1/1/2025	12.94%

f. **Actuarially required contribution (ARC) – percentage & dollar amount**

See response to 1(g)

g. **ARC contribution – actual dollar amount contributed & percentage of ARC actually contributed**

Reporting Period Ending	Annual Required Contribution	Total Employer Contribution	Employer Contribution as a Percentage of ARC Contribution⁽¹⁾	Employer Contribution as a Percentage of Covered Payroll
12/31/2020	\$63,114,251	\$64,646,000	102.43%	17.74%
12/31/2021	\$67,216,627	\$69,162,000	102.89%	18.11%
12/31/2022	\$70,210,926	\$77,892,000	110.94%	18.82%
12/31/2023	\$80,432,198	\$85,432,000	106.22%	17.57%
12/31/2024	\$88,310,670	\$100,106,346	113.36%	21.50%

⁽¹⁾ Based on the Board of Trustees' funding policy, not state statute. If state statute were used, this would be at or above 100%

2. Please provide a brief narrative of the circumstances that led to the current underfunding of the retirement plan.

As of January 1, 2025, the System had a market value of assets of \$1.717 billion, an increase of \$147 million from the prior valuation. The investment return for 2024 on the market value of assets was 9.4%.

The actuarial or smoothed value of assets as of January 1, 2025, was \$1.754 billion, an increase of \$104 million from the prior valuation. The dollar-weighted annualized rate of return, net of investment and administrative expenses, measured on the actuarial value of assets was approximately 6.4%. Due to the unfavorable investment performance during calendar year 2022, the System still has a deferred asset loss (Actuarial value of assets exceeds the market value). Absent favorable investment experience in future years to offset the recognition of the deferred investment loss, it will work through the asset smoothing method and decrease the System's funded ratio and increase the actuarial required contribution rate over time. The recognition of the deferred investment loss in future years would be expected to increase the additional School District Contributions as well if no other changes were made.

3. Have there been any changes in the actuarial methods and/or assumptions since the previous actuarial valuation report? If so, please describe.

By state statute, an experience study must be performed for all Nebraska public retirement plans, which includes the Omaha School Employees Retirement System, at least every four years. As a result of the 2021 quadrennial experience study, several changes to the actuarial assumptions and methods were recommended and adopted by the Board at their January 20, 2022 meeting. Please see the experience study report, dated December 6, 2021, for complete details and discussion on all the actuarial assumption and method changes.

- Economic assumptions (phased in over four years):

	2022	2023	2024	2025
	<u>Valuation</u>	<u>Valuation</u>	<u>Valuation</u>	<u>Valuation</u>
Price Inflation	2.70%	2.60%	2.55%	2.35%
Real Return	4.70%	4.70%	4.65%	4.65%
Investment Return	7.40%	7.30%	7.20%	7.00%
General Wage Inflation	3.20%	3.10%	3.05%	2.85%
Covered Payroll Growth	3.20%	3.10%	3.05%	2.85%

- Demographic assumptions:
 - Mortality assumption was changed to the Pub-2010 General Employees Median Mortality Table. Generational mortality improvements will be modeled using the NPERS projection scale. No generational mortality improvement is reflected for disabled members.
 - Retirement rates and termination of employment rates for both Certificated and Classified members were adjusted to partially reflect observed experience.
 - The probability of a vested member electing a refund upon termination was adjusted for both Certificated and Classified members. The assumption is now based on years of service.
 - Active member marriage assumption was reduced from 100% to 85%.
- An explicit assumption for administrative expenses of 0.24% of payroll is included as a component of the actuarial contribution rate.
- Amortization period was reduced from 30 to 25 years for future amortization bases.

4. In what year is the plan’s funding ratio expected to reach 100%?

If all actuarial assumptions are met each year in the future, the plan's funding ratio is expected to reach 100% in 2049.

5. What is the method used to amortize the unfunded actuarial liability?

Effective with the January 1, 2019 valuation, OSERS amortizes the UAAL using a “layered” approach. Under this method, the UAAL is split into pieces; the first piece is amortized, as a level-percent of pay, over a closed 30-year period beginning with the January 1, 2019 valuation (24 years remain as of the January 1, 2025 valuation). Future UAAL bases that result from future actuarial experience will be amortized, as a level-percent of pay, over a new 25-year closed period commencing on the respective valuation date. This policy will fully amortize the individual, as well as the total, unfunded actuarial liability within a reasonable timeframe and/or reduce the amount of the unfunded actuarial liability by a reasonable amount within a sufficiently short period.

6. Please provide a description of corrective actions implemented to improve the funding status of the plan including, but not limited to, benefit changes, increased contribution rates and/or employer contributions. Please include any actuarial projections based on these changes and attach a copy of the actuarial projections.

- On August 4, 2025, the Omaha Public Schools (OPS) Board of Education approved a transfer of \$36.4 million to OSERS, the full amount of the additional required contribution. On August 5, 2024, the OPS Board of Education approved a transfer of \$45.5 million to OSERS. This payment was \$11.8 million more than the statutorily required contribution of \$33.7 million. This was the sixth consecutive year OPS transferred more to OSERS to fund the plan than required. On August 15, 2023, OPS transferred \$34.4 million to OSERS to fund the full 2023 actuarial required contribution. This payment was \$5.0 million more than the statutorily required contribution of \$29.4 million. On August 16, 2022, OPS transferred \$29.5 million to OSERS to fund the 2022 actuarial required contribution, while only \$21.8 million was required. On August 6, 2021, OPS transferred \$24.1 million to OSERS to fund the 2021 actuarial required contribution, while only \$22.2 million was required. On August 18, 2020, OPS transferred \$21.4 million to OSERS to fund the 2020 actuarial required contribution, while only \$19.8 million was required. On August 8, 2019, OPS transferred \$21.3 million to OSERS to fund the 2019 actuarial required contribution, while only \$18.2 million was required.
- Projected additional District contributions over the next six years, based on the January 1, 2025 actuarial valuation, and assuming all assumptions are met in calendar years 2025 through 2031 are:

December 31, 2025	\$ 36.40
December 31, 2026	\$ 37.70
December 31, 2027	\$ 39.00
December 31, 2028	\$ 40.20
December 31, 2029	\$ 41.30
December 31, 2030	\$ 42.40
December 31, 2031	\$ 43.50

- The above projections are in addition to the statutorily required contributions attributable to the employee / employer (9.78% for employee and 9.8778% for employer (or 101% of the employee contribution)). The projected numbers are meant to provide a trend and may not be relied upon as an absolute projection of the additional District contributions for future years. The actual investment returns on the trust assets in the future will heavily impact the amount of any additional District contributions in the future.

7. Please describe recent or ongoing negotiations with bargaining groups that may impact the plan's funding.

- Employees of the District are affiliated with several unions.
 - The Omaha Education Association (OEA) represents the District's teachers. The District and OEA are currently in year 3 of a 3-year contract covering the 2023-24, 2024-25, and 2025-26 school years. The wages increased 2.61% for the 2025-26 fiscal year.
 - Service Employees International Union Local 226 (Local 226) represents six different bargaining units within the District: Office Personnel, Operations, Nutrition, Transportation, Paraprofessionals, and Family Support Workers.
 - The Office Personnel bargaining unit is in year 3 of a 3-year contract covering the 2023-24, 2024-25, and 2025-26 fiscal years. The wages increased 4.03% for the 2025-26 fiscal year.
 - The Operations bargaining unit is in year 3 of a 3-year contract covering the 2023-24, 2024-25, and 2025-26 fiscal years. The wages increased 4.69% for the 2025-26 fiscal year.
 - The Nutrition bargaining unit is in year 3 of a 3-year contract covering the 2023-24, 2024-25, and 2025-26 fiscal years. The wages increased 3.96% for the 2025-26 fiscal year.
 - The Paraprofessionals bargaining unit is in year 3 of a 3-year contract covering the 2023-24, 2024-25, and 2025-26 fiscal years. The wages increased 3.39% for the 2025-26 fiscal year.
 - The Transportation bargaining unit is in year 3 of a 3-year contract covering the 2023-24, 2024-25, and 2025-26 fiscal years. The wages increased 4.03% for the 2025-26 fiscal year.
 - The Family Support Workers bargaining unit is in year 3 of a 3-year contract covering the 2023-24, 2024-25, and 2025-26 fiscal years. The wages increased 4.09% for the 2025-26 fiscal year.
 - The Maintenance and Crafts Group is currently in year 2 of a 2-year contract covering the 2024-25 and 2025-26 fiscal years. The wages increased 2.38% for the 2025-26 fiscal year.
 - The District and the Omaha School Administrators Association are currently in year 3 of a 3-year contract covering the 2023-24, 2024-25, and 2025-26 fiscal years. The wages increased 2.82% for the 2025-26 fiscal year.
 - The District and the Omaha School Psychologists Association are currently in year 3 of a 3-year contract covering the 2023-24, 2024-25, and 2025-26 fiscal years. The wages increased 3.73% for the 2025-26 fiscal year.
 - The District and Eastern Nebraska School Security Union Local #28 are currently in year 3 of a 3-year contract covering the 2023-24, 2024-25, and 2025-26 fiscal years. The wages increased 4.96% for the 2025-26 fiscal year.
 - The District and the Educational Interpreters/Translitterators are currently in year 3 of a 3-year contract covering the 2023-24, 2024-25, and 2025-26 fiscal years. The wages increased 4.12% for the 2025-26 fiscal year.
 - The District and the Bilingual Liaisons are currently in year 3 of a 3-year contract covering the 2023-24, 2024-25, and 2025-26 fiscal years. The wages increased 3.53% for the 2025-26 fiscal year.

8. Please attach a copy of the most recent Actuarial Experience Study. When will the next Actuarial Experience Study be completed and available for review by the Committee?

The most recent four-year Actuarial Experience Study covering the period January 1, 2017 through December 31, 2020 is attached herein. The next experience study for the period January 1, 2021 through December 31, 2024 is expected to be completed during calendar year 2025.

9. What is the current assumed rate of return? If the rate has been changed in the past year, or if there are plans to review the rate in the upcoming year, please describe.

By state statute, an experience study must be performed for all Nebraska public retirement plans, which includes the Omaha School Employees Retirement System, at least every four years. As a result of the 2021 quadrennial experience study, several changes to the actuarial assumptions and methods were recommended and adopted by the Board at their January 20, 2022 meeting. Please see the experience study report, dated December 6, 2021, for complete details and discussion on all the actuarial assumption and method changes. The rate of return was lowered over four years from 7.5% to 7.0%.

10. Please attach the most recent actuarial valuation report. If the valuation report is completed biannually (or less often) please indicate an updated report for the interim year/s, if available.

A copy of the current report (as of January 1, 2025) is attached herein.

Sincerely,



Matthew J. Ray
Superintendent
Omaha Public Schools

Enclosures:

- 73rd Annual Actuarial Report – Omaha School Employees Retirement System (January 1, 2025)
- Omaha School Employees Retirement System – Four Year Experience Study (January 1, 2017 to December 31, 2020)

**NEBRASKA PUBLIC EMPLOYEES
RETIREMENT SYSTEMS
OMAHA SCHOOL EMPLOYEES
RETIREMENT SYSTEM**

**SEVENTY-THIRD
ANNUAL ACTUARIAL
REPORT AS OF
JANUARY 1, 2025**



SUBMITTED: June 9, 2025



June 9, 2025

Public Employees Retirement Board
Nebraska Public Employees Retirement System
Post Office Box 94816
Lincoln, NE 68509

Re: Seventy-Third Annual Actuarial Report

Dear Board Members:

At your request, we have performed an actuarial valuation of the Omaha School Employees Retirement System (OSERS) as of January 1, 2025. The major findings of the valuation are contained in this report, including the actuarial required contribution rate and the additional School District contribution for the valuation year ending December 31, 2025. There have been no changes to the actuarial methods or benefit provisions from the prior valuation, but the set of economic assumptions has changed as scheduled (see page 1 of the Executive Summary).

In preparing this report, we relied, without audit, on information (some oral and some written) supplied by staff at the Nebraska Public Employees Retirement Systems (NPERS). This information includes, but is not limited to, statutory provisions, member data and financial information. This is the first year member data is being provided by NPERS. While we found this information to be reasonably consistent and comparable with information used in prior years, we did not audit the data. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

In order to prepare the results in this report, we have utilized actuarial models that were developed to measure liabilities and calculate actuarial costs. These models include tools that we have produced and tested, along with commercially available valuation software that we have reviewed to confirm the appropriateness and accuracy of the output. In utilizing these models, we develop and use input parameters and assumptions about future contingent events along with recognized actuarial approaches to develop the needed results. 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; 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 or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our report, we did not perform an analysis of the potential range of future measurements. The Board of Education has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix C based on the experience study performed in 2021.



The actuarial computations presented in this report are for purposes of determining the actuarial required contribution rate for the System, as specified in the Nebraska state statutes. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes. For example, actuarial computations for purposes of fulfilling financial accounting requirements for the System under Governmental Accounting Standards No. 67 and No. 68 are presented in separate reports.

The consultants who worked on this assignment are pension actuaries. Cavanaugh Macdonald Consulting's advice is not intended to be a substitute for qualified legal or accounting counsel.

This is to certify that the independent consulting actuaries have experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System. We, Patrice A. Beckham, FSA, Brent Banister, FSA, and Aaron Chochon, ASA, are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. We are available to answer any questions on the material contained in this report or to provide explanations or further details as may be appropriate.

We herewith submit the following report and look forward to discussing it with you.

Respectfully Submitted,

Cavanaugh Macdonald Consulting, LLC

Patrice A. Beckham, FSA, EA, FCA, MAAA
Consulting Actuary

Brent Banister, PhD, FSA, EA, FCA, MAAA
Chief Actuary

Aaron Chochon, ASA, EA, FCA, MAAA
Senior Actuary



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EXECUTIVE SUMMARY

The primary purposes of performing the actuarial valuation are as follows:

- to calculate the actuarial required contribution (ARC) rate necessary to maintain the solvency of the System, as set out in the Funding Policy;
- to determine the additional School District contribution amount, if any, given the fixed statutory contribution rates for members, the School District (101% of members' contributions), and the State of Nebraska;
- to evaluate the funded status of the System and disclose various asset and liability measures as of the valuation date;
- to evaluate and disclose the key risks to funding the System pursuant to Actuarial Standard of Practice Number 51;
- to determine the actual versus expected experience of the System since the last valuation; and
- to analyze and report on trends in System contributions, assets, and liabilities over the past several years.

This report presents the results of the January 1, 2025 actuarial valuation of the Omaha School Employees Retirement System (OSERS). The actuarial valuation results provide a “snapshot” view of the System’s financial condition on January 1, 2025 based on the System’s membership, benefit structure, and assets on that date. Key results are shown in the following table:

(\$ in millions)	January 1, 2025	January 1, 2024	Change
Actuarial Accrued Liability (AAL)	\$2,938.5	\$2,760.0	\$178.5
Actuarial Value of Assets	<u>1,754.0</u>	<u>1,650.3</u>	103.7
Unfunded AAL (UAAL)	\$1,184.5	\$1,109.7	\$74.8
Funded Ratio	59.69%	59.79%	(0.10%)
Actuarial Required Contribution Rate	29.05%	29.36%	(0.31%)
Statutory Contribution Rate	<u>(21.66%)</u>	<u>(21.66%)</u>	<u>0.00%</u>
Contribution Shortfall	7.39%	7.70%	(0.31%)
Projected Payroll	\$487.4	\$432.4	\$55.0
Additional District Contribution*	\$36.4	\$33.7	\$2.7

* Contribution amount is calculated as of August 31.

There have been no changes to the actuarial methods or benefit provisions from the prior valuation, but the set of economic assumptions has changed as scheduled. As a result of the 2021 quadrennial experience study, the set of economic assumptions was changed and the OSERS Board at the time decided to phase in the changes over four years, beginning with the January 1, 2022 valuation. As shown in the following table, the current valuation reflects the final phase-in of the set of economic assumptions:





EXECUTIVE SUMMARY

	2022 Valuation	2023 Valuation	2024 Valuation	Current (2025 Valuation)
Price Inflation	2.70%	2.60%	2.55%	2.35%
Real Return	4.70%	4.70%	4.65%	4.65%
Investment Return	7.40%	7.30%	7.20%	7.00%
General Wage Inflation	3.20%	3.10%	3.05%	2.85%
Covered Payroll Growth	3.20%	3.10%	3.05%	2.85%

The impact on the January 1, 2025 valuation results due to the scheduled changes to the set of economic assumptions was an increase in the actuarial accrued liability of \$56.0 million and an increase in the actuarial required contribution rate of 1.05% of payroll.

The valuation results reflect net unfavorable actuarial experience for the 2024 plan year as demonstrated by an unfunded actuarial accrued liability that was larger than expected (called an actuarial loss), based on the results and assumptions of the prior valuation. The following factors contributed to the change in the unfunded actuarial accrued liability:

- The rate of return on the market value of assets during 2024 was 9.4%, which is greater than the assumed 7.2% return during that period. Due to the asset smoothing method, the rate of return on the actuarial value of assets was 6.4% during 2024, resulting in an actuarial loss of \$13 million which increased the unfunded actuarial accrued liability.
- There was also a net actuarial loss of \$30 million on liabilities, which increased the UAAL. The loss is primarily the result of actual salary increases that were higher than expected.
- The additional District contribution for calendar year 2024 was \$12 million more than the actuarial required contribution amount of \$33.7 million which decreased the unfunded actuarial accrued liability.

In addition to the actuarial experience during 2024, the audit of the System identified several areas of improvement in the administration of OSERS' benefits. Many of the recommended changes had no impact on the System's actuarial valuation results and some of the items with an impact were already reflected in last year's valuation. However, a few items (such as correcting the medical COLA calculation) are first being reflected in this year's valuation. This is also the first valuation for which NPERs has provided the OSERS membership data for the valuation. There were several changes to the census data layout when compared to the historical data which was compiled by OSERS staff. Given the available data and time, we were not able to quantify the impact of either the changes resulting from the audit or the census data changes. However, the small amount of unexplained experience in the System's liabilities since the prior valuation would indicate that the overall impact was not material.





EXECUTIVE SUMMARY

Membership

Over the last decade, there have been multiple changes to the benefit structure for OSERS members although the employee contribution rate is 9.78% for all members. A summary of the key provision changes is set out in the table below:

Provision	Tier 1 (Pre July 1, 2013)	Tier 2 (July 1, 2013)	Tier 3 (July 1, 2016)	Tier 4 (July 1, 2018)
Final Average Compensation (FAC)	Average of highest 3 fiscal years	Average of highest 5 fiscal years	Average of highest 5 fiscal years	Average of highest 5 fiscal years
Benefit formula	2.0% * FAC * Years of Creditable Service	2.0% * FAC * Years of Creditable Service	2.0% * FAC * Years of Creditable Service	2.0% * FAC * Years of Creditable Service
Cost of Living Adjustment	Lesser of 1.5% and actual CPI Medical COLA starting 10 years after retirement	Lesser of 1.0% and actual CPI Medical COLA starting 10 years after retirement	Lesser of 1.0% and actual CPI No medical COLA	Lesser of 1.0% and actual CPI No medical COLA
Form of payment	5 years certain and life	5 years certain and life	5 years certain and life	5 years certain and life
Normal Retirement	35 Years of Service Age 65 and 5 Years of Omaha Service Age 62 and 10 Years of Service Rule of 85 (Min age of 55)	35 Years of Service Age 65 and 5 Years of Omaha Service Age 62 and 10 Years of Service Rule of 85 (Min age of 55)	Age 65 and 5 Years of Omaha Service Rule of 85 (Min age of 55)	Age 65 and 5 Years of Omaha Service Rule of 85 (Min age of 60)
State Service Annuity	\$3.50 * Years of Service	\$3.50 * Years of Service	No state service annuity	No state service annuity

Each benefit tier has a slightly lower cost than the prior tier as evidenced in a lower normal cost rate (see Exhibit 4). Over time, as current active members covered by Tiers 1 through 3 leave covered employment and are replaced by Tier 4 members the cost of the System is expected to decrease slightly. However, it is expected to take another 10 to 15 years before the impact on the valuation results is material.





EXECUTIVE SUMMARY

The following table summarizes the System's membership, by group, in the current and prior valuation. There was a notable change in the active member count from last year, increasing from 6,713 to 7,438. As previously mentioned, this is the first year that NPERS has compiled the membership data, and while a 10.8% increase in active membership is unusual the total active count is consistent with the NPERS staff's expectations. Due to the increase in the active membership, the total projected payroll also increased by 12.7% from \$432.4 million in the January 1, 2024 valuation to \$487.4 million in the current valuation. The number of inactive nonvested members also increased significantly when compared to last year, from 1,657 to 2,228 (34.5%). However, based on discussions with NPERS staff, our understanding is that most of the new inactive nonvested members are owed a very small remaining balance after receiving a refund. Therefore, the increase in the inactive nonvested member count did not result in a significant increase to the System's liabilities. Finally, the number of members receiving a benefit increased slightly from 5,411 to 5,417 (0.1%).

SYSTEM MEMBERSHIP	Jan. 1, 2025	Jan. 1, 2024	% Chg
1. Active Members			
a. Certificated			
(1) Tier 1	1,838	1,855	(0.9)
(2) Tier 2	397	435	(8.7)
(3) Tier 3	271	298	(9.1)
(4) Tier 4	<u>1,489</u>	<u>1,217</u>	22.4
(5) Total	3,995	3,805	5.0
b. Classified			
(1) Tier 1	842	845	(0.4)
(2) Tier 2	263	275	(4.4)
(3) Tier 3	243	212	14.6
(4) Tier 4	<u>2,095</u>	<u>1,576</u>	32.9
(5) Total	3,443	2,908	18.4
c. Total Active Members			
(1) Tier 1	2,680	2,700	(0.7)
(2) Tier 2	660	710	(7.0)
(3) Tier 3	514	510	0.8
(4) Tier 4	<u>3,584</u>	<u>2,793</u>	28.3
(5) Total	7,438	6,713	10.8
2. Retirees and Disabled Members	5,137	5,125	0.2
3. Beneficiaries	280	286	(2.1)
4. Inactive Vested Members	1,592	1,628	(2.2)
5. Inactive Nonvested Members	2,228	1,657	34.5
6. Total	16,675	15,409	8.2





EXECUTIVE SUMMARY

Assets

As of January 1, 2025, the System had total assets of \$1.716 billion measured on a market value basis. This was an increase of \$147 million from the prior valuation and represents an annualized net rate of return, as provided by the Nebraska Investment Council, of 9.4%.

The market value of assets is not used directly in the calculation of the unfunded actuarial accrued liability (UAAL) and actuarial required contribution rate. An asset valuation method, which smooths the effect of market fluctuations, is used to determine the value of assets used in the valuation. This amount, called the “actuarial value of assets”, is equal to the expected asset value, based on the actuarial value in the prior valuation and the assumed investment return of 7.2% for 2024, plus 25% of the difference between the actual market value and the expected asset value. The resulting value must be no less than 80% of market value and no more than 120% of market value (referred to as a “corridor”). The corridor did not apply this year as the actuarial value of assets was 102% of market value. The actuarial value of assets as of January 1, 2025 was \$1.754 billion, an increase of \$104 million from the prior year. The components of change in the actuarial and market values of assets from January 1, 2024 to January 1, 2025 are shown in the following table.

	Asset Values (\$M)	
	Market	Actuarial
Net Assets, as of January 1, 2024	\$1,569.7	\$1,650.3
• Beginning of Year Asset Adjustment	<u>10.6</u>	<u>10.6</u>
Adjusted Net Assets, as of January 1, 2024	\$1,580.3	\$1,660.8
• District, State and Member Contributions	147.5	147.5
• Benefits Payments and Refunds	(160.7)	(160.7)
• Investment Return, Net of Expenses	<u>149.4</u>	<u>106.4</u>
Preliminary Assets, January 1, 2025	\$1,716.5	\$1,754.0
• Application of Corridor	N/A	0.0
Final Assets, as of January 1, 2025	\$1,716.5	\$1,754.0

Note: Numbers may not add due to rounding.

The dollar-weighted annualized rate of return, net of investment and administrative expenses, measured on the actuarial value of assets was approximately 6.4%, which is below the assumed return of 7.2% for 2024. As a result, there was an actuarial loss of \$13 million. A comparison of asset values on both the market and actuarial basis in recent valuations is shown below:

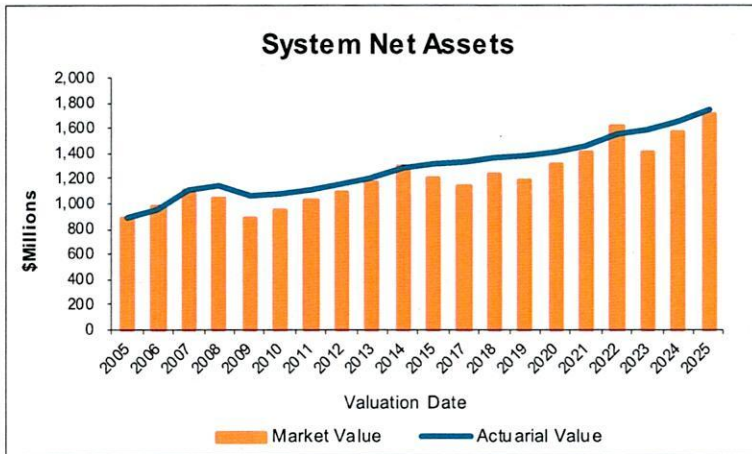
	1/1/2021	1/1/2022	1/1/2023	1/1/2024	1/1/2025
Market Value of Assets	\$1,405	\$1,626	\$1,412	\$1,570	\$1,716
Actuarial Value of Assets	1,468	1,563	1,592	1,650	1,754
Actuarial Value/ Market Value	104%	96%	113%	105%	102%



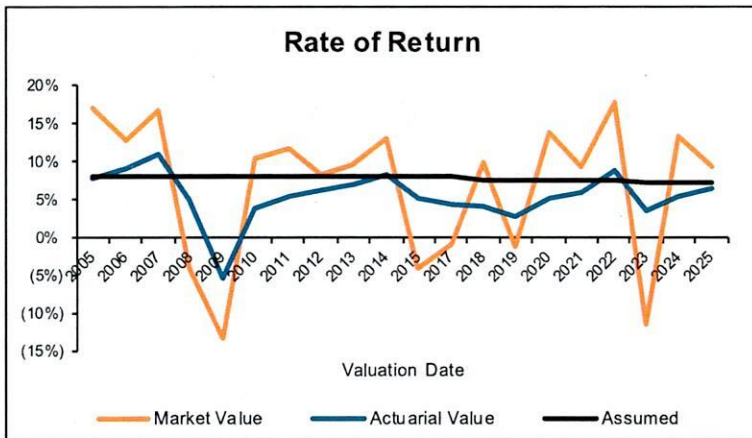


EXECUTIVE SUMMARY

Due to the unfavorable investment performance during calendar year 2022, the System still has a deferred asset loss (actuarial value of assets exceeds the market value). Absent favorable investment experience in future years to offset the recognition of this deferred loss, it will work through the asset smoothing method and decrease the System’s funded ratio and increase the actuarial required contribution rate over time. The recognition of the deferred investment loss in future years would be expected to increase the additional School District contributions as well if no other changes were made.



With the use of an asset smoothing method, the actuarial value is expected to be both above and below the market value of assets over a long period of time. However, for most of this period, the actuarial value of assets has exceeded the market value of assets.



The historical estimated rate of return on both the actuarial and market value of assets is shown in this graph. The asset smoothing method mitigates the volatility of market value returns as shown in the rates of return on the actuarial versus market value of assets.

Liabilities

The actuarial accrued liability is that portion of the present value of future benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and asset values at the same date is referred to as the unfunded actuarial accrued liability. The unfunded actuarial accrued liability will be reduced if the employer’s contributions exceed the employer’s normal cost for the year, after allowing for interest on the prior balance of the unfunded actuarial accrued liability. Benefit improvements, experience gains and losses, and changes in actuarial assumptions and methods also impact the total actuarial accrued liability and the unfunded portion thereof.





EXECUTIVE SUMMARY

The unfunded actuarial accrued liability as of January 1, 2025 is shown below:

Actuarial Accrued Liability	\$ 2,938,452,246
Actuarial Value of Assets	<u>1,753,983,104</u>
Unfunded Actuarial Accrued Liability	\$ 1,184,469,142

Numerous factors contributed to the change in the System's UAAL during the 2024 plan year. The components are examined in the following discussion.

Actuarial gains (or losses) result from actual experience that is more (or less) favorable than anticipated based on the actuarial assumptions. These "experience" (or actuarial) gains or losses are reflected in the UAAL and are measured as the difference between the expected unfunded actuarial accrued liability and the actual unfunded actuarial accrued liability, taking into account any changes due to assumption, method or benefit provision changes. Overall, the System experienced an actuarial loss of \$42.9 million. The investment return on the actuarial value of assets of 6.4% was lower than the assumed return of 7.2% for 2024, resulting in an actuarial loss of \$12.5 million. There was also a net actuarial loss of \$30.4 million on the actuarial accrued liability, primarily due to larger salary increases than expected by the actuarial assumptions. Exhibit 9 shows a breakdown of the various sources of liability experience during the 2024 plan year.

The change in the unfunded actuarial accrued liability between January 1, 2024 and January 1, 2025 is shown in the following table (in millions):

Change in Unfunded Actuarial Accrued Liability (\$M)	
Unfunded Actuarial Accrued Liability, January 1, 2024	\$1,110
• Expected Change in UAAL	
- Amortization Method	7
- Contributions greater than the actuarial required contribution	(12)
• Investment Experience	13
• Liability Experience	30
• Assumption Changes	56
• Other Experience	<u>(20)</u>
Unfunded Actuarial Accrued Liability, January 1, 2025	\$1,184

As shown above, various components impacted the dollar amount of the UAAL, which is amortized as a level-percent of payroll. This methodology results in UAAL payment amounts that are lower in the early part of the amortization period but increase each year in the future with the assumed payroll growth assumption. Given the current amortization policy and the actuarial assumptions, the UAAL amortization payment is first expected to be greater than the interest on the UAAL beginning in calendar year 2027. As a result, even if all assumptions had been met the dollar amount of the UAAL was expected to increase during the prior year, as evidenced in the first row in the table above.



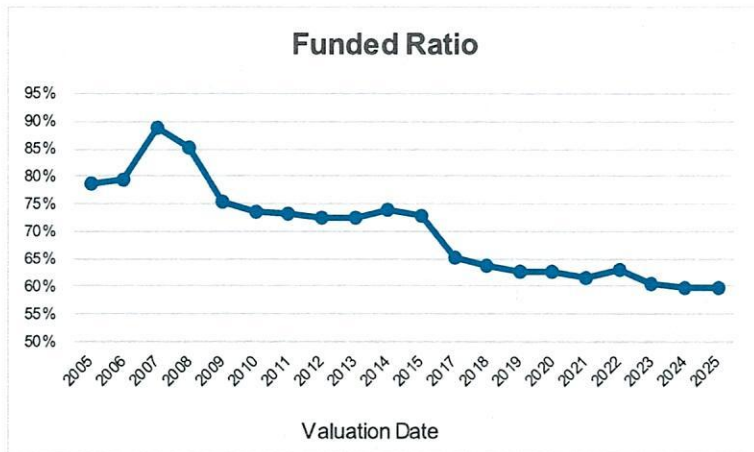


EXECUTIVE SUMMARY

An evaluation of the unfunded actuarial accrued liability on a pure-dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both large numbers) is reflected. Another way to evaluate the unfunded actuarial accrued liability and the progress made in its funding is to track the funded status, the ratio of the actuarial value of assets to the actuarial accrued liability. Note that the funded ratio does not necessarily indicate whether or not additional funding is needed, nor does it indicate whether or not the plan has sufficient funds to settle all current obligations.

The funded status of OSERS is shown below (in millions):

	1/1/20	1/1/21	1/1/22	1/1/23	1/1/24	1/1/25
Actuarial Value of Assets:						
Funded Ratio (AVA/AAL)	63%	62%	63%	61%	60%	60%
Unfunded AAL (AAL - AVA)	\$848	\$914	\$913	\$1,035	\$1,110	\$1,184
Market Value of Assets:						
Funded Ratio (MVA/AAL)	58%	59%	66%	54%	57%	58%
Unfunded AAL (AAL - MVA)	\$942	\$976	\$850	\$1,214	\$1,190	\$1,222



Changes in actuarial assumptions and methods, coupled with investment returns below the assumed rate and contributions below the actuarial required contribution rate significantly reduced the funded ratio over much of this period. However, with the Board's current funding policy and the statutory requirement for the full actuarial required contribution to be made, the funded ratio is expected to increase in the future, assuming all assumptions are met.

Contributions

The actuarial required contribution rate for the System consists of:

- a "normal cost" for the portion of projected liabilities allocated by the actuarial cost method to service of members during the year following the valuation date,
- an "administrative expense" load for the expenses expected to be paid from the trust during the year following the valuation date,
- an "unfunded actuarial accrued liability contribution" for the excess of the portion of projected liabilities allocated to service to date over the actuarial value of assets.





EXECUTIVE SUMMARY

The actuarial required contribution rate is computed based on the System's funding policy. On that basis, the actuarial required contribution rate (Item 4 in the following table) is equal to the sum of the normal cost rate, the administrative expense rate, and the amortization payment on the UAAL. Effective with the January 1, 2019 valuation, OSERS amortizes the UAAL using a "layered" amortization approach. Under this method, the UAAL is split into multiple pieces; the first piece (legacy UAAL) is amortized, as a level-percent of pay, over a closed 30-year period beginning with the January 1, 2019 valuation (24 years remain as of the January 1, 2025 valuation). Beginning January 1, 2022, UAAL bases that result from actuarial experience are amortized, as a level-percent of pay, over a new 25-year closed period commencing on the respective valuation date. UAAL bases established prior to January 1, 2022 continue to be amortized over a closed 30-year period.

Please note that the use of closed amortization periods, coupled with the System's practice of contributing at least the full actuarial required contribution each year, will result in the plan being fully funded at or before the end of the amortization period, if all actuarial assumptions are met. The funding policy is intended to promote stable contributions, balance cost among generations of members, and ensure adequate advance funding of benefits. The amortization schedule will fully fund the UAAL within 26 years. In our opinion, the amortization policy meets the requirements of Actuarial Standard of Practice Number 4.

The actuarial required contribution rate for the plan year ending December 31, 2025, and the resulting additional School District contribution, is computed based on the January 1, 2025 actuarial valuation. The ongoing, fixed contributions to the System are set by state statute and are shown below in item 5, "Statutory Contribution Rate". They include the member contribution rate of 9.78%, the State contribution rate of 2.00%, and the School District contribution rate which is 101% of the member contribution rate.

Based on the results of this valuation, the District's additional contribution for the 2025 plan year is 7.39%, or \$36.4 million, as shown in the table below:

Contribution Rate	Actuarial Valuation	
	1/1/2025	1/1/2024
1. Normal Cost	12.94%	12.74%
2. Administrative Expenses	0.24%	0.24%
3. UAAL Contribution	<u>15.87%</u>	<u>16.38%</u>
4. Actuarial Required Contribution Rate	29.05%	29.36%
5. Statutory Contribution Rate	21.66%	21.66%
6. Contribution Shortfall / (Margin) (4)-(5)	7.39%	7.70%
7. Additional District Contribution (\$M)	\$36.4	\$33.7





EXECUTIVE SUMMARY

Various factors resulted in a net decrease in the actuarial required contribution rate from the prior valuation. Overall, the actuarial required contribution rate has decreased by 0.31%, as shown in the following table.

Actuarial Required Contribution Rate	
Actuarial Required Contribution Rate as of January 1, 2024	29.36%
• Contributions Different Than Actuarial Rate	(0.16%)
• Investment Experience	0.16%
• Liability Experience	0.40%
• Change in Normal Cost Rate	(0.09%)
• Payroll Growth Different Than Expected	(1.45%)
• Assumption Changes	1.05%
• Other Experience	(0.22%)
Actuarial Required Contribution Rate as of January 1, 2025	29.05%

As discussed earlier, the difference in the actuarial required contribution rate and the statutory contribution rate results in a contribution shortfall for 2025 of 7.39% of covered payroll, or \$36.4 million. Due to the favorable investment experience on the market value of assets for the year ending December 31, 2024, the \$80.6 million of deferred investment loss (actuarial value exceeds the market value of assets) in the prior valuation has decreased to \$37.5 million in the current valuation. Absent favorable investment experience in future years to offset the recognition of the deferred investment loss, the actuarial required contribution rate is expected to increase as the deferred investment experience is reflected through the asset smoothing method. If this occurs, the System's funded status is expected to decrease, and the actuarial required contribution rate shortfall is expected to increase. The following table illustrates the impact of the deferred investment experience on the District's additional contribution, if all assumptions are met in the future (\$ in millions):

Year Ended December 31,	Total Payroll	Actuarial Required Contribution	Member and State Statutory	District Statutory	District Additional	District Additional (August 31)
2025	\$487.4	29.05%	11.78%	9.88%	7.39%	\$36.4
2026	501.5	29.10%	11.78%	9.88%	7.44%	37.7
2027	516.0	29.14%	11.78%	9.88%	7.48%	39.0
2028	530.3	29.16%	11.78%	9.88%	7.50%	40.2
2029	544.8	29.16%	11.78%	9.88%	7.50%	41.3
2030	559.5	29.16%	11.78%	9.88%	7.50%	42.4
2031	574.3	29.15%	11.78%	9.88%	7.49%	43.5

Favorable/unfavorable experience such as future investment returns above/below the assumed rate of return will decrease/increase the amount of the additional District Contribution.





EXECUTIVE SUMMARY

Comments

The System's unfunded actuarial accrued liability increased from \$1.110 billion in the January 1, 2024 valuation to \$1.184 billion in the January 1, 2025 actuarial valuation, the funded ratio held steady at 60%, and the Actuarial Required Contribution Rate decreased from 29.36% to 29.05%. Net unfavorable experience occurred during the 2024 valuation year, the result of a \$12.5 million actuarial loss on assets and a \$30.4 million net actuarial loss on liabilities. This experience increased the unfunded actuarial accrued liability and the payment thereon and increased the Actuarial Required Contribution Rate by 0.56%. However, the contribution rate increase was more than offset by larger than expected covered payroll, which served to decrease the Actuarial Required Contribution Rate by 1.45%. The additional contribution made by the School District in 2024 was \$45.5 million, \$11.8 million higher than the additional actuarial required contribution of \$33.7 million. The higher contribution by the District served to decrease the unfunded actuarial accrued liability more quickly than scheduled by the System's funding policy.

The Nebraska statutes provide that the School District shall contribute the greater of (a) one hundred and one percent of the contributions made by the employees or (b) such amount as may be necessary to maintain the solvency of the System, as determined annually by the Board of Education upon recommendation of the actuary. The Omaha School Board of Education adopted a Funding Policy that sets the criteria for determining the contribution amount necessary to maintain the solvency of the System. On this basis, the Actuarial Required Contribution Rate for the valuation year ending December 31, 2025 is 29.05% of payroll. The total of contributions expected to be paid by members, the State, and the School District is 21.66% of payroll, so the Actuarial Required Contribution Rate for 2025 exceeds the statutory contribution rates by 7.39% of payroll, or \$36.4 million. This contribution shortfall of \$36.4 million represents the additional required contribution by the School District needed for the 2025 plan year. Given the System's current funded status and statutory contribution rates, an additional District contribution is expected to be needed for many years.

The deferred investment loss (actuarial value less market value of assets) is \$37.5 million as of January 1, 2025. Absent favorable investment experience in future years, the deferred investment loss will eventually be reflected in the actuarial value of assets in future years. While the use of an asset smoothing method is common for public retirement systems, it is important to identify the potential impact of the deferred investment experience. This is accomplished by comparing the key valuation results using both the actuarial and market value of assets:





EXECUTIVE SUMMARY

	Using Actuarial Value of Assets	Using Market Value of Assets
Actuarial Accrued Liability	\$2,938,452,246	\$2,938,452,246
Asset Value	<u>1,753,983,104</u>	<u>1,716,450,237</u>
Unfunded Actuarial Accrued Liability	\$1,184,469,142	\$1,222,002,009
Funded Ratio	59.69%	58.41%
Normal Cost Rate	12.94%	12.94%
Administrative Expense Rate	0.24%	0.24%
UAAL Contribution Rate	<u>15.87%</u>	<u>16.36%</u>
Actuarial Required Contribution Rate	29.05%	29.54%
Total Statutory Contribution Rate	<u>(21.66%)</u>	<u>(21.66%)</u>
Contribution Shortfall	7.39%	7.88%
Additional District Contribution	\$36,424,129	\$38,839,261

A typical retirement plan faces many different risks. The term “risk” is most commonly associated with an outcome with undesirable results. However, in the actuarial world risk can be translated as uncertainty. The actuarial valuation process uses many actuarial assumptions to project how future contributions and investment returns will meet the cash flow needs for future benefit payments. Of course, we know that actual experience will not unfold exactly as anticipated by the assumptions and that uncertainty, whether favorable or unfavorable, creates risk. Actuarial Standard of Practice Number 51 defines risk as the potential of actual future measurements to deviate from expected results due to actual experience that is different than the actuarial assumptions. Risk evaluation is an important part of managing a defined benefit plan. Please see the Risk Considerations section of this report for an in-depth discussion of the specific risks facing OSERS.

We conclude this executive summary by presenting comparative statistics and actuarial information from both the January 1, 2024 and January 1, 2025 valuations.





EXECUTIVE SUMMARY

	Jan. 1, 2025	Jan. 1, 2024	% Chg
SYSTEM MEMBERSHIP			
1. Active Membership			
a. Number of Members			
i. Tier 1	2,680	2,700	(0.7)
ii. Tier 2	660	710	(7.0)
iii. Tier 3	514	510	0.8
iv. Tier 4	<u>3,584</u>	<u>2,793</u>	28.3
v. Total	7,438	6,713	10.8
b. Projected Payroll for Upcoming Calendar Year	\$487.4M	\$432.4M	12.7
c. Average Projected Salary	65,523	64,419	1.7
2. Inactive Membership			
a. Number Not in Pay Status	3,820	3,285	16.3
b. Number of Retirees/Beneficiaries/Disableds	5,417	5,411	0.1
c. Total Annual Benefits in Pay	\$151.2M	\$148.6M	1.7
ASSETS AND LIABILITIES			
1. Net Assets			
a. Market Value	\$1,716M	\$1,570M	9.3
b. Actuarial Value	1,754M	1,650M	6.3
2. Projected Liabilities			
a. Retired Members	\$1,585M	\$1,551M	2.2
b. Inactive Members	115M	99M	16.2
c. Active Members	<u>1,789M</u>	<u>1,595M</u>	12.2
d. Total Liability	3,488M	3,244M	7.5
3. Actuarial Accrued Liability (AAL)	\$2,938M	\$2,760M	6.4
4. Unfunded Actuarial Accrued Liability	\$1,184M	\$1,110M	6.7
5. Funded Ratio			
a. Actuarial Value Assets/AAL	59.69%	59.79%	(0.2)
b. Market Value Assets/AAL	58.41%	56.87%	2.7
SYSTEM CONTRIBUTIONS			
1. Actuarial Required Contribution Rate	29.05%	29.36%	(1.1)
2. Statutory Contribution Rate			
a. Member Contribution Rate	9.78%	9.78%	0.0
b. Employer Contribution Rate	9.88%	9.88%	0.0
c. State Contribution Rate	<u>2.00%</u>	<u>2.00%</u>	0.0
d. Total	21.66%	21.66%	0.0
3. Contribution Shortfall/(Margin) (1.) - (2.d.)	7.39%	7.70%	(4.0)
4. Additional District Contribution*	\$36,424,129	\$33,686,180	8.1

M = (\$)Millions

Numbers may not add due to rounding.

* Contribution amount is calculated as of August 31





EXECUTIVE SUMMARY

HISTORICAL CHANGES IN THE OSERS UNFUNDED ACTUARIAL ACCRUED LIABILITY

(dollars in millions)

	Valuation Date											
	9/1/03	9/1/04	9/1/05	9/1/06	9/1/07	9/1/08	9/1/09	9/1/10	9/1/11	9/1/12	9/1/13	9/1/14
Prior Valuation UAAL	163	191	223	240	246	138	198	349	390	406	437	455
Amortization Method	4	5	6	7	5	3	4	6	2	8	9	10
Actual Contributions												
Less than ARC	0	0	2	0	3	0	0	2	4	0	2	0
More than ARC	0	0	0	(2)	0	(7)	(2)	0	0	(4)	0	(4)
Actual vs Expected Experience												
Investment	27	23	1	(10)	(29)	33	151	42	26	20	12	(6)
Salary	(5)	(6)	(1)	4	1	1	0	(13)	(15)	(12)	(6)	(8)
Retirement	3	0	3	2	2	3	(2)	(4)	(1)	4	4	6
Mortality	2	5	4	3	3	1	(2)	0	(2)	2	(2)	(1)
Termination of Employment	(4)	(1)	2	3	1	7	2	3	2	0	1	(1)
Other	1	3	0	(1)	(3)	(1)	0	0	0	13	(8)	(5)
Benefit Changes	0	0	0	0	(3) ²	0	0	0	0	0	(4)	0
Assumption Changes	0	0	0	0	0	20	0	0	0	0	10	0
Change to Actuarial Methods	0	3 ¹	0	0	(88) ³	0	0	5	0	0	0	0
Data Refinement	0	0	0	0	0	0	0	0	0	0	0	0
Total Change for Year End	28	32	17	6	(108)	60	151	41	16	31	18	(9)
UAAL on Valuation Date	191	223	240	246	138	198	349	390	406	437	455	446

¹Included part-time members who are vested

²Increase in member contribution rate

³Actuarial asset value reset to market value





EXECUTIVE SUMMARY

HISTORICAL CHANGES IN THE OSERS UNFUNDED ACTUARIAL ACCRUED LIABILITY (CONT.)

(dollars in millions)

	Valuation Date										Total
	9/1/15	1/1/17	1/1/18	1/1/19	1/1/20	1/1/21	1/1/22	1/1/23	1/1/24	1/1/25	
Prior Valuation UAAL	446	486	713	771	814	848	914	913	1,035	1,110	
Amortization Method	9	12	7	7	12	11	11	10	8	7	163
Actual Contributions											
Less than ARC	0	0	3	0	0	0	0	0	0	0	16
More than ARC	(5)	(4)	0	0	(3)	(2)	(2)	(8)	(5)	(12)	(60)
Actual vs Expected Experience											
Investment	34	63	44	62	31	21	(21)	60	27	13	624
Salary	(3)	*	3	(29)	(12)	(10)	19	62	43	19	32
Retirement	9	*	7	6	8	8	5	3	(1)	(4)	61
Mortality	2	*	(1)	6	6	(4)	(1)	(3)	(4)	(6)	8
Termination of Employment	(2)	*	(1)	(6)	(8)	(5)	(13)	(23)	(20)	(2)	(65)
Other	(4)	(6)	(4)	(3)	0	(2)	1	(4)	(2)	3	(21)
Benefit Changes	0	0	0	0	0	0	0	0	0	0	(7)
Assumption Changes	0	138	0	0	0	0	0	25	29	56	278
Change to Actuarial Methods	0	0	0	0	0	0	0	0	0	0	(80)
Data Refinement	0	0	0	0	0	49	0	0	0	0	49
Total Change for Year End	40	227*	58	43	34	66	(1)	122	75	74	
UAAL on Valuation Date	486	713	771	814	848	914	913	1,035	1,110	1,184	

* Not calculated. Total liability experience was a \$24 million loss, which is included in the total change at year end.

Note: Although a total column is shown, the amounts in each year are not additive because they are calculated on each valuation date and, therefore, represent a value at a different point in time.



EXHIBIT 1 – SUMMARY OF FUND ACTIVITY (MVA)



SUMMARY OF FUND ACTIVITY (Market Value Basis)

For Year Ended December 31, 2024

1. Market Value of Assets, January 1, 2024	\$	1,569,697,000
2. Beginning of Year Asset Adjustment		10,580,697
3. Adjusted Market Value of Assets, January 1, 2024	\$	1,580,277,697
4. Contributions		
(a) Member	\$	45,530,864
(b) School District payroll-related contributions		45,984,856
(c) School District additional contributions		45,481,856
(d) State service annuity receipts		1,899,886
(e) State appropriations		8,639,634
(f) Total	\$	<u>147,537,096</u>
5. Expenditures		
(a) Retirement benefits	\$	149,833,772
(b) Refunds to employees		7,855,604
(c) Administrative expenses		2,975,652
(d) Total	\$	<u>160,665,028</u>
6. Investment Return, Net of Expenses		
(a) Investment income	\$	33,934,389
(b) Securities lending income		2,983,394
(c) Securities lending expense		(2,853,545)
(d) Net appreciation/(depreciation) in fair value of investments		112,295,753
(e) Other		2,940,481
(f) Net investment return	\$	<u>149,300,472</u>
7. Market Value of Assets, January 1, 2025 [3 + 4(f) - 5(d) + 6(f)]	\$	1,716,450,237





EXHIBIT 2 – ACTUARIAL VALUE OF NET ASSETS

ACTUARIAL VALUE OF NET ASSETS

As of January 1, 2025

1. Actuarial Value of Assets as of January 1, 2024	\$	1,650,252,000
2. Beginning of Year Asset Adjustment		10,580,697
3. Adjusted Actuarial Value of Assets as of January 1, 2024	\$	1,660,832,697
4. Actual Contributions/Disbursements		
a. Contributions	\$	147,537,096
b. Benefit payments and administrative expenses		(160,665,028)
c. Net change	\$	<u>(13,127,932)</u>
5. Expected Value of Assets as of January 1, 2025	\$	1,766,494,060
6. Market Value of Assets as of January 1, 2025	\$	1,716,450,237
7. Difference between Market and Expected Values (6) – (5)	\$	(50,043,823)
8. Initial Actuarial Value of Assets as of January 1, 2025 (5) + [(7) x 25%]	\$	1,753,983,104
9. Corridor as of January 1, 2025		
a. 120% of Market Value of Assets as of January 1, 2025	\$	2,059,740,284
b. 80% of Market Value of Assets as of January 1, 2025	\$	1,373,160,190
10. Final Actuarial Value of Assets as of January 1, 2025* (8), but not greater than (9a), nor less than (9b)	\$	1,753,983,104
11. Actuarial value divided by market value (10) / (6)		102.2%
12. Market value less actuarial value	\$	(37,532,867)

* The estimated annual rate of return on the actuarial value of assets during 2024 is about 6.4%.



EXHIBIT 3 – ACTUARIAL BALANCE SHEET



ACTUARIAL BALANCE SHEET

As of January 1, 2025

ASSETS

Actuarial Value of Assets	\$	1,753,983,104
Present Value of Contributions for Unfunded Actuarial Accrued Liability		1,184,469,142
Present Value of Future Normal Costs		<u>549,615,570</u>
Total Assets	\$	3,488,067,816

LIABILITIES

Present Value of Future Benefits		
Retirees, Beneficiaries, and Disableds	\$	1,584,574,679
Inactive Vesteds		100,100,318
Inactive Nonvesteds		14,432,831
Active Members		
Retirement benefits	\$	1,692,346,066
Termination benefits		84,125,866
Death benefits		<u>12,488,056</u>
		<u>1,788,959,988</u>
Total Liabilities	\$	3,488,067,816





EXHIBIT 4 – NORMAL COST RATE

NORMAL COST RATE

As of January 1, 2025

	<u>Tier 1</u>	<u>Tier 2</u>	<u>Tier 3</u>	<u>Tier 4</u>	<u>Total</u>
1. Normal Cost Amount					
a. Retirement	\$23,184,731	\$4,522,163	\$3,031,013	\$17,203,449	\$47,941,356
b. Termination	4,661,957	920,821	607,969	3,582,964	9,773,711
c. Mortality	<u>232,639</u>	<u>45,657</u>	<u>34,781</u>	<u>221,472</u>	<u>534,549</u>
d. Total	\$28,079,327	\$5,488,641	\$3,673,763	\$21,007,885	\$58,249,616
2. Expected Payroll for Current Actives During 2025	\$207,157,145	\$41,464,854	\$28,854,268	\$172,531,048	\$450,007,315
3. Normal Cost Rate (1.d.) ÷ (2)	13.55%	13.24%	12.73%	12.18%	12.94%



EXHIBIT 5 – UNFUNDED ACTUARIAL ACCRUED LIABILITY



UNFUNDED ACTUARIAL ACCRUED LIABILITY

As of January 1, 2025

1. Present Value of Future Benefits	\$ 3,488,067,816
2. Present Value of Future Normal Costs	\$ <u>549,615,570</u>
3. Actuarial Accrued Liability (1) – (2)	\$ 2,938,452,246
4. Actuarial Value of Assets	\$ <u>1,753,983,104</u>
5. Unfunded Actuarial Accrued Liability (3) – (4)	\$ 1,184,469,142





EXHIBIT 6 – AMORTIZATION OF THE UAAL

AMORTIZATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)

We believe the use of the layered amortization policy, with new bases over 25 years and the remainder of the legacy base over 24 years, complies with Actuarial Standard of Practice Number 4. This policy will fully amortize the individual as well as the total unfunded actuarial accrued liability within a reasonable timeframe and/or reduce the amount of the UAAL by a reasonable amount within a sufficiently short period.

Amortization Bases	Original Amount	1/1/2025 Remaining Payments	Date of Last Payment	Outstanding Balance as of 1/1/2025	Annual Contribution*
2019 UAAL Base	\$ 814,069,000	24	1/1/2048	\$ 867,677,522	\$ 56,786,145
2020 Experience Base	21,863,793	25	1/1/2049	23,116,730	1,476,744
2021 Experience Base	54,475,149	26	1/1/2050	57,051,044	3,562,695
2022 Assumption Change Base	130,000	22	1/1/2046	131,930	9,108
2022 Experience Base	(11,662,141)	22	1/1/2046	(11,835,186)	(817,030)
2023 Assumption Change Base	24,662,000	23	1/1/2047	24,926,882	1,674,009
2023 Experience Base	87,006,970	23	1/1/2047	87,941,469	5,905,864
2024 Assumption Change Base	29,221,000	24	1/1/2048	29,391,829	1,923,582
2024 Experience Base	37,667,274	24	1/1/2048	37,887,480	2,479,589
2025 Assumption Change Base	56,045,503	25	1/1/2049	56,045,503	3,580,301
2025 Experience Base	12,133,939	25	1/1/2049	12,133,939	775,141
Total				\$ 1,184,469,142	\$ 77,356,148

* Contribution amount reflects mid-year timing.

1. Total UAAL Amortization Payments	\$ 77,356,148
2. Projected Payroll for plan year ending December 31, 2025	\$ 487,357,265
3. UAAL Amortization Payment Rate	15.87%





EXHIBIT 7 – ANALYSIS OF CONTRIBUTION RATE

ANALYSIS OF CONTRIBUTION RATE

The System is financed by contributions from the members, the School District and the State. Effective September 1, 2013, the members contribute 9.78% of pay. The District is obligated to pay the greater of (a) one hundred and one percent of the member contributions or (b) such amount as may be necessary to maintain the solvency of the System. Under the Funding Policy adopted by the OSERS Board of Trustees in May 2013, the Actuarial Required Contribution Rate (ARC) is the normal cost rate, the administrative expense rate, plus the contribution necessary to amortize the UAAL. Effective July 1, 2014, the State of Nebraska contributes 2.0% of pay.

1. Normal Cost Rate	12.94%
2. Administrative Expenses	0.24%
3. UAAL Contribution Rate	15.87%
4. Actuarial Required Contribution Rate (1) + (2) + (3)	29.05%
5. Statutory Contribution Rate:	
(a) Member	9.78%
(b) District	9.88%
(c) State	<u>2.00%</u>
(d) Total	21.66%
6. Contribution Shortfall (4) - (5d)	7.39%
7. Additional District Contribution at August 31, 2025 (6) * \$487,357,265 * (1.07 ^ (2/12))	\$ 36,424,129





EXHIBIT 8 – PROJECTION OF ADDITIONAL DISTRICT CONTRIBUTIONS

PROJECTION OF ADDITIONAL DISTRICT CONTRIBUTIONS

The projections below are based on the open group projection model prepared in conjunction with the January 1, 2025 actuarial valuation. It is assumed that all actuarial assumptions are met each year in the future, including the assumed rate of return on the market value of assets. The projections also assume the number of active members remains constant in the future. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ and the additional contribution required by the District will vary from the amounts shown below. The projections are not intended to predict the specific amount of the additional District contributions in the future, but rather to indicate the general trend and magnitude of such contributions if the actuarial assumptions are met.

Year Ended December 31,	Total Payroll	Actuarial Required Contribution	Member and State Statutory	District Statutory	District Additional	District Additional (August 31)
2025	\$487,357,265	29.05%	11.78%	9.88%	7.39%	\$36,424,129
2026	501,532,825	29.10%	11.78%	9.88%	7.44%	37,737,193
2027	515,977,984	29.14%	11.78%	9.88%	7.48%	39,032,832
2028	530,293,119	29.16%	11.78%	9.88%	7.50%	40,223,009
2029	544,821,461	29.16%	11.78%	9.88%	7.50%	41,324,991
2030	559,522,462	29.16%	11.78%	9.88%	7.50%	42,440,069
2031	574,305,087	29.15%	11.78%	9.88%	7.49%	43,503,257
2032	589,024,543	29.15%	11.78%	9.88%	7.49%	44,618,247
2033	604,029,684	29.14%	11.78%	9.88%	7.48%	45,693,789
2034	619,255,645	29.13%	11.78%	9.88%	7.47%	46,782,979
2035	634,147,915	29.14%	11.78%	9.88%	7.48%	47,972,181

Favorable/unfavorable experience such as future investment returns above/below the assumed rate of return will decrease/increase the amount of the additional District Contribution.





EXHIBIT 9 – CALCULATION OF ACTUARIAL GAIN/(LOSS)

CALCULATION OF ACTUARIAL GAIN/(LOSS)

The overall actuarial gain/(loss) is comprised of both a liability gain/(loss) and an actuarial asset gain/(loss). Each of these represents the difference between the expected and actual values as of January 1, 2025.

1.	Expected Actuarial Accrued Liability	
	a. Actuarial Accrued Liability as of January 1, 2024	\$ 2,760,001,000
	b. Normal Cost for 2024	50,944,000
	c. Benefit payments during 2024	(157,689,376)
	d. Additional liability for state service annuities and service purchases	1,899,886
	e. Interest on a., b., c., and d. to end of year	196,877,091
	f. Assumption changes	56,045,503
	g. Expected Actuarial Accrued Liability	\$ 2,908,078,104
2.	Actuarial Accrued Liability as of January 1, 2025	\$ 2,938,452,246
3.	Liability Gain/(Loss) (1.g.) – (2)	\$ (30,374,142)
4.	Liability Gain/(Loss) as a Percent of Actuarial Accrued Liability	(1.03%)
5.	Expected Actuarial Value of Assets	
	a. Adjusted actuarial value of assets as of January 1, 2024	\$ 1,660,832,697
	b. Contributions during 2024 (including state service annuities and service purchases)	147,537,096
	c. Benefit payments and administrative expenses during 2024	(160,665,028)
	d. Interest on a., b., and c. to end of year	118,789,295
	e. Expected actuarial value of assets	\$ 1,766,494,060
6.	Actuarial Value of Assets as of January 1, 2025	\$ 1,753,983,104
7.	Asset Gain/(Loss) (6) – (5.e.)	\$ (12,510,956)
8.	Asset Gain/(Loss) as a Percent of Actuarial Value of Assets	(0.71%)
9.	Overall Actuarial Gain/(Loss) (3) + (7)	\$ (42,885,098)





EXHIBIT 9 – CALCULATION OF ACTUARIAL GAIN/(LOSS)

Gain/(Loss) By Source

The System experienced a net actuarial loss on liabilities of \$30.4 million during the plan year ended December 31, 2024. The major components of this overall loss are shown below:

Liability Sources	<u>\$Millions</u>
Salary Increases	\$ (18.8)
Mortality	5.7
Terminations	2.4
Retirements	4.1
Disability	0.0
New Entrants/Rehires	(17.1)
Miscellaneous	(6.7)
Total Liability Gain/(Loss)	\$ (30.4)
Asset Gain/(Loss)	\$ (12.5)
Net Actuarial Gain/(Loss)	\$ (42.9)

Note: Numbers may not add due to rounding.

Comments

The purpose of conducting an actuarial valuation of a retirement system is to determine the costs and liabilities for the benefits under the system, to determine the annual level of contribution required to support these benefits and, finally, to analyze the system's overall experience as it compares with the actuarial assumptions used in the valuation. The costs and liabilities of a retirement system reported in the valuation depend not only upon the level of benefits provided, but also upon factors such as investment return on invested funds, mortality rates for active and retired members, withdrawal rates among active members, rates at which salaries increase, and rates of retirement for ages at which members retire. The actuarial assumptions employed as to these and other contingencies in the current valuation are set forth in Appendix C of this report.

Net demographic actuarial experience for the year was a loss of \$30.4 million, about 1.0% of the actuarial accrued liability. The largest source of unfavorable experience was an \$18.8 million loss due to higher salary increases than expected for continuing active members.

Another significant contributor of negative experience for the year ending December 31, 2024 was the investment experience. The rate of return on the market value of assets during 2024 was 9.4%, which is greater than the assumed 7.2% return during that period. Due to the asset smoothing method, the rate of return on the actuarial value of assets was 6.4% during 2024, resulting in an experience loss of \$12.5 million. As of January 1, 2025, there is a deferred investment loss of \$37.5 million. Absent favorable investment experience, the deferred loss will flow through the valuation over the next few years and increase both the UAAL and the actuarial required contribution rate. Our analysis shows that a return of about 9.0% on the market value of assets would result in a 7.0% return on the actuarial value of assets and eliminate the deferred losses.





**SCHEDULE OF CONTRIBUTIONS FROM THE EMPLOYER
AND OTHER CONTRIBUTING ENTITIES**

HISTORICAL FUNDING INFORMATION

Year Ending	Actuarial Required Employer Contribution (a)	Total Employer Contribution* (b)	Percentage of ARC Contribution (b) / (a)
8/31/2006	\$24,311,628	\$26,766,000	110.10%
8/31/2007	28,143,388	24,981,000	88.76%
8/31/2008	19,491,557	26,162,000	134.22%
8/31/2009	24,103,114	25,918,000	107.53%
8/31/2010	30,900,224	29,182,000	94.44%
8/31/2011	34,180,566	30,255,000	88.52%
8/31/2012	32,957,547	37,109,000	112.60%
8/31/2013	35,032,074	33,623,000	95.98%
8/31/2014	34,225,147	38,198,000	111.61%
8/31/2015	34,614,093	39,562,000	114.29%
8/31/2016	37,665,061	40,564,000	107.70%
12/31/2016**	12,836,281	13,861,000	107.98%
12/31/2017	57,941,493	55,145,000	95.17%
12/31/2018	63,111,681	63,112,000	100.00%
12/31/2019	61,699,371	64,755,000	104.95%
12/31/2020	63,114,251	64,646,000	102.43%
12/31/2021	67,216,627	69,162,000	102.89%
12/31/2022	70,210,926	77,892,000	110.94%
12/31/2023	80,432,198	85,432,000	106.22%
12/31/2024	88,310,670	100,106,346	113.36%

* Includes State and School District contributions.

** For the short Plan Year from September 1, 2016 through December 31, 2016.

Note: The Total Employer Contribution for fiscal year ending 8/31/2014 was changed because during our work on the GASB reports, we discovered the Service Annuity contribution was different from the initial amount reported to us. This figure now matches the number found in the GASB reports.





EXHIBIT 11 – SCHEDULE OF FUNDING PROGRESS

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b - a)/c]
9/1/2005	\$887,165,000	\$1,126,967,000	\$239,802,000	78.72%	\$231,708,783	103.49%
9/1/2006	948,938,000	1,195,354,000	246,416,000	79.39%	248,759,070	99.06%
9/1/2007	1,117,628,000 *	1,255,527,000	137,899,000	89.02%	272,844,149	50.54%
9/1/2008	1,149,289,000	1,346,999,000	197,710,000	85.32%	272,720,007	72.50%
9/1/2009	1,061,326,000	1,410,318,000	348,992,000	75.25%	287,770,291	121.27%
9/1/2010	1,078,269,000	1,467,850,000	389,581,000	73.46%	302,229,282	128.90%
9/1/2011	1,110,033,000	1,516,284,000	406,251,000	73.21%	310,228,916	130.95%
9/1/2012	1,155,495,000	1,592,738,000	437,243,000	72.55%	307,258,065	142.30%
9/1/2013	1,205,265,000	1,660,287,000	455,022,000	72.59%	313,946,237	144.94%
9/1/2014	1,277,546,000	1,723,970,000	446,424,000	74.10%	323,077,710	138.18%
9/1/2015	1,312,905,000	1,798,706,000	485,801,000	72.99%	333,166,135	145.81%
1/1/2017	1,337,983,000	2,050,581,000	712,598,000	65.25%	351,940,122 **	202.48%
1/1/2018	1,365,013,000	2,136,385,000	771,372,000	63.89%	359,359,507	214.65%
1/1/2019	1,378,824,000	2,192,893,000	814,069,000	62.88%	375,598,301	216.74%
1/1/2020	1,417,961,000	2,265,653,000	847,692,000	62.59%	364,799,331	232.37%
1/1/2021	1,467,834,000	2,381,356,000	913,522,000	61.64%	364,310,430	250.75%
1/1/2022	1,562,787,000	2,476,073,000	913,286,000	63.12%	381,926,844	239.13%
1/1/2023	1,591,983,000	2,626,546,000	1,034,563,000	60.61%	413,799,805	250.02%
1/1/2024	1,650,252,000	2,760,001,000	1,109,749,000	59.79%	437,355,849	253.74%
1/1/2025	1,753,983,104	2,938,452,246	1,184,469,142	59.69%	465,550,757	254.42%

* The actuarial value of assets was reset to market value as of 9/1/2007.

** Covered Payroll was annualized for the short Plan Year in 2016.





EXHIBIT 12 – SOLVENCY TEST

SOLVENCY TEST

A short-term solvency test, which is one method of determining a system's progress under its funding program, compares the plan's present assets with: 1) the liability for active member contributions on deposit; 2) the liability for future benefits to present retirees; and (3) the liability for service already rendered by active members. In a system that has been following the level-percent of payroll financing discipline, the obligation for active member contributions on deposit (Item 1) and the liabilities for future benefits to present retired lives (Item 2) will be fully covered by present assets with the exception of rare circumstances. The obligation for service already rendered by active members (Item 3) will be partially covered by the remainder of present assets. Absent any significant benefit changes, if the system has been using level cost financing, the funded portion of Item 3 usually will increase over a period of time.

Actuarial Valuation*	Active Member Contributions	Retirees, Beneficiaries, and Inactives	Active Members Employer Financed Portion	Actuarial Value of Assets	Portion of Liabilities Covered by Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
2012	\$249,903,000	\$955,399,000	\$387,436,000	\$1,155,495,000	100%	95%	0%
2013	272,347,000	1,001,953,000	385,987,000	1,205,265,000	100%	93%	0%
2014	281,672,000	1,058,156,000	384,142,000	1,277,546,000	100%	94%	0%
2015	292,731,000	1,129,399,000	376,576,000	1,312,905,000	100%	90%	0%
2017	306,276,000	1,266,557,000	477,748,000	1,337,983,000	100%	81%	0%
2018	316,337,000	1,311,949,000	508,099,000	1,365,013,000	100%	80%	0%
2019	326,524,000	1,356,615,000	509,754,000	1,378,824,000	100%	78%	0%
2020	334,253,000	1,414,441,000	516,959,000	1,417,961,000	100%	77%	0%
2021	338,589,000	1,465,905,000	576,862,000	1,467,834,000	100%	77%	0%
2022	338,431,000	1,529,040,000	608,602,000	1,562,787,000	100%	80%	0%
2023	344,721,000	1,597,250,000	684,575,000	1,591,983,000	100%	78%	0%
2024	355,283,000	1,649,459,000	755,259,000	1,650,252,000	100%	79%	0%
2025	392,716,171	1,699,107,828	846,628,247	1,753,983,104	100%	80%	0%

* The actuarial valuation date for years prior to 2017 was September 1.





EXHIBIT 13 – ESTIMATED BENEFIT PAYMENTS

ESTIMATED BENEFIT PAYMENTS*

Calendar Year	Currently In-Pay	Currently Not-In-Pay	Total
2025	\$150,506,000	\$ 8,319,000	\$158,825,000
2026	150,107,000	15,366,000	165,473,000
2027	149,315,000	22,496,000	171,811,000
2028	148,295,000	29,845,000	178,140,000
2029	146,936,000	37,542,000	184,478,000
2030	145,339,000	46,097,000	191,436,000
2031	143,625,000	55,213,000	198,838,000
2032	141,933,000	64,779,000	206,712,000
2033	139,670,000	74,569,000	214,239,000
2034	137,262,000	85,016,000	222,278,000
2035	134,117,000	96,094,000	230,211,000
2036	131,057,000	107,364,000	238,421,000
2037	127,531,000	118,857,000	246,388,000
2038	123,621,000	130,742,000	254,363,000
2039	119,648,000	142,827,000	262,475,000
2040	115,448,000	154,429,000	269,877,000
2041	110,813,000	165,854,000	276,667,000
2042	106,259,000	176,998,000	283,257,000
2043	101,488,000	188,183,000	289,671,000
2044	96,768,000	199,470,000	296,238,000
2045	91,777,000	211,077,000	302,854,000
2046	86,630,000	222,576,000	309,206,000
2047	81,634,000	233,616,000	315,250,000
2048	76,524,000	244,064,000	320,588,000
2049	71,505,000	253,898,000	325,403,000
2050	66,800,000	262,597,000	329,397,000
2051	62,041,000	270,186,000	332,227,000
2052	57,655,000	276,695,000	334,350,000
2053	53,391,000	282,568,000	335,959,000
2054	49,349,000	287,765,000	337,114,000

*Amounts shown are the cash flows for current members only, based on the current benefit structure and assuming that all actuarial assumptions are met in each future year. To the extent that actual experience deviates from that expected, results will vary. Amounts are shown in future nominal dollars and have not been discounted to the valuation date.





RISK CONSIDERATIONS

RISK CONSIDERATIONS

Actuarial Standards of Practice are issued by the Actuarial Standards Board and are binding on credentialed actuaries practicing in the United States. These standards generally identify what the actuary should consider, document and disclose when performing an actuarial assignment. In September, 2017, Actuarial Standard of Practice Number 51, *Assessment and Disclosure of Risk in Measuring Pension Obligations*, (ASOP 51) was issued as final with application to measurement dates on or after November 1, 2018. This ASOP, which applies to funding valuations, actuarial projections, and actuarial cost studies of proposed plan changes, was first applicable for the January 1, 2019 actuarial valuation for the Omaha School Employees Retirement System (System).

A typical retirement plan faces many different risks. The term “risk” is most commonly associated with an outcome with undesirable results. However, in the actuarial world, risk can be translated as uncertainty. The actuarial valuation process uses many actuarial assumptions to project how future contributions and investment returns will meet the cash flow needs for future benefit payments. Of course, we know that actual experience will not unfold exactly as anticipated by the assumptions and that uncertainty, whether favorable or unfavorable, creates risk. ASOP 51 defines risk as the potential of actual future measurements to deviate from expected results due to actual experience that is different than the actuarial assumptions.

The various risk factors for a given plan can have a significant impact – positive or negative – on the actuarial projection of liability and contribution rates.

There are a number of risks inherent in the funding of any defined benefit plan. These include:

- economic risks, such as investment return and price inflation;
- demographic risks such as mortality, active membership size, payroll growth, aging population including impact of baby boomers, and retirement ages;
- contribution risk, i.e., the potential for contribution rates to be too high for the plan sponsor/employer to pay; and
- external risks such as the regulatory and political environment.

The last two risks are not required to be assessed by the actuary under ASOP 51, and so no discussion is included here.

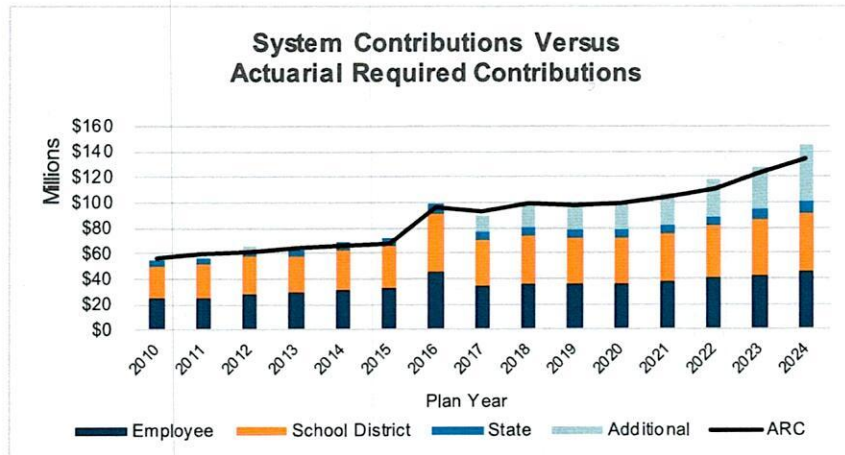
In assessing the risks associated with funding a pension plan, it is important to realize that each retirement system is unique and may have different risks. This discussion is intended to identify and disclose the more significant risks to the funding of OSERS.

The biggest risk to any retirement system is the inability to pay benefits when they are due. That risk is minimized by the accumulation of assets in the System’s trust. There is generally a direct correlation between healthy, well-funded retirement plans and consistent contributions equal to the full actuarial required contribution each year. As the following graph illustrates, the School District has contributed at least the full Actuarial Required Contribution in 11 of the past 15 years and has contributed an amount very close to the Actuarial Required Contribution in the other years.





RISK CONSIDERATIONS



Current state statutes require the School District to contribute any shortfall between the Actuarial Required Contribution Rate and the statutory contributions by members, the State of Nebraska and the School District on or before August 31. As a result, the full Actuarial Required Contribution Rate can be expected to be contributed in future years and the funded status of OSERS should improve over time, if actuarial assumptions are met.

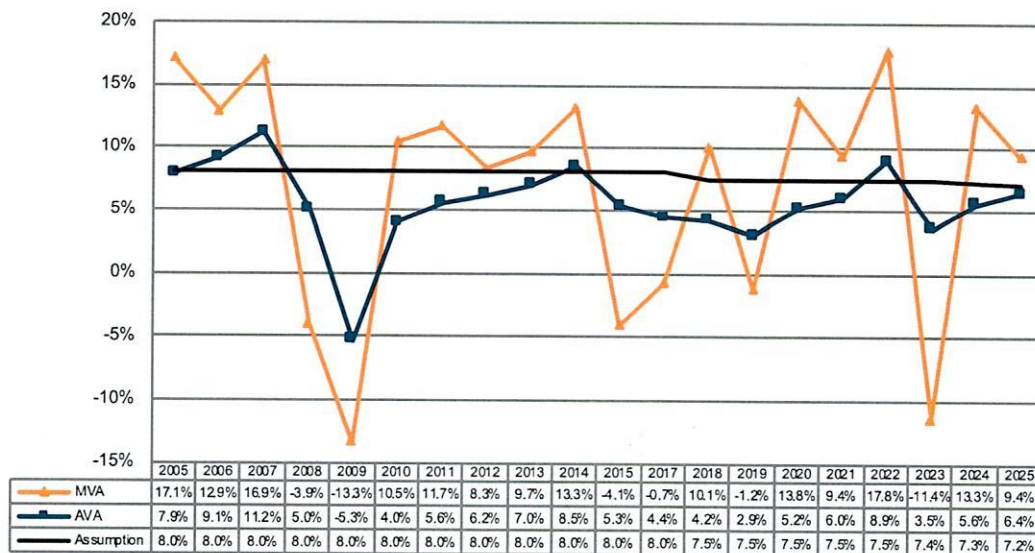
The System's funding policy, as modified in 2019, amortizes the legacy UAAL over a closed 30-year period, with payments calculated as a level-percent of pay. Effective with the January 1, 2022 actuarial valuation, new layers are amortized over a closed 25-year period. Both 30 and 25 years are relatively long amortization periods and thus will tend to improve the System's funded status relatively slowly. The payment pattern which develops a payment schedule that is level as a percent of payroll is the most common method used by public plans, but it is less conservative than the level-dollar amortization method because the dollar amount of the unfunded actuarial accrued liability could increase for several years before finally starting to decline, particularly over long periods like 30 years, even if all assumptions are met. In addition, amortization as a level percent of pay requires the use of an assumption regarding the growth of covered payroll in future years (currently 2.85% per year). This introduces another possible source of variation between actual and expected experience, thus increasing the funding risk for the System. If actual payroll does not increase as assumed, which could be due to a decline in the number of active members or actual salary increases that are less than expected, the UAAL contribution rate will increase. The dollar payment on the UAAL is the same, but the higher UAAL contribution rate ultimately pushes more of the UAAL funding to the District's additional contribution.

Perhaps the most significant risk factor for most Systems, including OSERS, is investment return because of the volatility of returns associated with the asset allocations. Over the past 20 years, actual returns each year have varied significantly from the assumed rate of return (see following graph). This is to be expected, given the underlying capital market assumptions and the System's asset allocation and standard deviation, but it does create a high degree of uncertainty or risk. The compound rate of return over this period was about 6.6%, but the range of returns varied from +18% to -13%. When actual investment returns are lower than the assumed rate of return, there is an increasing trend in the actuarial required contribution rate absent offsetting gains on liabilities or changes in actuarial assumptions or methods. The investment experience of the last two decades has been significantly lower than the assumption, resulting in a higher actuarial required contribution rate.





RISK CONSIDERATIONS



The System is currently 60% funded using the actuarial value of assets and 58% funded on a market value basis. The low funded ratio has increased the actuarial required contribution rate, and the School District now has an obligation to make an additional contribution of around 7% of covered payroll. As the District's obligation to make the additional contributions is statutory, some risk of unmanageable contribution levels exists. The risk associated with investment returns has the potential to create significant volatility in the amount of additional District contributions. Given the asset allocation of the portfolio and the associated volatility of returns in any one year, it would not be unexpected to have returns that are more than 10% lower than the assumed return of 7.0%. In that case, the District's additional contribution could increase significantly (around 0.59% of pay or \$2.9 million in the first year alone) because the full impact of the "miss" on investments impacts the District's additional contribution rate.

Under the revised Actuarial Standards of Practice (ASOP) No. 4 effective for valuations after February 15, 2023, we are required to include a low-default-risk obligation measure of the System's liability in our funding valuation report. This is an informational disclosure as described below and would not be appropriate for assessing the funding progress or health of the plan. This measure uses the unit credit cost method and reflects all the assumptions and provisions of the funding valuation except that the discount rate is derived from considering low-default-risk fixed income securities. We considered the FTSE Pension Discount Curve based on market bond rates published by the Society of Actuaries as of December 31, 2024 with the 30-year spot rate used for all durations beyond 30. Using these assumptions, we calculate a liability of approximately \$3.00 billion. This amount approximates the termination liability if the plan (or all covered employment) ended on the valuation date and all of the accrued benefits had to be paid with cash-flow matched bonds. This assurance of funded status and benefit security is typically more relevant for corporate plans than for governmental plans since governments rarely have the need or option to completely terminate a plan. However, this informational disclosure is required for all plans whether corporate or governmental and care should be taken to ensure the one size fits all metric is not misconstrued.

A key demographic risk for all retirement systems, including OSERS, is improvements in mortality (longevity) greater than anticipated. While the actuarial assumptions reflect small, continuous improvements in mortality experience over time and these assumptions are refined in every





RISK CONSIDERATIONS

experience study, the risk arises because there is a possibility of some sudden shift, perhaps from a significant medical breakthrough that could quickly increase liabilities. Likewise, there is some possibility of a significant public health crisis that could result in a significant number of additional deaths in a short time period, as experienced with Covid-19. This kind of event is also significant, although the experience is more easily absorbed. While either of these events could happen, it represents a relatively small probability and thus represents much less risk than the volatility associated with investment returns.

The following exhibits in this section summarize certain historical information that helps indicate how certain key risk metrics may have changed over time. Many of the changes are due to the maturity of the Plan.





EXHIBIT 14 – HISTORICAL ASSET VOLATILITY RATIOS

As a retirement plan matures, the size of the market value of assets usually increases relative to the covered payroll of active members, on which the Plan is funded. The size of the plan assets relative to covered payroll, sometimes referred to as the asset volatility ratio, is an important indicator of the contribution risk (variability) for the plan. The higher this ratio, the more sensitive a plan's contribution rate is to investment return volatility. In other words, it will be harder to recover from investment losses with increased contributions (contribution rates will be higher).

OSERS' historical trends are somewhat different than those observed in most public plans. This is due both to the length of time the System has been in existence (since 1909) and the slow growth of assets over this period compared to payroll. The result is a stable or decreasing asset volatility ratio rather than an increasing trend which is more typical. As the System's funding improves over the long term, the asset volatility ratio is expected to increase.

Actuarial Valuation Date	Market Value of Assets	Actual Covered Payroll	Asset Volatility Ratio	Increase in ARC with a Return 10% Lower than Assumed*
9/1/2010	\$951,214,000	\$302,229,282	3.15	2.01%
9/1/2011	1,033,128,000	310,228,916	3.33	2.13%
9/1/2012	1,095,565,000	307,258,065	3.57	2.28%
9/1/2013	1,170,347,000	313,946,237	3.73	2.38%
9/1/2014	1,294,722,000	323,077,710	4.01	2.56%
9/1/2015	1,211,107,000	333,166,135	3.64	2.33%
1/1/2017	1,148,582,000	351,940,122	3.26	2.08%
1/1/2018	1,234,040,000	359,359,507	3.43	2.19%
1/1/2019	1,193,800,000	375,598,301	3.18	2.03%
1/1/2020	1,323,663,000	364,799,331	3.63	2.32%
1/1/2021	1,405,393,000	364,310,430	3.86	2.47%
1/1/2022	1,626,049,000	381,926,844	4.26	2.72%
1/1/2023	1,412,144,000	413,799,805	3.41	2.18%
1/1/2024	1,569,697,000	437,355,849	3.59	2.29%
1/1/2025	1,716,450,237	465,550,757	3.69	2.36%

* The impact of asset smoothing is not reflected in the increase in the Actuarial Required Contribution (ARC) rate. Current year assumptions and methods are used for all years shown. With asset smoothing, the first-year impact on contributions would be about 25% of the amount shown.

The assets at January 1, 2025 are 369% of payroll, so underperforming the investment return assumption by 10.00% (i.e., earning -3.00% for one year) is equivalent to a loss of about \$172 million or 37% of payroll. The impact on the actuarial required contribution rate would be 2.36% once the full amount of actuarial loss worked through the asset smoothing method. While the impact in the first year is mitigated by the asset smoothing method, this illustrates the contribution risk associated with volatile investment returns.





EXHIBIT 15 – HISTORICAL CASH FLOWS

Plans with negative cash flows will experience increased sensitivity to investment return volatility. Cash flows, for this purpose, are measured as contributions less benefit payments. If the System has negative cash flows and experiences returns below the assumed rate, there are fewer assets to be reinvested to earn the higher returns that typically follow. While any negative cash flow will produce such a result, it is typically a negative cash flow of more than 4% to 5% of market value of assets that may cause significant concerns. In general, large negative cash flow is not a major risk for OSERS at this time.

Year End	Market Value of Assets (MVA)	Contributions*	Benefit Payments	Net Cash Flow	Net Cash Flow as a Percent of MVA
8/31/2010	\$951,214,000	\$56,616,000	\$81,260,000	(\$24,644,000)	(2.59%)
8/31/2011	1,033,128,000	58,242,000	86,015,000	(27,773,000)	(2.69%)
8/31/2012	1,095,565,000	68,139,000	90,621,000	(22,482,000)	(2.05%)
8/31/2013	1,170,347,000	65,248,000	95,107,000	(29,859,000)	(2.55%)
8/31/2014	1,294,722,000	72,072,000	100,810,000	(28,738,000)	(2.22%)
8/31/2015	1,211,107,000	75,065,000	106,735,000	(31,670,000)	(2.61%)
12/31/2016	1,148,582,000	101,826,000	152,808,000	(50,982,000)	(4.44%)
12/31/2017	1,234,040,000	92,397,000	121,005,000	(28,608,000)	(2.32%)
12/31/2018	1,193,800,000	101,704,000	127,578,000	(25,874,000)	(2.17%)
12/31/2019	1,323,663,000	102,468,000	133,824,000	(31,356,000)	(2.37%)
12/31/2020	1,405,393,000	103,010,000	137,486,000	(34,476,000)	(2.45%)
12/31/2021	1,626,049,000	108,428,000	143,199,000	(34,771,000)	(2.14%)
12/31/2022	1,412,144,000	122,310,000	147,629,000	(25,319,000)	(1.79%)
12/31/2023	1,569,697,000	130,025,000	159,747,000	(29,722,000)	(1.89%)
12/31/2024	1,716,450,237	147,537,096	160,665,028	(13,127,932)	(0.76%)

* Contributions include additional revenue coming into the System such as Purchases of Service and State Service Annuity receipts.

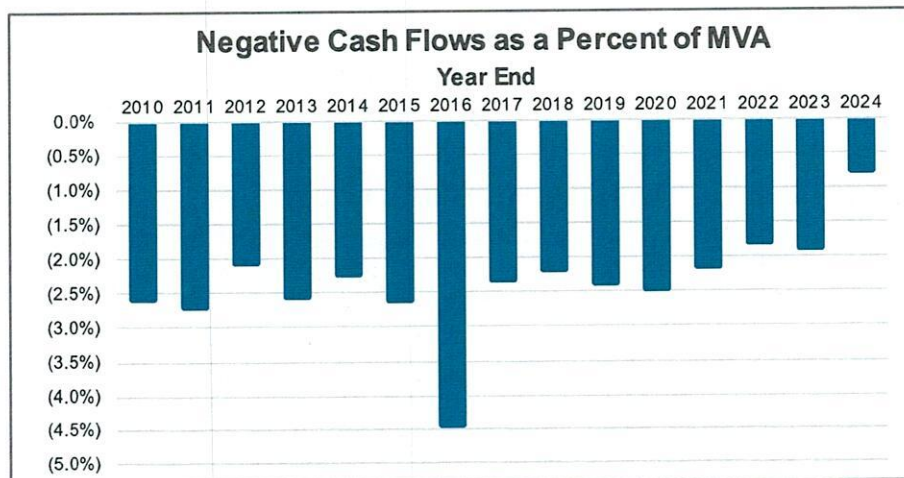




EXHIBIT 16 – LIABILITY MATURITY MEASUREMENTS

Most public sector retirement systems were established after World War 2 and have been in operation for many years. As a result, they have aging plan populations, and in some cases declining active populations, resulting in an increasing ratio of retirees to active members and a growing percentage of retiree liability. With more of the total liability residing with retirees, investment volatility has a greater impact on the funding of the plan since it is more difficult to restore the system financially after losses occur when there is comparatively less payroll over which to spread costs. Because OSERS has been in existence for a very long time (prior systems dating back to 1909 were consolidated to create OSERS), there has been no significant change in the percent of liability attributable to retirees over the last 15 years. The ratio of retiree liability to covered payroll has increased over this time period, however, which indicates an increase in contribution risk.

Actuarial Valuation Date	Retiree Liability (a)	Total Actuarial Accrued Liability (b)	Retiree Percentage (a) / (b)	Covered Payroll (c)	Ratio (b) / (c)
9/1/2010	\$850,325,000	\$1,467,850,000	57.9%	\$302,229,282	4.86
9/1/2011	874,656,000	1,516,284,000	57.7%	310,228,916	4.89
9/1/2012	935,442,000	1,592,738,000	58.7%	307,258,065	5.18
9/1/2013	978,397,000	1,660,287,000	58.9%	313,946,237	5.29
9/1/2014	1,028,802,000	1,723,970,000	59.7%	323,077,710	5.34
9/1/2015	1,099,161,000	1,798,706,000	61.1%	333,166,135	5.40
1/1/2017	1,230,588,000	2,050,581,000	60.0%	351,940,122	5.83
1/1/2018	1,274,528,000	2,136,385,000	59.7%	359,359,507	5.94
1/1/2019	1,311,452,000	2,192,893,000	59.8%	375,598,301	5.84
1/1/2020	1,364,109,000	2,265,653,000	60.2%	364,799,331	6.21
1/1/2021	1,408,667,000	2,381,356,000	59.2%	364,310,430	6.54
1/1/2022	1,459,396,000	2,476,073,000	58.9%	381,926,844	6.48
1/1/2023	1,506,213,000	2,626,546,000	57.3%	413,799,805	6.35
1/1/2024	1,550,695,000	2,760,001,000	56.2%	437,355,849	6.31
1/1/2025	1,584,574,679	2,938,452,246	53.9%	465,550,757	6.31

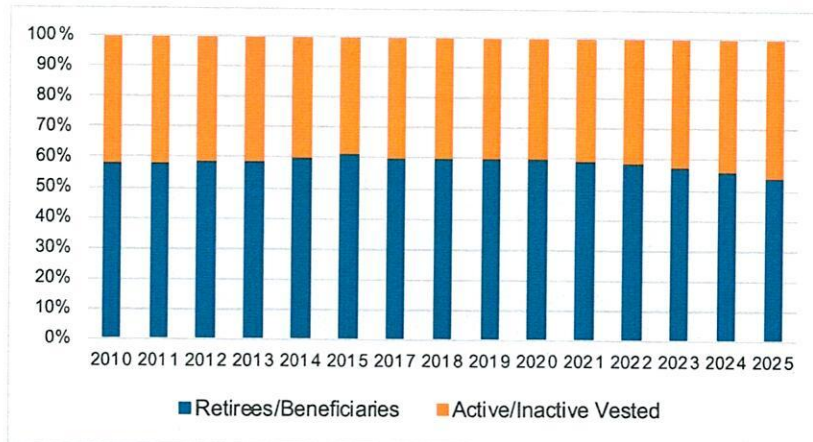




EXHIBIT 17 – VALUATION RESULTS UNDER ALTERNATE INVESTMENT RETURN ASSUMPTIONS

This exhibit is a sensitivity analysis that compares the key January 1, 2025 valuation results under the current investment return assumption and four (4) alternate investment return assumptions, both higher and lower than the current assumption. This information is intended to illustrate the impact of the investment return assumption on the funding of the System. Note that only the investment return assumption is changed for this purpose, as identified in the heading below. This may not result in a set of economic actuarial assumptions that complies with Actuarial Standard of Practice Number 27. The alternate return assumptions are only for purposes of identifying the impact of different investment return assumptions on the funding results. All other actuarial assumptions are unchanged for purposes of this analysis.

Investment Return Assumption	6.00%	6.50%	7.00%	7.50%	8.00%
Contributions					
Normal Cost Rate	16.60%	14.64%	12.94%	11.49%	10.24%
Administrative Expenses	0.24%	0.24%	0.24%	0.24%	0.24%
UAAL Contribution	18.99%	17.43%	15.87%	14.32%	12.78%
Actuarial Required Contribution Rate	35.83%	32.31%	29.05%	26.05%	23.26%
Statutory Contribution Rate	21.66%	21.66%	21.66%	21.66%	21.66%
Contribution Shortfall/(Margin)	14.17%	10.65%	7.39%	4.39%	1.60%
Additional District Contribution	\$69,732,452	\$52,451,187	\$36,424,129	\$21,654,428	\$7,898,381
Actuarial Accrued Liability (\$ in millions)	\$3,326.2	\$3,123.0	\$2,938.5	\$2,770.5	\$2,617.4
Actuarial Value of Assets (\$ in millions)	\$1,754.0	\$1,754.0	\$1,754.0	\$1,754.0	\$1,754.0
Unfunded Actuarial Accrued Liability (\$ in millions)	\$1,572.2	\$1,369.0	\$1,184.5	\$1,016.5	\$863.4
Funded Ratio	52.7%	56.2%	59.7%	63.3%	67.0%

Note: Dollar amounts may not add due to rounding.





APPENDIX A

HISTORICAL BACKGROUND



APPENDIX A – HISTORICAL BACKGROUND

Historical Background

Since 1909, the Omaha School District has maintained a retirement system for its teachers. Since then, systems covering other employees were added. In 1951, the Nebraska Legislature consolidated the existing systems into one new System. Amendments of significance in the Nebraska statutes and federal Social Security Act have occurred from time to time. These changes in order of their occurrence are outlined briefly below:

1951 - New System

Prior to 1951, three separate retirement systems existed. In 1951 the Nebraska Legislature repealed these three separate systems and created the present single System covering all employees. This act provided, however, that a member of a pre-existing system might elect to retain his benefit and contribution rights under one of the former systems in lieu of the new System benefits and contributions. The members who so elected then became known by the following titles for retirement purposes:

- (1) Employees covered by the former Omaha Teachers Retirement System were known as "Teachers,"
- (2) Employees covered by the former Non-Teaching Employee Retirement System were known as "Non-Teachers,"
- (3) Employees covered by the former Cafeteria Employee Retirement System were known as "Cafeteria."

All other employees became members of the new System and received credit for membership service starting September 1, 1951. Benefits as well as contributions under the new System became directly related to a member's compensation by formula. The maximum covered annual compensation under the new System became \$5,000, but the maximum for Teachers, Non-Teachers and Cafeteria remained \$3,000.

1955 Amendments

On September 24, 1955, Omaha School employees voted to become participants in the federal Social Security program. All Social Security benefits are payable in addition to the System benefits. As a result of Social Security coverage, changes were made in the benefit and contribution formulas of the System effective August 31, 1955. In general, the changes reduced contributions and benefits to 60% of the rates formerly in effect. In addition, the maximum covered compensation was increased from \$5,000 to \$6,000 except for Teachers, Non-Teachers and Cafeteria which remained at \$3,000.

The amount contributed by the School District was also reduced to 60% of the rates in effect prior to the change and the School District's contributions, matching the refunds paid upon the withdrawal or death of employees, were retained in the retirement fund rather than being returned to the School District.

1963 Amendments

Effective September 1, 1963, several changes were made in the new System. The limit on covered compensation for contributions and benefits of members was removed.





APPENDIX A – HISTORICAL BACKGROUND

The service retirement annuity credit was increased in order to integrate with the modifications in federal Social Security between 1955 and 1963. The disability annuity for members was increased to 100% of the service retirement annuity accrued to date of disability and the restriction as to the number of years for which it was payable was removed. The offset in the benefit formula for the Nebraska State Service Annuity credit was placed on a year-to-year basis for all members, increasing the annuity credit for service after September 1, 1951 for active and retired alike.

The employees who were participating as Teachers, Non-Teachers and Cafeteria began to make contributions and receive benefit credits at the same rates as other members of the System. It should be noted that any employee who retained rights under a pre-existing system still receives credit in accordance with the provisions of the former system if this is more than the credit, after the State service annuity offset, would be under the 1963 amendments.

The contribution rate for employees was changed to integrate with the modifications in Social Security and was no longer subject to revision depending upon the degree of actuarial soundness of the System as had been provided in 1962. The School District became solely responsible for maintaining the solvency of the System on the basis of annual actuarial valuations. The School District again became entitled to refunds equal to the refunds paid upon withdrawal or death of employees.

The restriction prohibiting the crediting of interest on refunds to employees who withdraw from employment during the first ten years of service was removed. Thus, all employees who withdraw after one year or more of service receive interest on their contributions made since September 1, 1951.

1965 Amendments

Effective September 1, 1965, a pre-retirement survivor's annuity was added to the System for long-service employees. This change gave an employee with 25 or more years of service protection at death approximately equivalent in value to the vesting which already existed at termination of employment for an employee with the same period of service.

Effective January 1, 1966, the Social Security tax base was increased from \$4,800 to \$6,600 per year. This change became effective in the System's contribution and benefit formulas as of September 1, 1966.

1967 Amendments

The 77th Session of the Nebraska Legislature enacted LB 494 which amended the Nebraska School Retirement System, effective October 23, 1967. A major change was the increase in the State service annuity credit from \$1.50 to \$3.00 per month for each year of credited service after July 1, 1968 and the removal of the 35 year limitation on credited State service. For the purpose of determining the new State service annuity offset in calculating the net Omaha annuity, the additional \$1.50 per month for each year of service after July 1, 1968 is not applicable, but removal of the 35 year limitation does apply. This means that the State service annuity offset is still determined on the basis of \$1.50 per month for each year of service. The increase in the State service annuity offset by virtue of eliminating the 35 year limitation represents a lower cost to the Omaha System for those members having more than 35 years of State service by age 65.





APPENDIX A – HISTORICAL BACKGROUND

Another change with regard to the State service annuity was the manner in which the funds are transferred from the State to the Omaha System to pay these annuities. For retirements occurring after the effective date of the amendments (October 23, 1967), the State transfers the commuted value (equivalent single sum) of the individual State service annuity to the Omaha System and then the payment of the monthly annuity to the retired member is the School District's responsibility.

In 1967 the eligibility provisions for the pre-retirement survivors' annuity and the vested retirement rights were changed, reducing the service required from 25 years to 20 years and thereby granting these options to a larger number of employees.

Effective January 1, 1968, the federal Social Security taxable wage base was increased from \$6,600 to \$7,800 per year. This change became effective in the System's contribution and benefit formulas as of September 1, 1968.

1969 Amendments

The 80th Session of the Nebraska Legislature enacted LB 530 which amended the System effective August 11, 1969. The provisions of this bill improved the benefit structure of the System in two ways. The membership annuity credits (credits after 9/1/51) were increased approximately 10% and the Social Security wage base was "frozen" at the \$7,800 level for purposes of calculating benefit credits and employee contributions.

By freezing the Social Security base, benefit credits and employee contributions for service after September 1, 1969 will not be reduced by virtue of future increases in the Social Security wage base. The System benefits will remain integrated with the Social Security program at the level provided by the \$7,800 base.

1972 Amendments

During 1972, the Nebraska Legislature enacted LB 1116 which amended the System. These amendments were to become effective for retirements occurring on or after September 1, 1972. The provisions of this bill improved the benefit structure of the System and liberalized the eligibility condition for qualification upon termination for the deferred vested retirement benefit.

The benefits of the System were improved by increasing the membership annuity credits (credits after 9/1/51) by approximately 20% over those in existence on September 1, 1971.

In order to be eligible upon resignation to elect a deferred vested service annuity, the years of creditable service was reduced from 20 years to 15 years.

1973 Amendments

The 1973 Session of the Nebraska Legislature enacted LB 445 which created increases in the State service annuity of the Nebraska School Retirement System. LB 445 provides for (a) a State service annuity credit of \$3.00 per month for each year of creditable service for all emeritus members and for all full time school employees who retire on or after July 1, 1973 and (b) for increases in the State service annuity for members who retired prior to July 1, 1973 based upon the difference between the Consumer Price Index on the date of retirement and July 1, 1973.





APPENDIX A – HISTORICAL BACKGROUND

1976 Amendments

The 1976 Session of the Nebraska Legislature enacted LB 994 which increased the membership annuity credits (credits after 9/1/51) by 20%.

The members' contributions were increased to 2.90% of compensation up to \$7,800 per year plus 5.25% of salary in excess of that amount.

1979 Amendments

The 1979 Session of the Nebraska Legislature changed the mandatory retirement date from age 65 to age 70. Late retirement benefits are actuarially increased from what would have been payable at the normal retirement date.

1982 Amendments

The 1982 Session of the Nebraska Legislature enacted LB 131 which made considerable changes to the System. LB 131 was approved by the Governor on February 19, 1982.

The most major revision in the System was to change the previous primary benefit formula from the step rate formula based on each year of salary to a final average compensation formula. The primary benefit formula became 1.5% of final average compensation for each year of creditable service not in excess of 30. Final average compensation was then defined to be 1/36 of the total compensation received during the three fiscal years of highest compensation. Also, the creditable service not in excess of 30 years was allowed to continue to accrue after the fiscal year in which the employee attains age 65. In addition, the State service annuity offset of \$1.50 per year of creditable service was removed with respect to the final average compensation formula. The prior provisions of the System were retained as a minimum benefit, recognizing creditable service for those provisions through the earlier of the date of retirement or August 31, 1983.

Another major revision in the System was to change the step rate formula for employee contributions to a level 4.90% of compensation. In addition, the provision entitling the School District to receive refunds of its own contributions equal to the contributions refunded to employees was removed.

The early retirement date was liberalized. Previously an employee needed to have either 35 years of creditable service or to have attained age 60 with 25 years of creditable service. Now an employee can retire early if he has at least 10 years of creditable service and has attained age 55.

The actuarial equivalent of the annuity payable at the end of the fiscal year in which the employee attains age 65 was changed in the following two ways:

1. For employees retiring before age 62, the monthly formula retirement annuity is a reduced amount based on the actuarial equivalent of the annuity deferred to the employee's 62nd birthday. If retirement is at age 62 or later, there is no actuarial reduction. Previously there was an actuarial reduction, based on the benefit deferred to age 65, for any retirement before age 65.
2. For employees retiring on or after age 65, the monthly formula retirement annuity is to be based on total years of creditable service (not in excess of 30) and the employee's entire compensation history at date of retirement. Consequently, for retirements after the fiscal year in which the employee attains age 65 there is no longer an actuarial increase from the benefit available at the normal retirement date.





APPENDIX A – HISTORICAL BACKGROUND

The eligibility provision to elect a deferred vested service annuity upon resignation was changed from 15 years of creditable service to 10 years.

1983 Amendments

The 1983 Session of the Nebraska Legislature enacted LB 488 which created benefit increases effective September 1, 1983 for members having retired before February 21, 1982. The amount of benefit increase was limited to the smaller of:

1. The percentage increase in the Consumer Price Index for all Urban consumers from the effective date of retirement to June 30, 1983 applied to benefits being paid and
2. The sum of \$1.50 per month for each year of creditable service and \$1.00 per month for each completed year of retirement from the effective date of retirement to June 30, 1983, actuarially adjusted for joint and survivor elections.

1985 Amendments

The 1985 Session of the Nebraska Legislature enacted LB 215 which removed the 30 year limit on years of service used in the benefit formula, provided for vesting after five years of service rather than ten years, and reduced the eligibility period for disability from ten years of service to five years of service.

LB 215 also provided for the employer “pick up” of employee contribution under IRC 414(h), thereby allowing employee contributions to be made on a pre-tax basis.

Unisex factors are now being used for determining early retirement reductions and actuarial equivalents for joint and survivor optional benefits.

1986 Amendments

The 1985 Session of the Nebraska Legislature enacted LB 1048 which granted increases in benefits for most retirees to reflect cost-of-living increases over the last several years. The increases ranged up to a maximum of 10.5%.

1987 Amendments

A "window of opportunity" was created for the buy-in or buy-back of service credits for participants qualifying for that right.

1989 Amendments

LB 237 was enacted by the 1989 Session of the Nebraska Legislature and provided: annual benefit accruals of 1.65% of final average compensation (up from 1.50%), unreduced benefits if a member retires with 35 or more years of service, a five year certain and life thereafter annuity as the normal form of benefit (instead of just a life annuity), employee contributions of 5.8% of pay (up from 4.9%), and increased benefits to retirees (the increases ranged up to 9.0%). There were some other changes as a result of this bill, but none that had a direct actuarial cost impact.





APPENDIX A – HISTORICAL BACKGROUND

1992 Amendments

The 1992 Session of the Nebraska Legislature enacted LB 1001 which increased annual benefit accruals from 1.65% of final average compensation to 1.70%, and increased benefits to retirees (3% increase per year of retirement, not exceeding 9% total increase), a change in the preretirement joint and survivor option to allow it to become effective automatically after 20 years of service, and allowed employees to “buy-in” their time with other public school systems by means of a tax-deferred rollover of their refund from that System.

1995 Amendments

The 1995 Session of the Nebraska Legislature enacted LB 505 which increased annual benefit accruals from 1.70% to 1.80% of final average compensation. It also provided for unreduced retirement benefits when the sum of age and service equals or exceeds 85 (still maintaining the age 55 minimum), and reduced early retirement reductions to .25% per month prior to age 62. Early retirement at 84, 83, or 82 points is also allowed with a maximum reduction of 3%, 6% and 9% respectively. Employee contributions were increased to 6.3% of pay. The bill also provided for a one time increase to current retirees of 3% per year since retirement (not to exceed 9%), or if larger, 90% restoration of the purchasing power of their original pension. There are other changes resulting from this bill, which are not included since they did not have a direct actuarial impact. One change with no actuarial impact but worth noting is the provision for employer “pick up” of employee contributions to the System used to buy in outside service, pursuant to Section 414(h) of the Internal Revenue Code.

1998 Amendments

The 1998 Session of the Nebraska Legislature enacted LB 497 which increased annual benefit accruals from 1.80% to 1.85% of final average compensation. The bill also provided for a one time increase to current retirees of 3% per year since retirement (not to exceed 9%) and provides an annual automatic cost of living adjustment, not greater than 1.5%, beginning January 1, 2000.

2000 Amendments and Cost of Living Adjustment

The 2000 session of the Nebraska Legislature enacted LB 155 which increased accruals from 1.85% to 2.00% of final average compensation.

Pursuant to LB 497, the OSERS Board and the Omaha School District Board authorized a 1.5% discretionary COLA beginning January 1, 2000 in addition to the automatic COLA.

2001 Amendments and Cost of Living Adjustment

The 2001 session of the Nebraska Legislature enacted LB 711 which provided that certain members who previously left employment due to pregnancy could purchase their “lost” service. It also provided a post-retirement supplemental benefit to assist with medical costs. The supplement commences 10 years after retirement, beginning at \$10 per month for each year retired and increasing by \$10 each year to a maximum of \$250 per month. For retirees with less than twenty years of service, the benefit is reduced proportionately.

Additionally, the OSERS Board and the Omaha School Board authorized a discretionary COLA to restore full purchasing power, beginning January 1, 2001, in addition to the automatic COLA.





APPENDIX A – HISTORICAL BACKGROUND

2002 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2002.

2003 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2003.

2004 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2004.

2005 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2005.

2006 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2006.

2007 Amendment and Cost of Living Adjustment

The 2007 session of the Nebraska Legislature enacted Section 79-9, 113 which changed the employee contribution rate from 6.30% of compensation to 7.30% and provided for an employer contribution equal to 101% of the employee contribution rate.

The automatic 1.5% COLA was granted beginning January 1, 2007.

2008 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2008.

2009 Amendment and Cost of Living Adjustment

The 2009 session of the Nebraska Legislature enacted Legislative Bill 187 (LB 187), which increased the State's contribution from 0.7% to 1.0% of covered pay from July 1, 2009 to July 1, 2014. On July 1, 2014 the State's contribution returns to 0.7%. LB 187 also increased the employee contribution rate from 7.30% of compensation to 8.30%. The School District's contribution is equal to 101% of the employee contribution rate so the District's contribution rate increased from 7.373% of compensation to 8.383% as a result of the increase in the member contribution rate.

The automatic 1.5% COLA was granted beginning January 1, 2009.

2010 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2010.





APPENDIX A – HISTORICAL BACKGROUND

2011 Amendment and Cost of Living Adjustment

The 2011 session of the Nebraska Legislature enacted Legislative Bill 382 (LB 382), which increased the Member's contribution from 8.30% of compensation to 9.30%. The School District's contribution is equal to 101% of the employee contribution rate so the District's contribution rate increased from 8.383% of compensation to 9.393% as a result of the increase in the member contribution rate. LB 382 also extended the 1% of payroll contribution by the State from July 1, 2014 to July 1, 2017.

The automatic 1.5% COLA was granted beginning January 1, 2011.

2012 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2012.

2013 Amendments and Cost of Living Adjustment

The 2013 session of the Nebraska Legislature enacted Legislative Bill 553 (LB 553), which increased the Member contribution rate from 9.30% of pay to 9.78% of pay. The School District's contribution is equal to 101% of the employee contribution rate so the District's contribution rate increased from 9.393% of pay to 9.878% of pay as a result of the increase in the member contribution rate. LB 553 also ended the scheduled decrease in the State contribution rate and instead increased the State contribution from 1.0% of pay to 2.0% of pay, effective July 1, 2014. LB 553 also created a new benefit structure for members hired on or after July 1, 2013. For these members, annual cost of living adjustments will be the lesser of 1.0% or CPI, and the final average compensation is defined as 1/60 of the total compensation received during the five fiscal years of highest compensation.

The automatic 1.5% COLA was granted beginning January 1, 2013.

2014 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2014.

2015 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2015.





APPENDIX A – HISTORICAL BACKGROUND

2016 Amendments and Cost of Living Adjustment

The 2016 session of the Nebraska Legislature enacted Legislative Bill 447 (LB 447), which created a new benefit structure for members hired on or after July 1, 2016. The changes result in the same benefit structure for new OSERS members as for new members of the Nebraska School Retirement System. These members will not receive the supplemental medical COLA offered to employees hired before July 1, 2016. Other changes for these employees include a revised early retirement benefit reduction schedule and different retirement eligibility requirements.

The automatic 1.5% COLA was granted beginning January 1, 2016.

2017 Cost of Living Adjustment

The automatic 1.5% COLA was granted beginning January 1, 2017.

2018 Amendments and Cost of Living Adjustment

The 2017 session of the Nebraska Legislature enacted Legislative Bill 415 (LB 415), which created a new benefit structure for members hired on or after July 1, 2018. The changes result in the same benefit structure for new OSERS members as for new members of the Nebraska School Retirement System. The changes for these employees include a revised early retirement benefit reduction schedule and different retirement eligibility requirements.

The 2018 session of the Nebraska Legislature enacted Legislative Bill 1005 (LB 1005), which also affects the benefit provisions for members hired on or after July 1, 2018. As a result of LB 1005, the Board has the authority to set the actuarial assumptions used to determine the benefit amounts payable under optional forms of payment for members hired on or after July 1, 2018.

The automatic 1.5% COLA was granted beginning January 1, 2018.

2019 Cost of Living Adjustment

The automatic 1.5% COLA for members hired before July 1, 2013 was granted beginning January 1, 2019.

2020 Cost of Living Adjustment

The automatic 1.5% COLA for members hired before July 1, 2013 was granted beginning January 1, 2020.





APPENDIX A – HISTORICAL BACKGROUND

2021 Amendments and Cost of Living Adjustment

The 2021 session of the Nebraska Legislature enacted Legislative Bill 147 (LB 147), which re-defines the term Regular Employee. The bill allows employees who are contracted to less than 30 hours per week to participate in the System, if they average more than 30 hours per week during any three calendar months of a fiscal year.

The automatic 1.5% COLA for members hired before July 1, 2013 was granted beginning January 1, 2021.

The automatic 1.0% COLA for members hired on or after July 1, 2013 was granted beginning January 1, 2021.

2022 Cost of Living Adjustment

The automatic 1.5% COLA for members hired before July 1, 2013 was granted beginning January 1, 2022.

The automatic 1.0% COLA for members hired on or after July 1, 2013 was granted beginning January 1, 2022.

2023 Cost of Living Adjustment

The automatic 1.5% COLA for members hired before July 1, 2013 was granted beginning January 1, 2023.

The automatic 1.0% COLA for members hired on or after July 1, 2013 was granted beginning January 1, 2023.

2024 Cost of Living Adjustment

The automatic 1.5% COLA for members hired before July 1, 2013 was granted beginning January 1, 2024.

The automatic 1.0% COLA for members hired on or after July 1, 2013 was granted beginning January 1, 2024.





APPENDIX B

SUMMARY OF PLAN PROVISIONS



APPENDIX B – SUMMARY OF PLAN PROVISIONS

Contributions

Employee Contributions: Employees contribute 9.78% of compensation, effective September 1, 2013. Such contributions are payable each year while employed. Contributions accumulated with interest are refundable at resignation unless the vested retirement benefit has been elected and at death unless the pre-retirement survivor's benefit has been elected.

State Contribution: The State contributes annually an amount equal to 2.0% of the members' compensation, effective July 1, 2014.

School District Contribution: The School District contributes the greater of (a) one hundred and one percent of the contributions by the employees or (b) such amount as may be necessary to maintain the solvency of the system, as determined annually by the board upon recommendation of the actuary engaged by the trustees.

Interest Credited on Refunds: Contributions made prior to September 1, 1951 and refunded at withdrawal or death are not credited with interest. Contributions after September 1, 1951 are credited with interest beginning September 1, 2016 at the rate equal to the daily treasury yield curve for one-year treasury securities, as published by the secretary of the treasury of the United States, that applies on September 1 of each year.

Benefits

General: The System provides annuities upon retirement from service or disability and upon death to designated survivors.

The service retirement formula is 2.0% per year of creditable service times the final average compensation.

Final average compensation is defined as 1/36 of the total compensation received during the three fiscal years of highest compensation for those who became members before July 1, 2013. For those who became members on or after July 1, 2013, final average compensation is defined as 1/60 of the total compensation received during the five fiscal years of highest compensation.

Annuities are paid for life, with 5 years guaranteed. Optional forms of payment are available.

The disability annuity, the pre-retirement survivor annuity and the vested retirement right are summarized in the following sections.

Benefits in pay status are subject to an annual cost of living adjustment equal to the lesser of 1.5% or CPI for those who became members before July 1, 2013. There is an additional COLA if surplus assets exist beginning January 1, 2000. Effective October 3, 2001, a medical cost of living adjustment is payable to retired members. Such amount will commence after the 10th year of retirement and shall be an amount equal to \$10 per month for each year retired (subject to a maximum of \$250 per month). The member's initial medical COLA amount will be prorated for years of service less than 20, but subsequent increases and the maximum are not prorated. For those who became members on or after July 1, 2013, the annual cost of living adjustment is capped at 1.0%.

Those who became members on or after July 1, 2016 are not eligible to receive the medical COLA benefit.





APPENDIX B – SUMMARY OF PLAN PROVISIONS

Retirement Annuities: An employee who becomes a member before July 1, 2016 may begin receiving a retirement benefit once the employee has left the employment of the School district, selected a retirement date and

- (a) has completed 35 years of creditable service,
or
- (b) has 10 years of creditable service (with at least five of those years being creditable Omaha service) and attained age 55,
or
- (c) remained employed until his or her 65th birthday and completed at least five years of creditable Omaha service.

If an employee who was a member before July 1, 2016 begins receiving an annuity at or after age 62, or has achieved 85 points and is at least age 55, there is no adjustment for the retirement annuity. If, however, such employee begins receiving an annuity before age 62, the annuity shall be reduced by 0.25% for each month prior to age 62, but if 84 points have been achieved then the reduction is limited to 3%, if 83 points, 6%, and 82 points, 9%.

An employee who became a member on or after July 1, 2016 and before July 1, 2018 may begin receiving a retirement benefit once the employee has left the employment of the School district, selected a retirement date and

- (a) has attained age 55 and the sum of the member's attained age and creditable service totals 85,
or
- (b) has 5 years of creditable service and attained age 60.

For employees who became members on or after July 1, 2016 and before July 1, 2018, if an employee begins receiving an annuity before age 65, such annuity shall be reduced by 0.25% for each month prior to age 65. If, however, the employee has achieved 85 points and is at least age 55, then there is no reduction to the annuity.

An employee hired on or after July 1, 2018 may begin receiving a retirement benefit once the employee has left the employment of the School district, selected a retirement date and

- (a) has attained age 60 and the sum of the member's attained age and creditable service totals 85,
or
- (b) has 5 years of creditable service and attained age 60.

For employees who were hired on or after July 1, 2018, if an employee begins receiving an annuity before age 65, such annuity shall be reduced by 0.25% for each month prior to age 65. If, however, the employee has achieved 85 points and is at least age 60, then there is no reduction to the annuity.

Disability Retirement Annuities: Each employee who becomes totally disabled and who has completed five or more years of creditable Omaha service is entitled to a disability retirement annuity equal to the amount of service annuity earned to date of disability. Alternatively, the employee may defer the disability retirement and accrue service and compensation increases in the interim. The disability retirement annuity is payable each month until disability ceases, if before unreduced retirement, or death.





APPENDIX B – SUMMARY OF PLAN PROVISIONS

Pre-Retirement Survivor Annuities: Upon the death of a member who has completed 20 or more years of creditable service and who has not retired, a pre-retirement survivor annuity shall be paid to the member's primary beneficiary. The survivor must be a spouse or one other person whose attained age in the calendar year of the member's death is no more than 10 years less than the attained age of the member in such calendar year. If there is no beneficiary form on file with OSERS, the member's spouse at the time of death is deemed to be the beneficiary and eligible for a pre-retirement survivor annuity. The survivor annuity is the actuarial equivalent of the member's annuity accrued to the date of death, determined on the basis of the member's and beneficiary's attained ages on said date. The survivor annuity is payable in lieu of a refund of the member's accumulated contributions. However, a member may elect out of the survivor annuity and specify that such a refund be paid in lieu of the annuity. An election out of the pre-retirement survivor annuity is entirely independent of the election of a joint and survivor option at retirement. Within 60 days after the member's death, the beneficiary may request a refund of the member's accumulated contributions instead of the annuity; provided, however, that the member may direct the System to pay only an annuity.

If the member (not retired) has less than 20 years of creditable service, or the beneficiary does not meet the requirements stated above, a refund of the member's accumulated contributions shall be paid.

Vested Retirement Right: Each employee who has completed five or more years of creditable Omaha service is eligible upon resignation to elect a deferred vested benefit, first payable as an unreduced amount at age 65, in lieu of a refund of his accumulated contributions. With ten or more years of total creditable service (including at least five years of creditable Omaha service), the deferred vested benefit could commence, unreduced, at age 62 for employees who became members before July 1, 2016. If benefits start before age 62 (but not earlier than attained age 55), the benefit shall then be reduced as described above.

For employees who became members on or after July 1, 2016 and before July 1, 2018, the deferred vested benefit could commence, unreduced, at age 65. If benefits start before age 65 (but not earlier than attained age 55), the benefit shall then be reduced as described above.

For employees who were hired on or after July 1, 2018, the deferred vested benefit could commence, unreduced, at age 65. If benefits start before age 65 (but not earlier than attained age 60), the benefit shall then be reduced as described above.





APPENDIX C
ACTUARIAL ASSUMPTIONS AND METHODS



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

The valuation assumptions and methods used in conducting the current actuarial valuation are as follows:

Actuarial Assumptions

Investment Return Assumption: 7.00% per annum, compounded annually, net of investment expenses.

Inflation (CPI): 2.35% compounded annually.

Assumed Interest Rate Credited on Employee Contributions: 2.35% compounded annually.

Total Payroll Growth: 2.85% compounded annually.

Mortality Rates: Active members use the Pub-2010 General Members (Median) Employee Mortality Table projected generationally using MP-2019 modified to 75% of the ultimate rates.

Retirees use the Pub-2010 General Members (Median) Retiree Mortality Table projected generationally using MP-2019 modified to 75% of the ultimate rates.

Beneficiaries use the Pub-2010 General Members (Median) Contingent Survivor Mortality Table projected generationally using MP-2019 modified to 75% of the ultimate rates.

Disabled retirees use the Pub-2010 Non-Safety Disabled Retiree Mortality Table, without generational improvement.

Disability: None assumed.

Termination of Employment: (prior to retirement eligibility) Illustrative rates of termination are as follows:

Certificated:

Percent Terminating	
<u>Duration</u>	<u>Rate</u>
1	10.00%
5	8.00
10	4.50
15	2.50
20	1.25
25	1.00
30	0.75





APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Classified:

<u>Duration</u>	<u>Percent Terminating</u>	
	<u>Male</u>	<u>Female</u>
1	10.00%	13.00%
5	6.00	8.00
10	2.65	4.00
15	1.60	1.75
20	1.00	0.80
25	0.50	0.50
30	0.50	0.50

Retirement Rates:

Early retirement rates are assumed to occur according to the schedule illustrated below:

Became members before July 1, 2016

Certificated:

Classified:

<u>Age</u>	<u>Early</u>	<u>Age</u>	<u>Early</u>
55	6%	55	5%
56	6	56	3
57	6	57	3
58	6	58	3
59	8	59	3
60	12	60	3
61	12	61	7

Became members on or after July 1, 2016

Certificated:

Classified:

<u>Age</u>	<u>Early</u>	<u>Age</u>	<u>Early</u>
60	12%	60	3%
61	12	61	7
62	12	62	7
63	12	63	7
64	12	64	7



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS



Unreduced retirement rates are assumed to occur according to the schedule illustrated below:

Became members before July 1, 2018

Certificated:

<u>Age</u>	<u>1st Year Eligible</u>	<u>Ultimate</u>
55	40%	
56	40	40%
57	40	20
58	40	20
59	40	20
60	30	20
61	22	20
62	22	25
63	25	20
64	25	25
65	40	30
66	40	40
67	40	40
68	40	35
69	100	35
70	100	100

Classified:

<u>Age</u>	<u>1st Year Eligible</u>	<u>Ultimate</u>
55	35%	
56	13	10%
57	13	10
58	13	10
59	13	10
60	13	10
61	13	10
62	18	15
63	18	15
64	18	15
65	18	35
66	18	35
67	18	30
68	18	30
69	18	25
70	100	25
71	100	25
72	100	25
73	100	25
74	100	25
75	100	100





APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Members hired on or after July 1, 2018

Certificated:

<u>Age</u>	<u>1st Year Eligible</u>	<u>Ultimate</u>
60	40%	
61	22	20%
62	22	25
63	25	20
64	25	25
65	40	30
66	40	40
67	40	40
68	40	35
69	100	35
70	100	100

Classified:

<u>Age</u>	<u>1st Year Eligible</u>	<u>Ultimate</u>
60	30%	
61	13	10%
62	18	15
63	18	15
64	18	15
65	18	35
66	18	35
67	18	30
68	18	30
69	18	25
70	100	25
71	100	25
72	100	25
73	100	25
74	100	25
75	100	100

Deferred vested members are assumed to retire at first unreduced retirement age.





APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Salary Scale: Salaries are assumed to increase according to the schedule illustrated below:

Duration	Annual Salary Increase	
	Certificated	Classified
0	4.95%	6.25%
1	4.95	5.10
2	4.95	4.85
3	4.95	4.60
4	4.95	4.35
5	4.95	4.25
6	4.95	4.15
7	4.95	4.05
8-9	4.95	3.85
10	4.95	4.95
11	4.95	3.85
12-14	4.95	3.35
15	5.60	5.35
16-19	4.80	3.35
20	5.10	4.85
21-23	3.90	3.35
24	4.35	3.35
25	5.85	4.85
26-29	3.10	3.10
30	3.85	4.85
31-34	3.10	2.85
35	3.85	3.35
36-39	2.85	2.85
40	3.60	3.85
41+	2.85	2.85

Pre-Retirement Survivor Annuity: It is assumed that females are three years younger than males, and that 85% of members are married.

Probability of Electing a Refund: The proportion of terminating vested members electing a refund of member contributions:

- 20% for Certificated members with less than 15 years of service
- 10% for Certificated members with 15 or more years of service
- 35% for Classified members with less than 11 years of service
- 25% for Classified members with 11 or more years of service

Cost of Living Adjustments: 1.5% if became member before 7/1/2013
1.0% if became member on or after 7/1/2013

Inactive Vested Load: A 5% load on deferred monthly benefits is included to reflect that some inactive vested members' account balances are greater than the present value of their deferred benefit.





APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Administrative Expense:	0.24% of payroll
Pop-up Benefit:	If a retired member has elected to receive a “pop-up” benefit, their benefit amount is assumed to increase by 10% in the event their beneficiary predeceases them.
Decrement Timing:	Middle of year
Valuation Salary Methodology:	<p>Salaries for first year members are annualized by NPERS and reflected in the Calculated Salary field in the census data. This is used in the valuation process for new active members.</p> <p>For continuing active members, the Accumulated Salary field from the census data, presenting the actual salary earned in the prior fiscal year, is used in the valuation process.</p> <p>Salaries are assumed to increase by 2.0% for members who have not yet finalized their contract negotiations as of the valuation date. This assumption did not impact any members in the January 1, 2025 valuation.</p>





APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Cost Method

The actuarial cost method is a procedure for allocating the actuarial present value of pension plan benefits and expenses to time periods. The method used for the valuation is known as the individual entry-age actuarial cost method and has the following characteristics.

- (i) The annual normal costs for individual active member are sufficient to accumulate the value of the member's pension at time of retirement.
- (ii) Each annual normal cost is a constant percentage of the member's year-by-year projected pensionable compensation.

The entry-age actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's pensionable compensation between the entry-age of the member and the assumed exit-ages.

The portion of the actuarial present value allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called the actuarial accrued liability. Deducting accrued assets from the actuarial accrued liability determines the unfunded actuarial accrued liability (UAAL).

Asset Valuation Method

Assets are valued at expected value at the valuation date plus 25% of the difference between the market value and expected value. As a starting point for implementation of this asset valuation method, the actuarial value of assets as of September 1, 1996 was set equal to the market value. As of September 1, 2007, the actuarial value was again reset to market value. The smoothing method was again implemented in the 2008 valuation. Effective September 1, 2008, the actuarial value must fall within a corridor of 80% to 120% of market value.

UAAL Amortization Method

Effective with the January 1, 2017 valuation, OSERS began to amortize the UAAL using a "layered" approach. Under this method, the UAAL is split into pieces or layers; the initial or legacy UAAL was amortized, as a level-percent of payroll, over a closed 30-year period that began with the September 1, 2013 valuation (27 years remained as of the January 1, 2017 valuation). All ensuing UAAL bases were to be amortized, as a level-percent of payroll, over a new 25-year period commencing on the respective valuation date. At the March 6, 2019 meeting, the OSERS Board of Trustees modified the System's Funding Policy to reset the legacy amortization base to the UAAL as of January 1, 2019 with payments calculated as a level percentage of payroll over a closed 30-year period. New layers of UAAL that occur in the future are also amortized over new 30-year periods. As a result of the quadrennial experience study performed in 2021, effective with the January 1, 2022 valuation, future bases will be amortized, as a level-percent of pay, over a closed 25-year period. We believe the use of the layered amortization policy, with new gain or loss bases amortized over 25 years complies with Actuarial Standard of Practice Number 4. This policy will fully amortize the individual, as well as the total, unfunded actuarial liability within a reasonable timeframe and/or reduce the amount of the unfunded actuarial liability by a reasonable amount within a sufficiently short period.





APPENDIX D
MEMBERSHIP DATA



APPENDIX D – MEMBERSHIP DATA

SUMMARY OF MEMBERSHIP DATA

	<u>Active</u>	<u>Inactive Vesteds</u>	<u>Inactive Nonvesteds</u>	<u>Retirees*</u>	<u>Beneficiaries</u>	<u>Deferred Disableds</u>	<u>In-Pay Disableds</u>	<u>Total</u>
Members on 1/1/2024	6,713	1,622	1,657	5,112	286	6	13	15,409
Terminated – vested	(164)	164	0	0	0	0	0	0
Terminated – refund due	(298)	0	298	0	0	0	0	0
Terminated – refunded	(84)	(98)	(180)	0	0	0	0	(362)
Retired	(142)	(43)	0	185	0	0	0	0
Disability retirement	0	0	0	0	0	(1)	1	0
Death	(1)	(3)	0	(173)	(17)	0	(1)	(195)
Payments ended	0	0	0	0	(7)	0	0	(7)
New beneficiaries	0	0	0	0	18	0	0	18
New Alternate Payees	0	0	0	0	0	0	0	0
New members	1,217	0	595	0	0	0	0	1,812
Rehires	197	(55)	(142)	0	0	0	0	0
Corrections/adjustments	0	0	0	1	0	0	(1)	0
Members on 1/1/2025	7,438	1,587	2,228	5,125	280	5	12	16,675

* Includes QDROs





APPENDIX D – MEMBERSHIP DATA

HISTORICAL SUMMARY OF MEMBERS

The following table displays selected historical data that was used in the actuarial valuation for the System.

Valuation		Active Members						Number			Act/Ret Ratio
Date	Total Count	Average				Annual Pay (\$)	Pay Increase	Inactive Vested	Inactive Nonvested	Retired	
January 1*		Number	Age	Entry Age	Service						
2000	8,885	6,057	43.8	34.1	9.7	30,544	3.56%	380		2,448	2.47
2001	9,156	6,259	44.0	34.4	9.6	32,091	5.06%	368		2,529	2.47
2002	9,409	6,383	43.9	34.5	9.4	33,406	4.10%	384		2,642	2.42
2003	9,425	6,279	44.0	34.5	9.5	33,877	1.41%	385		2,761	2.27
2004	9,711	6,399	44.2	34.6	9.6	34,698	2.42%	473		2,839	2.25
2005	10,124	6,623	44.1	34.8	9.3	35,234	1.54%	485		3,016	2.20
2006	10,522	6,972	44.1	34.9	9.2	35,732	1.41%	442		3,108	2.24
2007	10,769	7,041	44.2	35.1	9.1	36,720	2.77%	483		3,245	2.17
2008	11,228	7,313	44.2	35.2	9.0	37,725	2.74%	515		3,400	2.15
2009	11,480	7,438	44.5	35.5	9.0	38,686	2.55%	553		3,489	2.13
2010	11,644	7,491	44.7	35.4	9.3	39,152	1.20%	566		3,587	2.09
2011	11,602	7,215	45.1	35.2	9.9	40,394	3.17%	680		3,707	1.95
2012	11,881	7,315	44.9	35.0	9.9	40,793	0.99%	723		3,843	1.90
2013	12,152	7,372	44.9	34.9	10.0	41,731	2.30%	813		3,967	1.86
2014	12,477	7,415	44.7	34.8	9.9	42,427	1.67%	937		4,125	1.80
2015	12,938	7,393	44.5	34.7	9.8	44,050	3.83%	984	210	4,351	1.70
2017	13,386	7,462	44.5	34.1	10.4	44,998	2.15%	1,035	347	4,542	1.64
2018	13,703	7,569	44.5	34.1	10.4	46,233	2.74%	1,043	413	4,678	1.62
2019	13,788	7,177	44.8	33.8	11.0	47,300	2.31%	1,114	671	4,826	1.49
2020	14,218	7,366	44.5	33.9	10.6	47,571	0.57%	1,163	709	4,980	1.48
2021**	14,411	7,182	44.2	33.4	10.8	52,027	9.37%	1,223	917	5,089	1.41
2022	14,837	7,086	44.1	33.4	10.7	54,980	5.68%	1,361	1,152	5,238	1.35
2023	15,067	6,712	44.6	33.6	11.0	60,528	10.09%	1,539	1,476	5,340	1.26
2024	15,409	6,713	44.7	33.9	10.8	64,419	6.43%	1,628	1,657	5,411	1.24
2025	16,675	7,438	44.4	34.2	10.2	65,523	1.71%	1,592	2,228	5,417	1.37

* Years prior to 2017 have a valuation date of September 1.

** Salary data refinement.





SUMMARY OF MEMBERSHIP COUNTS

SYSTEM MEMBERSHIP	Jan. 1, 2025	Jan. 1, 2024	% Chg
1. Active Members			
a. Certificated			
(1) Tier 1	1,838	1,855	(0.9)
(2) Tier 2	397	435	(8.7)
(3) Tier 3	271	298	(9.1)
(4) Tier 4	<u>1,489</u>	<u>1,217</u>	22.4
(5) Total	3,995	3,805	5.0
b. Classified			
(1) Tier 1	842	845	(0.4)
(2) Tier 2	263	275	(4.4)
(3) Tier 3	243	212	14.6
(4) Tier 4	<u>2,095</u>	<u>1,576</u>	32.9
(5) Total	3,443	2,908	18.4
c. Total Active Members			
(1) Tier 1	2,680	2,700	(0.7)
(2) Tier 2	660	710	(7.0)
(3) Tier 3	514	510	0.8
(4) Tier 4	<u>3,584</u>	<u>2,793</u>	28.3
(5) Total	7,438	6,713	10.8
2. Retirees and Disabled Members	5,137	5,125	0.2
3. Beneficiaries	280	286	(2.1)
4. Inactive Vested Members	1,592	1,628	(2.2)
5. Inactive Nonvested Members	2,228	1,657	34.5
6. Total	16,675	15,409	8.2





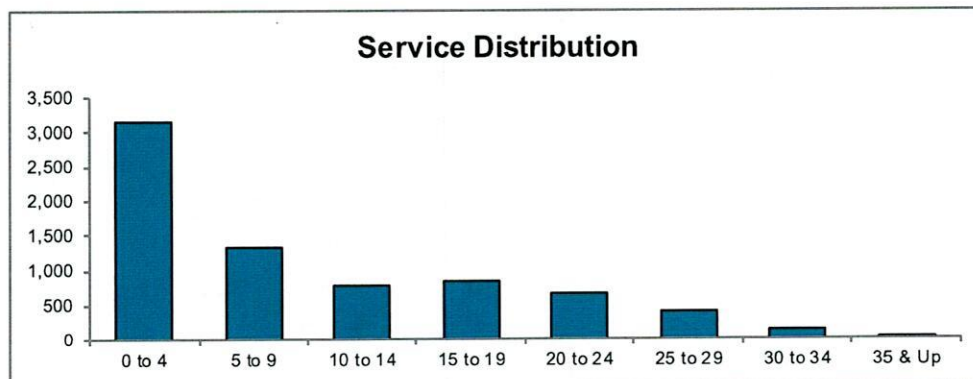
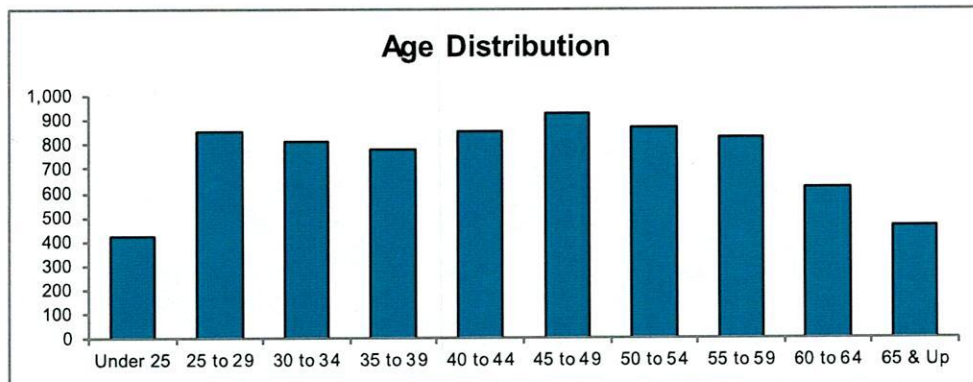
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS

as of January 1, 2025

Total

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	425	1	0	0	0	0	0	0	426
25 to 29	765	88	0	0	0	0	0	0	853
30 to 34	450	309	49	0	0	0	0	0	808
35 to 39	319	215	206	40	0	0	0	0	780
40 to 44	256	153	137	262	47	0	0	0	855
45 to 49	246	134	89	166	247	42	0	0	924
50 to 54	185	129	83	112	144	186	29	1	869
55 to 59	200	112	101	118	117	114	62	7	831
60 to 64	165	104	66	102	75	55	29	28	624
65 & Up	146	88	70	56	49	29	19	11	468
Total	3,157	1,333	801	856	679	426	139	47	7,438





APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM PROJECTED SALARY DISTRIBUTION OF ACTIVE MEMBERS

as of January 1, 2025

Total

Age	0 to 4	5 to 9	10 to 14	15 to 19	Service 20 to 24	25 to 29	30 to 34	35 & Up	Total
Under 25	17,210,884	31,121	0	0	0	0	0	0	17,242,005
25 to 29	39,007,402	5,459,974	0	0	0	0	0	0	44,467,376
30 to 34	22,376,241	20,378,147	3,640,334	0	0	0	0	0	46,394,722
35 to 39	15,875,863	15,003,832	16,199,859	3,367,323	0	0	0	0	50,446,877
40 to 44	14,456,886	9,818,521	10,317,510	23,759,165	4,158,622	0	0	0	62,510,704
45 to 49	13,714,612	8,819,285	7,070,445	13,756,770	23,992,125	4,124,452	0	0	71,477,689
50 to 54	9,778,280	8,499,905	5,683,691	9,201,124	12,871,092	19,279,133	3,315,320	140,667	68,769,212
55 to 59	11,289,771	7,368,637	6,733,415	8,687,250	8,990,644	11,077,098	6,640,348	920,647	61,707,810
60 to 64	7,958,192	5,421,590	3,768,569	7,309,904	5,243,715	4,333,801	2,595,057	2,813,402	39,444,230
65 & Up	5,982,874	4,762,640	3,644,836	3,106,245	3,399,519	1,709,721	1,131,961	1,158,844	24,896,640
Total	157,651,005	85,563,652	57,058,659	69,187,781	58,655,717	40,524,205	13,682,686	5,033,560	487,357,265





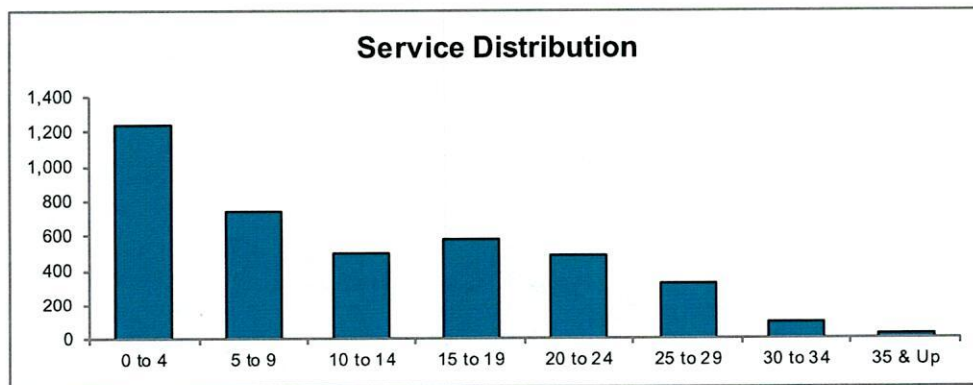
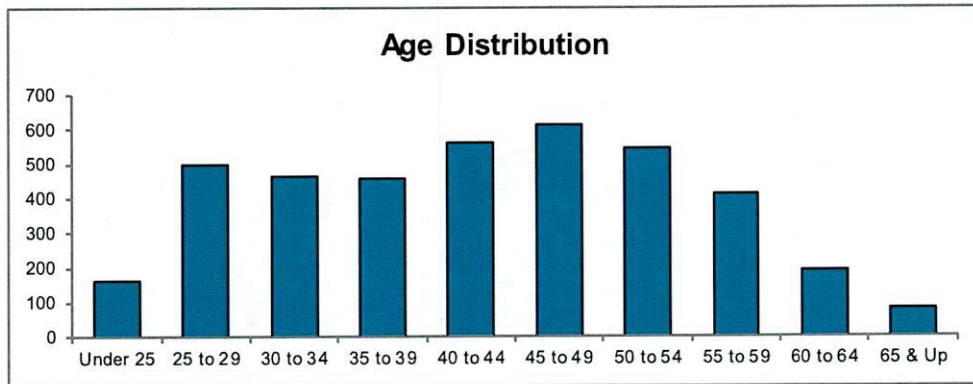
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS

as of January 1, 2025

Certificated - Total

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	161	0	0	0	0	0	0	0	161
25 to 29	440	59	0	0	0	0	0	0	499
30 to 34	183	241	40	0	0	0	0	0	464
35 to 39	102	148	179	30	0	0	0	0	459
40 to 44	96	83	108	238	39	0	0	0	564
45 to 49	95	68	60	126	230	32	0	0	611
50 to 54	53	58	43	74	115	174	25	1	543
55 to 59	57	39	48	62	62	84	56	6	414
60 to 64	29	25	14	39	30	26	13	19	195
65 & Up	18	17	11	8	16	7	4	4	85
Total	1,234	738	503	577	492	323	98	30	3,995





APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM PROJECTED SALARY DISTRIBUTION OF ACTIVE MEMBERS

as of January 1, 2025

Certificated - Total

Age	0 to 4	5 to 9	10 to 14	15 to 19	Service 20 to 24	25 to 29	30 to 34	35 & Up	Total
Under 25	9,064,033	0	0	0	0	0	0	0	9,064,033
25 to 29	26,746,023	4,023,464	0	0	0	0	0	0	30,769,487
30 to 34	12,014,956	17,153,957	3,124,981	0	0	0	0	0	32,293,894
35 to 39	6,938,017	10,860,055	14,382,907	2,755,437	0	0	0	0	34,936,416
40 to 44	7,544,182	6,197,040	8,548,471	22,152,649	3,726,631	0	0	0	48,168,973
45 to 49	7,153,291	5,264,975	4,926,112	11,235,782	22,912,497	3,280,999	0	0	54,773,656
50 to 54	4,274,840	4,495,536	3,556,291	6,758,480	10,997,223	18,337,491	2,846,235	140,667	51,406,763
55 to 59	4,723,516	3,459,990	3,768,906	5,242,059	5,598,062	8,550,450	6,270,673	834,975	38,448,631
60 to 64	2,316,441	1,852,368	1,163,994	3,285,828	2,690,183	2,583,253	1,298,904	1,917,127	17,108,098
65 & Up	1,375,688	1,399,963	908,184	686,233	1,500,103	626,188	371,270	518,273	7,385,902
Total	82,150,987	54,707,348	40,379,846	52,116,468	47,424,699	33,378,381	10,787,082	3,411,042	324,355,853





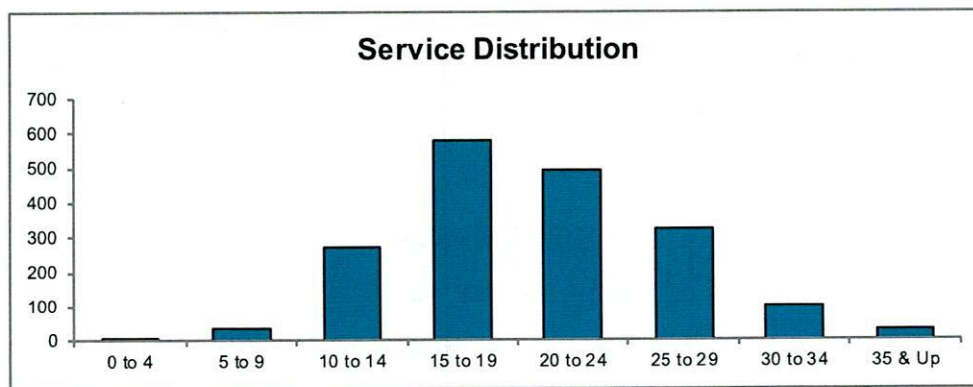
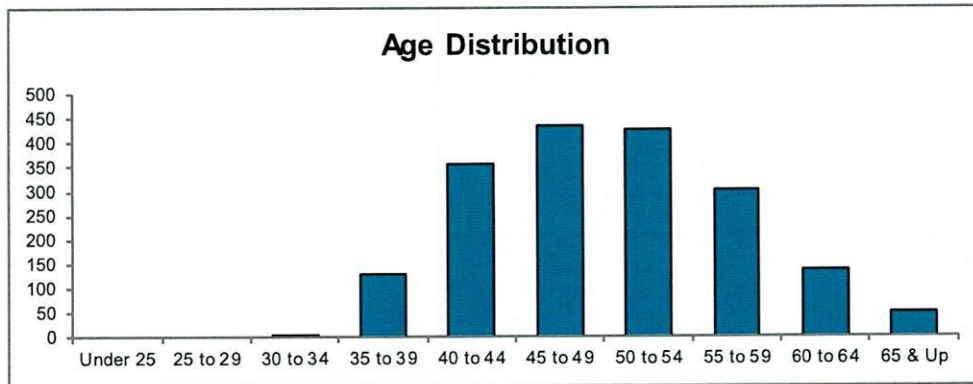
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS

as of January 1, 2025

Certificated - Tier 1

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0
30 to 34	0	0	3	0	0	0	0	0	3
35 to 39	0	4	94	30	0	0	0	0	128
40 to 44	0	9	68	238	39	0	0	0	354
45 to 49	3	5	37	126	230	32	0	0	433
50 to 54	0	11	27	74	115	174	25	1	427
55 to 59	1	4	27	62	62	84	56	6	302
60 to 64	1	2	9	39	30	26	13	19	139
65 & Up	4	2	7	8	16	7	4	4	52
Total	9	37	272	577	492	323	98	30	1,838





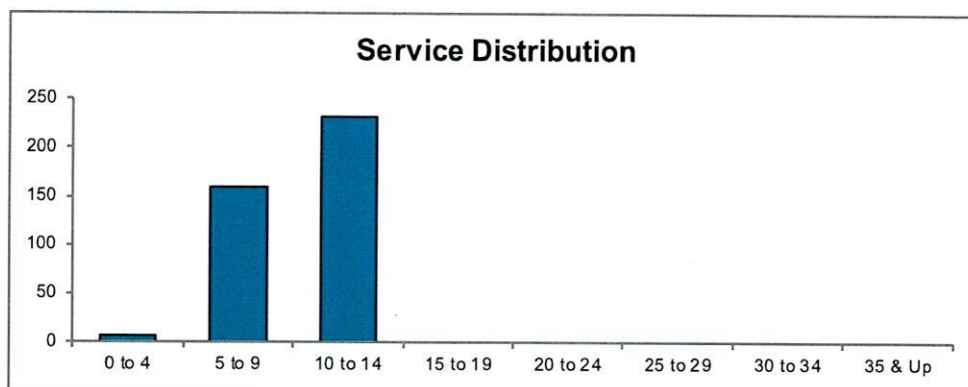
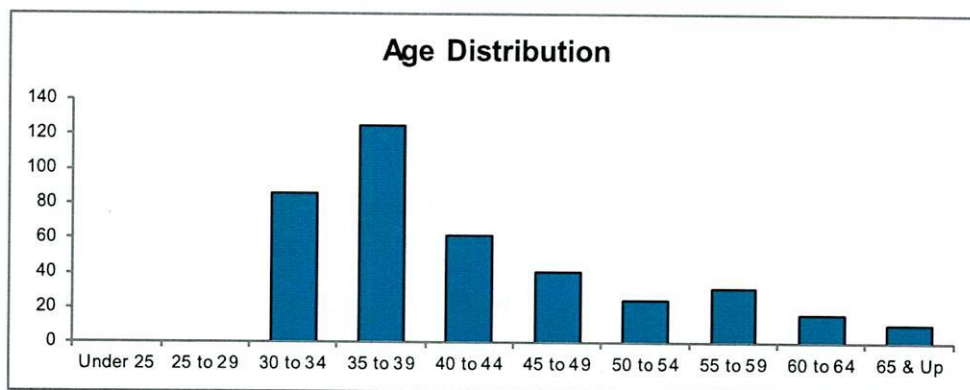
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS

as of January 1, 2025

Certificated - Tier 2

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0
30 to 34	0	49	37	0	0	0	0	0	86
35 to 39	0	40	85	0	0	0	0	0	125
40 to 44	0	22	40	0	0	0	0	0	62
45 to 49	0	18	23	0	0	0	0	0	41
50 to 54	0	8	16	0	0	0	0	0	24
55 to 59	1	9	21	0	0	0	0	0	31
60 to 64	5	7	5	0	0	0	0	0	17
65 & Up	1	6	4	0	0	0	0	0	11
Total	7	159	231	0	0	0	0	0	397





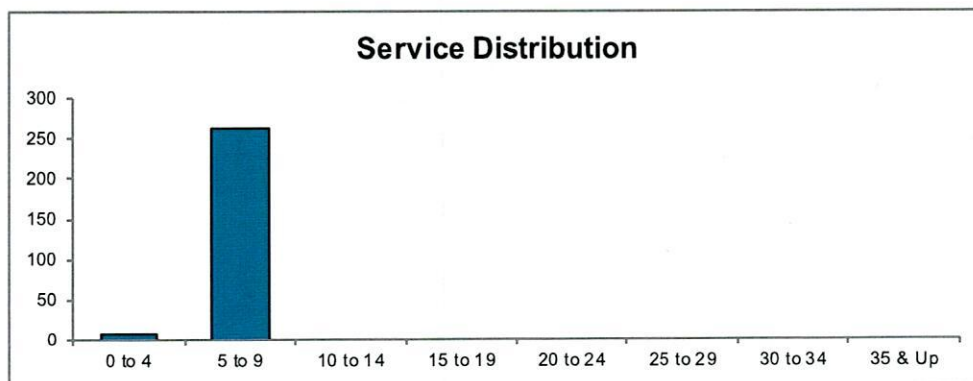
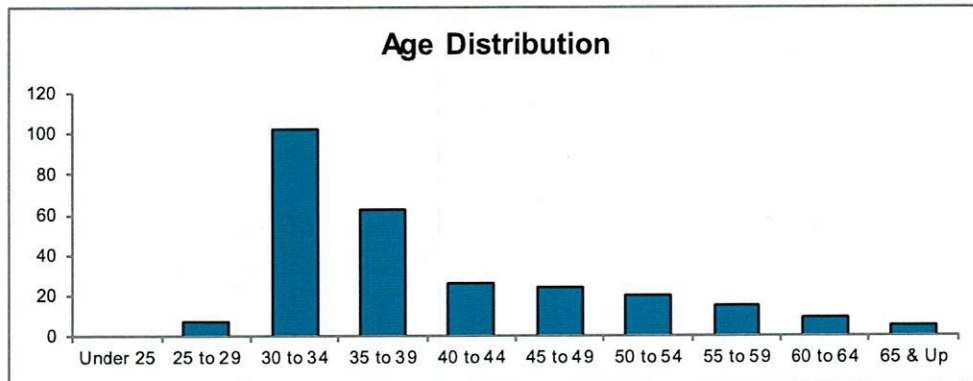
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS

as of January 1, 2025

Certificated - Tier 3

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	2	5	0	0	0	0	0	0	7
30 to 34	2	100	0	0	0	0	0	0	102
35 to 39	1	62	0	0	0	0	0	0	63
40 to 44	1	25	0	0	0	0	0	0	26
45 to 49	0	24	0	0	0	0	0	0	24
50 to 54	1	19	0	0	0	0	0	0	20
55 to 59	1	14	0	0	0	0	0	0	15
60 to 64	0	9	0	0	0	0	0	0	9
65 & Up	0	5	0	0	0	0	0	0	5
Total	8	263	0	0	0	0	0	0	271





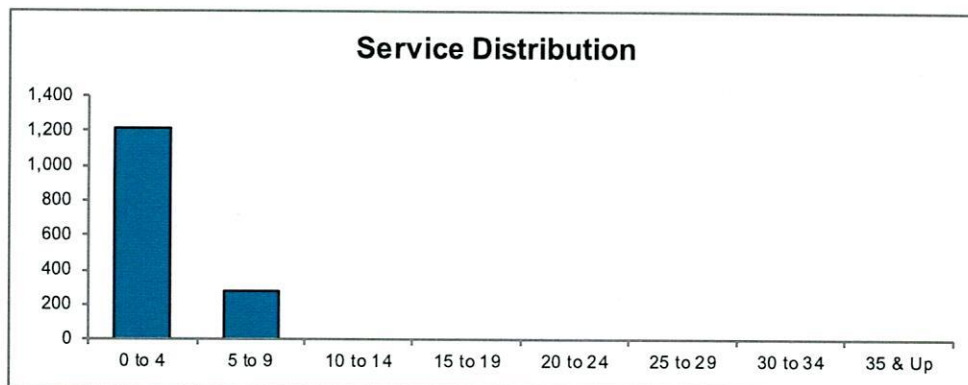
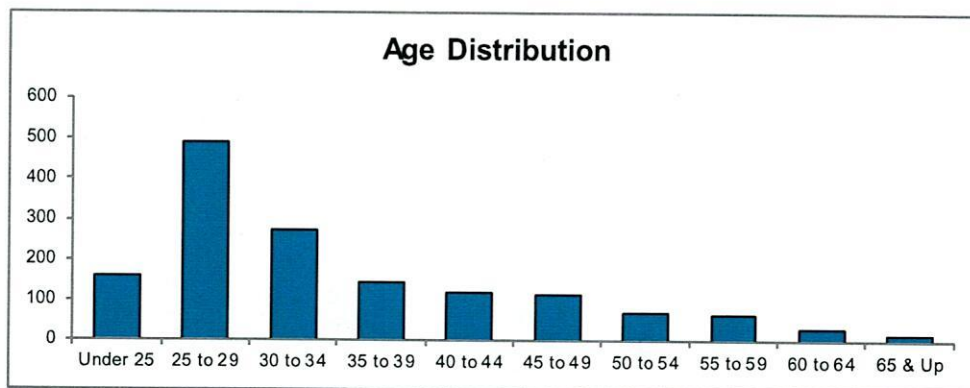
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS

as of January 1, 2025

Certificated - Tier 4

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	161	0	0	0	0	0	0	0	161
25 to 29	438	54	0	0	0	0	0	0	492
30 to 34	181	92	0	0	0	0	0	0	273
35 to 39	101	42	0	0	0	0	0	0	143
40 to 44	95	27	0	0	0	0	0	0	122
45 to 49	92	21	0	0	0	0	0	0	113
50 to 54	52	20	0	0	0	0	0	0	72
55 to 59	54	12	0	0	0	0	0	0	66
60 to 64	23	7	0	0	0	0	0	0	30
65 & Up	13	4	0	0	0	0	0	0	17
Total	1,210	279	0	0	0	0	0	0	1,489





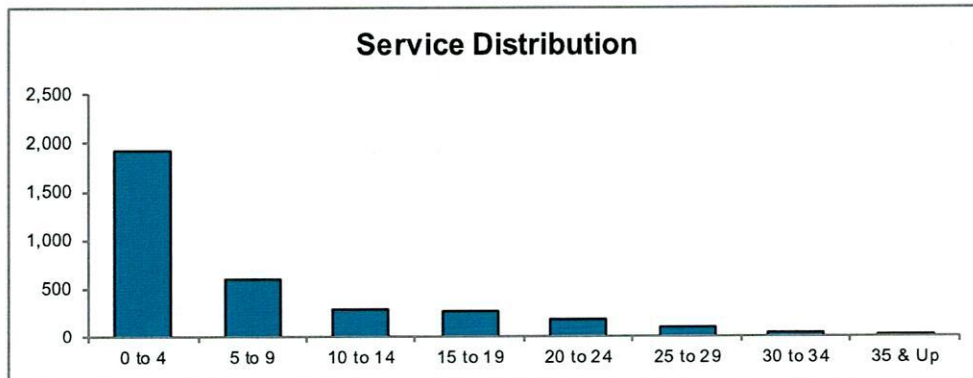
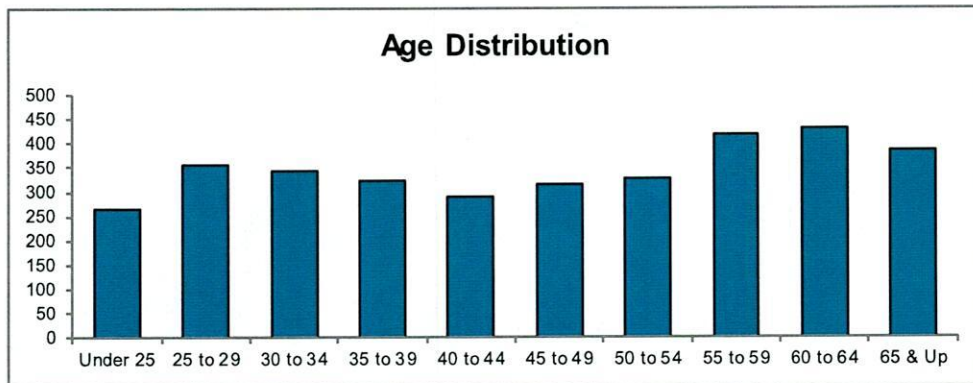
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS

as of January 1, 2025

Classified - Total

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	264	1	0	0	0	0	0	0	265
25 to 29	325	29	0	0	0	0	0	0	354
30 to 34	267	68	9	0	0	0	0	0	344
35 to 39	217	67	27	10	0	0	0	0	321
40 to 44	160	70	29	24	8	0	0	0	291
45 to 49	151	66	29	40	17	10	0	0	313
50 to 54	132	71	40	38	29	12	4	0	326
55 to 59	143	73	53	56	55	30	6	1	417
60 to 64	136	79	52	63	45	29	16	9	429
65 & Up	128	71	59	48	33	22	15	7	383
Total	1,923	595	298	279	187	103	41	17	3,443





APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM PROJECTED SALARY DISTRIBUTION OF ACTIVE MEMBERS

as of January 1, 2025

Classified - Total

Age	0 to 4	5 to 9	10 to 14	15 to 19	Service 20 to 24	25 to 29	30 to 34	35 & Up	Total
Under 25	8,146,851	31,121	0	0	0	0	0	0	8,177,972
25 to 29	12,261,379	1,436,510	0	0	0	0	0	0	13,697,889
30 to 34	10,361,285	3,224,190	515,353	0	0	0	0	0	14,100,828
35 to 39	8,937,846	4,143,777	1,816,952	611,886	0	0	0	0	15,510,461
40 to 44	6,912,704	3,621,481	1,769,039	1,606,516	431,991	0	0	0	14,341,731
45 to 49	6,561,321	3,554,310	2,144,333	2,520,988	1,079,628	843,453	0	0	16,704,033
50 to 54	5,503,440	4,004,369	2,127,400	2,442,644	1,873,869	941,642	469,085	0	17,362,449
55 to 59	6,566,255	3,908,647	2,964,509	3,445,191	3,392,582	2,526,648	369,675	85,672	23,259,179
60 to 64	5,641,751	3,569,222	2,604,575	4,024,076	2,553,532	1,750,548	1,296,153	896,275	22,336,132
65 & Up	4,607,186	3,362,677	2,736,652	2,420,012	1,899,416	1,083,533	760,691	640,571	17,510,738
Total	75,500,018	30,856,304	16,678,813	17,071,313	11,231,018	7,145,824	2,895,604	1,622,518	163,001,412





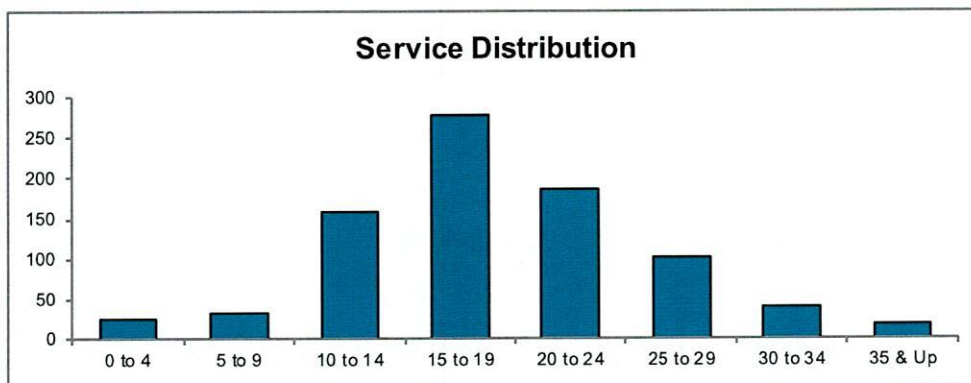
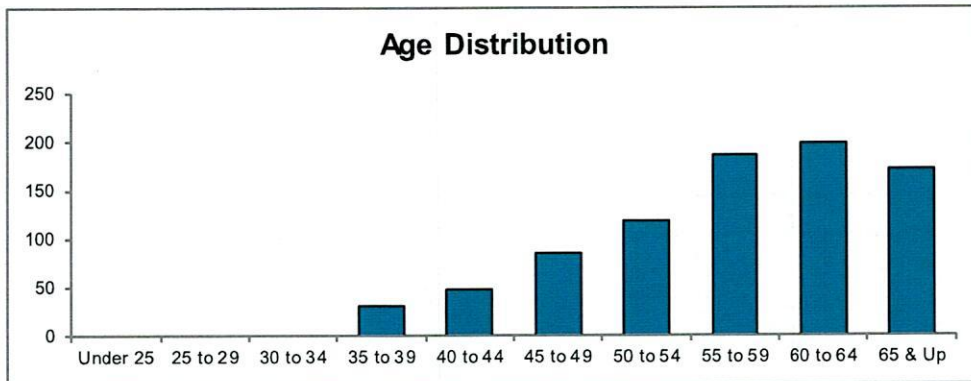
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS

as of January 1, 2025

Classified - Tier 1

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0
35 to 39	0	3	19	10	0	0	0	0	32
40 to 44	3	2	12	24	8	0	0	0	49
45 to 49	1	2	16	40	17	10	0	0	86
50 to 54	3	6	26	38	29	12	4	0	118
55 to 59	3	5	30	56	55	30	6	1	186
60 to 64	6	5	26	63	45	29	16	9	199
65 & Up	9	9	29	48	33	22	15	7	172
Total	25	32	158	279	187	103	41	17	842





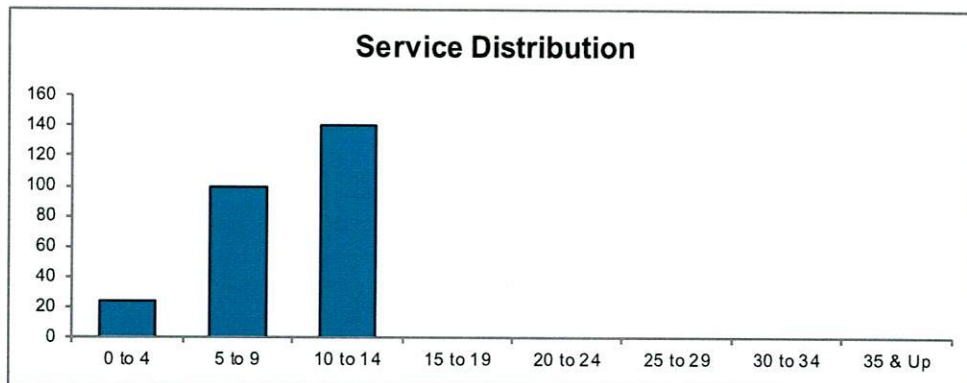
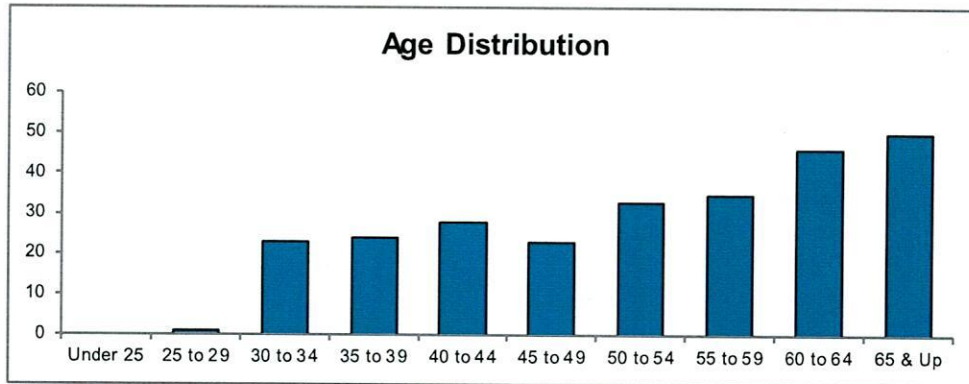
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS

as of January 1, 2025

Classified - Tier 2

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	1	0	0	0	0	0	0	0	1
30 to 34	3	11	9	0	0	0	0	0	23
35 to 39	1	15	8	0	0	0	0	0	24
40 to 44	1	10	17	0	0	0	0	0	28
45 to 49	1	9	13	0	0	0	0	0	23
50 to 54	8	11	14	0	0	0	0	0	33
55 to 59	2	10	23	0	0	0	0	0	35
60 to 64	4	16	26	0	0	0	0	0	46
65 & Up	3	17	30	0	0	0	0	0	50
Total	24	99	140	0	0	0	0	0	263





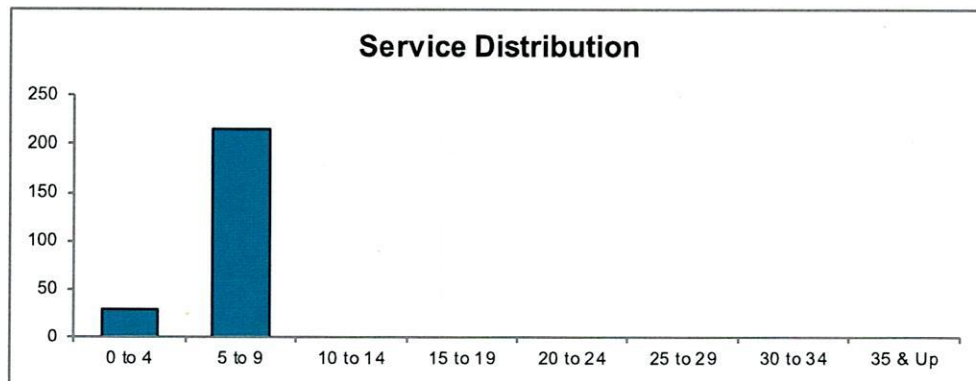
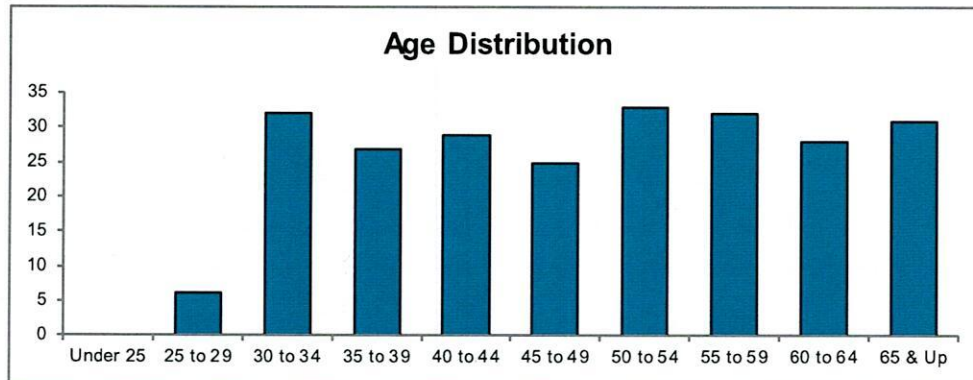
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS

as of January 1, 2025

Classified - Tier 3

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	2	4	0	0	0	0	0	0	6
30 to 34	4	28	0	0	0	0	0	0	32
35 to 39	3	24	0	0	0	0	0	0	27
40 to 44	3	26	0	0	0	0	0	0	29
45 to 49	3	22	0	0	0	0	0	0	25
50 to 54	4	29	0	0	0	0	0	0	33
55 to 59	6	26	0	0	0	0	0	0	32
60 to 64	1	27	0	0	0	0	0	0	28
65 & Up	3	28	0	0	0	0	0	0	31
Total	29	214	0	0	0	0	0	0	243





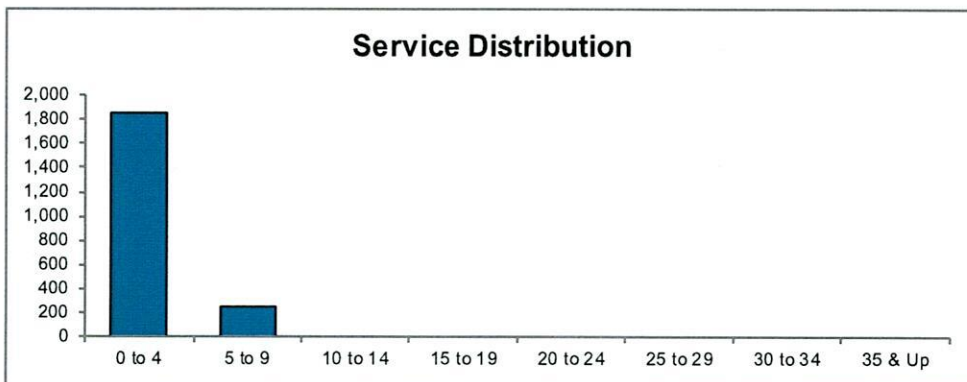
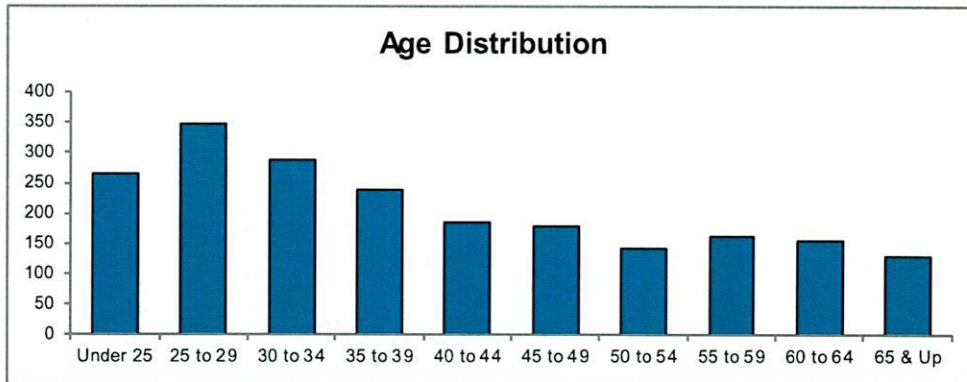
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS

as of January 1, 2025

Classified - Tier 4

Age	Service								Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 25	264	1	0	0	0	0	0	0	265
25 to 29	322	25	0	0	0	0	0	0	347
30 to 34	260	29	0	0	0	0	0	0	289
35 to 39	213	25	0	0	0	0	0	0	238
40 to 44	153	32	0	0	0	0	0	0	185
45 to 49	146	33	0	0	0	0	0	0	179
50 to 54	117	25	0	0	0	0	0	0	142
55 to 59	132	32	0	0	0	0	0	0	164
60 to 64	125	31	0	0	0	0	0	0	156
65 & Up	113	17	0	0	0	0	0	0	130
Total	1,845	250	0	0	0	0	0	0	2,095





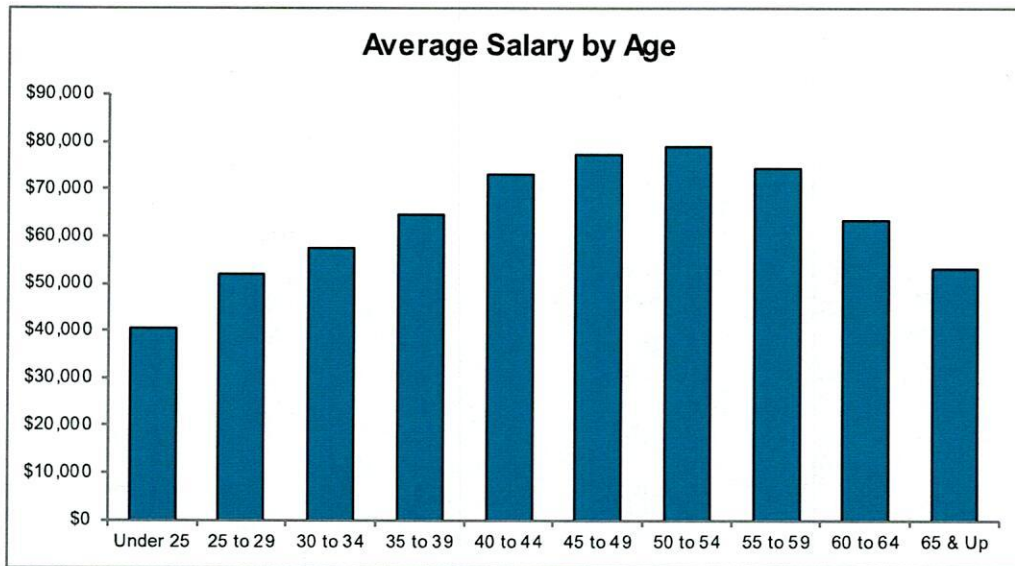
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM SUMMARY OF ACTIVE MEMBERS

as of January 1, 2025

Total

Age	Number			Projected Salaries		
	Males	Females	Total	Males	Females	Total
Under 25	91	335	426	\$4,020,849	\$13,221,156	\$17,242,005
25 to 29	236	617	853	12,730,297	31,737,079	44,467,376
30 to 34	225	583	808	14,063,158	32,331,564	46,394,722
35 to 39	223	557	780	15,045,746	35,401,131	50,446,877
40 to 44	248	607	855	19,179,531	43,331,173	62,510,704
45 to 49	252	672	924	20,852,021	50,625,668	71,477,689
50 to 54	235	634	869	19,924,438	48,844,774	68,769,212
55 to 59	248	583	831	20,282,294	41,425,516	61,707,810
60 to 64	191	433	624	13,768,245	25,675,985	39,444,230
65 & Up	162	306	468	9,579,913	15,316,727	24,896,640
Total	2,111	5,327	7,438	\$149,446,492	\$337,910,773	\$487,357,265





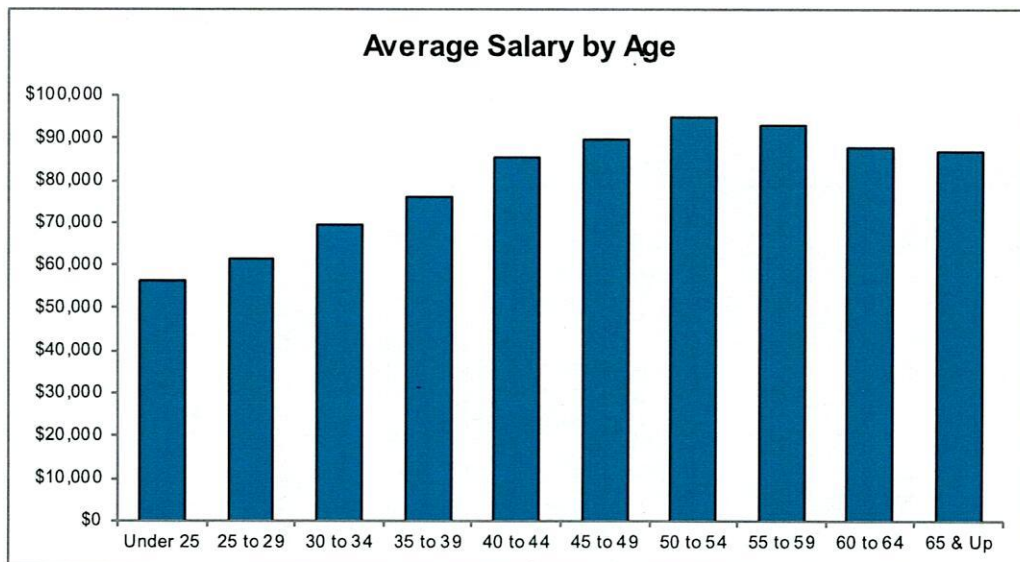
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM SUMMARY OF ACTIVE MEMBERS

as of January 1, 2025

Certificated

Age	Number			Projected Salaries		
	Males	Females	Total	Males	Females	Total
Under 25	35	126	161	\$2,026,921	\$7,037,112	\$9,064,033
25 to 29	112	387	499	7,075,704	23,693,783	30,769,487
30 to 34	130	334	464	9,165,214	23,128,680	32,293,894
35 to 39	112	347	459	8,479,777	26,456,639	34,936,416
40 to 44	152	412	564	12,870,873	35,298,100	48,168,973
45 to 49	142	469	611	13,468,089	41,305,567	54,773,656
50 to 54	132	411	543	12,756,641	38,650,122	51,406,763
55 to 59	97	317	414	9,365,258	29,083,373	38,448,631
60 to 64	42	153	195	3,781,425	13,326,673	17,108,098
65 & Up	23	62	85	2,015,948	5,369,954	7,385,902
Total	977	3,018	3,995	\$81,005,850	\$243,350,003	\$324,355,853





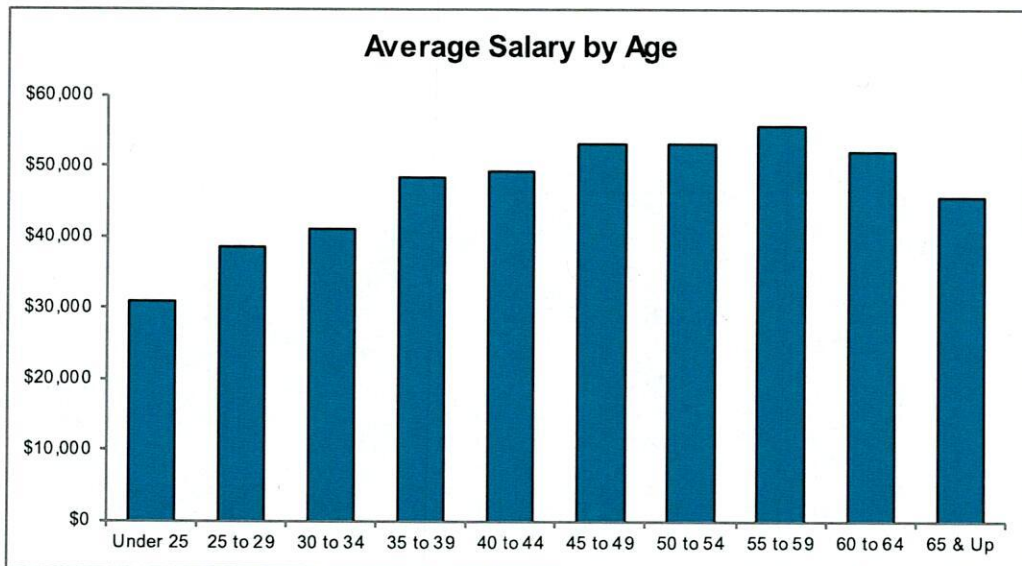
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM SUMMARY OF ACTIVE MEMBERS

as of January 1, 2025

Classified

Age	Number			Projected Salaries		
	Males	Females	Total	Males	Females	Total
Under 25	56	209	265	\$1,993,928	\$6,184,044	\$8,177,972
25 to 29	124	230	354	5,654,593	8,043,296	13,697,889
30 to 34	95	249	344	4,897,944	9,202,884	14,100,828
35 to 39	111	210	321	6,565,969	8,944,492	15,510,461
40 to 44	96	195	291	6,308,658	8,033,073	14,341,731
45 to 49	110	203	313	7,383,932	9,320,101	16,704,033
50 to 54	103	223	326	7,167,797	10,194,652	17,362,449
55 to 59	151	266	417	10,917,036	12,342,143	23,259,179
60 to 64	149	280	429	9,986,820	12,349,312	22,336,132
65 & Up	139	244	383	7,563,965	9,946,773	17,510,738
Total	1,134	2,309	3,443	\$68,440,642	\$94,560,770	\$163,001,412





APPENDIX D – MEMBERSHIP DATA

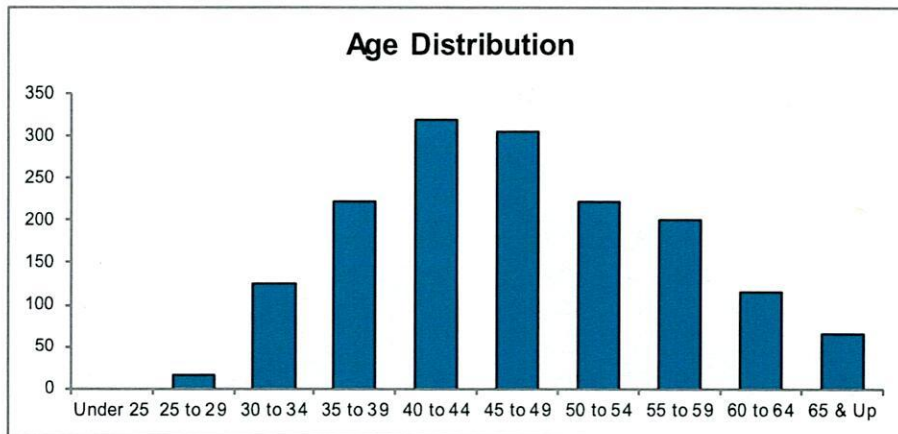
OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM SUMMARY OF INACTIVE VESTED MEMBERS

as of January 1, 2025

Total

Age	Number			Monthly Benefit at Unreduced Retirement		
	Males	Females	Total	Males	Females	Total
Under 25	0	0	0	\$ 0	\$ 0	\$ 0
25 to 29	2	15	17	1,011	6,274	7,285
30 to 34	17	108	125	9,233	52,413	61,646
35 to 39	37	184	221	24,468	122,305	146,773
40 to 44	78	241	319	72,843	218,411	291,254
45 to 49	79	227	306	103,048	223,251	326,299
50 to 54	51	171	222	69,824	193,934	263,758
55 to 59	46	154	200	53,952	127,531	181,483
60 to 64	23	93	116	19,388	54,208	73,596
65 & Up	7	59	66	8,226	23,384	31,610
Total	340	1,252	1,592	\$361,993	\$1,021,711	\$1,383,704

Note: Includes 5 deferred disabled members.





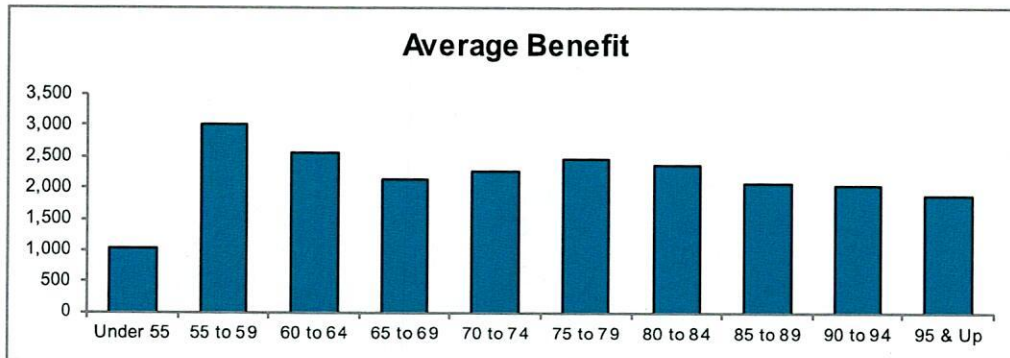
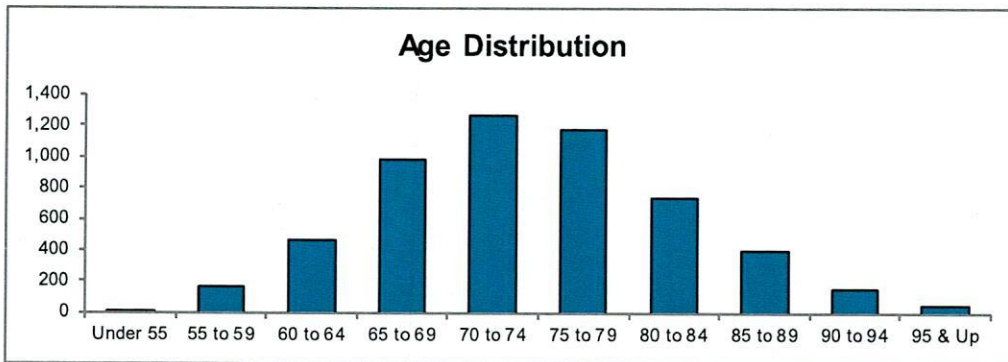
APPENDIX D – MEMBERSHIP DATA

OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM SUMMARY OF RETIREES, BENEFICIARIES AND DISABLED MEMBERS

as of January 1, 2025

Total

Age	Number			Total Monthly Benefit		
	Males	Females	Total	Males	Females	Total
Under 55	4	9	13	\$ 3,720	\$ 9,692	\$ 13,412
55 to 59	39	131	170	122,756	391,912	514,668
60 to 64	120	347	467	314,135	879,682	1,193,817
65 to 69	234	757	991	491,533	1,635,749	2,127,282
70 to 74	327	938	1,265	811,138	2,053,352	2,864,490
75 to 79	329	845	1,174	862,136	2,037,837	2,899,973
80 to 84	245	492	737	686,293	1,066,119	1,752,412
85 to 89	113	283	396	237,518	586,172	823,690
90 to 94	29	124	153	73,152	241,155	314,307
95 & Up	9	42	51	20,753	74,297	95,050
Total	1,449	3,968	5,417	\$3,623,134	\$8,975,967	\$12,599,101





Cavanaugh Macdonald

CONSULTING, LLC

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December 6, 2021

Board of Trustees
Omaha School Employees' Retirement System
3215 Cuming Street
Omaha, NE 68131-2024

Re: 2021 Experience Study Report

Dear Trustees:

Attached please find the Experience Study report for the four-year period ending December 31, 2020. No material changes have been made to the draft version of the report that was provided to you at the September Board meeting. This report contains our recommended changes to the current set of actuarial assumptions and methods which would first be reflected in the January 1, 2022 actuarial valuation. Ultimately, you as the Board, have the authority and responsibility of adopting the assumptions and methods used in the valuation. Please note that we will need to be notified of your decision on adopting our recommended changes by the end of January, 2022 in order to reflect the new set of assumptions and methods in the January 1, 2022 actuarial valuation.

If you have any questions or need additional information, please do not hesitate to contact us. We would be happy to be of assistance.

Patrice A. Beckham, FSA, EA, FCA, MAAA
Principal and Consulting Actuary



Cavanaugh Macdonald
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OMAHA SCHOOL EMPLOYEES RETIREMENT SYSTEM

**Four Year Experience Study
January 1, 2017 to December 31, 2020**

Submitted: December 6, 2021

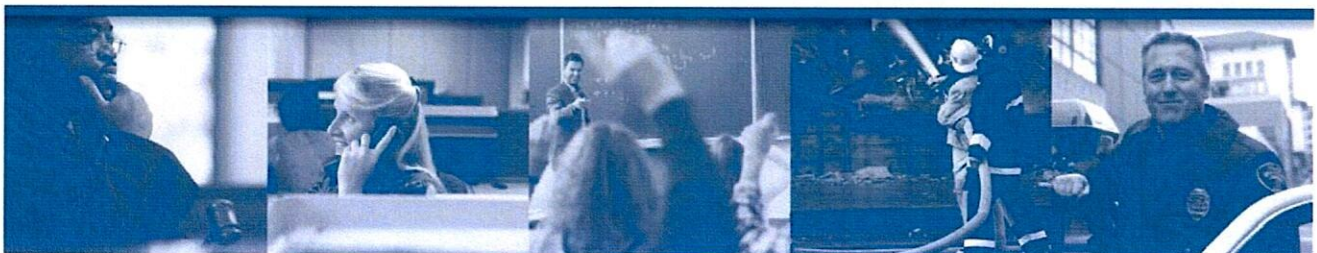




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December 6, 2021

Board of Trustees
Omaha School Employees' Retirement System
3215 Cuming Street
Omaha, NE 68131

Dear Trustees:

It is a pleasure to submit this report of our investigation of the experience of the Omaha School Employees Retirement System (OSERS) for the period of January 1, 2017 through December 31, 2020.

The purpose of this report is to communicate the results of our review of the actuarial methods and the economic and demographic assumptions to be used in the completion of the January 1, 2022 actuarial valuation. This report includes our recommended changes from the prior assumptions that are intended to better anticipate the emerging experience of the Plan. Actual future experience, however, may still differ from these assumptions. As the actuary for OSERS, our responsibility is to make recommendations for assumption and method changes. Ultimately the Board has the authority to decide whether or not to adopt the recommendations.

In preparing this report, we relied, without audit, on information supplied by the System for the annual actuarial valuations. If any data or other information is inaccurate or incomplete, our analysis and recommendation may be impacted and a revised report may need to be issued.

We hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

We further certify that the assumptions developed in this report satisfy ASB Standards of Practice, in particular, No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations* and No. 35, *Selection of Demographic and Other Non-economic Assumptions for Measuring Pension Obligations*.

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Board of Trustees
December 6, 2021
Page 2

We look forward to our discussions and the opportunity to respond to your questions and comments.

We, Patrice A. Beckham and Bryan K. Hoge, are members of the American Academy of Actuaries, Enrolled Actuaries and Fellows of the Society of Actuaries. We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

A handwritten signature in blue ink that reads 'Patrice Beckham' in a cursive script.

Patrice A. Beckham, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

A handwritten signature in blue ink that reads 'Bryan Hoge' in a cursive script.

Bryan K. Hoge, FSA, EA, FCA, MAAA
Consulting Actuary



SECTION 1 – INTRODUCTION

The purpose of an actuarial valuation is to provide a timely best estimate of the ultimate costs of a retirement system. Actuarial valuations of the Omaha School Employees Retirement System (OSERS or the System) are prepared annually to determine the actuarial contribution rate to fund the System on an actuarial reserve basis, i.e. the current assets plus future contributions, along with investment earnings will be sufficient to provide the benefits promised by the System. The valuation requires the use of certain assumptions with respect to the occurrence of future events, such as rates of death, disability, termination of employment, retirement age and salary changes to estimate the obligations of the System.

The basic purpose of an experience study is to determine whether the actuarial assumptions currently in use align with the actual emerging experience of the plan and to review if there have been any changes in expectations of future plan experience. This information, along with the professional judgment of the Board, its advisor, and the actuary, is used to evaluate the appropriateness of continued use of the current actuarial assumptions. When analyzing experience and assumptions, it is important to recognize that actual experience is reported in the short term while assumptions are intended to be long-term estimates of experience. Therefore, actual experience is expected to vary from study period to study period, without necessarily indicating a change in assumptions is needed.

At the request of the Board, Cavanaugh Macdonald Consulting, LLC (CMC), performed a study of the experience of OSERS, for the four-year period ending December 31, 2020. This report presents the results, analysis, and resulting recommendations of our study. It is anticipated that the changes, if approved by the Board, will first be reflected in the January 1, 2022 actuarial valuation.

These assumptions have been developed in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the applicable Actuarial Standards of Practice adopted by the Actuarial Standards Board (ASB). While the recommended assumptions represent our best estimate of future experience, there are other reasonable assumption sets that could be supported by the results of this experience study. Those other sets of reasonable assumptions could produce liabilities and costs that are either higher or lower.

Our Philosophy

Similar to an actuarial valuation, the calculation of actual and expected experience is a fairly mechanical process, and differences between actuaries in this area are generally minor. However, the setting of assumptions differs, as it is more art than science. In this report, we have recommended changes to certain assumptions. To explain our thought process, we offer a brief summary of our philosophy:

- **Don't Overreact:** When we see significant changes in experience, we generally do not adjust our rates to reflect the entire difference. We will typically recommend rates somewhere between the old rates and the new experience. If the experience during the next study period shows the same result, we will probably recognize the trend at that point in time or at least move further in the direction of the observed experience. On the other hand, if experience returns closer to its prior level, we will not have overreacted, possibly causing volatility in the actuarial contribution rates.
- **Anticipate Trends:** If there is an identified trend that is expected to continue, we believe that this should be recognized. An example is the retiree mortality assumption. It is an established trend that people are living longer. Therefore, we believe the best estimate of liabilities in the valuation should reflect the expected increase in life expectancy.



SECTION 1 – INTRODUCTION

- **Simplify:** In general, we attempt to identify which factors are significant and eliminate or ignore the ones that do not materially improve the accuracy of the liability projections.

SCOPE OF THIS REPORT

The actuarial valuation utilizes various actuarial methods and two different types of assumptions: economic and demographic. Economic assumptions are related to the general economy and its impact on the System. Demographic assumptions are based on the emergence of the specific experience of the Systems' members.

All of the major actuarial assumptions that will be used in the January 1, 2022 Actuarial Valuation have been reviewed in this Study. The remainder of this report is divided as follows:

SECTION 2	EXECUTIVE SUMMARY
SECTION 3	ACTUARIAL METHODS
SECTION 4	ECONOMIC ASSUMPTIONS
SECTION 5	DEMOGRAPHIC ASSUMPTIONS
SECTION 6	MORTALITY
SECTION 7	RETIREMENT
SECTION 8	TERMINATION OF EMPLOYMENT



SECTION 2 – EXECUTIVE SUMMARY

Actuarial Methods

The actuarial methods outlined in the Funding Policy include:

- Entry age normal cost method
- Expected + 25% asset smoothing method
- Amortization of UAAL, as a level percent of payroll, over a closed 30 year period.

As a result of our review of these methodologies, we are recommending that future changes in the UAAL be amortized over separate 25-year closed periods beginning on the date the change is measured. The other actuarial methods are reasonable and we recommend they be retained. Having said that, we recognize that the Board may wish to use an asset smoothing method that is consistent with the methodology used by the Nebraska Public Employees Retirement System, the closed five-year asset smoothing method. That method is commonly used by public plans and meets actuarial standards so such a change is acceptable to Cavanaugh Macdonald if that is the Board’s decision.

Economic Assumptions

The following set of economic assumptions is recommended:

	Current Assumptions	Proposed Assumptions
Price Inflation	2.75%	2.35%
Investment Return	7.50%	7.00%
General Wage Growth	3.25%	2.85%
Payroll Growth	3.25%	2.85%

The Nebraska Investment Council is responsible for investing OSERS’ trust funds. The long term asset allocation for the OSERS portfolio is the same as that of the Nebraska Public Employees Retirement System (NPERS). Last fall, an experience study was performed for the Nebraska Public Employees Retirement System and the investment return assumption was lowered from 7.50% to 7.00% (inflation of 2.35% plus real return of 4.65%). In order to provide a smoother cost pattern, the Board decided to phase in the proposed change to the inflation assumption of 40 basis points over four years for the plans covered by NPERS. Given the asset allocation for OSERS is the same as NPERS, the NIC invests the funds of both systems, and NPERS is expected to assume responsibility for the administration of OSERS in several years we believe the same investment return assumption should be used for both systems. Therefore, we recommend the investment return assumption for OSERS be lowered from 7.50% to 7.00%. If a smoother cost pattern is desired, the Board of Trustees may want to consider a phase-in approach similar to that implemented by NPERS



SECTION 2 – EXECUTIVE SUMMARY

Although we have recommended a specific set of economic assumptions, we recognize there are other sets of economic assumptions which are also reasonable for purposes of funding OSERS. Some actuaries (and/or boards) might be more risk averse and desire a greater degree of conservatism, while others are more risk tolerant and would choose less cautious assumptions. Actuarial Standards of Practice allow for this difference in approach and perspective, as long as the assumptions are reasonable and consistent.

Demographic Assumptions

Based on the observed data and associated analysis, the recommended changes to the current demographic assumptions are:

- Change the mortality assumption to the Pub-2010 General Employees Median Mortality Table. Generational mortality improvements will be modeled using the NPERS projection scale.
- Modify the retirement rates for both certificated and classified members
- Modify the termination of employment rates for both certificated and classified members
- Modify the election of refund at termination for both certificated and classified members and adjust the assumption based on years of service
- Reduce active member marriage assumption from 100% to 85%.

Given the proposed changes to the investment return and mortality assumptions, the Board may want to revisit the definition of actuarial equivalence being used to develop the actuarial factors for optional forms of payment used for members hired on or after July 1, 2018.

Financial Impact

The financial impact of the proposed assumption changes is based on the results of the most recent actuarial valuation, performed as of January 1, 2021. While the actual results for the January 1, 2022 valuation will vary, we expect the change, as a percentage of liabilities and normal cost, to be comparable. The results are shown on the following page.



Estimate of Financial Impact of Assumption Changes
Based on January 1, 2021 Valuation

Dollars In Thousands

	Baseline (Current Assumptions)	Demographic Changes	All Assumption Changes
1. Present Value of Future Benefits	\$2,800,790	\$2,793,241	\$2,927,226
2. Present Value Future Normal Costs	<u>419,434</u>	<u>429,440</u>	<u>449,517</u>
3. Actuarial Accrued Liability (1) – (2)	\$2,381,356	\$2,363,801	\$2,477,709
4. Actuarial Value of Assets	<u>1,467,834</u>	<u>1,467,834</u>	<u>1,467,834</u>
5. Unfunded Actuarial Accrued Liability (UAAL) (3) – (4)	\$ 913,522	\$ 895,967	\$1,009,875
6. Funded Ratio (4) / (3)	61.64%	62.10%	59.24%
7. Normal Cost Rate	12.76%	12.67%	13.35%
8. Administrative Expenses	0.00%	0.00%	0.24%
9. UAAL Payment	<u>14.77%</u>	<u>14.49%</u>	<u>16.19%</u>
10. Actuarial Contribution Rate (7) + (8) + (9)	27.53%	27.16%	29.78%
10. Statutory Contribution Rate	21.66%	21.66%	21.66%
11. Contribution Shortfall/(Surplus) (9) – (10)	5.87%	5.50%	8.12%
12. Additional District Contribution	\$ 22,200	\$ 20,800	\$ 30,514



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SECTION 3 – ACTUARIAL METHODS

This section describes the actuarial methods that are used to determine the actuarial required contribution rate of the System. These methods are part of the Funding Policy adopted by the Board in 2019 and currently in use.

<i>Actuarial Cost Method</i>	Entry Age Normal
<i>Asset Valuation Method</i>	Expected + 25% Method
<i>Amortization Method</i>	Layered amortization with payments as level percent of payroll
<i>Amortization Period</i>	30 years, closed for each layer

ACTUARIAL COST METHOD

The systematic financing of a pension plan requires that contributions be made in an orderly fashion while a member is actively employed, so that the accumulation of these contributions, together with investment earnings should be sufficient to provide promised benefits and cover administration expenses. The actuarial valuation is the process used to determine when money should be contributed; i.e., as part of the budgeting process.

The actuarial valuation will not impact the amount of benefits paid or the actual cost of those benefits. In the long run, actuaries cannot change the costs of the pension plan, regardless of the funding method used or the assumptions selected. However, the choice of actuarial methods and assumptions **will** influence the incidence of costs.

The valuation or determination of the present value of all future benefits to be paid by the System reflects the assumptions that best seem to describe anticipated future experience. The choice of a funding method does not impact the determination of the present value of future benefits. The funding method determines only the incidence or allocation of cost. In other words, the purpose of the funding method is to allocate the present value of future benefits determination into annual costs. In order to do this allocation, it is necessary for the funding method to “break down” the present value of future benefits into two components: (1) that which is attributable to the past (2) and that which is attributable to the future. The excess of that portion attributable to the past over the plan assets is then amortized over a period of years. Actuarial terminology calls the part attributable to the past the “past service liability” or the “actuarial accrued liability”. The portion of the present value of future benefits allocated to the future is commonly known as the “present value of future normal costs”, with the specific piece of it allocated to the current year being called the “normal cost”. The difference between the plan assets and actuarial accrued liability is called the “unfunded actuarial accrued liability”.

Two key points should be noted. First, there is no single “correct” funding method. Second, the allocation of the present value of future benefits, and hence cost, to the past for amortization and to the future for annual normal cost payments is not necessarily in a one-to-one relationship with service credits earned in the past and future service credits to be earned.

There are various actuarial cost methods, each of which has different characteristics, advantages and disadvantages. However, Governmental Accounting Standard Board Statement Numbers 67 and 68 require that the Entry Age Normal cost method be used for financial reporting. Most systems do not want to use a different actuarial cost method for funding and financial reporting. In addition, the Entry Age Normal



SECTION 3 – ACTUARIAL METHODS

method has been the most common funding method for public systems for many years. This is the cost method currently used by OSERS.

The rationale of the Entry Age Normal (EAN) cost method is that the cost of each member's benefit is determined to be a level percentage of his salary from date of hire to the end of his employment with the employer. This level percentage multiplied by the member's annual salary is referred to as the normal cost and is that portion of the total cost of the employee's benefit which is allocated to the current year. The portion of the present value of future benefits allocated to the future is determined by multiplying this percentage times the present value of the member's assumed earnings for all future years including the current year. The Entry Age Normal actuarial accrued liability is then developed by subtracting from the present value of future benefits that portion of costs allocated to the future. To determine the unfunded actuarial accrued liability, the value of plan assets is subtracted from the Entry Age Normal actuarial accrued liability. The current year's cost to amortize the unfunded actuarial accrued liability is developed by applying an amortization factor.

It is to be expected that future events will not occur exactly as anticipated by the actuarial assumptions in each year. Actuarial gains/losses from experience under this actuarial cost method can be directly calculated and are reflected as a decrease/increase in the unfunded actuarial accrued liability. Consequently, the gain/loss results in a decrease/increase in the amortization payment, and therefore the contribution rate.

Considering that the Entry Age Normal cost method is the most commonly used cost method by public plans, that it develops a normal cost rate that tends to be stable and less volatile, and is the required cost method under calculations required by Governmental Accounting Standard Numbers 67 and 68, **we recommend the Entry Age Normal actuarial cost method be retained.**

ACTUARIAL VALUE OF ASSETS

In preparing an actuarial valuation, the actuary must assign a value to the assets of the fund. An adjusted market value is often used to smooth out the volatility that is reflected in the market value of assets. This is because most employers would rather have annual costs remain relatively smooth, as a percentage of payroll or in actual dollars, as opposed to a cost pattern that is extremely volatile.

The actuary does not have complete freedom in assigning this value. The Actuarial Standards Board also has basic principles regarding the calculation of a smoothed asset value, Actuarial Standard of Practice No. 44 (ASOP 44), *Selection and Use of Asset Valuation Methods for Pension Valuations*.

ASOP 44 provides that the asset valuation method should bear a reasonable relationship to the market value. Furthermore, the asset valuation method should be likely to satisfy both of the following:

- Produce values within a reasonable range around market value, AND
- Recognize differences from market value in a reasonable amount of time.

In lieu of both of the above, the standard will be met if either of the following requirements is satisfied:

- There is a sufficiently narrow range around the market value, OR
- The method recognizes differences from market value in a sufficiently short period.



SECTION 3 – ACTUARIAL METHODS

These rules or principles prevent the asset valuation methodology from being used to manipulate annual funding patterns. No matter what asset valuation method is used, it is important to note that, like a cost method or actuarial assumptions, the asset valuation method does not affect the true cost of the plan; it only impacts the incidence of cost.

OSERS values assets, for actuarial valuation purposes, based on the principle that the difference between actual and expected investment returns should be subject to partial recognition to smooth out fluctuations in the total return achieved by the fund from year to year. This philosophy is consistent with the long-term nature of a retirement system. Under this method, the actuarial value of the assets is the expected value of assets plus 25% of the difference between market value and expected value, where the expected value is last year's actuarial value, contributions and benefit payments all accumulated at the actuarial investment return assumption. This is mathematically equivalent to using a weighted average of 75% of the expected value and 25% of actual market value.

The current asset valuation method for OSERS also includes what is known as a “corridor”, which provides that once the initial determination of the actuarial value of assets is made it is compared to a corridor around market value (80% of market value to 120% of market value). If the initial actuarial value lies outside the corridor, the final actuarial value of assets is set equal to the corresponding corridor value. For example, if the initial calculation of the actuarial value of assets is 132% of market value, the actuarial value is set equal to 120% of market value. We believe the corridor is necessary to ensure actuarial standards are met.

OSERS' funded status is often compared to the Nebraska School Retirement System (NPERS School). The NPERS School system uses a different asset valuation method which recognizes the dollar amount of the difference between the actual investment return and the assumed investment return on the market value of assets equally over a closed five-year period. This is a very common methodology used by public plans and it also meets actuarial standards under ASOP 44.

The purpose of an asset valuation method is to “smooth out” the volatility that occurs in the measurement of assets using pure market value. We believe the current method has provided the desired smoothing of asset experience and complies with actuarial standards of practice. It also converges back to market value of assets more quickly when there are returns both below and above the assumed return. **Our recommendation is to retain the current asset valuation method unless the Board wishes to use the NPERS School methodology to provide consistency of results. Either method will provide the desired smoothing of actual investment experience and is acceptable under actuarial standards of practice.**

AMORTIZATION OF UAAL

As described earlier, actuarial accrued liability is the portion of the actuarial present value of future benefits that are not included in future normal costs. Thus it represents the liability that, in theory, should have been funded through normal costs for past service. Unfunded actuarial accrued liability (UAAL) exists when the actuarial accrued liability exceeds the actuarial value of plan assets. These deficiencies can result from (i) plan improvements that have not been completely paid for, (ii) experience that is less favorable than expected, (iii) assumption changes that increase liabilities, or (iv) contributions that are less than the actuarial contribution rate. If the actuarial value of assets (AVA) exceeds the actuarial accrued liability (AAL), “surplus” exists.

There are a variety of different methods that can be used to amortize the UAAL. **Each method results in a different payment stream and, therefore, has cost implications.** For each methodology, there are three characteristics:



SECTION 3 – ACTUARIAL METHODS

- The period over which the UAAL is amortized,
- The rate at which the amortization payment increases, and
- The number of components of UAAL (separate amortization bases).

Amortization Period: The amortization period can be either closed or open. If it is a closed amortization period, the number of years remaining in the amortization period declines by one in each future valuation. Alternatively, if the amortization period is an open or rolling period, the amortization period does not decline but is reset to the same number each year. This approach, which essentially “refinances” the System’s debt (UAAL) every year, is infrequently used given recent trends in the industry.

The length of the amortization period has also changed over the last decade, particularly for systems using the level percent of payroll payment methodology (see below). Based on the professional guidance of actuaries and accountants, the recommended period for actuarial gains/losses is 15 to 20 years and for assumption changes 20-25 years. The goal is to better match the expected working lifetime of the membership at the time the amortization base is created.

Amortization Payment: The level dollar amortization method is similar to the method in which a home owner pays off a mortgage. The liability, once calculated, is financed by a constant fixed dollar amount, based on the amortization period until the liability is extinguished. This results in the liability steadily decreasing while the payments, though remaining level in dollar terms, in all probability decrease as a percentage of payroll. (Even if a plan sponsor’s population is not growing, inflationary salary increases will usually be sufficient to increase the aggregate covered payroll).

The rationale behind the level percentage of payroll amortization method is that since normal costs are calculated to be a constant percentage of pay, the unfunded actuarial accrued liability should be paid off in the same manner. In addition, most public retirement systems are financed with contributions that are a level percent of covered payroll. When this method of amortizing the unfunded actuarial accrued liability is adopted, the initial amortization payments are lower than they would be under a level dollar amortization payment method, but the payments increase at a fixed rate each year so that ultimately the annual payment far exceeds the level dollar payment. The expectation is that total payroll will increase at the same rate so that the amortization payments will remain constant, as a percentage of payroll. In the initial years, the level percentage of payroll amortization payment may be less than the interest accruing on the unfunded actuarial accrued liability meaning that even if there are no experience losses, the dollar amount of the unfunded actuarial accrued liability will increase (called negative amortization). This is particularly true if the plan sponsor is paying off the unfunded actuarial accrued liability over a long period, such as 30 years.

Amortization Bases: The UAAL can either be amortized as one single amount or as components or “layers”, each with a separate amortization base, payment and period. If the UAAL is amortized as one amount, the UAAL is recalculated each year in the valuation and experience gains/losses or other changes in the UAAL are folded into the single UAAL amortization base. The amortization payment is then the total UAAL divided by an amortization factor for the applicable amortization period.

If separate amortization bases are maintained, the UAAL is composed of multiple amortization bases, each with its own payment schedule and remaining amortization period. In each valuation, the unexpected change in the UAAL is established as a new amortization base over the appropriate amortization period beginning on that valuation date. The UAAL is then the sum of all of the outstanding amortization bases on the valuation date and the UAAL payment is the sum of all of the amortization payments on the existing amortization bases. This approach provides transparency in that the current UAAL is paid off over a fixed period of time and the remaining components of the UAAL are clearly identified in each valuation. Adjustments to the UAAL in future years are also separately identified in each future year. One downside



SECTION 3 – ACTUARIAL METHODS

of this approach is that it can create some discontinuities in contribution rates when UAAL layers/components are fully paid off. If this occurs, it likely would be far in the future, with adequate time to address any adjustments needed.

Current OSERS Actuarial Amortization Method: The current amortization method used by OSERS includes an initial amortization base (established in 2019) with payments over a closed 30-year period, determined as a level percentage of payroll. A new base is created each year that includes all of the unanticipated changes in the UAAL for the year. These new bases are amortized in a consistent time frame and basis. Whenever a plan has a total UAAL of \$0 or less (i.e. there is an actuarial surplus), all of the amortization bases are eliminated and the net surplus is amortized over 30 years.

While the current method is not unreasonable, we do note that over the last decade, the Government Finance Officers Association (GFOA) and the Conference of Consulting Actuaries (CCA) have published guidance on their opinion of “best practices” regarding public pension plan funding, including the length of the amortization period. Although these recommendations are not binding, they do point to an increased focus on developing amortization policies that are designed to pay down the UAAL in a meaningful way over a reasonable period. In particular, this guidance would encourage a more rapid amortization of the annual incremental pieces, paying them off in 15 to 20 years, particularly if the level percent of payroll methodology is being used.

The Actuarial Standards Board recently released a third exposure draft of *Actuarial Standard of Practice Number 4, Measuring Pension Obligations and Determining Pension Plan Costs* which includes guidance on the selection of an amortization method. It states that the actuary should select an amortization method for each amortization base that is expected to produce payments that fully amortize the amortization base within a reasonable time period or reduce the outstanding balance by a reasonable amount each year. The current version of ASOP 4 suggests the actuary consider the following in determining a reasonable time period or reasonable amortization amount:

- a. whether the amortization period is open or closed;
- b. Source of the amortization base;
- c. anticipated pattern of amortization payments, including the length of time until payments exceed nominal interest on the outstanding balance;
- d. whether the base is positive or negative;
- e. duration of the actuarial accrued liability;
- f. average remaining working lifetime of active members; and
- g. funded status of the plan or period to insolvency.

Given the funding policy of OSERS and the goal of funding with fixed contribution rates, an argument can be made for using an amortization period on the longer end of the reasonable range. However, most of the considerations outlined in ASOP 4 would lead us to recommend a shorter amortization period than the current 30 years. The UAAL is amortized as a level percentage of payroll which creates a pattern of contributions that is back-end loaded, i.e., payments are much higher in the latter part of the amortization period. This contribution pattern results in “negative amortization” wherein the dollar amount of the UAAL increases for several years because the dollar amount of the amortization payment is less than the interest on the UAAL. The period of time the plan experiences negative amortization is dependent on the investment return assumption and the payroll growth assumption. The reduction to both of these assumptions has helped reduce the number of years of negative amortization and the resulting growth in the dollar amount of UAAL, but with an amortization period of 30 years the dollar amount of the UAAL is not expected to be lower than the initial amount for 11 years.



SECTION 3 – ACTUARIAL METHODS

Given trends in the industry, guidance from the Government Finance Officers Association (GFOA), recent guidance from the Actuarial Standards Board about amortization periods, and the State’s desire to fund these plans with fixed contribution rates, **we recommend OSERS reduce the current 30 year amortization period for new bases to 25 years.** An amortization period of 20 years would conform better to best practices in the industry, but would also introduce more volatility in the actuarial contribution rate and, therefore, any additional District contributions. To implement the change in the amortization period with minimal financial impact on the short-term valuation results, we suggest the change be made prospectively to new amortization bases and existing amortization bases remain on their current payment schedules. Under the layered amortization method, there are other, considerations that can create volatility or discontinuity in contribution rates. These can be addressed by combining amortization bases or synchronizing the amortization periods to smooth out the UAAL contribution rate in future years.

The following table illustrates the expected impact on contributions over the next seven valuations if future amortization bases for assumption changes and experience gains/losses are amortized over 25 years rather than 30 years. Note that these results rely on the projection models prepared in conjunction with the most recent actuarial valuations and assume that all assumptions are met in future years. Actual results, especially the investment returns each year, will vary from those assumed and therefore the valuation results will also vary. These projections are shown for comparative purposes only.

Jan 1	Current: 30-Year Layers			25-Year Layers			Difference
	Actuarial Rate	Statutory Rate	Shortfall / (Margin)	Actuarial Rate	Statutory Rate	Shortfall / (Margin)	
2022	28.83%	21.66%	7.17%	28.93%	21.66%	7.27%	0.10%
2023	29.41%	21.66%	7.75%	29.56%	21.66%	7.90%	0.15%
2024	29.97%	21.66%	8.31%	30.16%	21.66%	8.50%	0.19%
2025	29.97%	21.66%	8.31%	30.17%	21.66%	8.51%	0.20%
2026	29.94%	21.66%	8.28%	30.16%	21.66%	8.50%	0.22%
2027	29.93%	21.66%	8.27%	30.15%	21.66%	8.49%	0.22%
2028	29.92%	21.66%	8.26%	30.13%	21.66%	8.47%	0.21%



SECTION 4 – ECONOMIC ASSUMPTIONS

Economic assumptions include price inflation, general wage increase (the across-the-board portion of salary increases), payroll growth, the long-term investment return, interest crediting rate for member accounts, salary increase for individual members, and the cost-of-living adjustment assumptions. Unlike demographic assumptions, economic assumptions do not lend themselves to analysis based solely upon internal historical patterns, because both salary increases and investment return are influenced more by external forces which are difficult to accurately predict over the long term. The investment return and salary increase assumptions are generally selected on the basis of expectations in an inflation-free environment and then increased by the long-term expectation for price inflation.

Sources of data considered in the analysis and selection of the economic assumptions included:

- Historical observations of price and wage inflation statistics and investment returns.
- The 2020 and 2021 Social Security Trustees Reports.
- Future expectations of the Nebraska Investment Council (NIC) and their consultant (Aon Consulting), along with the expectations of other investment consultants (Horizon Actuarial Survey).
- U. S. Department of the Treasury bond rates.
- Forecasts from various sources including the Congressional Budget Office, Federal Reserve Bank and the Survey of Professional Forecasters.
- Assumptions used by other large public retirement systems, based on the Public Fund Survey, published by the National Association of State Retirement Administrators.

Note that some of these sources were published after the COVID-19 pandemic impacted the world economy and some were issued prior to the pandemic. In evaluating the forecasts, we considered the timing on the published information and the potential impact COVID-19 might have had on the forward-looking measurements.

ACTUARIAL STANDARD OF PRACTICE NUMBER 27

Actuarial Standards of Practice are issued by the Actuarial Standards Board to provide guidance to actuaries with respect to certain aspects of performing actuarial work. Actuarial Standard of Practice (ASOP) No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*, provides actuaries with guidance regarding the selection of economic assumptions for measuring pension obligations. Because no one knows what the future holds, an actuary must use professional judgment to estimate possible future economic outcomes, based on a mixture of past experience, future expectations, and professional judgment. Our analysis of the expected rate of return, as well as all other economic assumptions, was performed following the guidance in ASOP 27.

Due to the application of ASOP 27, it may be informative for others to be aware of the basic content of ASOP 27. The standard applies to the selection of economic assumptions to measure obligations under any defined benefit pension plan that is not a social insurance program (e.g., Social Security).

With respect to relevant data, the standard recommends the actuary review appropriate recent and long-term historical economic data but advises the actuary not to give undue weight to recent experience. Furthermore, it advises the actuary to consider that some historical economic data may not be appropriate for use in developing assumptions for future periods due to changes in the underlying environment. In addition, with respect to any particular valuation, each economic assumption should be consistent with all other economic assumptions over the measurement period.



SECTION 4 – ECONOMIC ASSUMPTIONS

ASOP 27 recognizes that economic data and analyses are available from a variety of sources, including representatives of the plan sponsor, investment advisors, economists, and other professionals. The actuary is permitted to incorporate the views of experts, but the selection or advice must reflect the actuary's professional judgment.

Recognizing that there is no correct answer, the standard calls for the actuary to select a "reasonable" economic assumption. For this purpose, an assumption is deemed reasonable if it has the following characteristics:

- a. it is appropriate for the purpose of the measurement;
- b. it reflects the actuary's professional judgment;
- c. it takes into account historical and current economic data that is relevant as of the measurement date;
- d. it reflects the actuary's estimate of future experience, the actuary's observation of the estimates inherent in market data, or a combination thereof; and
- e. it has no significant bias (i.e., it is neither significantly optimistic nor pessimistic), except when provisions for adverse deviation or plan provisions that are difficult to measure are included.

The standard goes on to discuss a "range of reasonable assumptions" which in part states "the actuary should also recognize that different actuaries will apply different professional judgment and may choose different reasonable assumptions. As a result, a range of reasonable assumptions may develop both for an individual actuary and across actuarial practice."

The remaining section of this report will address the relevant types of economic assumptions used in the actuarial valuation to determine the obligations of the Nebraska retirement systems. In our opinion, the economic assumptions proposed in this report have been developed in accordance with ASOP No. 27.

The recent experience, and still developing impact, of COVID-19 is likely to influence both demographic experience and economic forecasts, at least in the short term. We will continue to monitor the developments related to COVID-19 and their impact on pension plans over the next year or two and keep the Board advised of any changes we believe should be made.



SECTION 4 – ECONOMIC ASSUMPTIONS

The following table summarizes the current and proposed economic assumptions:

	Current Assumptions	Proposed Assumptions
Price Inflation	2.75%	2.35%
Real Rate of Return	4.75%	4.65%
Investment Return	7.50%	7.00%
Productivity	0.50%	0.50%
General Wage Growth	3.25%	2.85%
Payroll Growth	3.25%	2.85%
Cost-of-Living Adjustment*	1.50%	1.50%
Interest Credit Rate on Contributions	2.75%	2.35%

* Assumption is 1.00% for members hired on or after July 1, 2013.

If a smoother cost pattern is desired, the Board of Trustees may want to consider a phase-in approach that implements the recommended change over the next four years.

PRICE INFLATION

Use in the Valuation: Price inflation is typically measured by the annual increase in the Consumer Price Index (CPI). This assumption underlies most of the other economic assumption, either directly or indirectly. The current assumption for price inflation, 2.75% per year, was reduced from 3.00% in the last experience study.

Future price inflation is used directly in developing the actuarial assumption for cost of living increases since they are based on the change in the Consumer Price Index (CPI). OSERS' plan provisions provide for an annual cost of living adjustment of the lesser of 1.5% or CPI-U for members hired prior to July 1, 2013. For members hired on or after July 1, 2013, the annual cost of living adjustment is capped at 1.0% rather than 1.5%. Inflation is used indirectly in the development of the assumptions for investment return, general wage increase, individual salary increases, payroll growth, and the interest crediting rate for employee contributions. Under ASOP 27, the price inflation assumption must be consistent among all economic assumptions.

Past Experience: Although economic activities, in general, and inflation in particular, do not lend themselves to prediction solely on the basis of historical analysis, historical patterns and long-term trends are factors to be considered in developing the inflation assumption. The Consumer Price Index, US City Average, All Urban Consumers, CPI-U, has been used as the basis for reviewing historical levels of price inflation. The following table provides historical annualized rates of the CPI-U over periods ending December 31, 2020.

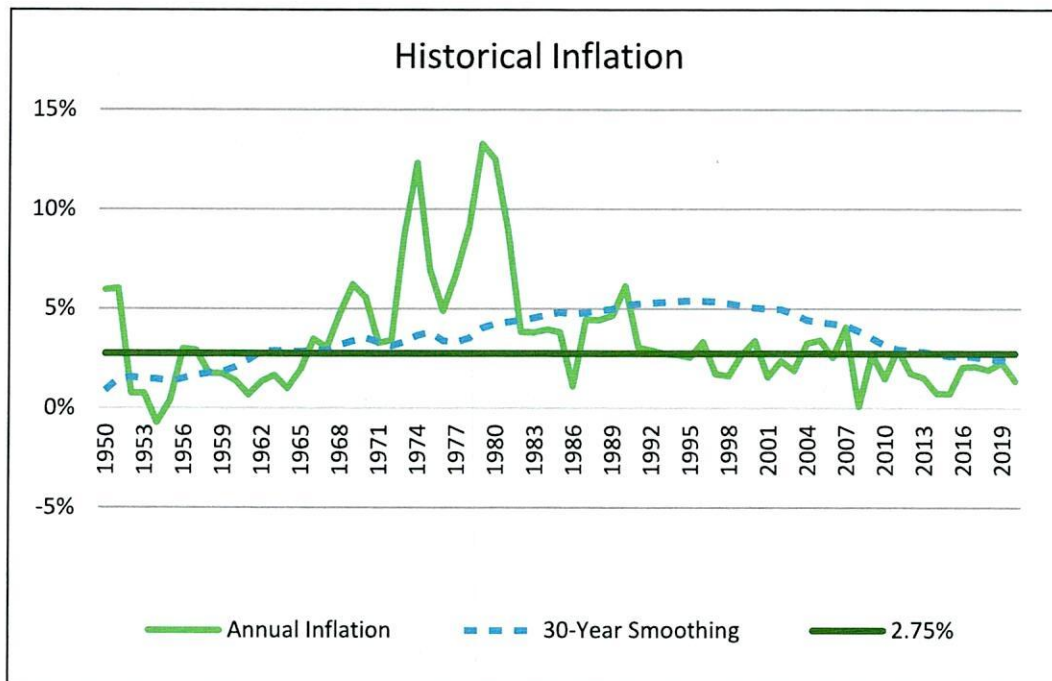


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Periods Ending December 2020	Annualized Rate of Inflation
Last 10 Years	1.74%
Last 15 Years	1.89%
Last 20 Years	2.04%
Last 25 Years	2.14%
Last 30 Years	2.25%
Since 1913 (first available year)	3.11%

Inflation has been low over most of these periods including about 2.1% over the last 25 years and 1.7% over the last 10 years. However, as we write this report, inflation has risen and is currently above 5.0% on a year-over-year basis during the middle of calendar year 2021. It is too soon to know whether this trend is strictly short-term or might be longer term.

The following graph illustrates the historical annual change in price inflation, measured as of December 31, as well as the thirty-year rolling average.



Historical averages are heavily dependent on the period selected. For example, the period of high inflation from 1973 to 1981 has a significant impact on the averages over periods which include these years. Over more recent periods (last 25 years), measured from December 31, 2020, the average annual rate of increase



SECTION 4 – ECONOMIC ASSUMPTIONS

in the CPI-U has been much lower than the current assumption of 2.75%. Inflation has been 2.25% for the last thirty years and under 2.00% for the last ten years.

Forecasts of Inflation

For our purposes, the assumed inflation rate, and all economic assumptions, should be a forward-looking expectation of future experience. There are several sources to consider that offer expectations for future price inflation although many of these focus on a shorter timeframe than is used for pension funding. These sources are discussed below.

Investment Consultants

Based on Aon’s second quarter 2021 capital market assumptions, the ten-year price inflation assumption is 2.2% and the 30-year assumption is 2.1%. Aon is expecting future inflation to remain around 2%, as targeted by the Federal Reserve.

Using the 2021 Horizon Survey, the range of inflation assumptions for the short term (10 years) based on data for 39 consultants included in the survey was 2.0% to 2.8% with a median of 2.0%. For the 24 consultants providing an inflation assumption for a longer period (20-30 years), the median assumption was 2.2% with a range of 1.8% to 2.9%. Note that the 25th to 75th percentile range for long term inflation was 2.0% to 2.3%. These inflation expectations are consistent with Aon’s inflation assumptions.

Bond Market Expectations

Additional information to consider in formulating this assumption is obtained from measuring the spread between the nominal yield on treasury securities (bonds) and the inflation indexed yield on TIPS of the same maturity. This is referred to as the “breakeven rate of inflation” and represents the bond market’s expectation of inflation over the period to maturity. As of December 31, 2020, the difference for 30-year bonds implied inflation of 2.02% for the next thirty years. Over the last few years, the bond market has been anticipating inflation of around 2.0% or less over 30 years, in line with the target inflation rate stated by the Federal Reserve. However, market prices for treasuries and TIPS can change rapidly to reflect recent macroeconomic events as we have seen in the 18 months since the COVID-19 pandemic has spread in the United States.

Congressional Budget Office

The report of the Congressional Budget Office, “*An Update To The Budget and Economic Outlook: 2021 to 2031*”, reflects CBO’s expectations of average annual price inflation of 2.3% for the CPI-U over the next ten years.

Survey of Professional Forecasters

The Philadelphia Federal Reserve Bank conducts a quarterly survey of the Society of Professional Forecasters. Their forecast for the third quarter of 2021 was for inflation over the next ten years to average 2.44%. Given the current economic conditions, the economic outlook for inflation has risen. The prior 2021 forecasts had 10-year inflation expectations between 2.2% and 2.3%.



SECTION 4 – ECONOMIC ASSUMPTIONS

Social Security Administration

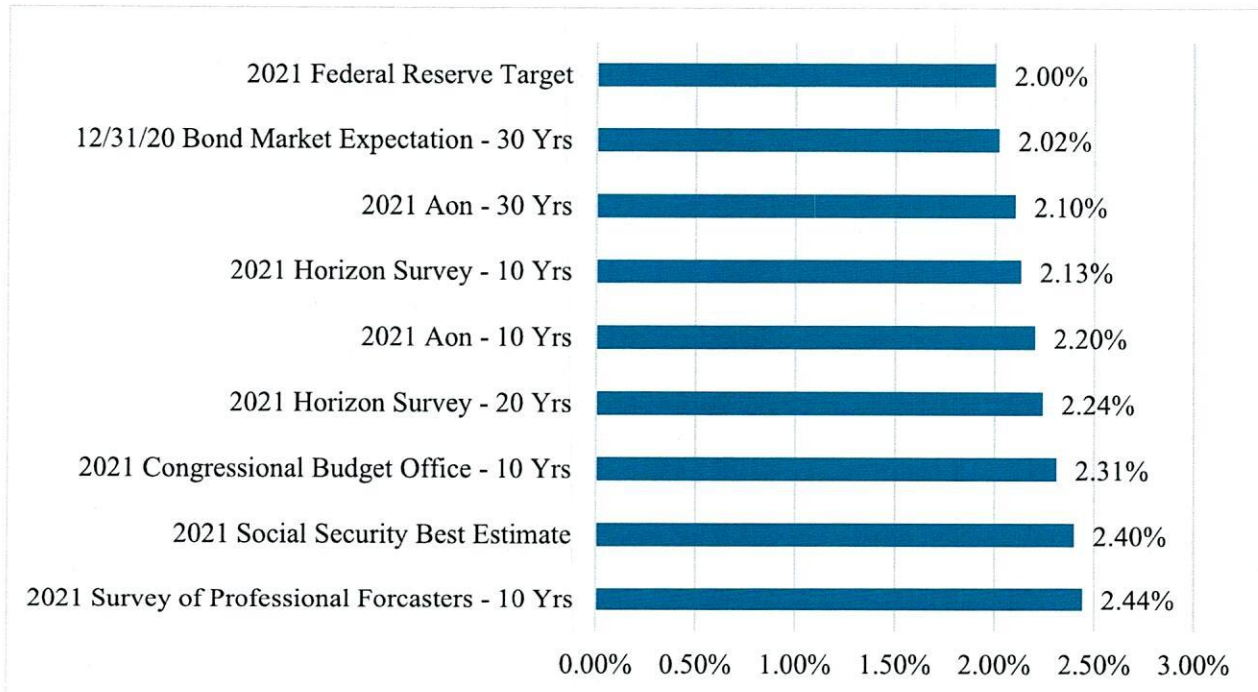
Although many economists forecast lower inflation than the assumption used by most retirement plans, they are generally looking at a shorter time horizon than is appropriate for a pension valuation. To consider a longer, similar time frame, we looked at the expected increase in the CPI by the Office of the Chief Actuary for the Social Security Administration. In the most recent report (August 2021), the projected ultimate average annual increase in the CPI over the next 75 years was estimated to be 2.40%, under the intermediate (best estimate) cost assumption. The range of inflation assumptions used in the Social Security 75-year modeling, which includes low, intermediate and high cost scenarios was 1.80% to 3.00%.

Peer System Comparison

While we do not recommend the selection of any assumption based on what other systems use, it does provide another set of relevant information to consider. The National Association of State Retirement Administrators (NASRA) Public Fund Survey collects information on the assumptions used by over 120 large retirement systems. The average inflation assumption in the most recent Public Fund Survey was 2.65% which compares to 3.75% back in the 2001 Survey. Note, however, that the most common assumption is 2.50%. It should be noted that there is a lag in this data as there is with any survey. Data for Systems that have recently conducted an experience study and made a change to this assumption is not captured in the survey data. Based on our knowledge, we believe the current average inflation assumption is 2.50% or lower. Note that we are not using this information directly to set the inflation assumption for OSERS. The real value of this data is it clearly illustrates the marked decline in the inflation assumption over the past two decades which is worth noting.

Comparison of Inflation Expectations

The following graph provides a comparison of the current levels of expected inflation.





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The lower inflation over the last 10, 20 and even 30 years, coupled with the low future inflation anticipated by the bond markets, investment consultants, and professional economic forecasters suggests the current inflation assumption of 2.75% is on the high end of the reasonable range. We are recommending the **inflation assumption be lowered to a rate of 2.35%. This change moves the assumption closer to recent inflation levels as well as closer to the levels expected by most economic forecasts.**

Consumer Price Inflation	
Current Assumption	2.75%
Recommended Assumption	2.35%

INVESTMENT RETURN

Use in the Valuation: The investment return assumption reflects the anticipated returns on the current and future assets. It is one of the primary determinants in the allocation of the expected cost of the System’s benefits, providing a discount of the estimated future benefit payments to reflect the time value of money. Generally, the investment return assumption should be set with consideration of the asset allocation policy, expected long-term real rates of return on the specific asset classes, the underlying price inflation rate, and investment expenses.

The current investment return assumption is 7.50%. It should be noted that these assumptions are currently net of all investment-related expenses, as well as administrative expenses. This assumption is for the nominal rate of return and is composed of two components. The first component is price inflation (as previously discussed, this assumption is currently 2.75%). Any excess return over price inflation is referred to as the real rate of return. The current assumption for the real rate of return, which is heavily driven by the system’s asset allocation and capital market assumptions, is 4.75%.

Long Term Perspective

Because the economy is constantly changing, assumptions about what may occur in the near term are volatile. Asset managers and investment consultants usually focus on this near-term horizon in order to make prudent choices regarding how to invest the trust funds. For actuarial calculations, we typically consider very long periods of time. For example, a newly hired teacher who is 25 years old may work for 35 years, to age 60, and live another 30 years, to age 90 (or longer). The retirement system would receive contributions for the first 35 years and then pay out benefits for the next 30 years. During the entire 65-year period, the system is investing assets related to the member. For such a typical career employee, more than one-half of the investment income earned on assets accumulated to pay benefits is received after the employee retires. In addition, in an open, ongoing system like OSERS, the stream of benefit payments is continually increasing as new hires replace current members who leave covered employment due to death, termination of employment, and retirement. This difference in the time horizon used by actuaries and investment consultants is frequently a source of debate and confusion when setting economic assumptions.

The long term asset allocation for the OSERS portfolio is the same as the Nebraska School Employees Retirement System and the investment responsibility for both plans rests with the NIC. **Therefore, we believe it is appropriate to rely on the analysis that was performed in the fall of 2020 for the Nebraska**



SECTION 4 – ECONOMIC ASSUMPTIONS

Public Employees’ Retirement System (NPERS) and set the investment return assumption for OSERS equal to that used for NPERS, 7.00%.

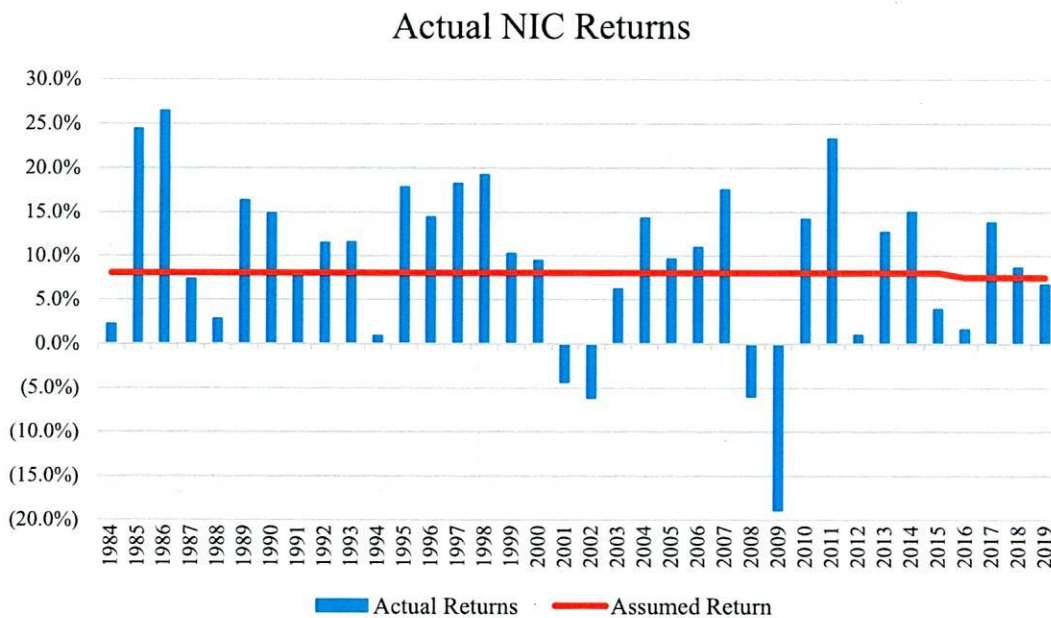
For completeness in this report, the analysis from the NPERS 2020 Experience Study report is included below.

Excerpt from NPERS 2020 Experience Study Report

NPERS Historical Returns

One of the inherent problems with analyzing historical data is that the results can look significantly different depending on the timeframe used, especially if the year-to-year results vary widely. In addition, the asset allocation can also impact the investment returns so comparing results over long periods when different asset allocations were in place may not be meaningful.

The following graph shows the actual fiscal year (June 30) returns for the NPERS portfolio (School Retirement System) for the last 36 years ending June 30, 2019. Despite significant volatility in the results from year to year, the actual geometric (compound) return was 9.9% for the last 10 years, 6.2% for the last 20 years, and 7.4% for the last 30 years.

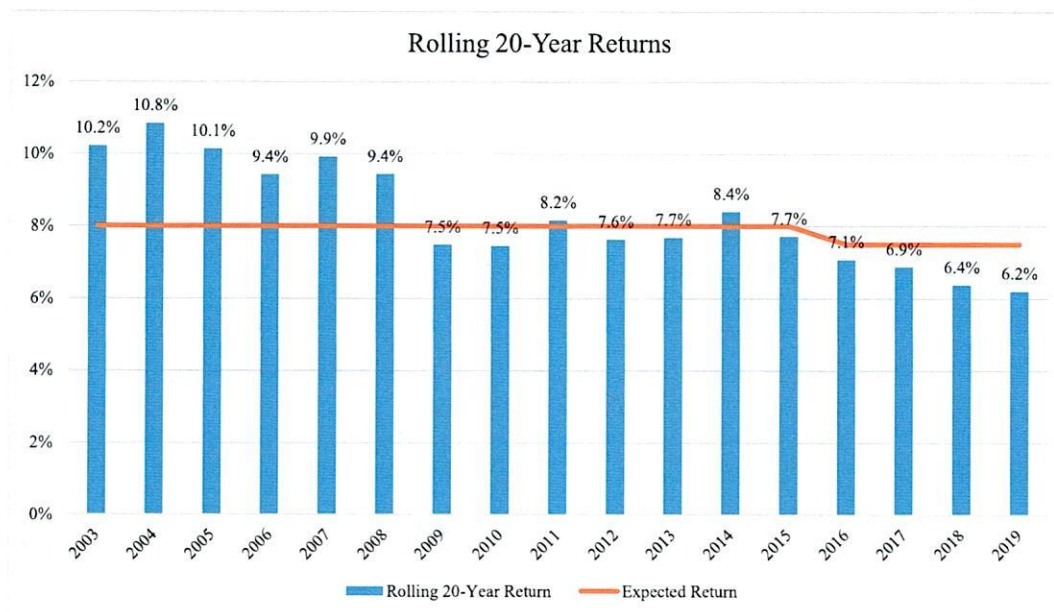


ANNUALIZED RETURNS through 6/30/19			
5-Year Return:	6.8%	20-Year Return:	6.2%
10-Year Return:	9.9%	30-Year Return:	8.3%

Another way to analyze historical data is to consider the compound return on the NIC’s portfolio over longer periods like 20 years. As the graph below illustrates, there is a definite downward trend.



SECTION 4 – ECONOMIC ASSUMPTIONS



In addition, current expected long-term returns are much lower than those actually earned in the past, especially for the fixed income portion of the portfolio, reflecting a view of the capital markets that differs markedly from what has been experienced in the past.

Forward Looking Analysis

Because the economy is constantly changing, assumptions about what may occur in the near term are volatile. Asset managers and investment consultants usually focus on this near-term horizon so as to make prudent choices regarding how to invest the trust funds, i.e., asset allocation. For actuarial calculations, we typically consider very long periods of time as some current employees will be receiving benefit payments more than 65 years from now.

We believe the most appropriate analysis to consider in setting the investment return assumption is to model the future expected returns, given the System's target asset allocation and forward-looking capital market assumptions. However, we are trained as actuaries and not as investment professionals. ASOP 27 provides that the actuary may rely on outside experts in setting economic assumptions. NPERS' assets are held and invested by the Nebraska Investment Council (NIC) who relies on a variety of internal experts and external consultants to assist with investing the funds. As part of their duties, the NIC has its investment consultant, Aon, periodically perform asset-liability studies, along with comprehensive reviews of the expected return of the various asset classes in which the NPERS portfolio is invested. We believe it is appropriate for us to consider the results of Aon's work as one factor in assessing expected future returns.

We also recognize that there can be differences of opinion among investment professionals regarding future return expectations. Horizon Actuarial Services prepares an annual study in which they survey various investment advisors (39 were included in the 2020 study) and provide ranges of results as well as averages. This information provides an additional perspective on what a broad group of investment experts anticipate for future investment returns. We perform our analysis of the expected return using the median return for each asset class in the Horizon Survey as another factor to consider in setting the investment return assumption.

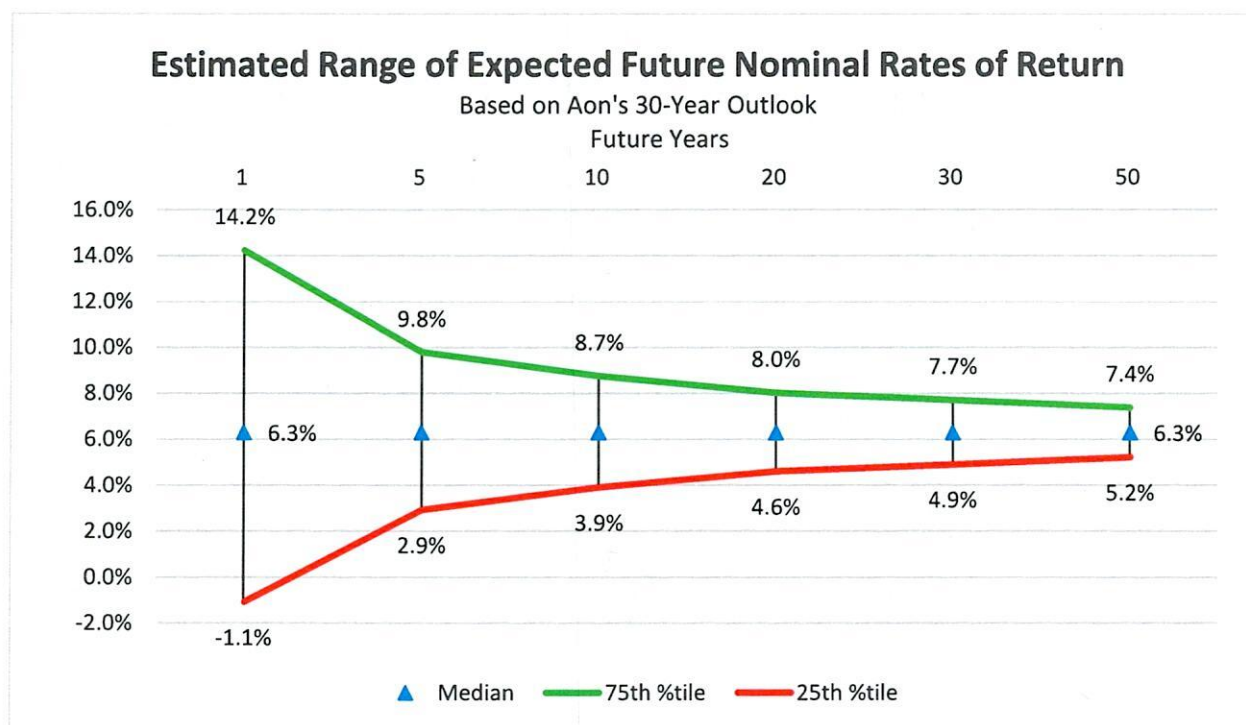


SECTION 4 – ECONOMIC ASSUMPTIONS

Our forward-looking analysis is based on the current target asset allocation for the system, as shown in the following table:

Asset Class	Long Term Policy Allocation
US Equities	27.0%
Non-US Equities	11.5%
Global Equities	19.0%
Fixed Income	30.0%
Private Equity	5.0%
Real Estate	7.5%
Total Fund	100.0%

The results in the following graph show the expected range of the compound average nominal returns over time, using Aon's 30-year forecast of capital market assumptions. **It is important to note that Aon's assumptions are as of June 30, 2020 and, therefore, reflect the impact of the pandemic.** As the graph indicates, the median nominal return is 6.3%. While the range of potential results is very high over shorter periods, the range narrows considerably over time. Over a 30-year time span, the results indicate there is a 25% chance that returns will be below 5.2% and a 25% chance they will be above 7.4%. In other words, there is a 50% chance the compound return will be between 5.2% and 7.4%. This also means there is less than a 25% chance of meeting the current assumed rate of return of 7.5%, based on Aon's assumptions.



Although it is interesting to consider the probability of reaching the nominal expected return, the investment return assumption is developed using the “building block” approach which considers both the price inflation and real return assumption individually. The current nominal assumed rate of return is composed of a price inflation assumption of 2.75% and a real rate of return of 4.75%.



SECTION 4 – ECONOMIC ASSUMPTIONS

Different firms use different approaches in setting capital market assumptions so we believe it is helpful to consider the assumptions and outlook of investment professionals other than the NIC’s consultant. Using the 2020 Horizon Survey, we considered the range of capital market assumptions for the group of 39 investment firms who participated in the survey, which includes most major investment consultants. This provides another point of view from firms familiar with public plans. We believe there is value in considering both sets of capital market assumptions in our analysis.

Frequently investment consultants develop their expected return assumptions based on a timeframe of 5 to 10 years. Therefore, those assumptions may not necessarily be appropriate for the longer timeframe used by actuaries (30 to 50 years). Since both Aon and the Horizon Survey have developed longer term market return assumptions (30 and 20 years respectively), the expected returns from their assumptions are reasonably in line with the timeframe used by actuaries. Due to the timing of Aon’s capital market assumptions provided to the NIC in 2020, the set of assumptions as of June 30, 2020 are not really comparable to the Horizon Survey assumptions because of the impact of the pandemic and actions taken by the Federal Reserve Bank. Therefore, both the 3/31/2020 and the 6/30/2020 assumptions are shown below for Aon. The following table summarizes our findings of the expected real returns:

<i>Source</i>	<i>Nominal Return</i>	<i>Consultant’s Inflation Assumption</i>	<i>Real Rate of Return</i>
<i>Aon (10 years) 6/30/2020</i>	<i>5.7%</i>	<i>2.0%</i>	<i>3.7%</i>
<i>Aon (10 years) 3/31/2020</i>	<i>6.3%</i>	<i>2.1%</i>	<i>4.2%</i>
<i>Horizon Survey (10 years) Q1 2020</i>	<i>6.07%</i>	<i>1.98%</i>	<i>4.09%</i>
<i>Horizon Survey (20 years) Q1 2020</i>	<i>6.97%</i>	<i>2.17%</i>	<i>4.80%</i>
<i>Aon (30 years) 3/31/2020</i>	<i>6.44%</i>	<i>2.10%</i>	<i>4.34%</i>
<i>Aon (30 years) 6/30/2020</i>	<i>6.3%</i>	<i>2.1%</i>	<i>4.2%</i>

Given the uncertainty of capital market assumptions over a twenty to thirty-year period, the difference between Aon’s expected real return and the real return using the median assumption in the Horizon Survey is not material although Aon’s expected real returns are somewhat lower.

In addition, most investment consultants update their capital market assumption at least annually, and most commonly each quarter, while an experience study is performed only every four years. Consequently, we are also hesitant to base our assumption solely on the most recent quarterly estimate from the investment consultants because the goal is to have consistency and stability in this assumption as much as possible.

Peer System Comparison

While we do not recommend the selection of an investment return assumption be based on the assumptions used by other systems, it does provide another set of relevant information to consider as long as we recognize that asset allocation and board risk perspective varies from system to system. The following graph shows the change in the distribution of the investment return assumption from fiscal year 2001 through 2021 for the 125+ large public retirement systems included in the National Association of State

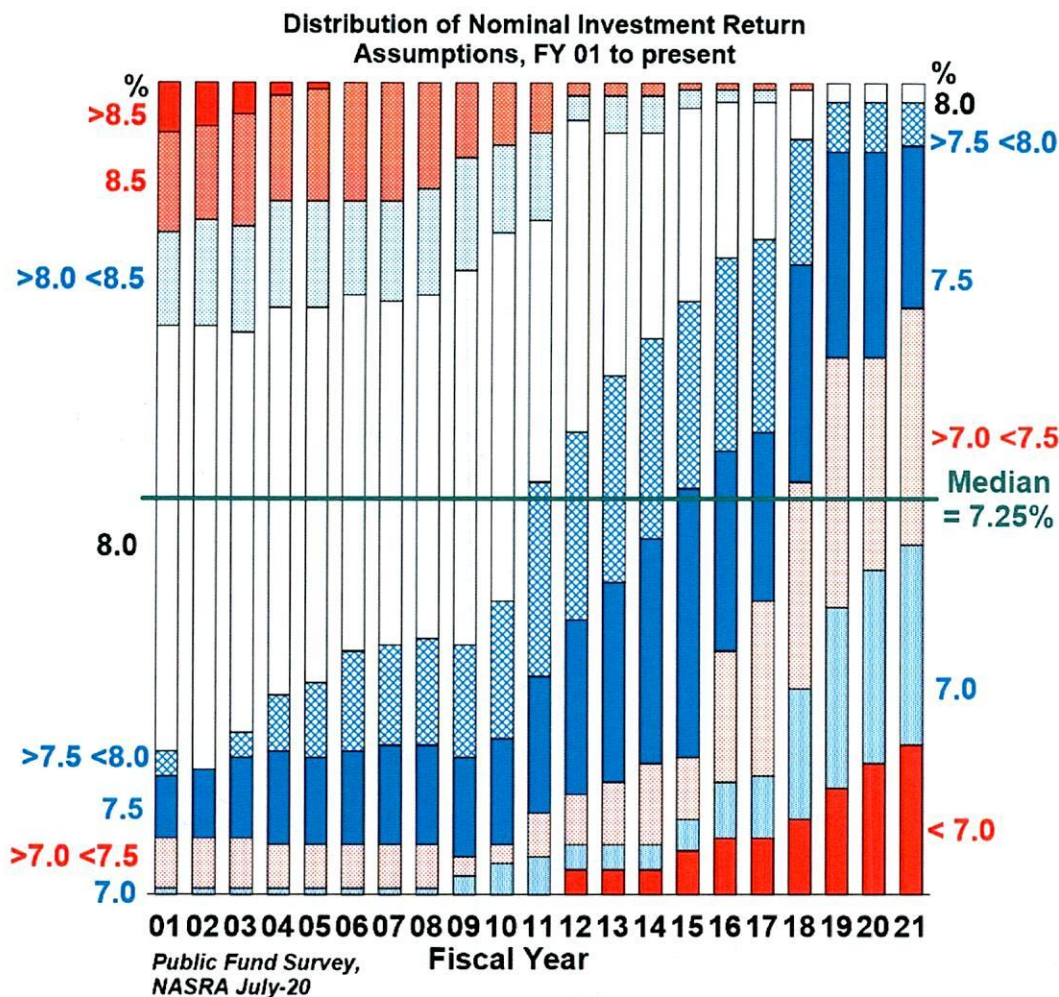


SECTION 4 – ECONOMIC ASSUMPTIONS

Retirement Administrators (NASRA) Public Fund Survey. The assumed rate of return is heavily influenced by the asset allocation of the system, so comparisons must be made cautiously.

The trends observed in the data are far more valuable than the absolute return data. As the graph below indicates, the investment return assumptions used by public plans have decreased materially over the last decade.

Change in distribution of investment return assumptions, FY 01 to present

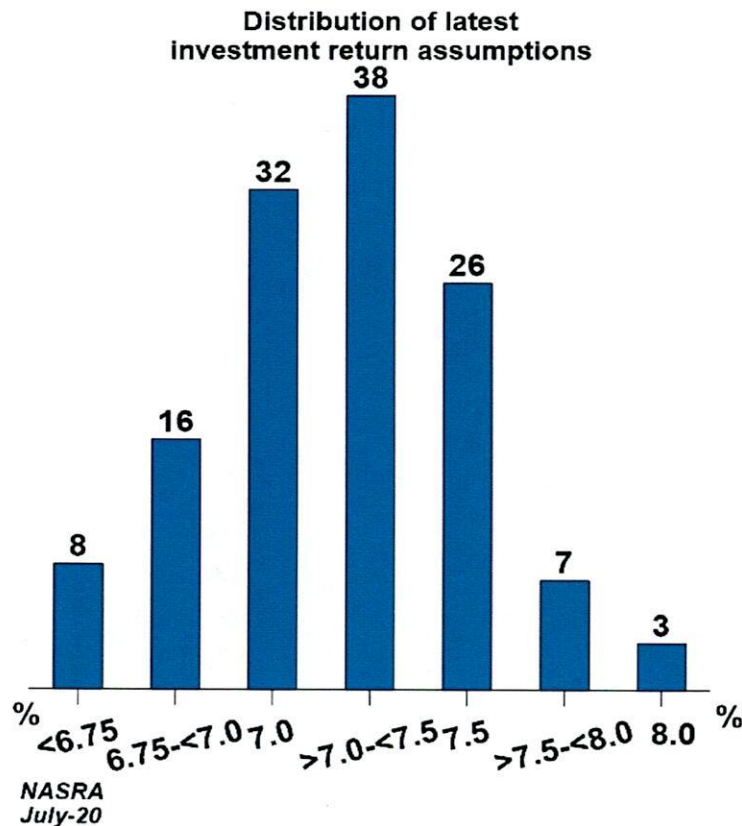


It is worth noting that the median investment return assumption when the last experience study was performed in 2016 was solidly 7.50% but dropped to 7.25% in 2018. The current distribution in July 2020 shows that while the median assumption remains 7.25%, it is moving closer to 7.00%. While 8.00% used to be the most common and the median assumption in the first half of this period (it was also NPERS' assumption), there are only 3 systems out of 130 currently using an 8.0% assumption.



SECTION 4 – ECONOMIC ASSUMPTIONS

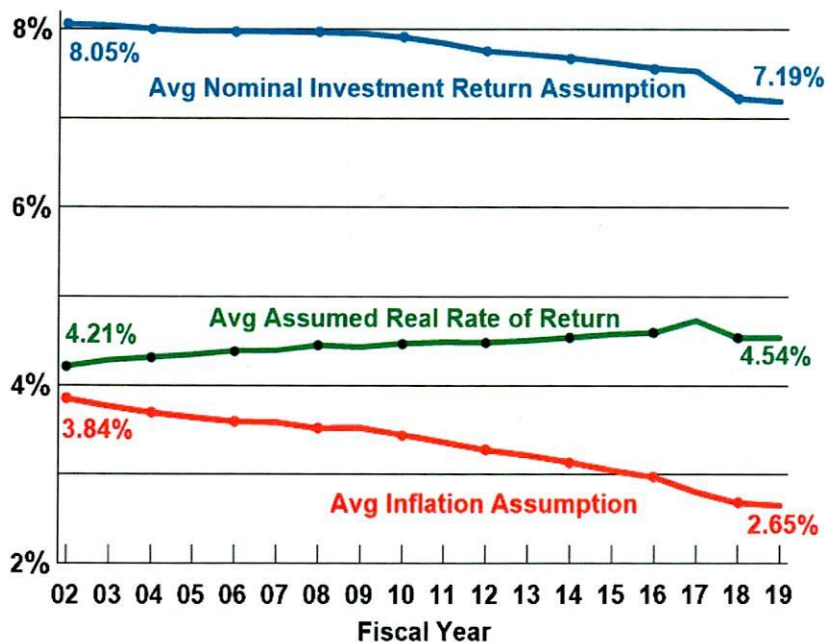
The following graph is based on the same data as the prior graph, but shows only the distribution of the current investment return assumption used by the systems in the Public Fund Survey. Of the total, only 36 of 130, or 28%, use an assumption of 7.5% or higher.



The last two graphs compare the distribution of nominal returns. However, as discussed earlier, the investment return assumption is composed of a price inflation assumption and a real rate of return assumption. The following graph compares the average of each component of the investment return over time. As can be observed, while the price inflation assumption has declined by 1.19% over this period, but the real rate of return has actually increased by 0.33%. We might also note that the average real rate of return is 4.54% compared to NPERS' current real return of 4.75% although asset allocations vary from one system to another so the value of direct comparisons is somewhat limited.



SECTION 4 – ECONOMIC ASSUMPTIONS



Recommendation for Investment Return Assumption:

By actuarial standards we are required to maintain a long-term perspective in setting all assumptions, including the investment return assumption. Therefore, we believe we must consider both the short-term and long-term expectations in setting this assumption. After reviewing the available information, we recommend the investment return assumption be lowered from 7.50% to 7.00%, based on the 2.35% inflation assumption and a real rate of return of 4.65%. Furthermore, we recommend the administrative expense for each Plan be included as a separate component of the actuarial contribution rate.

<i>Investment Return</i>	
<i>Current Assumption</i>	<i>7.50%</i>
<i>Recommended Assumption</i>	<i>7.00%</i>

End of Excerpt from NPERS Experience Study Report

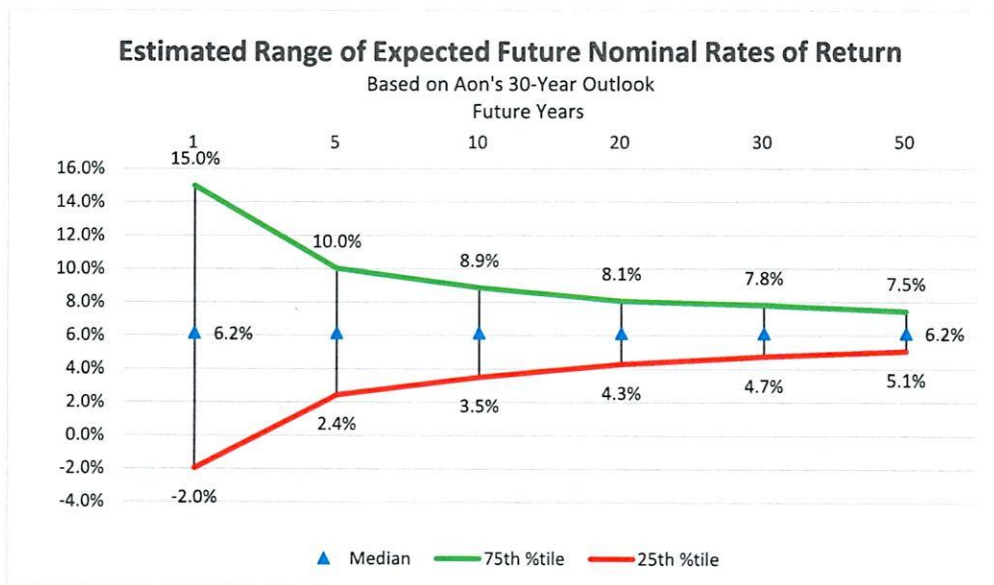
UPDATED INFORMATION ON INVESTMENT RETURN ASSUMPTIONS (2021 DATA)

The results in the following graph show the expected range of the compound average nominal returns over time, using Aon’s 30-year forecast of capital market assumptions (June 30, 2021 assumptions). As the graph indicates, the median nominal return is down slightly from 2020 to 6.2%. While the range of potential results is very high over shorter periods, the range narrows considerably over time. Over a 30-year time span, the results indicate there is a 25% chance that returns will be below 4.7% and a 25% chance they will be above 7.8%. In other words, there is a 50% chance the compound return will be between 4.7% and



SECTION 4 – ECONOMIC ASSUMPTIONS

7.8%. This also means there is slightly more than a 25% chance of meeting the current assumed rate of return of 7.5%, based on Aon’s assumptions.



Expected returns on both 2020 and 2021 capital market assumptions for both Aon and the Horizon Survey are shown in the following table:

Source	Nominal Return	Consultant's Inflation Assumption	Real Rate of Return
6/30/2020 Aon (10 years)	5.7%	2.0%	3.7%
6/30/2021 Aon (10 years)	5.7%	2.2%	3.5%
2020 Horizon Survey (10 years)	6.07%	1.98%	4.09%
2021 Horizon Survey (10 years)	5.61%	2.13%	3.48%
2020 Horizon Survey (20 years)	6.97%	2.17%	4.80%
2021 Horizon Survey (20 years)	6.55%	2.24%	4.31%
6/30/2020 Aon (30 years)	6.3%	2.1%	4.2%
6/30/2021 Aon (30 years)	6.2%	2.1%	4.1%

The long term out look for the distribution of investment returns has not changed significantly from the analysis performed for NPERS in late 2020. The 2021 Horizon Survey reflected a more significant decrease in the expected return likely because many of the capital market assumptions in the 2020 Survey were



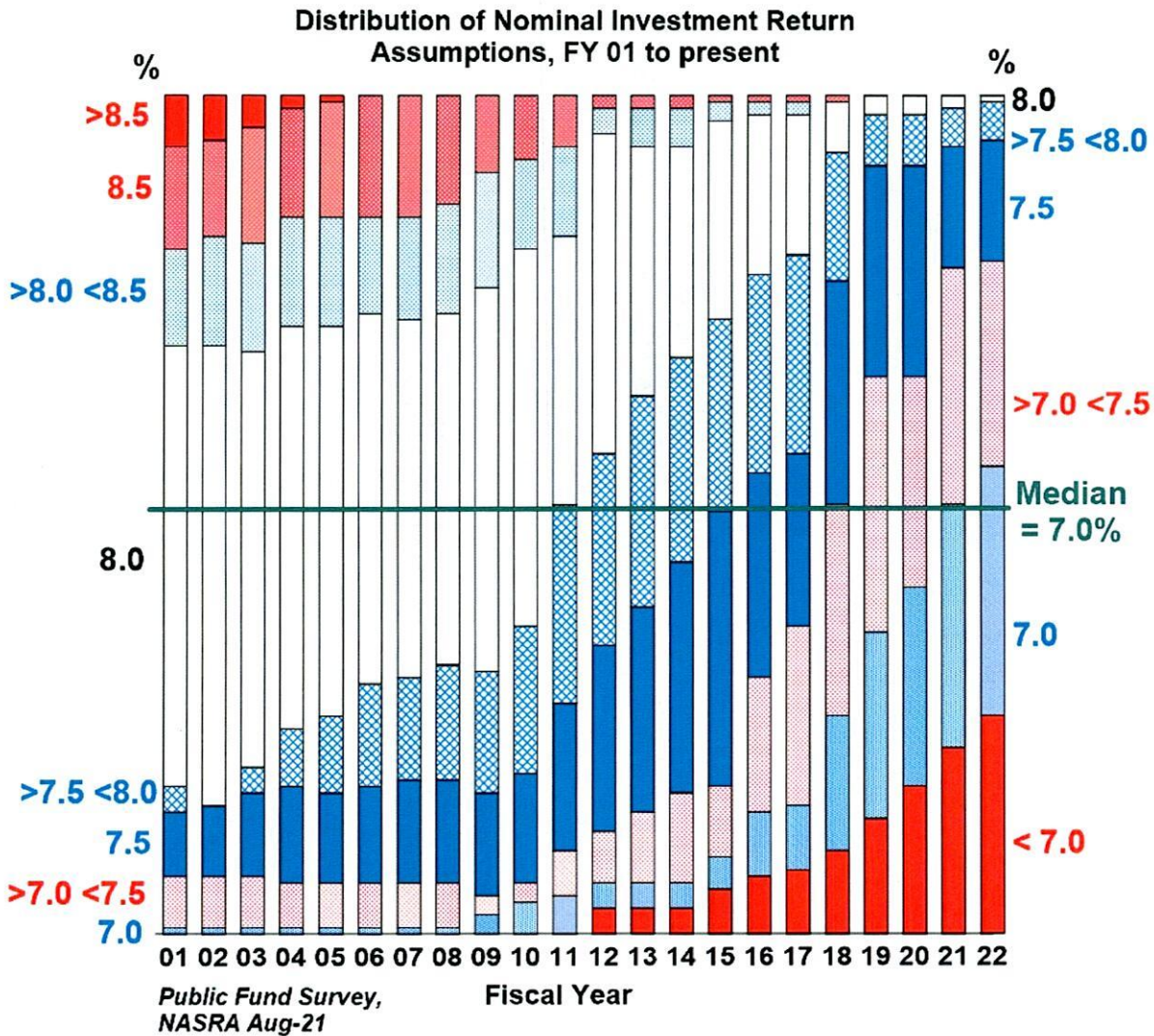
SECTION 4 – ECONOMIC ASSUMPTIONS

gathered prior to the Covid-19 pandemic. Based on the 2021 data in the Horizon Survey, the Aon expected return is consistent with the median assumptions in the Horizon Survey.

While the information from the capital market assumptions developed by investment consultants is an important piece of our analysis, we recognize that they generally update their capital market assumption at least annually, and most commonly each quarter, while an experience study is performed only every four years. Consequently, we are hesitant to base our assumption solely on the most recent quarterly estimate from the investment consultants because the goal is to have consistency and stability in this assumption as much as possible.

UPDATED NASRA INFORMATION

The most recent data from the NASRA Public Fund Survey (August 2021) is shown in the following graphs. Note the median investment return assumption is now 7.00% compared to 7.25% in 2020.

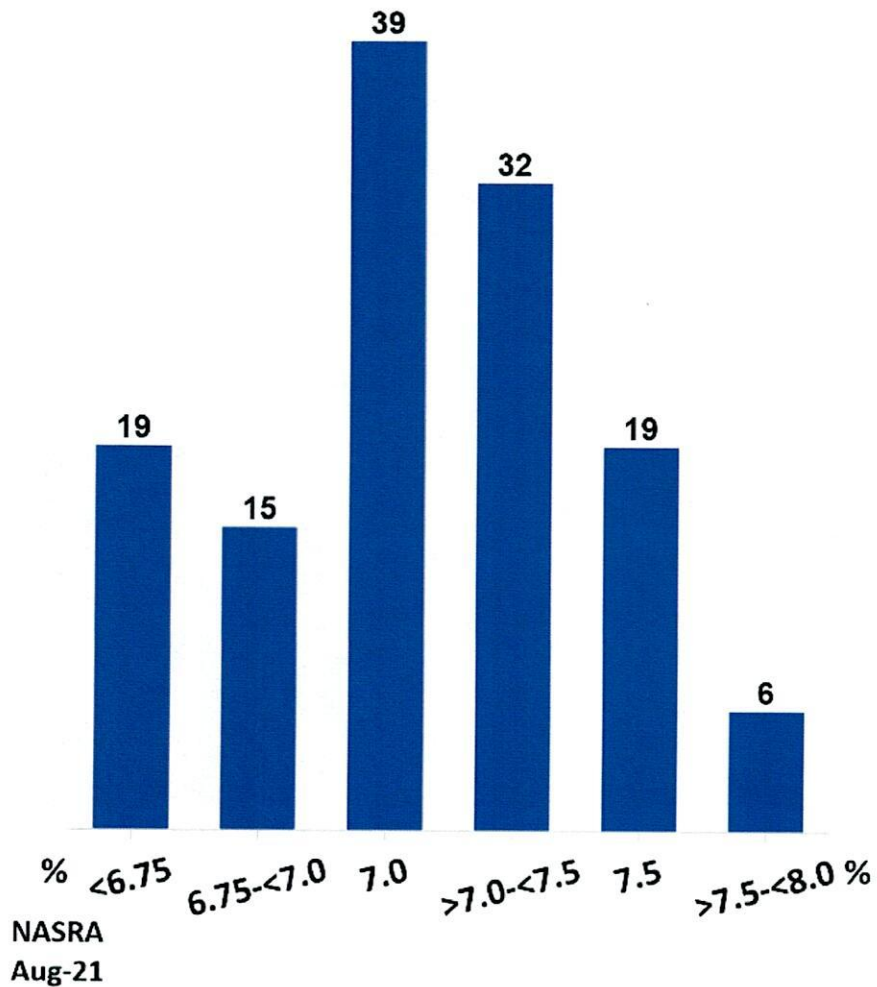




SECTION 4 – ECONOMIC ASSUMPTIONS

The following graph shows the number of systems using investment return assumptions in each rate group. As with most surveys, the data is continually changing and we see more systems lowering their rate of return.

Distribution of Nominal Investment Return Assumptions





SECTION 4 – ECONOMIC ASSUMPTIONS

INVESTMENT AND ADMINISTRATIVE EXPENSES

The OSERS trust fund pays the administrative expenses of the system in addition to member benefits so an assumption must be made about such expenses. Investment consulting firms, including Aon, typically issue reports that describe their capital market assumptions, which are net of investment-related expenses. Therefore, no direct adjustment to the expected return is necessary to account for investment-related expenses. Active management strategies are used by the NIC and many other retirement systems with the expectation that they will result in investment returns sufficiently above passive index funds to at least cover the increased investment fees. We have assumed that active management strategies would result in the same returns, net of investment expenses, as passive management strategies.

There is some variance of practice on how administrative expenses are handled in the valuation process. The two most common are:

- Explicit: a separate component of the actuarial contribution rate.
- Implicit: an offset or reduction to the investment return assumption.

For OSERS, the past practice has been to set the investment return assumption as the net return after both investment and administrative expenses. Using this methodology, the investment return assumption is theoretically lowered to reflect the impact of paying administrative expenses from investment income. Using this methodology, the adjustment to the investment return assumption would be about 7 basis points. The investment return assumption is typically rounded, so there has not necessarily been an explicit reduction to the investment return assumption for the payment of administrative expenses.

The current GASB accounting standards require administrative expenses to be separately accounted for in disclosure and, more importantly, in the projection of plan assets in future years to determine the discount rate used to calculate the Net Pension Liability. Therefore, technically, the expected long-term rate of return for GASB purposes is net only of investment expenses – not both investment and administrative expenses. If this guidance was followed, as written, the discount rate used to calculate the GASB pension liability for OSERS should be slightly higher than the current 7.50% assumed rate of return. This could lead to some confusion or misunderstanding as to why a rate other than the assumed rate of return in the valuation is being used so the 7.50% assumption has been used. Essentially, the impact of administrative expenses is reflected twice in the projection of plan assets into the future as administrative expenses are directly reflected and the 7.50% long term return assumption is net of administrative expenses. The use of 7.50% for the GASB long-term rate of return has not resulted in a depletion date so we do not believe this approach creates a problem although it could be argued that it does not technically comply with GASB requirements.

To be consistent with the GASB standards and avoid related complexities, as well as enhance the transparency of the System's funding we are recommending a change in the way administrative expenses are reflected in the funding valuation. We recommend an explicit administrative expense charge be added to the normal cost rate as part of the actuarial required contribution rate. Although this change is not required for funding purposes, it is more explicit and direct than the current approach and provides more transparency. In addition, it permits the discount rate in the GASB accounting valuation to be developed on a consistent basis with the funding valuation (assuming assets are not projected to be depleted in the GASB projection of fiduciary net position) and removes any questions about the approach used for GASB reporting. NPERS recently moved to an explicit approach for administrative expenses as well. With NPERS assuming responsibility for the administration of OSERS in a few years, it might make sense to take a consistent approach.



SECTION 4 – ECONOMIC ASSUMPTIONS

The recommended approach includes a separate expense assumption, determined as a percent of aggregate covered payroll, to be included in the actuarial contribution rate each year. This amount is set in the experience study and remains level until it is reevaluated in the next study. If this approach had been used in the last actuarial valuation, the actuarial contribution rate would have increased as follows:

Administrative Expenses	Covered Payroll	Contribution Rate
881,000	373,700,000	0.24%

Our recommendation is to include a contribution rate of 0.24% of covered payroll in the actuarial contribution rate until the next experience study. Note that actual administrative expenses are directly paid by the trust fund each year so the recommended approach closely models the actual practice.

COST OF LIVING ADJUSTMENTS

OSERS’ plan design includes an annual COLA based on actual inflation up to 1.5% (members hired prior to July 1, 2013) or 1.0% (members hired on or after July 1, 2013). Based on the proposed inflation assumption of 2.35% and the expected variability, the assumption for members hired before July 1, 2013 is 1.5% and the assumption for those hired after July 1, 2013 is 1.0%.

GENERAL WAGE INCREASE (GENERAL WAGE INFLATION)

Background: The general wage increase assumption represents the real wage growth over time in the general economy. Another way to think about this assumption is it anticipates how much the pay scales themselves will change from year to year. It does not necessarily indicate how much the pay increases received by individual members will be (the individual salary increase assumption) or how the total covered payroll may change (the payroll growth assumption).

General wage inflation can be thought of as the “across the board” rate of salary increases and is composed of the price inflation assumption combined with an assumption for the real rate of wage increase. In constructing the individual salary increase assumption, the general wage inflation assumption is further combined with an assumption for service-based salary increases (called a merit scale). The individual salary increase assumption is discussed later in this report. Given the current price inflation assumption of 2.75%, the current wage growth assumption of 3.25% implies an assumed real rate of wage increase or real wage growth assumption of 0.50%.

Historical Perspective: Historically, general wage inflation has nearly always exceeded price inflation, at least over longer periods of time. Since 1951, when the National Average Wage Index from the Social Security System began, wage inflation in the general economy has been around 1.0% higher than price inflation. In the last ten years, general wage inflation has been about 0.60% higher than price inflation. Because the National Average Wage is based on all wage earners in the country, it can be influenced by the mix of jobs (full-time vs. part-time, manufacturing vs. service, etc.) as well as by changes in some segments of the workforce that are not seen in all segments (e.g. regional changes or growth in computer technology). Further, if compensation is shifted between wages and benefits, the wage index would not accurately reflect increases in total compensation. OSERS membership is composed exclusively of school employees working in the Omaha metro area, whose wages and benefits are linked as a result of state and local tax revenues, funding allocations, and governing policies. Because the competition for workers can, in the long term, extend across industries and geography, the broad national earnings growth will have some impact on OSERS members. In the shorter term, however, the wage growth of OSERS and the nation may be less directly correlated.



SECTION 4 – ECONOMIC ASSUMPTIONS

Forecasts of Future Wages: The wage index used for the historical analysis is projected forward by the Office of the Chief Actuary of the Social Security Administration in their 75-year projections. In the August, 2021 report the annual increase in the National Average Wage Index under the intermediate cost assumption (best estimate) was 3.55%, 1.15% higher than the Social Security intermediate inflation assumption of 2.4% per year. The range of the assumed real wage inflation in the 2020 Trustees report was 0.53% to 1.77% per year.

Compensation data gathered and compiled by the Bureau of Labor and Statistics also indicates that public employment is receiving larger increases in compensation than wages alone. In other words, benefits are becoming a larger portion of total compensation. This trend supports the use of a lower general wage increase assumption for those in public employment compared to private employment.

Based on data available and our professional judgment, **we recommend that the long-term assumed real wage increase assumption remain unchanged at 0.50% per year. When coupled with the price inflation assumption of 2.35%, the resulting recommendation for the general wage increase assumption is 2.85%.**

PAYROLL GROWTH

The payment on the unfunded actuarial accrued liability is determined as a level percent of payroll. Therefore, an assumption regarding future annual increases in covered payroll is required. The wage inflation assumption is most commonly used for this purpose. The current assumption of 3.25% is the same as the general wage increase/wage inflation assumption.

The current payroll growth assumption also reflects the assumption that there will be no future growth or decline in number of active members. With no assumed change in the size of the active membership, future salary growth due only to general wage increases is anticipated. If increases should occur not only because of wage increases but also because of additional active members, there will be a larger pool of covered payroll over which to spread the payment on the unfunded actuarial accrued liability, which would result in lower UAAL payments as a percent of payroll. The uncertainties in light of current conditions in public employment and the national economy in general, along with actual experience, argue against anticipating any increase or decrease in active membership for funding purposes.

We recommend the payroll growth assumption, used to amortize the UAAL, be lowered from 3.25% to 2.85%, reflecting the decrease in the general wage increase assumption.

TOTAL SALARY INCREASE

Estimates of future salaries are based on assumptions for two types of increases:

- Increases in each individual's salary due to promotion or longevity (often called a merit scale), and
- Increases in the general wage level of the membership, which are directly related to price and wage inflation.

Our recommended general wage increase assumption is 2.85% (2.35% inflation and 0.50% real wage growth). Therefore, the merit salary scale will be added to the 2.85% general wage increase assumption to develop the total individual salary increase assumption.



SECTION 4 – ECONOMIC ASSUMPTIONS

As noted above, future salary increases are the result of two components. Actual salary experience is reported in total, rather than by components, so the experience study reviewed total salary increases for the study period. There continues to be considerable pressure on the school district’s budget which may have had an impact on the salary increases observed in the study period. In our study, we compared individual salary increases for any member active in any two consecutive periods (e.g. 2017 and 2018, 2018 and 2019, etc.). The average actual increase during this period was 3.85% for Certificated members while the expected increase was 5.39%. The actual increase for Classified members was 3.05% while the expected increase was 4.40%.

The following table shows the salary experience by year for durations 0 through 40 for both the current and prior study period:

2017 – 2020 SALARY EXPERIENCE						
Year End	Certificated			Classified		
	Actual	Expected	A/E Ratio	Actual	Expected	A/E Ratio
2017	6.14%	5.42%	113%	2.04%	4.40%	46%
2018	1.96%	5.40%	36%	1.12%	4.40%	26%
2019	3.16%	5.38%	59%	4.91%	4.36%	113%
2020	4.18%	5.38%	78%	4.42%	4.45%	99%
Total	3.85%	5.39%	71%	3.05%	4.40%	69%

Since price and wage inflation are a component of the salary increase assumption, we would expect actual salary increases to be lower than the current assumption when actual price and wage inflation are lower than the assumption. During the study period, price inflation was around 2.1%, compared to the current assumption of 2.75%, and the increase in the national average wage index was 3.0% compared to the current assumption of 3.25%. The actual salary increases for certificated members with more than 25 years of service (a proxy for actual general wage increases) was 2.0%, close to the increase in price inflation. This information suggests that we could expect actual wage increases reflected in our data to be around 0.75% to 1.25% lower than expected, simply as a function of the overall economy during this period. As illustrated in the table above, the actual increases were about 1.5% lower for Certificated and 1.35% lower for Classified, relatively consistent with the difference in actual and assumed general wage increases so the current merit scale is a relatively good fit overall.

As a result of adjusting the general wage increase assumption from 3.25% to 2.85%, the individual salary increase assumption will be lower than the current assumption. In order to refine the merit salary increase assumption to reflect the actual experience and the current salary schedules in the various labor agreements, we are recommending some modifications to the merit scale.



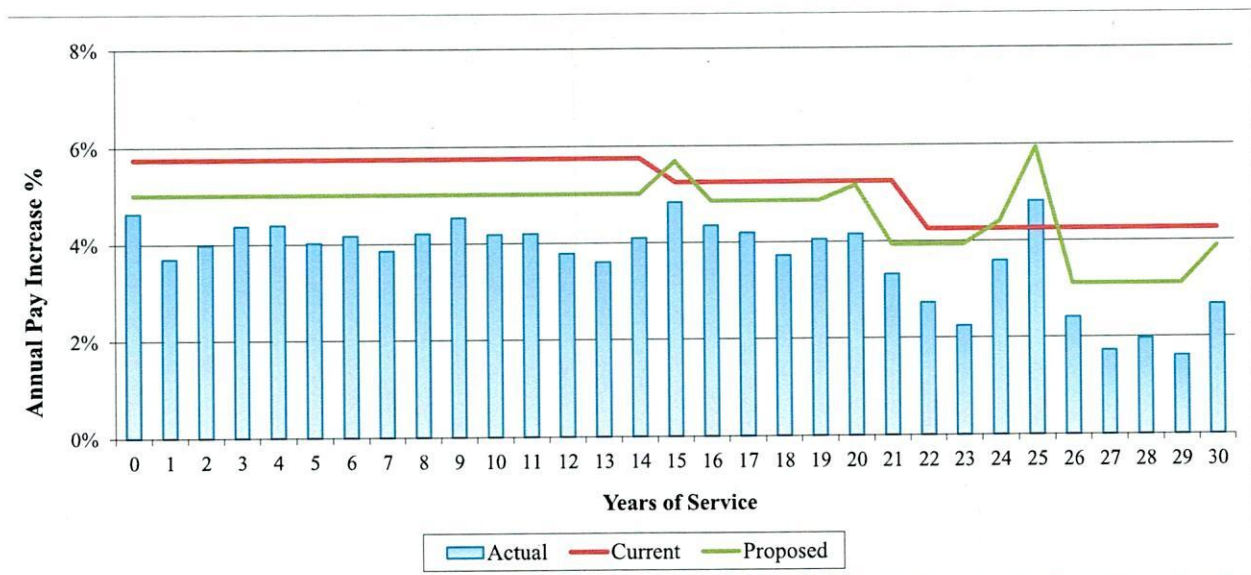
SECTION 4 – ECONOMIC ASSUMPTIONS

Certificated Members

Beginning with the last experience study, the contracts with the Omaha Education Association (OEA) have been reviewed to identify the various components of salary increases including adjustment of the salary grids from year to year, salary increases due to movement through the various steps (based on years of experience and additional college credits toward a master’s or higher degree). The contracts also reveal salary increases applicable to the Long Service Increment (LSI) pay. Our recommendation for the salary merit scale was developed based on the salary schedules and LSI in the OEA contract four years ago and the recommended changes are based on the most recent OEA contract (2021 -2023). It is to be expected that additional refinements to the assumption may be needed in future years as more data becomes available.

Long service increments of certain dollar amounts for members of the OEA are granted at durations 15, 20, 25, 30, 35 and 40 years. Our assumption reflects this pattern of LSI increases as well as other salary increases expected to occur for active members.

The following graph for durations 0 through 30 shows the current assumption (red line) and the proposed assumption (green line) for the total individual salary increase assumption for certificated members. Note this assumption includes the general wage increase assumption which is 3.25% for the current assumption and 2.85% for the proposed assumption. Both assumptions are higher than the actual wage inflation in the general economy and that is also observed in the OSERS data. As a result, it is to be expected that both the current and proposed assumptions will be higher than the actual experience observed (blue bars). The aggregate expected salary increase under the proposed assumption is 4.83% so the A/E ratio is 81% (actual 3.89% divided by expected of 4.83%).



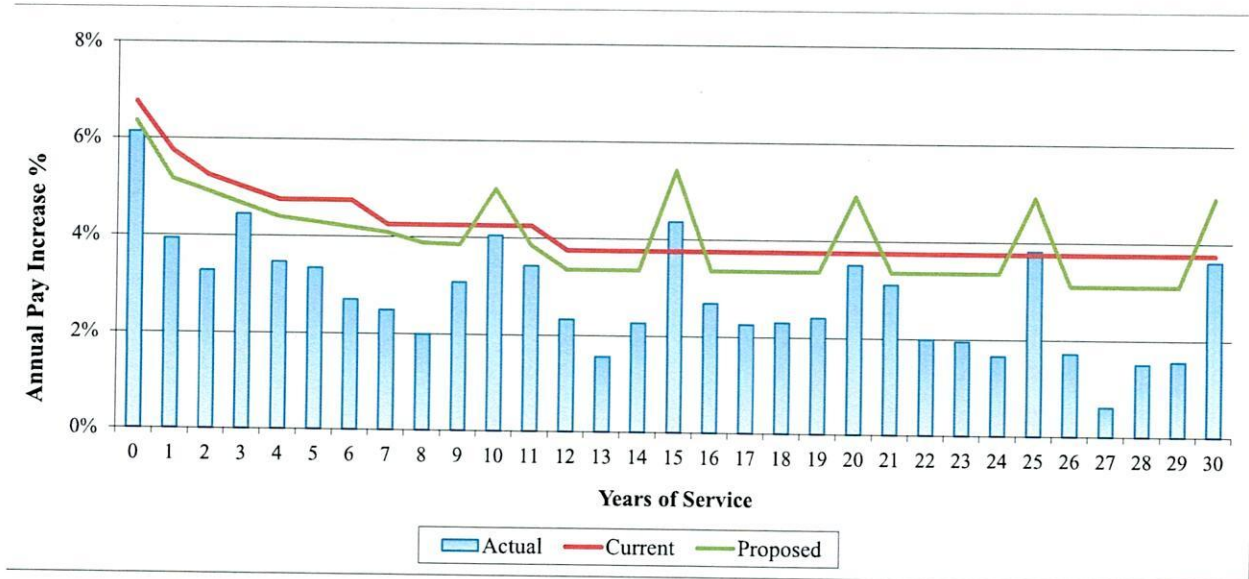


SECTION 4 – ECONOMIC ASSUMPTIONS

Classified Members

The long service increments for classified members occur upon completion of 10, 15, 20, 25, and 30 years of service. This pattern was evident in the salary data for the study period and we adjusted the assumption to anticipate “spikes” at those durations (see graph below for analysis of current and proposed assumptions).

We focused on experience for durations one through 30 as there was limited data for durations beyond 30. The following graph shows the current assumption (red line) and the proposed assumption (green line) for the total individual salary increase assumption for certificated members. Note this assumption includes the general wage increase assumption which is 3.25% for the current assumption and 2.85% for the proposed assumption. Both assumptions are higher than the actual wage inflation in the general economy and that is also observed in the OSERS data. As a result, it is to be expected that both the current and proposed assumptions will be higher than the actual experience observed (blue bars). The aggregate expected salary increase under the proposed assumption is 4.19% so the A/E ratio is 74% (actual 3.08% divided by expected of 4.19%).





SECTION 4 – ECONOMIC ASSUMPTIONS

INTEREST CREDITS ON ACCOUNT BALANCES

Member contribution balances are credited with interest each September 1. The rate is set in State Statute and is “a rate equal to the daily treasury yield curve for one-year treasury securities, as published by the Secretary of the Treasury of the United States.”

In the past, the interest crediting rate has been set equal to the price inflation assumption. We believe this is a reasonable long-term assumption and **recommend lowering the interest crediting rate from 2.75% to 2.35%.**



SECTION 5 – DEMOGRAPHIC ASSUMPTIONS

DEMOGRAPHIC ASSUMPTIONS

Actuarial Standard of Practice No. 35 (ASOP 35) provides guidance to actuaries regarding the selection of demographic and other non-economic assumptions for measuring pension obligations. ASOP 35 states that the actuary should use professional judgment to estimate possible future outcomes based on past experience and future expectations, and select assumptions based upon application of that professional judgment. The actuary should select reasonable demographic assumptions in light of the particular characteristics of the defined benefit plan that is the subject of the measurement. A reasonable assumption is one that is expected to appropriately model the contingency being measured and is not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

The actuary should follow the following steps in selecting the demographic assumptions:

1. Identify the types of assumptions. Types of demographic assumptions include but are not limited to retirement, mortality, termination of employment, disability, election of optional forms of payment, administrative expenses, family composition, and treatment of missing or incomplete data. The actuary should consider the purpose and nature of the measurement, the materiality of each assumption, and the characteristics of the covered group in determining which types of assumptions should be incorporated into the actuarial model.
2. Consider the relevant assumption universe. The relevant assumption universe includes experience studies or published tables based on the experience of other representative populations, the experience of the plan sponsor, the effects of plan design, and general trends.
3. Consider the assumption format. The assumption format includes whether assumptions are based on parameters such as gender, age or service. The actuary should consider the impact the format may have on the results, the availability of relevant information, the potential to model anticipated plan experience, and the size of the covered population.
4. Select the specific assumptions. In selecting an assumption the actuary should consider the potential impact of future plan design as well as the factors listed above.
5. Evaluate the reasonableness of the selected assumption. The assumption should be expected to appropriately model the contingency being measured. The assumption should not be anticipated to produce significant actuarial gains or losses.

ASOP 35 General Considerations and Application: Each individual demographic assumption should satisfy the criteria of ASOP 35. In selecting demographic assumptions, the actuary should also consider the internal consistency between the assumptions, materiality, cost effectiveness, and the combined effect of all assumptions. At each measurement date the actuary should consider whether the selected assumptions continue to be reasonable, but the actuary is not required to do a complete assumption study at each measurement date. In addition, ASOP 35 requires the actuary to include a specific assumption with respect to expected mortality improvements after the measurement date. In our opinion, the demographic assumptions recommended in this report have been developed in accordance with ASOP 35.



SECTION 5 – DEMOGRAPHIC ASSUMPTIONS

Overview of Analysis: The purpose of a study of demographic experience is to compare what actually happened to the individual members of the System during the study period (January 1, 2017 through December 31, 2020) with what was expected to happen based on the actuarial assumptions. Four years is a relatively short observation period for experience given the assumptions are being set with a long-term time horizon in mind. Therefore, we have considered the results of the prior Experience Study when practical to do so.

It takes a fair amount of data to provide experience study results that are credible for demographic assumptions. Because the membership or certain subsets of the membership are relatively small, some assumptions have been selected based more on our professional judgment of reasonable future outcomes than actual experience. Furthermore, a single study period is a relatively short observation period, particularly given the size of OSERS' membership. Therefore, the System's size limits the full credibility of the findings, particularly when the total group is split into subsets such as certificated/classified and/or male/female. Our recommendations were made, taking these factors into account.

Studies of demographic experience generally involve three steps:

- First, the number of members changing membership status, called decrements, during the study is tabulated by age, duration, gender, group, and membership class as appropriate (active, retired, etc.).
- Next, the number of members expected to change status is calculated by multiplying certain membership statistics, called exposure, by the expected rates of decrement.
- Finally, the number of actual decrements is compared with the number of expected decrements. The comparison is called the actual to expected ratio (A/E Ratio), and is expressed as a percentage.

In general, if the actual experience differs significantly from the overall expected results, or if the pattern of actual decrements, or rates of decrement, by age, sex, or duration deviates significantly from the expected pattern, new assumptions are considered. Recommended revisions are normally not an exact representation of the experience during the observation period. Judgment is required to anticipate future experience from past trends and current evidence, including a determination of the amount of weight (credibility) to assign to the most recent experience.

In our analysis, we use a methodology to analyze the experience that we call a liability-weighted approach. The relative liability of the member is approximated by using the member's compensation and years of service to estimate the benefit level. The exposure and actual occurrences are then multiplied by the benefit level to provide the liability-weighted experience. (For retiree mortality, the weight is simply the benefit amount.) This approach is particularly insightful when analyzing experience in a non-homogenous group. While we reviewed experience on both a count and liability-weighted basis, we have generally found the liability-weighted experience to be a better basis for setting assumptions. Therefore, in most situations we assign more credibility to the liability-weighted results in evaluating experience and developing new assumptions, if necessary.

Revised rates of decrement are tested by recalculating the expected number of decrements during the study period, with results shown as revised A/E Ratios.



SECTION 5 – DEMOGRAPHIC ASSUMPTIONS

ASOP 35 states that the actuary should use professional judgment to estimate possible future outcomes based on past experience and future expectations, and select assumptions based upon application of that professional judgment. The actuary should select reasonable demographic assumptions in light of the particular characteristics of the defined benefit plan that is the subject of the measurement. A reasonable assumption is one that is expected to appropriately model the contingency being measured and is not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

	Recommended Revisions	
	Certificated	Classified
Mortality	Yes	Yes
Retirement	Yes	Yes
Termination of Employment	Yes	Yes
Probability of Refund	No	Yes



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SECTION 6 – MORTALITY

MORTALITY

One of the most important demographic assumptions in the valuation is mortality because it projects the length of time benefits are expected to be paid to current and future retirees and beneficiaries. If members live longer than expected, the true cost of future benefit obligations will be greater than stated.

Over the last few generations, rates of mortality have been declining, meaning people are generally living longer. Furthermore, the experience of large, public retirement systems that include school employees indicate that school groups, and teachers in particular, continue to exhibit better mortality than the average working population.

There are distinct differences in the mortality rates of males and females, healthy retired members, disabled retired members and non-retired members. Because of those differences in mortality, these groups are studied separately.

The Society of Actuaries periodically publishes mortality tables derived from large, national studies. In recent years, they have tended to publish families of tables, allowing actuaries to select a table that is based on a subset of data most similar to that of the data the actuary is trying to value. In early 2019, the Society released a set of tables based solely on public plan data. This family of tables, called the Pub-2010 tables, includes tables based not only on the gender and status factors already noted, but also on the type of membership (teachers, public safety, and general government), as well as further breakdowns based on those members who were above or below the median benefit amounts. Because most other recent families of tables had excluded public sector data, the Pub-2010 tables are expected to be quite useful for valuing the benefits for public retirement systems like OSERS.

Actuaries sometimes use various adjustments to these standard mortality tables in order to match the observed mortality rates of a specific retirement system. One of the most common adjustments is an age adjustment that can be either a “set back” or a “set forward”. A one-year age set back treats all members as if they were one year younger than they truly are when applying the rates in the mortality table. For example, a one year set back would treat a 61-year old retiree as if he will exhibit the mortality of a 60-year old in the standard mortality table. Another adjustment that can be used is to “scale” a mortality table by multiplying the probabilities of death by factors less than one (to reflect better mortality) or factors greater than one (to reflect poorer mortality). Scaling factors can be applied to an entire table or a portion of the table. Of course, if necessary, actuaries may use both methods to develop an appropriate table to model the mortality of the specific plan population.

An important note in the examination of mortality is that there is a tendency for better mortality to be observed in the portion of the population with higher benefits than in the portion with lower benefits. Because the goal of an actuarial valuation is to model the expected benefit payments to be provided by a system, actuaries will often analyze mortality experience on a benefit-weighted basis rather than simply considering headcounts (number of members dying). This benefit-weighted approach is typically used in the development of standard mortality tables, and so it makes sense to use a consistent basis to evaluate how a mortality table fits the actual experience of a group.

ASOP 35 requires the actuary to make a specific recommendation with respect to future improvements in mortality although it does not require that an actuary assume there will be future improvements. There have been significant improvements in longevity in the past, although there are different opinions about future expectations. We believe it is prudent to anticipate that the trend will continue to some degree in the future. Therefore, we believe it is appropriate to reflect some future mortality improvement as part of the mortality assumption.



SECTION 6 – MORTALITY

There are two widely used ways to reflect future improvements in mortality:

- (1) Static table with “margin”
- (2) Generational mortality

The first approach to reflecting mortality improvements is through the use of a static mortality table with “margin.” Under this approach, the A/E ratio is intentionally targeted to be over 100% so that mortality can improve without creating actuarial losses. This approach is mandated by the Internal Revenue Service for determining minimum funding amounts for corporate pension plans as mortality improvements are projected seven years for retirees and 15 years for actives. While there is no formal guideline for the amount of margin required (how far above 100% is appropriate for the A/E ratio), we typically prefer to have a margin of around 10% at the core retirement ages. The goal is still for the general shape of the curve to be a reasonable fit to the observed experience. Depending on the magnitude and duration of mortality improvement, the margin would decrease and eventually may become insufficient. When that occurs, the assumption would need to be updated.

Another approach, referred to as generational mortality, directly anticipates future improvements in mortality by using a different set of mortality rates for each year of birth, with the rates for later years of birth assuming lower mortality than the rates for earlier years of birth. The varying mortality rates by year of birth create a series of tables that contain “built-in” mortality improvements, e.g., a member who turns age 65 in 2040 has a longer life expectancy than a member who turns age 65 in 2020. When using generational mortality, the A/E ratios for the observed experience are set near 100% as future mortality improvements will be reflected directly in the actuarial valuation process. OSERS has used a generational approach for mortality for many years. This is our preferred approach for addressing future mortality improvements.

The table below shows life expectancy at age 65 based on the Pub-2010 General Employees Mortality Table with generational mortality improvements, an indication of how long a new retiree would expect to receive monthly payments, at various points in time.

Life Expectancy		
Year	Male	Female
2021	20.7	23.2
2041	21.9	24.3
2061	23.1	25.4
Life expectancy at age 65 in years		

We would note that there is a wide range of opinions with respect to future expectations of mortality and the underlying assumptions regarding mortality improvement reflect some subjectivity. However, most public plan actuaries are in agreement that some improvement is likely to occur. The real question is how much it will improve and how rapidly.

Reliable statistical analysis of mortality requires very large data sets. Because of the size of OSERS, there is insufficient data to perform any fully credible analysis. To improve the credibility of our analysis, we aggregated the four years of data from the prior study with the current study period for a total of eight years. Changes in mortality tend to unfold slowly so aggregating the data increased the size of the data, allowing variations due to the size of the group to average out over the study period. In addition, using eight years



SECTION 6 – MORTALITY

of data allows us to include calendar year 2020 and the potential impact of Covid-19 in our analysis without assigning too much weight to that experience. Although actual deaths in 2020 were higher than expected (56 versus 52 expected), the number of excess deaths is relatively small. Given the small data set we are working with, we do not want to exclude a full year of data.

The valuation currently uses generational mortality with separate mortality assumptions for male and female members. The RP-2014 Combined Mortality Table for Males and Females, with a one year age set forward for males and a one-year age setback for females (e.g. a female member age 65 is assumed to exhibit the mortality of a 64 year old), is used to predict the probability of death in each future year. Projection Scale MP-2016 is used to anticipate mortality improvements in future years.

In examining the results of the Experience Study, if the A/E Ratio is greater than 100% the assumptions have predicted fewer deaths than actually occurred (generally an actuarial gain) and with an A/E Ratio less than 100% the assumptions have predicted more deaths than have actually occurred (generally an actuarial loss). Since generational mortality is being used, the A/E Ratio should be around 100% as mortality improvements in future years are directly reflected in the valuation process by projecting lower mortality rates in future years.

Healthy Retiree Mortality – Males: The following table shows the exposures, actual deaths, and expected deaths during the current study period for the key retirement ages of 60 to 85, where the largest exposures are found. The actual to expected ratio (A/E ratio) under the current assumption for each year in the experience study on both a count and benefit-weighted basis is also shown. The variation from year to year is evident; however, this is not unexpected given the size of the group.

	Exposure	Actual	Expected	A/E Ratio	
				Count	Weighted
2017	1,074	19	29	66%	61%
2018	1,096	21	31	68%	49%
2019	1,117	21	33	64%	58%
2020	1,148	36	34	106%	99%
Total	4,435	97	127	76%	68%

The A/E ratio for males in the prior study, using the current assumption, was 97%. The current experience study indicates that the current assumption for male retirees is predicting far too many deaths on both a count and a benefit-weighted basis, i.e., the A/E ratio is much less than 100%. Mortality changes do not tend to unfold quickly so we are skeptical of the findings and don't want to assign too much credibility to the results. By aggregating the current study period results with the prior study period results, we will recognize the actual data for the current period without over-weighting it and possibly over adjusting the assumption. Over the combined eight-year period, the A/E ratio on a count basis was 92% and on a benefit-weighted basis it was 82%.



SECTION 6 – MORTALITY

Healthy Retiree Mortality – Females: The following chart shows the exposures, actual deaths, and expected deaths for ages 60 to 85, during the current study period. The actual to expected ratio under the current assumption for each year in the experience study on both a count and benefit-weighted basis is also shown. As was observed for males, the experience varies significantly from year to year although the size of the female group is larger than the males. Again, this variation is to be expected given the relatively small size of the group.

	Exposure	Actual	Expected	A/E Ratio	
				Count	Weighted
2017	2,683	49	45	109%	98%
2018	2,782	42	47	89%	73%
2019	2,882	38	49	78%	66%
2020	2,982	56	52	108%	93%
Total	11,329	185	193	96%	82%

The A/E ratio for females in the prior study, using the current assumption, was 100%. However, in this study period, the experience indicates that the current assumption anticipated more deaths than actually occurred for female retirees on both a count and benefit-weighted basis, i.e., the A/E ratio is less than 100%. The results on a benefit-weighted basis indicate that almost 20% less liability was released due to retiree deaths than was expected which produces actuarial losses (higher liability than expected). We aggregated the current and prior study period results to increase the credibility of the data as discussed earlier for the male group. Over the combined eight-year period, the A/E ratio on a count basis was 101% and on a benefit-weighted basis it was 92%. Given the difference in actual versus expected experience, even given the size of the group, we believe the mortality assumption for females needs to be strengthened.

In setting a new mortality assumption, we first considered the mortality assumption used for the Nebraska School Employees Retirement System, adopted by the PERB at their December, 2020 meeting. However, our analysis indicated that the Nebraska Schools mortality assumption was not a good fit for the OSERS population.

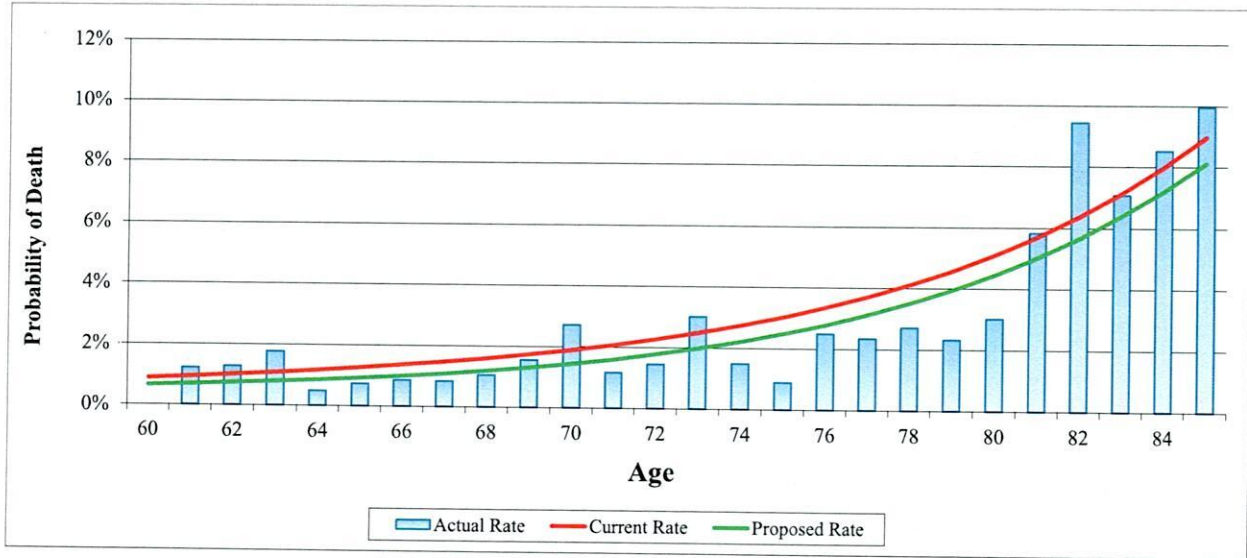
We next attempted to find a standard mortality table, with adjustments if needed, that would be a relatively good fit for the observed experience, with a focus on the key retirement ages of 60 to 85. We looked to the Pub-2010 family of tables as published by the Society of Actuaries (SOA) in January of 2019. **We found that the General Members Median Table provided a good fit to the observed data so we are recommending this assumption for both male and female retiree mortality.**



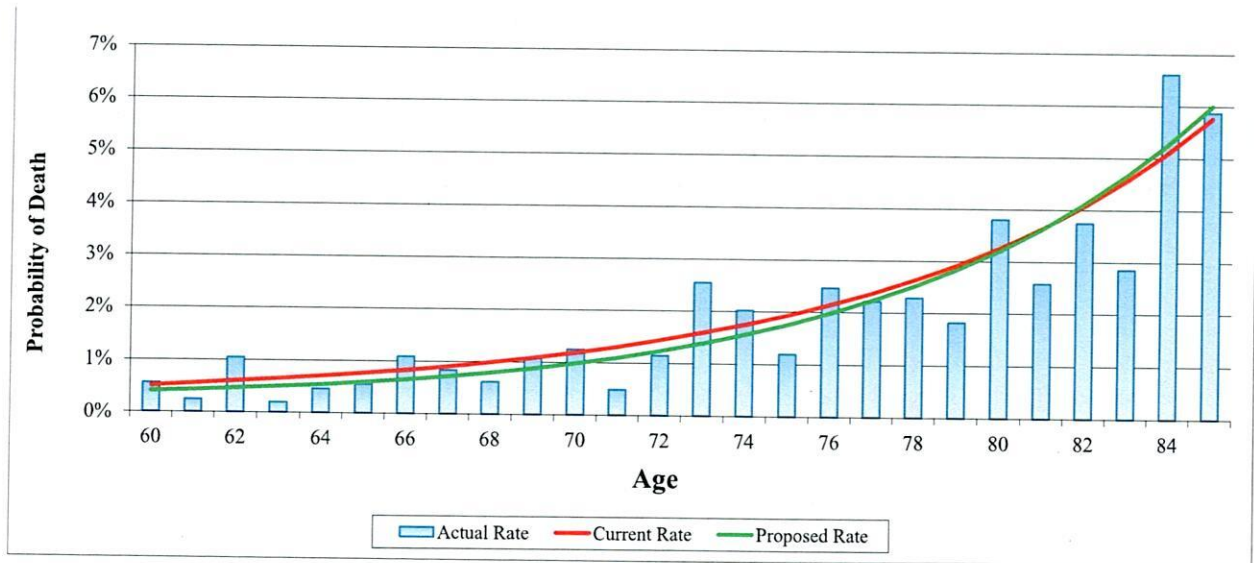
SECTION 6 – MORTALITY

Graphs of the actual and expected rates under both the current and proposed mortality assumption for males and females are shown below:

Male Mortality Experience



Female Mortality Experience



As shown above, the changes in the mortality rates in the proposed assumption (green line) are smaller for the female group than the male group.



SECTION 6 – MORTALITY

The recommended mortality assumptions are a good fit to the actual experience from ages 60 to 85 as shown below:

	A/E Ratio	
	Count Basis	Benefit-Weighted
Males	111%	100%
Females	110%	102%

Healthy Retiree Mortality- Projected Mortality Improvement

With generational mortality, once the base mortality rates are set by selecting a mortality table that fits the actual experience during the study period, future mortality improvements must be addressed by selecting a mortality improvement scale to anticipate changes in the mortality rates in future years.

The Society of Actuaries (SOA) publishes a mortality improvement scale every year (called the Scale MP-YYYY) along with a tool to permit actuaries to modify the standard projection scale if desired. When we performed the experience study for the Nebraska Public Employees Retirement System (NPERS) in 2020, we developed a customized projection scale for NPERS that generally reflects 75% of the ultimate improvement in the MP-2019 Scale published by the SOA. Based on the data available for NPERS, that projection scale was a good fit for the improvements observed in the data over the study period. Therefore, we recommend that OSERS use the NPERS mortality improvement scale in their actuarial valuation to reflect future mortality improvements. Given the unknown impact of COVID-19 on mortality in the longer term and the fact that the mortality improvement scales have consistently overstated actual mortality improvements since 2014, we believe the more modest improvement in mortality, as reflected in the NPERS Projection Scale, is justified. Experience studies are performed every four years so this assumption can be modified, if necessary, as new information unfolds in the next few years.

It should be noted that as we prepare this analysis, the world is in the midst of a pandemic. At this time, we do not believe there is sufficient data to warrant reflecting any dramatic change in the mortality assumption. It is likely the next valuation or two may have more deaths than expected, but this could be followed by a period of fewer than expected deaths if the current deaths from COVID-19 are significantly from groups who would have had higher than expected death rates in the short term. Because there are significant unknowns at this time, we believe it appropriate to utilize the data from the study period to help guide our long-term expectations. We will, of course, review the observed death rates each year as part of the valuation and recommend any changes we believe are appropriate.

We recommend the mortality assumptions be set to the Pub-2010 General Employees Median Mortality Table with generational mortality improvements anticipated using the Nebraska Public Employees Retirement System projection scale.

Beneficiaries: The mortality of beneficiaries applies to the survivors of members who receive a joint and survivor option. There are fewer members receiving benefits under the joint and survivor options which can produce more volatility in the observed mortality rates. Based on the limited data, **we recommend using the Pub-2010 General Members Median Contingent Survivor Mortality Table with generational mortality improvements anticipated using the Nebraska Public Employees Retirement System projection scale for beneficiaries.**



SECTION 6 – MORTALITY

Post-retirement Mortality for Disabled Members: The valuation assumes that disabled members, in general, will not live as long as retired members who met the regular service retirement eligibility. In addition, future life expectancies for disabled members are not expected to increase as significantly as the future life expectancies for healthy retirees.

Because of the limited number of exposures and deaths for disabled members, it makes sense to use the standard disabled table that is the companion to the annuitant mortality table. **We recommend the Pub-2010 Non-Safety Disabled Table be used without generational improvement.**

Active Members: This assumption predicts eligibility for active member death benefits prior to retirement, rather than the expected lifetime for pension payments. In smaller groups like OSERS, the mortality rates for active members are often set by using a consistent basis as is used for healthy retirees. Given the low probability of death while active, the results cannot be credible on their own without much larger numbers of employees than are in OSERS. We prefer to keep the mortality assumption for active and retired members on a consistent basis. **Therefore, we recommend the active member mortality be set to the Pub-2010 General Employees Median Mortality Table for males and females with generational mortality improvements anticipated using the Nebraska Public Employees Retirement System projection scale.**



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SECTION 7– RETIREMENT

RETIREMENT

The valuation uses several different assumptions to anticipate when retirement benefits will commence for active members. One of the most significant factors affecting retirement patterns is, not surprisingly, the provisions governing when a member is eligible to retire. Additionally, provisions regarding eligibility for special benefits, subsidies, options, or any other special features may also influence retirement patterns.

The Omaha School Employees Retirement System currently contains four separate “tiers” of benefits. Tier membership is determined by the member’s date of participation:

Benefit Tier	Membership Date
1	Prior to 7/1/2013
2	On/after 7/1/2013 and before 7/1/2016
3	On/after 7/1/2016 and prior to 7/1/2018
4	On/after 7/1/2018

A comparison of the eligibility criteria for early retirement (reduced benefits) and normal retirement (unreduced benefits) is shown in the table below. Unreduced benefits are also payable upon attainment of the Rule of 85 (age and years of service add to at least 85).

	Tier 1	Tier 2	Tier 3	Tier 4
Reduced Retirement	Age 55/10 YOS	Age 55/10 YOS	Age 60/5 YOS	Age 60/5 YOS
Unreduced Retirement	35 YOS 62 and 10 YOS 65 and 5 YOS	35 YOS 62 and 10 YOS 65 and 5 YOS	65 and 5 YOS	65 and 5 YOS
Rule of 85	Age 55	Age 55	Age 55	Age 60

Eligibility requirements for retirement changed for Tiers 3 and 4, as noted above. Because Tiers 3 and 4 were recently implemented, it will be many years before any credible retirement experience for those tiers is available. Therefore, the recommended retirement rates for those tiers are set based solely on our professional judgment.

For this discussion, the focus is on the type of retirement a member is eligible to receive. Early retirement is the term used when the amount of the accrued benefit is reduced by an early retirement factor to reflect the longer expected payment period. Unreduced retirement occurs when such a factor is not applied. Currently, there are separate retirement rates for certificated and classified members, based on early or unreduced retirement (including Rule of 85).



SECTION 7—RETIREMENT

A summary of the actual and expected retirement experience from age 55 to 75 during the study period is shown in the following table:

Retirement Experience					
	Exposures	Actual	Expected	A/E Ratio	
				Count	Weighted
Certificated					
Early retirement	1,281	86	107	80%	82%
Unreduced retirement	1,291	364	442	82%	80%
Classified					
Early retirement	1,304	49	55	89%	89%
Unreduced retirement	1,458	314	361	87%	92%

A more detailed discussion of our findings is included below.

Certificated Retirement Experience

The following table is a summary of the actual service retirements in each category for certificated members for calendar years 2017 through 2020:

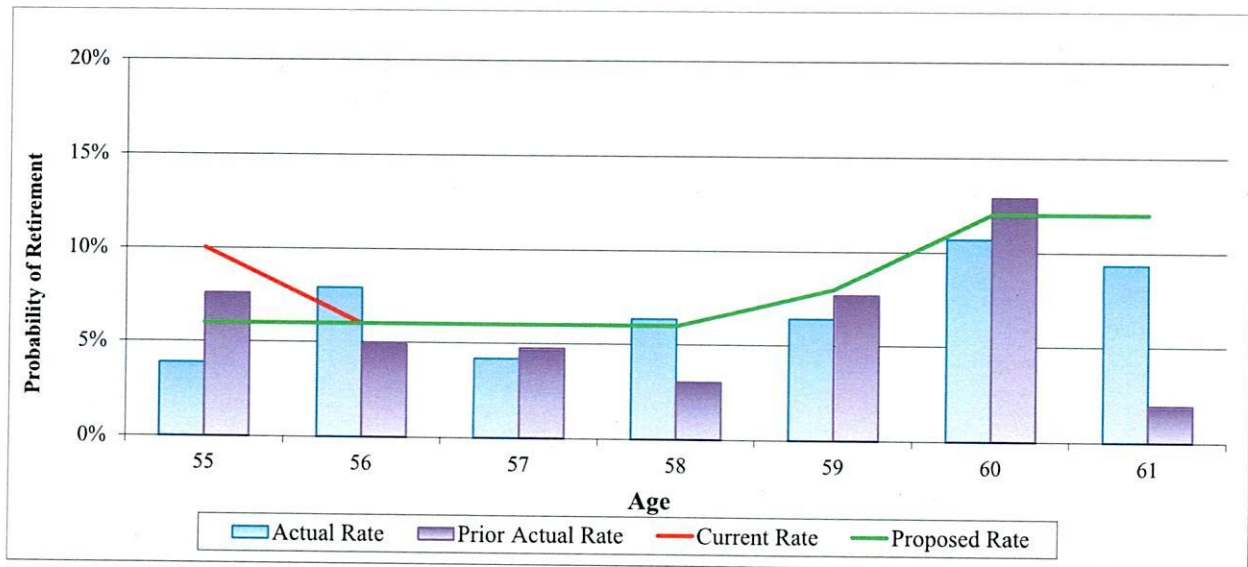
Retirements				
	Observations			
	<u>Actual</u>	<u>Expected</u>	<u>A/E Ratio Count</u>	<u>A/E Ratio Weighted</u>
Early (Reduced)	86	107	80%	82%
Select (First Eligible)	100	143	70%	63%
Ultimate	264	299	88%	88%

There were fewer retirements than expected as indicated by A/E ratios below 100%, on both a count and weighted basis. We also considered the retirement experience from the prior study period. The biggest difference in retirement patterns between the two periods was for the “select period”, when a member is first eligible for unreduced retirement benefits. Using the current assumption, the A/E ratio in the prior study was 102% while the current study showed an A/E ratio of 63%. Based on our review of the current and prior study findings, we are recommending several changes to the retirement assumptions for certificated members.



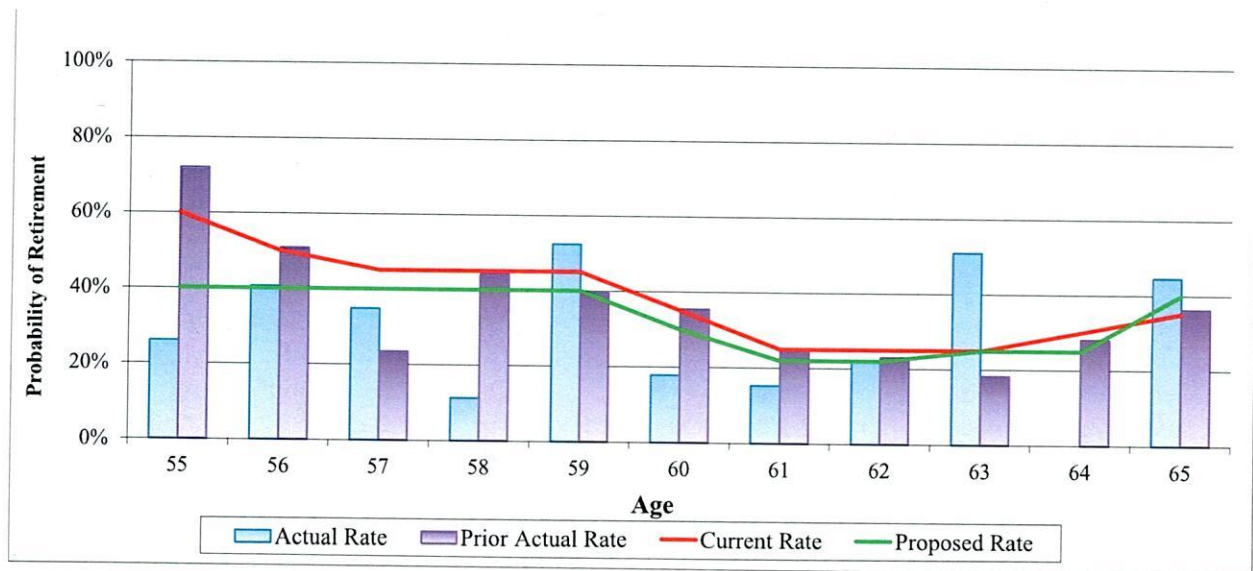
SECTION 7- RETIREMENT

Certificated Early Retirement



The current assumption is a good fit, in general. Our only recommendation is to lower the retirement rate at age 55 from 10% to 6%. The resulting A/E ratio is 91%.

Certificated First Eligible Retirement

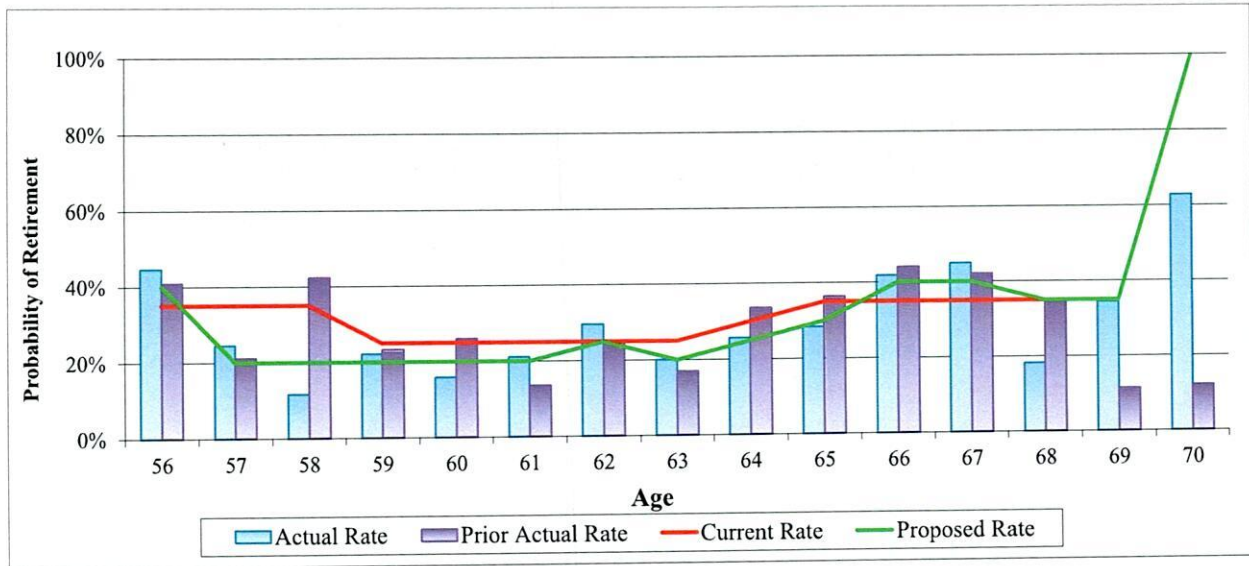


The actual retirement experience at first eligible age for unreduced retirement benefits was very different than observed in the last study, i.e., the A/E ratio was 63% indicating much lower retirement experience than was expected by the current assumption. We are hesitant to fully reflect the rates observed in the current study given the small size of the exposure. Therefore, we recommend partially reflecting the experience in the current study period while also taking the prior study period results into account. The A/E ratio using the proposed assumption is 81%.



SECTION 7— RETIREMENT

Certificated Ultimate Retirement



Given the A/E ratio with the current assumption was 88% on a liability-weighted basis, we are recommending some changes to this assumption to improve the fit of the assumption to the experience observed. The revised A/E ratio using the proposed assumption shown above is 99%.

The following table summarizes the resulting A/E ratios using the recommended assumptions:

Certificated Experience

<u>Assumption</u>	<u>A/E Ratio</u>			
	<u>Current</u>		<u>Proposed</u>	
	<u>Count</u>	<u>Weighted</u>	<u>Count</u>	<u>Weighted</u>
Early	80%	82%	88%	91%
Select	70%	63%	85%	81%
Ultimate	88%	88%	97%	99%



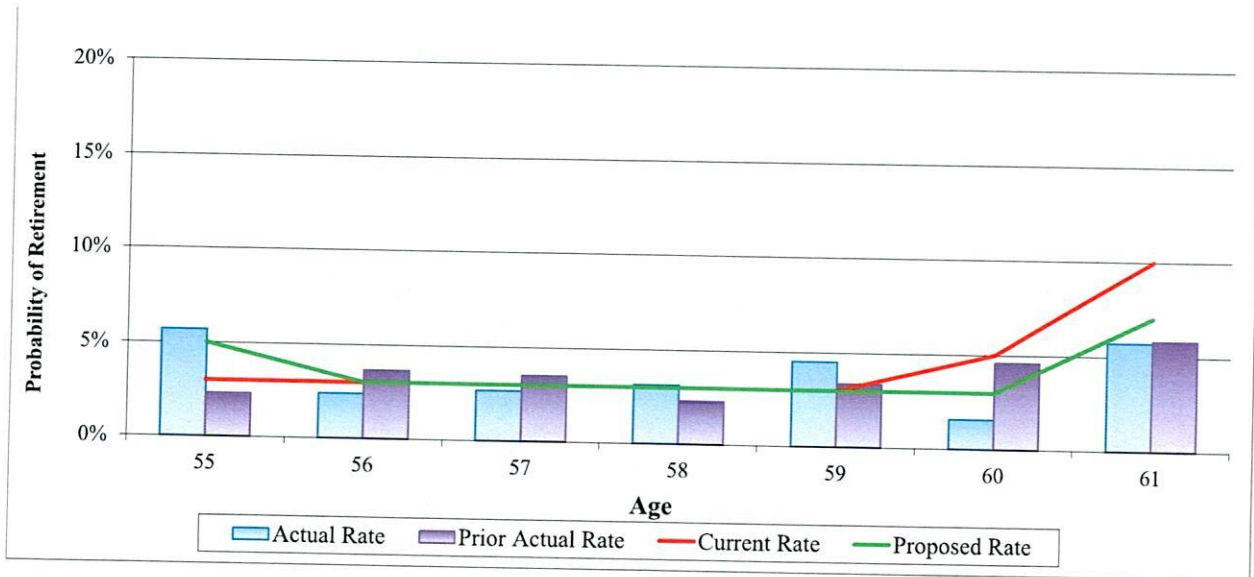
SECTION 7– RETIREMENT

Classified Retirement Experience

The following table is a summary of the actual service retirements in each category for classified members for calendar years 2017 through 2020:

Retirements				
	Observations			
	<u>Actual</u>	<u>Expected</u>	<u>A/E Ratio</u> <u>Count</u>	<u>A/E Ratio</u> <u>Weighted</u>
Early (Reduced)	49	55	89%	89%
Select	55	65	85%	99%
Ultimate	289	451	64%	72%

Classified Early Retirement

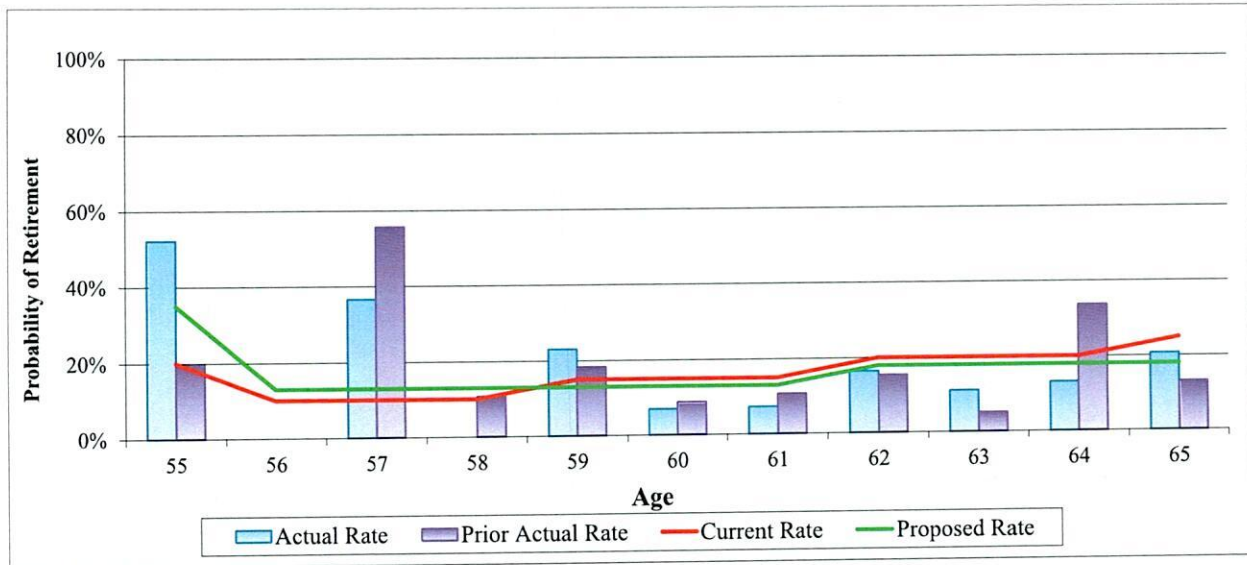


We recommend minor adjustments to the early retirement rates at ages 55, 60 and age 61. The resulting A/E ratio is 97%.



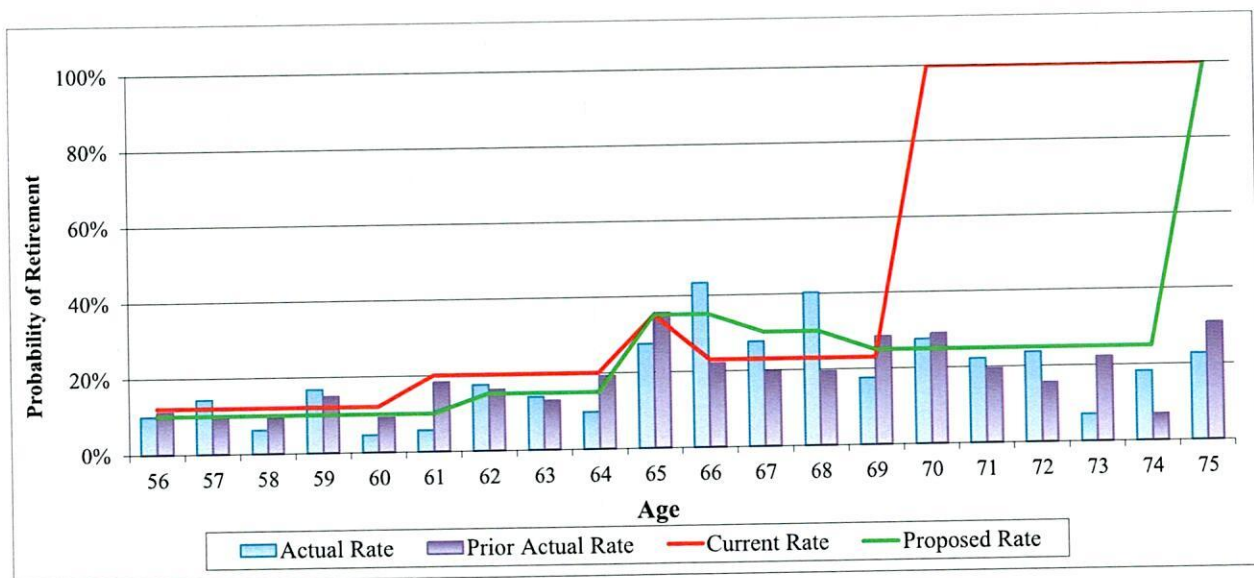
SECTION 7—RETIREMENT

Classified First Eligible Retirement



We recommend adjusting the rates to reflect the aggregate experience over the current and prior study periods, as shown in the graph above. The A/E ratio on the proposed assumption is 101% on a weighted basis.

Classified Ultimate Retirement



We recommend adjusting the rates to reflect and better fit the aggregate experience over the current and prior study periods, including extending the assumption to age 75. The A/E ratio using the proposed assumption is 97% on a weighted basis.



Classified Experience

Assumption	A/E Ratio			
	Current	Current	Proposed	Proposed
	Count	Weighted	Count	Weighted
Early	89%	89%	99%	97%
Select	85%	99%	96%	101%
Ultimate	64%	72%	90%	97%

Inactive Vested Members: The current assumption is that inactive vested members will retire at the first retirement date at which they are eligible for unreduced benefits. Due to the limited number of exposure, actual analysis was not performed. This is a reasonable expectation and **we recommend the current assumption be retained.**

Miscellaneous Assumptions

There are two minor assumptions that are used in the valuation process. For simplicity, we have included the discussion here.

Marriage Assumption

The current assumption is that 100% of members members are married. This assumption is used to value the pre-retirement death benefit which varies with marital status (which has minor cost implications). The census data provided to us for the annual valuation does not include marital status. Beneficiary information is only reported for those retirees who are receiving a joint and survivor form of payment. With data supplied in this manner, there is no fully credible way to review this assumption. However, the impact of this assumption is quite small and the use of 100% marriage assumption means the survivor provisions are valued conservatively. Although it does not have a material cost impact, **we recommend changing the assumption to 85% of the members are married.**

Age of Beneficiary

The current assumption is that males are three years older than. There is insufficient data to assess this assumption, **We believe the current assumption is a standard assumption used in actuarial valuation for pension plans so it is reasonable. We recommend it be retained.**



SECTION 7—RETIREMENT

DEFINITION OF ACTUARIAL EQUIVALENCE FOR FACTORS

Background

Given we are recommending changes to the investment return assumption and the mortality assumption in this experience study, we believe it is appropriate for the Board to consider updating the definition of actuarial equivalence for members hired on or after July 1, 2018. Reflecting the changes now will result in a smaller adjustment to the resulting benefit amounts compared to waiting until a later date when the assumption changes may be more significant. Changing them now also reduces the amount of any actuarial gains/losses resulting from members electing an optional form of payment at retirement.

For OSERS, the definition of actuarial equivalence only affects the amount of benefit received if a member elects to receive payment under an optional form of benefit. The benefit formula (Final Average Salary * Years of Service * Multiplier) determines the amount of the benefit payable under the normal form of payment, a five-years certain and life annuity. Optional forms are based on this benefit amount multiplied by an optional form factor.

The definition of “actuarial equivalence” for members hired prior to July 1, 2018 is defined in statute. State Statutes 79-978(3)(ii) sets out the definition: “For members hired before July 1, 2018, a unisex mortality table using twenty-five percent of the male mortality and seventy-five percent of the female mortality from the 1994 Group Annuity Mortality Table with a One Year Setback and using an interest rate of eight percent compounded annually.” This actuarial equivalent basis in statute for members who were hired before July 1, 2018 remains in place. However, the Board now determines the assumptions for determining actuarial equivalence for optional forms of payment for members hired after June 30, 2018.

There are three primary assumptions that create the actuarial equivalent basis for the actuarial factors:

- (1) Mortality assumption,
- (2) Interest rate (investment return assumption),
- (3) Cost of living adjustment (if the adjustment is variable).

Our recommendation for each assumption is discussed below.

Recommended Assumptions for Actuarial Equivalent Basis for Post June 30, 2018 Members

Mortality

A gender-neutral mortality assumption is needed to comply with legal requirements. In addition, the mortality tables used in the valuation are “generational” meaning that the probabilities of death decrease slightly in each future year, which would result in different life expectancies each year and a change to the actuarial equivalent factors, if used. Rather than update actuarial factors each year, it is common practice to project the mortality rates to a specific year in the future and then use that single set of mortality rates for actuarial equivalent purposes.

Our approach in this study is consistent with the last experience study. To determine the unisex blend of male and female mortality rates, the male/female split of liability for those members nearing retirement was studied. We further examined the actual election patterns for optional forms of payment by gender to determine if any adjustment was needed to reflect different utilization of joint and survivor benefits. The opposite gender blend is used for the mortality assumption of the joint annuitant.



SECTION 7– RETIREMENT

The following mortality assumption is recommended **if** the Board wishes to adopt new assumptions for the definition of “actuarial equivalent”:

- Valuation mortality table, projected to 2040 using the mortality projection scale, with a 25% male/75% female blend.

COLA Assumption

The statutory plan provisions include an automatic 1% COLA (not to exceed CPI). Given the price inflation assumption used for funding purposes, the full 1% COLA is assumed. While there is a provision for an additional discretionary COLA when certain funding-related criteria are met, there is no specific adjustment made to the COLA funding assumption. Therefore, we recommend using the 1% COLA assumption for the definition of actuarial equivalence.

Investment Return (Interest Rate) Assumption

For members who were hired on/after July 1, 2018 we recommend an interest rate of 7.00% be used. The optional form factors are calculated by dividing the annuity factor for the normal form of payment by the annuity factor for the optional form of payment. Because the change in the underlying actuarial assumptions impacts both annuity factors in the same direction but not by the same magnitude, the cost impact is somewhat mitigated.



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SECTION 8— TERMINATION OF EMPLOYMENT (WITHDRAWAL)

TERMINATION OF EMPLOYMENT

Not all active members on the valuation date are expected to continue working until retirement. Therefore, a termination of employment assumption is used to anticipate the probability that a member will leave covered employment at any given age. In analyzing the actual results, the number of terminations includes all members reported to have terminated employment. Some of these members subsequently receive refunds of their contributions, some return to active membership and some leave their contributions with the System until retirement and receive a monthly benefit. Explicit assumptions are made regarding the elections made by such terminated vested members. Non-vested members are assumed to elect a refund of their employee contribution account balance.

This section of the report summarizes the results of our study of terminations of employment for reasons other than death, retirement, or disability. Rates of termination can vary by both age and years of service. In general, rates of termination tend to be highest at younger ages and in the early years of employment. There may also be differences in termination patterns between males and females so gender-specific rates are studied.

The current termination of employment assumption is a service-based assumption with employees with lower years of service exhibiting higher incidences of termination than the rates for employees with more years of service. Separate male and female termination rates for classified members are used in the valuation process, but one set of rates is used for all certificated members (both male and female).

Certificated Members

A summary of the experience in the current study period for durations 1 through 25 is displayed in the following tables:

Termination Experience – All Certificated					
	Exposures	Actual	Expected	A/E Ratio	
				Count	Weighted
Calendar Year 2017	3,959	187	240	78%	89%
Calendar Year 2018	4,027	234	244	96%	102%
Calendar Year 2019	3,900	216	228	95%	124%
Calendar Year 2020	3,976	213	235	91%	114%
Total	15,862	850	947	90%	108%

As the table above illustrates, overall the current assumption is estimating the liability associated with terminations more closely than the number of terminations (liability-weighted A/E ratio is closer to 100%). Given that the current assumptions were developed using the liability-weighted experience in the prior study, this result is consistent with our expectations. Essentially, the terminations are occurring more often among members with lower salaries relative to higher salaried members.

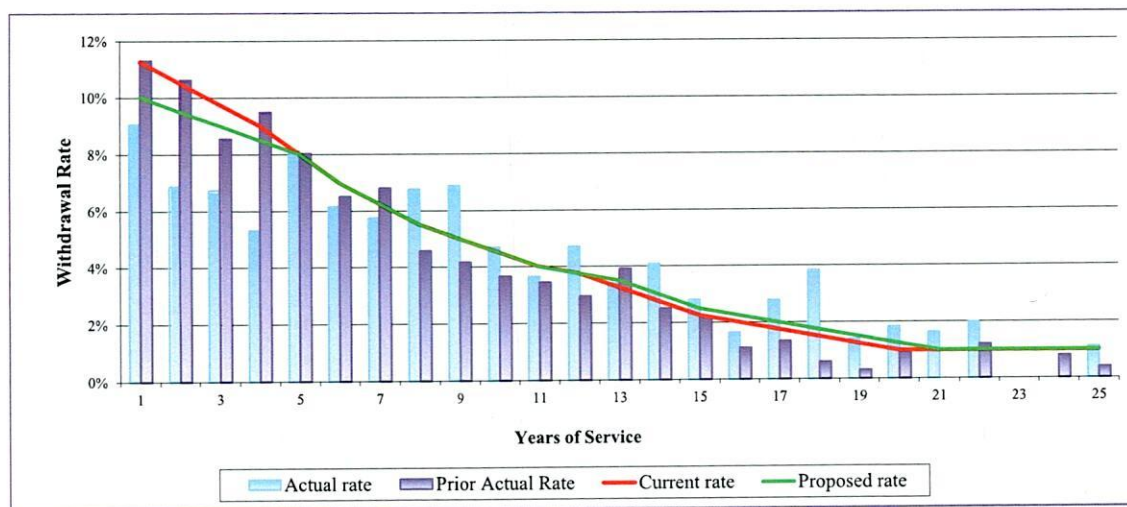
As the graph below shows, the actual experience in this study period (light blue bars) is different than observed in the prior study period (purple bars). In fact, the A/E ratio in the prior study, using the same assumption, was 87%. If the experience in the current period (A/E ratio of 108%) is aggregated with the experience in the prior period (A/E ratio of 87%), the A/E ratio is close to 100%. However, we do believe some adjustment is necessary, with largest adjustment at durations one to four. The recommended



SECTION 8– TERMINATION OF EMPLOYMENT (WITHDRAWAL)

assumption is shown in green in the graph below. The A/E ratio, using the proposed assumption, does not change dramatically (it is 106%), but the fit is better.

Termination Rates: Certificated Males and Females



We reviewed the results for the certificated group separately by male and female, as well in aggregate, and there was not a major difference between the termination patterns for males and females. We continue to recommend one assumption be used for the certificated group. For the classified group, separate assumptions are currently used based on gender and the experience again supports that approach.

Classified Members

Termination Experience – Classified Males				A/E Ratio	
	Exposures	Actual	Expected	Count	Weighted
Calendar Year 2017	506	26	29	89%	116%
Calendar Year 2018	526	33	31	105%	128%
Calendar Year 2019	513	31	31	101%	141%
Calendar Year 2020	512	18	32	56%	79%
Total	2,057	108	123	88%	116%

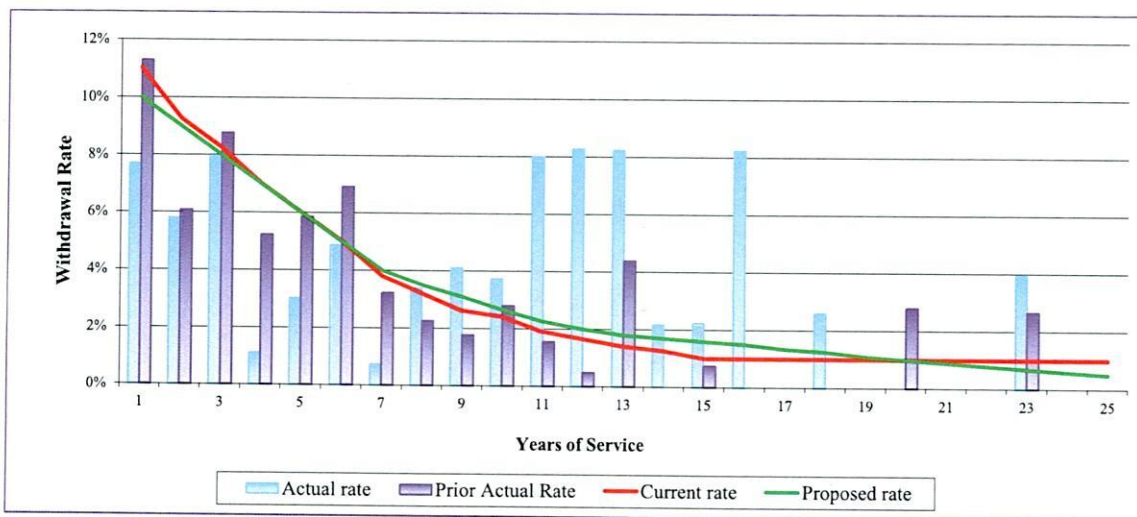
With the exception of 2020, there was more liability released from members terminating than expected. As a result, the A/E ratios were above 100%. As the graph below shows, terminations were much higher than expected at durations 9 through 16, a very different pattern from that observed in the prior study. This termination pattern is not typical and we are hesitant to rely too heavily on the data in this observation period. As a result, we are recommending a few changes to the classified Males assumption in this study, partially reflecting the results in the current study, but trying not to overadjust. When more information is available in the next experience study, additional adjustments can be made if necessary.

The current and recommended assumptions for termination of employment for classified Males is shown in the graph below. The A/E ratio, using the proposed assumption, is 111%.



SECTION 8— TERMINATION OF EMPLOYMENT (WITHDRAWAL)

Termination Rates: Classified Males



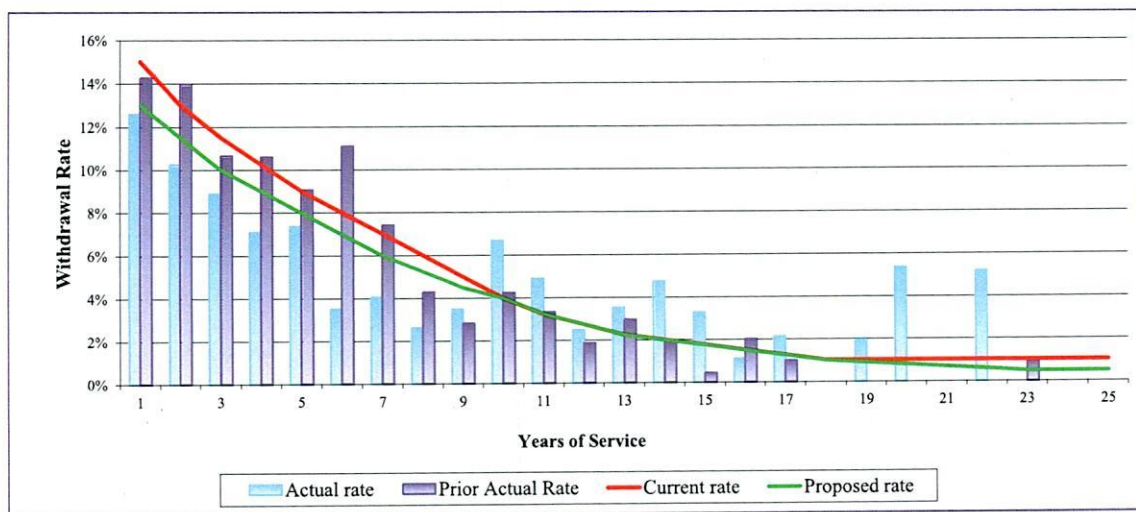
Termination Experience – Classified Females					
	Exposures	Actual	Expected	A/E Ratio	
				Count	Weighted
Calendar Year 2017	1,180	58	103	57%	56%
Calendar Year 2018	1,207	126	108	116%	118%
Calendar Year 2019	1,112	79	96	82%	84%
Calendar Year 2020	1,080	98	97	102%	102%
Total	4,579	361	404	89%	90%

The aggregate results are similar to those in the last study which reflected an A/E ratio of 91%. The biggest differences in termination rates for the two periods were for the early durations. Therefore, we recommend some adjustments to the rates for durations one through 10 and some adjustment at later durations. The current and proposed assumptions are shown in the graph below. The resulting A/E, ratio using the proposed assumption, is 100%.



SECTION 8— TERMINATION OF EMPLOYMENT (WITHDRAWAL)

Termination Rates: Classified Females



The A/E ratios using the recommended assumptions are summarized below. As discussed earlier, the recommended assumptions rely on the weighted analysis so the A/E ratios are closer to 100% on that basis than the count basis.

	A/E Ratio	
	Count	Weighted
Certificated	93%	106%
Classified - Males	89%	111%
Classified – Females	101%	100%

VESTED MEMBER ELECTION OF REFUND/DEFERRED BENEFIT

Some members who terminate active employment elect to receive a distribution of their member account balance. Currently, we assume that all non-vested members receive a refund of their account balance at the time of termination. In addition, we assume a certain proportion of terminating vested members also elect a distribution of their member account, thus forfeiting the right to receive a monthly benefit in the future.

Currently, separate assumptions are used for each group. For the certificated group, 20% of terminating members are assumed to take a refund and 80% are assumed to leave their employee account balance in the System and draw a monthly benefit when eligible. For the classified group, 40% are assumed to elect a refund of their employee account balance and forfeit any monthly income and 60% are assumed to leave their funds with the System. The following table shows the number of vested members who terminated and elected to leave their funds with the System.



SECTION 8— TERMINATION OF EMPLOYMENT (WITHDRAWAL)

Classified	Election of Deferred Benefit		
	<u>Actual</u>	<u>Terminations</u>	<u>Percent</u>
• Less than 11 YOS	107	164	65%
• 11 or More YOS	<u>69</u>	<u>92</u>	75%
Total	176	256	69%

There were more terminated vested members who elected to leave their contributions in the System and receive a monthly benefit at retirement eligibility than was anticipated by the current assumption for both groups. In addition, we further analyzed the data by years of service and observed a higher election of deferred benefits by members with more years of service. This seems a reasonable expectation given the general expectation that member with more years of service will have larger benefit amounts and be older.

Given the experience in this study, we are recommending the assumption for classified members be modified to assume that 65% of all terminating members with less than 11 years of service and 75% of all terminating members with 11 or more years of service will elect to leave their money in the System and later receive a monthly benefit.

Certificated	Election of Deferred Benefit		
	<u>Actual</u>	<u>Terminations</u>	<u>Percent</u>
• Less than 15 YOS	368	444	83%
• 15 or More YOS	<u>81</u>	<u>92</u>	88%
Total	449	536	84%

The pattern for certificated members did vary by years of service but not dramatically. Having said that, we believe there should be a higher probability of members leaving their contribution with the System with higher years of service. Therefore, for certificated members, we recommend assuming 80% of members who terminate with less than 15 years of service and 90% who terminated with 15 or more years of service will elect to leave their money in the System and later received a monthly benefit.



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APPENDIX A – CURRENT ASSUMPTIONS

Interest Rate: 7.50% per annum, compounded annually, net of expenses.

Mortality Rates: RP-2014 Mortality Table for males, set forward one year.
RP-2014 Mortality Table for females, set back one year.

Future mortality rates are projected on a generational basis using Scale MP-2016, which reflects the expectation that mortality rates will decline over time.

Disabled retirees use the RP-2014 Disabled Retiree Mortality Table, without generational improvement.

Disability: None assumed.

Termination of Employment:
(prior to retirement eligibility) Illustrative rates of termination are as follows:

Certificated:

<u>Percent Terminating</u>	
<u>Duration</u>	<u>Rate</u>
1	11.25%
5	8.00
10	4.50
15	2.25
20	1.00
25	1.00

Classified:

<u>Percent Terminating</u>		
<u>Duration</u>	<u>Male</u>	<u>Female</u>
1	11.00%	15.00%
5	6.00	9.00
10	2.40	4.00
15	1.00	1.75
20	1.00	1.00
25	1.00	1.00



APPENDIX A – CURRENT ASSUMPTIONS

Retirement Rates: Early retirement rates are assumed to occur according to the schedule illustrated below:

Became members before July 1, 2016

Certificated:		Classified:	
<u>Age</u>	<u>Early</u>	<u>Age</u>	<u>Early</u>
55	10%	55	3%
56	6	56	3
57	6	57	3
58	6	58	3
59	8	59	3
60	12	60	5
61	12	61	10

Became members on or after July 1, 2016

Certificated:		Classified:	
<u>Age</u>	<u>Early</u>	<u>Age</u>	<u>Early</u>
60	12%	60	5%
61	12	61	10
62	12	62	10
63	12	63	10
64	12	64	10



APPENDIX A – CURRENT ASSUMPTIONS

Unreduced retirement rates are assumed to occur according to the schedule illustrated below:

Became members before July 1, 2018

Certificated:

<u>Age</u>	<u>1st Year Eligible</u>	<u>Ultimate</u>
55	60%	
56	50	35%
57	45	35
58	45	35
59	45	25
60	35	25
61	25	25
62	25	25
63	25	25
64	30	30
65	35	35
66	35	35
67	35	35
68	35	35
69	100	35
70	100	100

Classified:

<u>Age</u>	<u>1st Year Eligible</u>	<u>Ultimate</u>
55	20%	
56	10	12%
57	10	12
58	10	12
59	15	12
60	15	12
61	15	20
62	20	20
63	20	20
64	20	20
65	25	35
66	20	23
67	20	23
68	20	23
69	20	23
70	100	100



APPENDIX A – CURRENT ASSUMPTIONS

Members hired on or after July 1, 2018

Certificated:

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<u>Age</u>	<u>1st Year Eligible</u>	<u>Ultimate</u>
60	65%	
61	25	25%
62	25	25
63	25	25
64	30	30
65	35	35
66	35	35
67	35	35
68	35	35
69	100	35
70	100	100

Classified:

<u>Age</u>	<u>1st Year Eligible</u>	<u>Ultimate</u>
60	40%	
61	15	20%
62	20	20
63	20	20
64	20	20
65	25	35
66	20	23
67	20	23
68	20	23
69	20	23
70	100	100

Deferred vested members are assumed to retire at first un-reduced retirement age.



APPENDIX A – CURRENT ASSUMPTIONS

Salary Scale: Salaries are assumed to increase according to the schedule illustrated below:

Duration	Annual Salary Increase	
	Certificated	Classified
0	5.75%	6.25%
1	5.75	5.75
2	5.75	5.25
3	5.75	5.00
4-6	5.75	4.75
7-11	5.75	4.25
12-14	5.75	3.75
15-21	5.25	3.75
22+	4.25	3.75

Note: Salaries are assumed to increase by 2.0% for members who have not yet finalized their contract negotiations as of the valuation date.

Pre-Retirement
Survivor Annuity:

It is assumed that females are three years younger than males, and that all members are married.

Probability of Electing a Refund:

The proportion of terminating vested members electing a refund of member contributions:

20% for Certificated members
40% for Classified members

Assumed Interest Rate Credited
on Employee Contributions:

2.75% compounded annually.

Inflation (CPI):

2.75% compounded annually.

Total Payroll Growth:

3.25% compounded annually.

Decrement Timing:

Middle of year

Cost of Living Adjustments:

1.5% for members hired before 7/1/2013
1.0% for members hired on or after 7/1/2013

Inactive Vested Load:

A 5% load on deferred monthly benefits is included to reflect that some inactive vested members' account balances are greater than the present value of their deferred benefit.

Valuation Salary Methodology:

Valuation salaries are imputed using each member's contribution amount during the prior year. For members who did not work a full year, their salaries are annualized using current salary rates.



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APPENDIX B – PROPOSED ASSUMPTIONS

Interest Rate: 7.00% per annum, compounded annually, net of investment expenses.

Mortality Rates: Active members use the Pub-2010 General Members (Median) Employee Mortality Table projected generationally using the NPERS projection scale.

Retirees use the Pub-2010 General Members (Median) Retiree Mortality Table projected generationally using the NPERS projection scale.

Beneficiaries use the Pub-2010 General Members (Median) Contingent Survivor Mortality Table projected generationally using the NPERS projection scale.

Disabled retirees use the Pub-2010 Non-Safety Disabled Retiree Mortality Table, without generational improvement.

Disability: None assumed.

Termination of Employment: (prior to retirement eligibility) Illustrative rates of termination are as follows:

Certificated:

Percent Terminating	
<u>Duration</u>	<u>Rate</u>
1	10.00%
5	8.00
10	4.50
15	2.50
20	1.25
25	1.00
30	0.75

Classified:

Percent Terminating		
<u>Duration</u>	<u>Male</u>	<u>Female</u>
1	10.00%	13.00%
5	6.00	8.00
10	2.65	4.00
15	1.60	1.75
20	1.00	0.80
25	0.50	0.50
30	0.50	0.50



APPENDIX B – PROPOSED ASSUMPTIONS

Retirement Rates: Early retirement rates are assumed to occur according to the schedule illustrated below:

Became members before July 1, 2016

Certificated:		Classified:	
<u>Age</u>	<u>Early</u>	<u>Age</u>	<u>Early</u>
55	6%	55	5%
56	6	56	3
57	6	57	3
58	6	58	3
59	8	59	3
60	12	60	3
61	12	61	7

Became members on or after July 1, 2016

Certificated:		Classified:	
<u>Age</u>	<u>Early</u>	<u>Age</u>	<u>Early</u>
60	12%	60	3%
61	12	61	7
62	12	62	7
63	12	63	7
64	12	64	7



APPENDIX B – PROPOSED ASSUMPTIONS

Unreduced retirement rates are assumed to occur according to the schedule illustrated below:

Became members before July 1, 2018

Certificated:

<u>Age</u>	<u>1st Year Eligible</u>	<u>Ultimate</u>
55	40%	
56	40	40%
57	40	20
58	40	20
59	40	20
60	30	20
61	22	20
62	22	25
63	25	20
64	25	25
65	40	30
66	40	40
67	40	40
68	40	35
69	100	35
70	100	100

Classified:

<u>Age</u>	<u>1st Year Eligible</u>	<u>Ultimate</u>
55	35%	
56	13	10%
57	13	10
58	13	10
59	13	10
60	13	10
61	13	10
62	18	15
63	18	15
64	18	15
65	18	35
66	18	35
67	18	30
68	18	30
69	18	25
70	100	25
71	100	25
72	100	25
73	100	25
74	100	25
75	100	100



APPENDIX B – PROPOSED ASSUMPTIONS

Members hired on or after July 1, 2018

Certificated:

<u>Age</u>	<u>1st Year Eligible</u>	<u>Ultimate</u>
60	40%	
61	22	20%
62	22	25
63	25	20
64	25	25
65	40	30
66	40	40
67	40	40
68	40	35
69	100	35
70	100	100

Classified:

<u>Age</u>	<u>1st Year Eligible</u>	<u>Ultimate</u>
60	30%	
61	13	10%
62	18	15
63	18	15
64	18	15
65	18	35
66	18	35
67	18	30
68	18	30
69	18	25
70	100	25
71	100	25
72	100	25
73	100	25
74	100	25
75	100	100

Deferred vested members are assumed to retire at first un-reduced retirement age.



APPENDIX B – PROPOSED ASSUMPTIONS

Salary Scale: Salaries are assumed to increase according to the schedule illustrated below:

Duration	Annual Salary Increase	
	Certificated	Classified
0	4.95%	6.25%
1	4.95	5.10
2	4.95	4.85
3	4.95	4.60
4	4.95	4.35
5	4.95	4.25
6	4.95	4.15
7	4.95	4.05
8-9	4.95	3.85
10	4.95	4.95
11	4.95	3.85
12-14	4.95	3.35
15	5.60	5.35
16-19	4.80	3.35
20	5.10	4.85
21-23	3.90	3.35
24	4.35	3.35
25	5.85	4.85
26-29	3.10	3.10
30	3.85	4.85
31-34	3.10	2.85
35	3.85	3.35
36-39	2.85	2.85
40	3.60	3.85

Note: Salaries are assumed to increase by 2.0% for members who have not yet finalized their contract negotiations as of the valuation date.

Pre-Retirement
Survivor Annuity:

It is assumed that females are three years younger than males, and that 85% members are married.

Probability of Electing a Refund:

The proportion of terminating vested members electing a refund of member contributions:

- 20% for Certificated members with less than 15 years of service
- 10% for Certificated members with 15 or more years of service
- 35% for Classified members with less than 11 years of service
- 25% for Classified members with 11 or more years of service

Assumed Interest Rate Credited
on Employee Contributions:

2.35% compounded annually.

Inflation (CPI):

2.35% compounded annually.



APPENDIX B – PROPOSED ASSUMPTIONS

Total Payroll Growth:	2.85% compounded annually.
Decrement Timing:	Middle of year
Cost of Living Adjustments:	1.5% for members hired before 7/1/2013 1.0% for members hired on or after 7/1/2013
Administrative Expense	0.24% of payroll
Inactive Vested Load:	A 5% load on deferred monthly benefits is included to reflect that some inactive vested members' account balances are greater than the present value of their deferred benefit.
Valuation Salary Methodology:	Valuation salaries are imputed using each member's contribution amount during the prior year. For members who did not work a full year, their salaries are annualized using current salary rates.



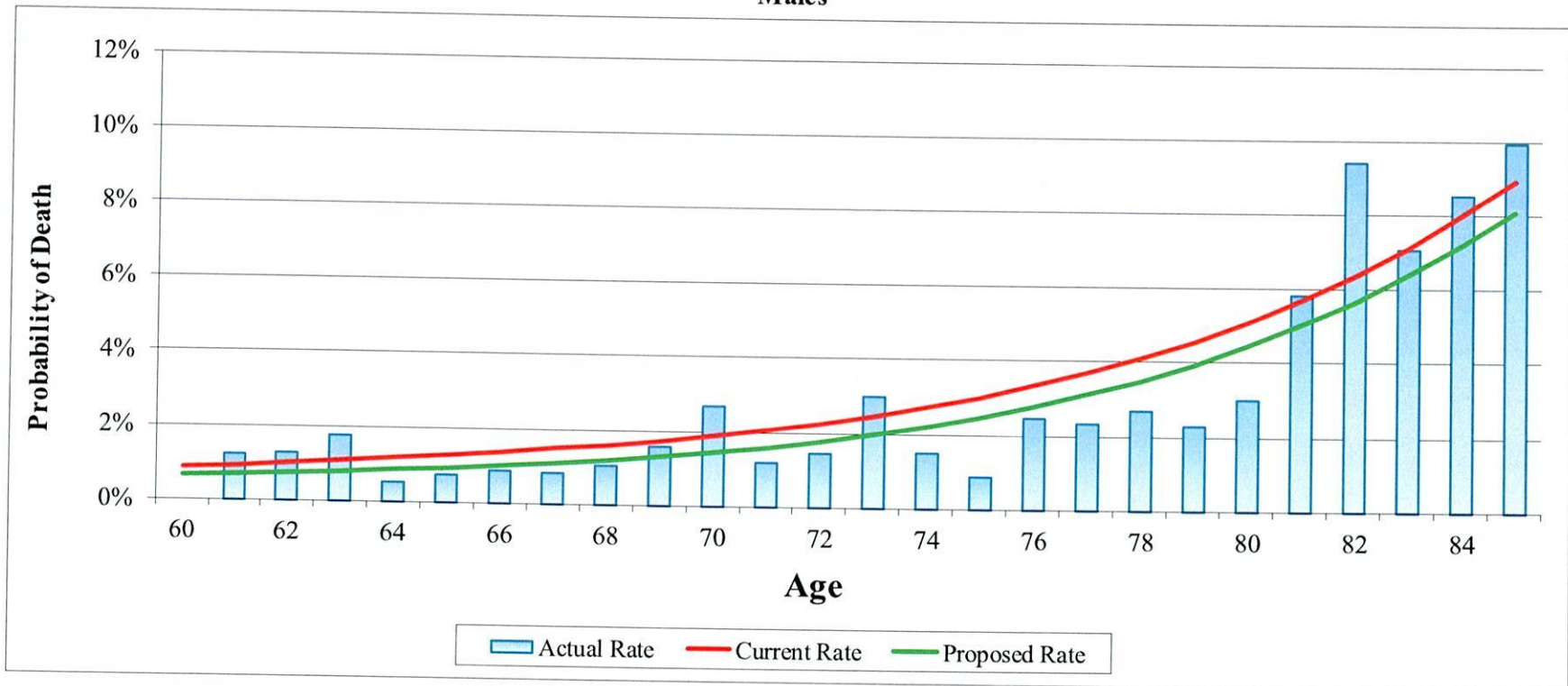
Omaha School Employees' Retirement System

Experience Study 2017-2020

Exhibit C-1

Probability of Death - Healthy Retirees

Males

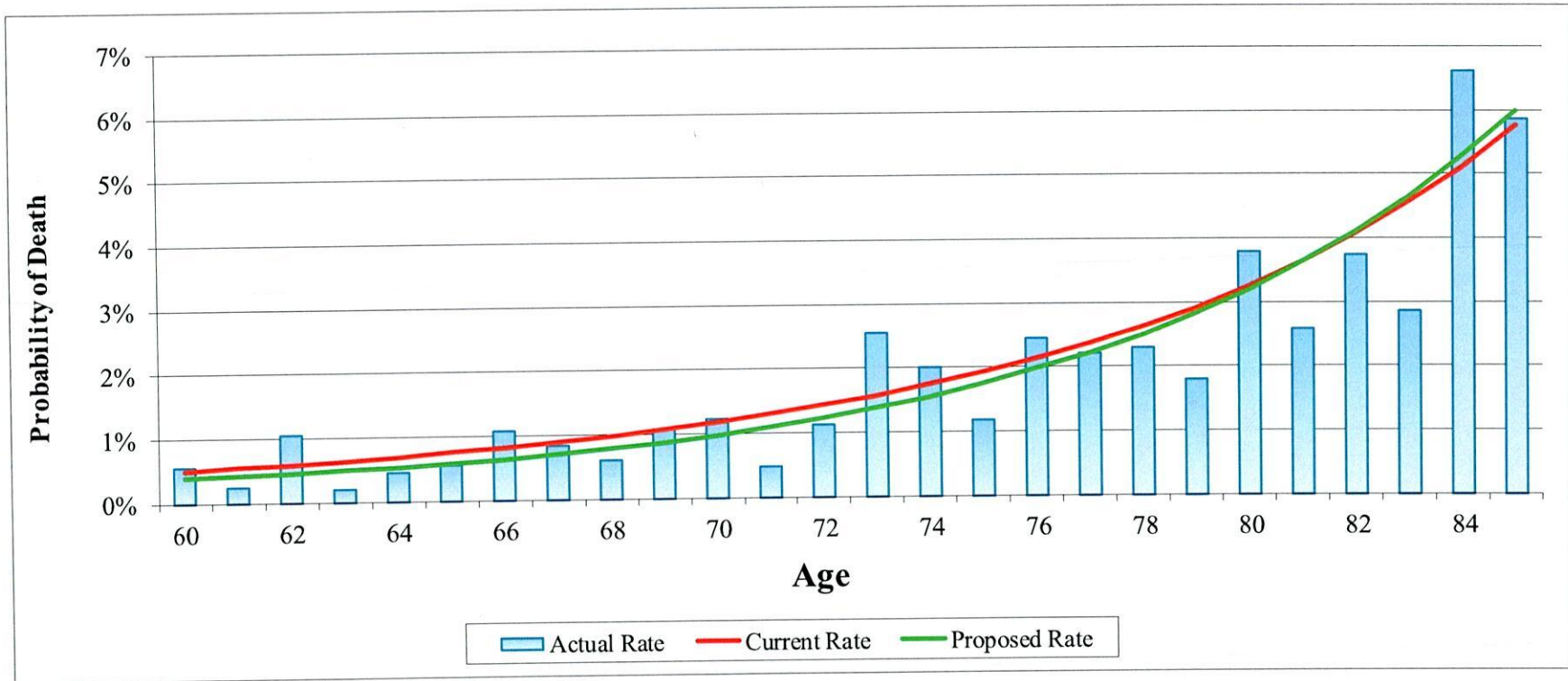


	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Weighted Count	431,591	526,252	431,713
Actual/Expected		82%	100%

Note: Analysis combines data from previous experience study



Omaha School Employees' Retirement System
Experience Study 2017-2020
Exhibit C-2
Probability of Death - Healthy Retirees
Females



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Weighted Count	577,640	629,748	568,707
Actual/Expected		92%	102%

Note: Analysis combines data from previous experience study



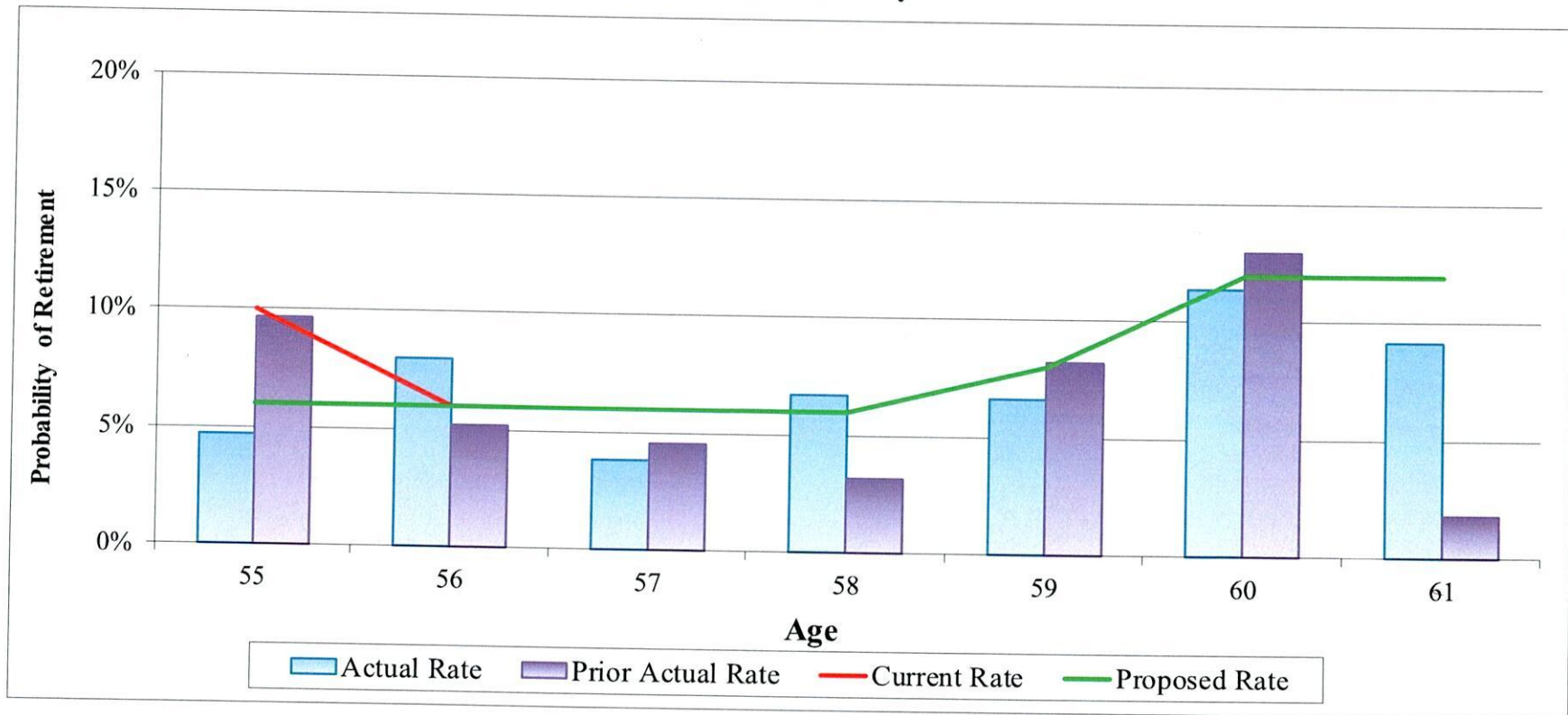
Omaha School Employees' Retirement System

Experience Study 2017-2020

Exhibit C-3

Retirement Rates

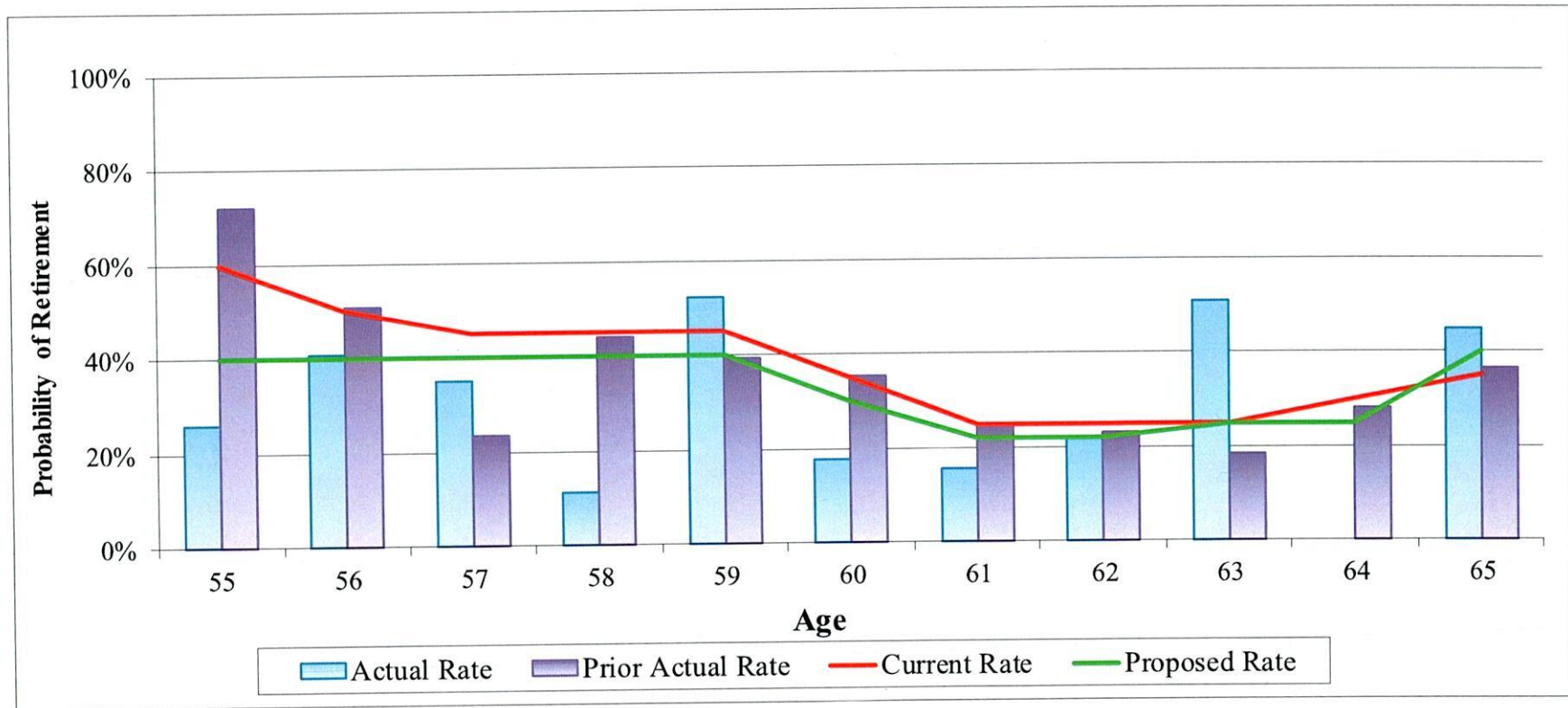
Certificated - Early



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Weighted Count	102	124	112
Actual/Expected		82%	91%



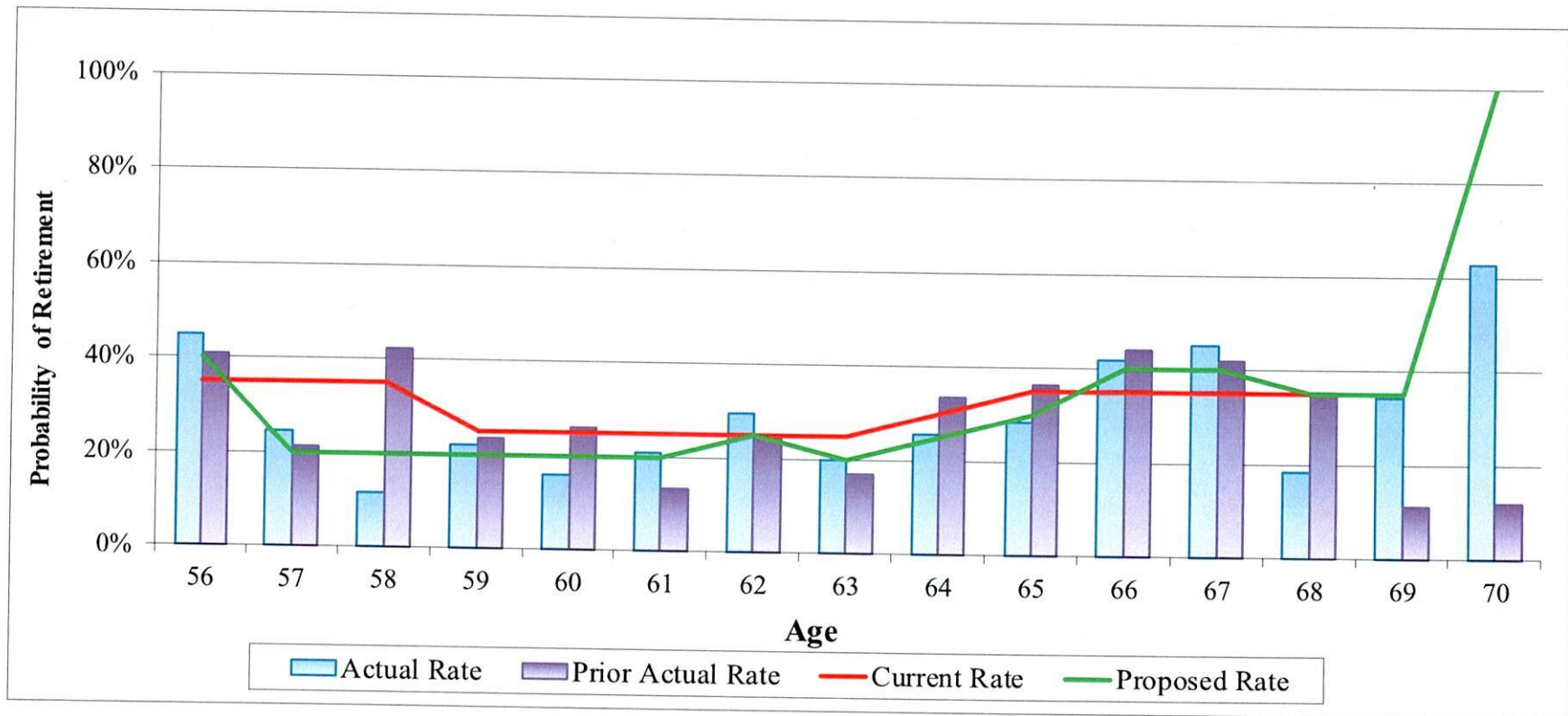
Omaha School Employees' Retirement System
 Experience Study 2017-2020
 Exhibit C-4
 Retirement Rates
 Certificated - Select



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Weighted Count	163	257	201
Actual/Expected		63%	81%



Omaha School Employees' Retirement System
Experience Study 2017-2020
Exhibit C-5
Retirement Rates
Certificated - Ultimate



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Weighted Count	456	518	462
Actual/Expected		88%	99%



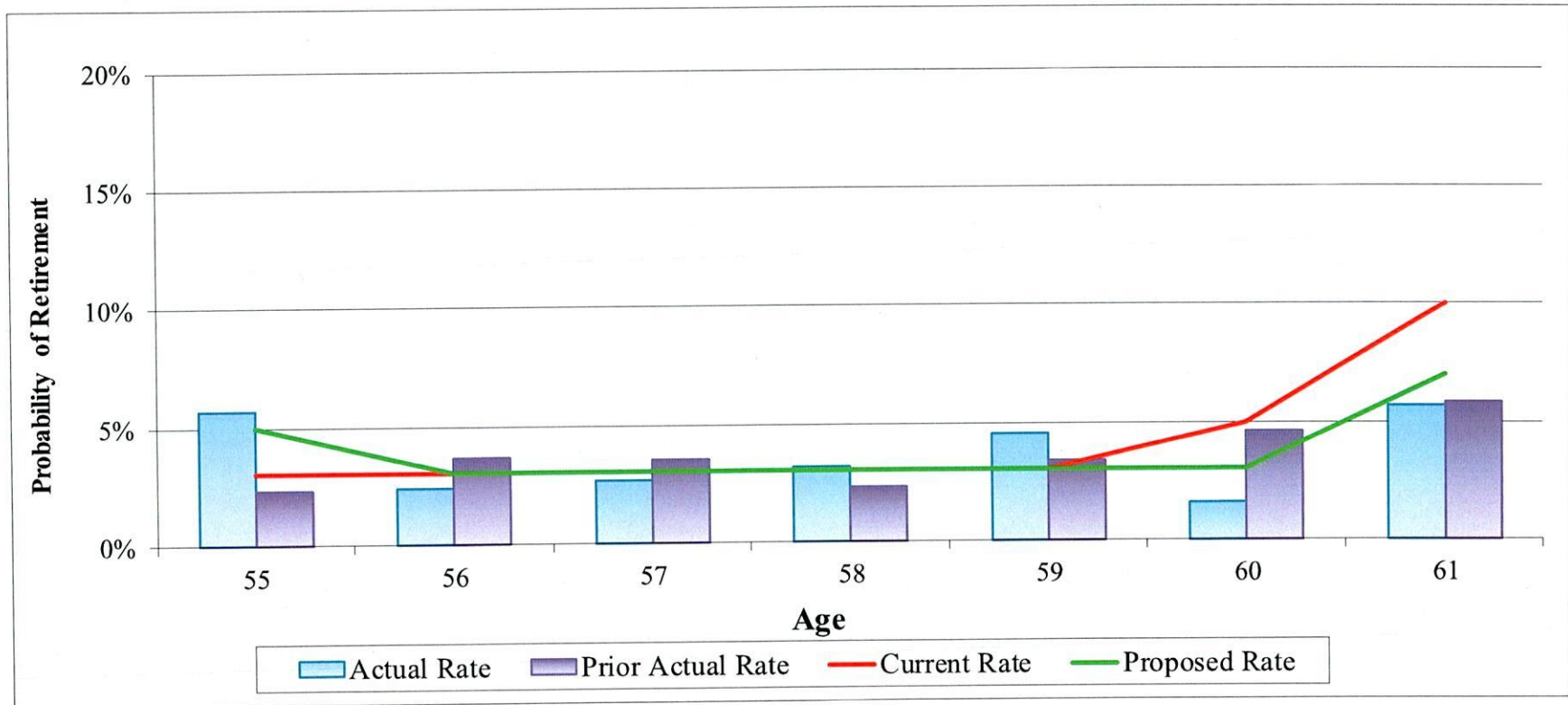
Omaha School Employees' Retirement System

Experience Study 2017-2020

Exhibit C-6

Retirement Rates

Classified - Early



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Weighted Count	25	28	26
Actual/Expected		89%	97%



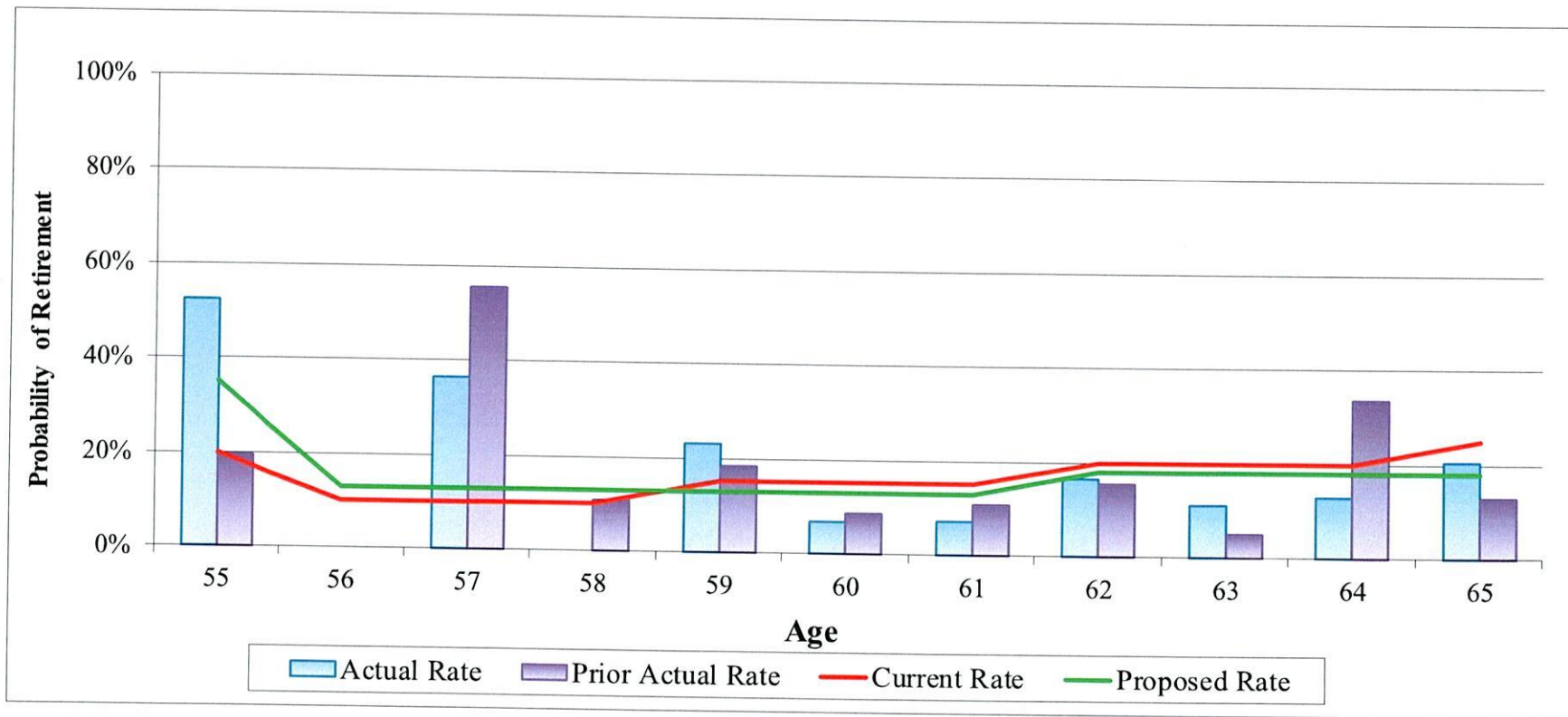
Omaha School Employees' Retirement System

Experience Study 2017-2020

Exhibit C-7

Retirement Rates

Classified - Select



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Weighted Count	32	32	31
Actual/Expected		99%	101%



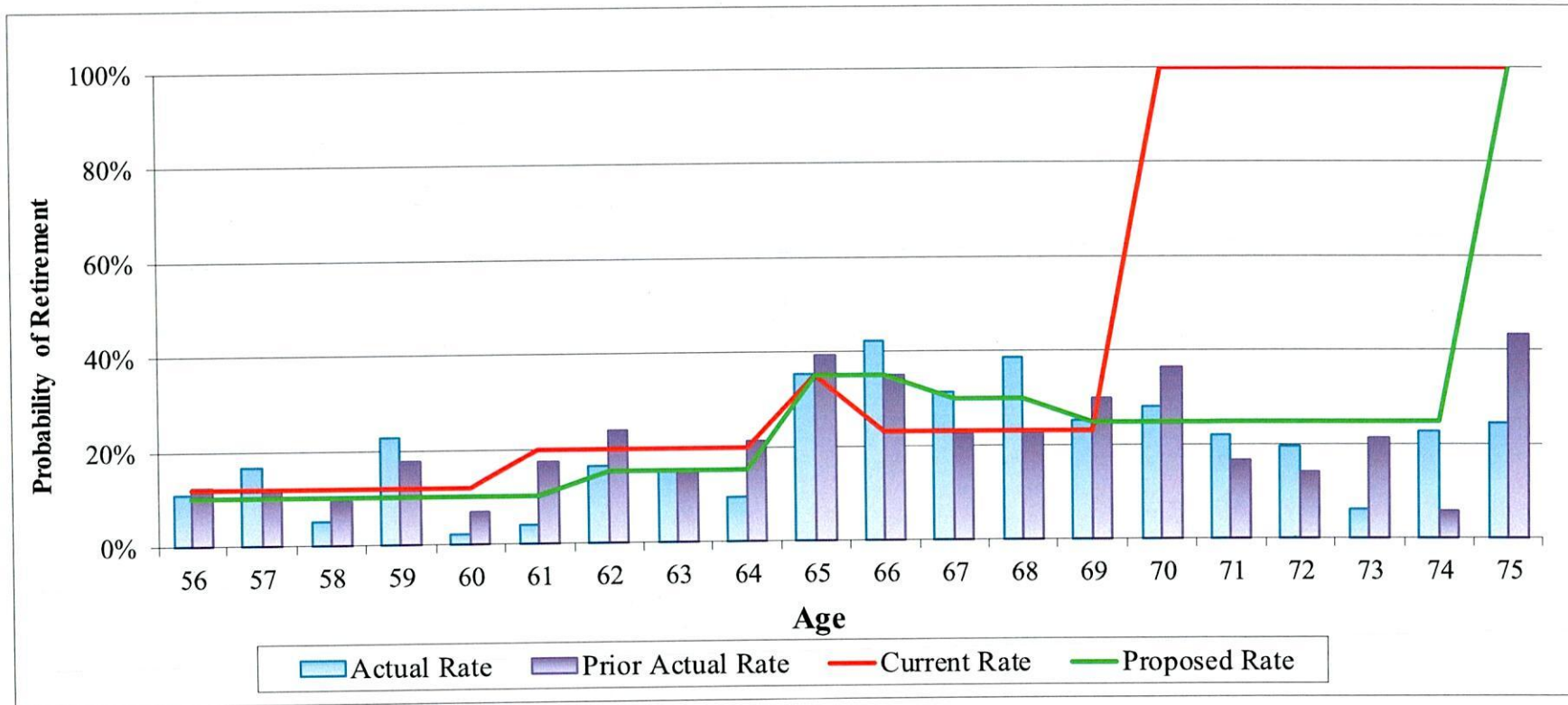
Omaha School Employees' Retirement System

Experience Study 2017-2020

Exhibit C-8

Retirement Rates

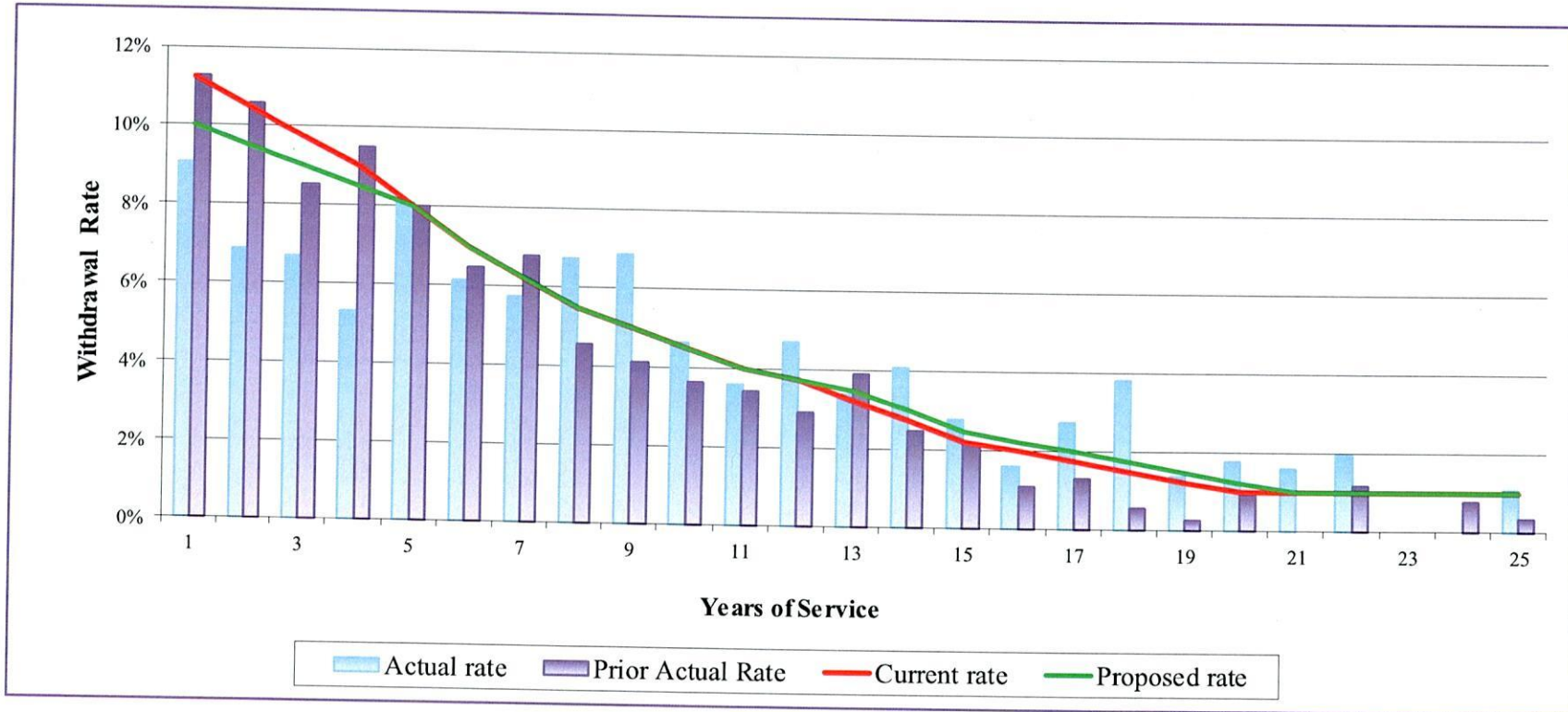
Classified - Ultimate



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Weighted Count	187	261	193
Actual/Expected		72%	97%



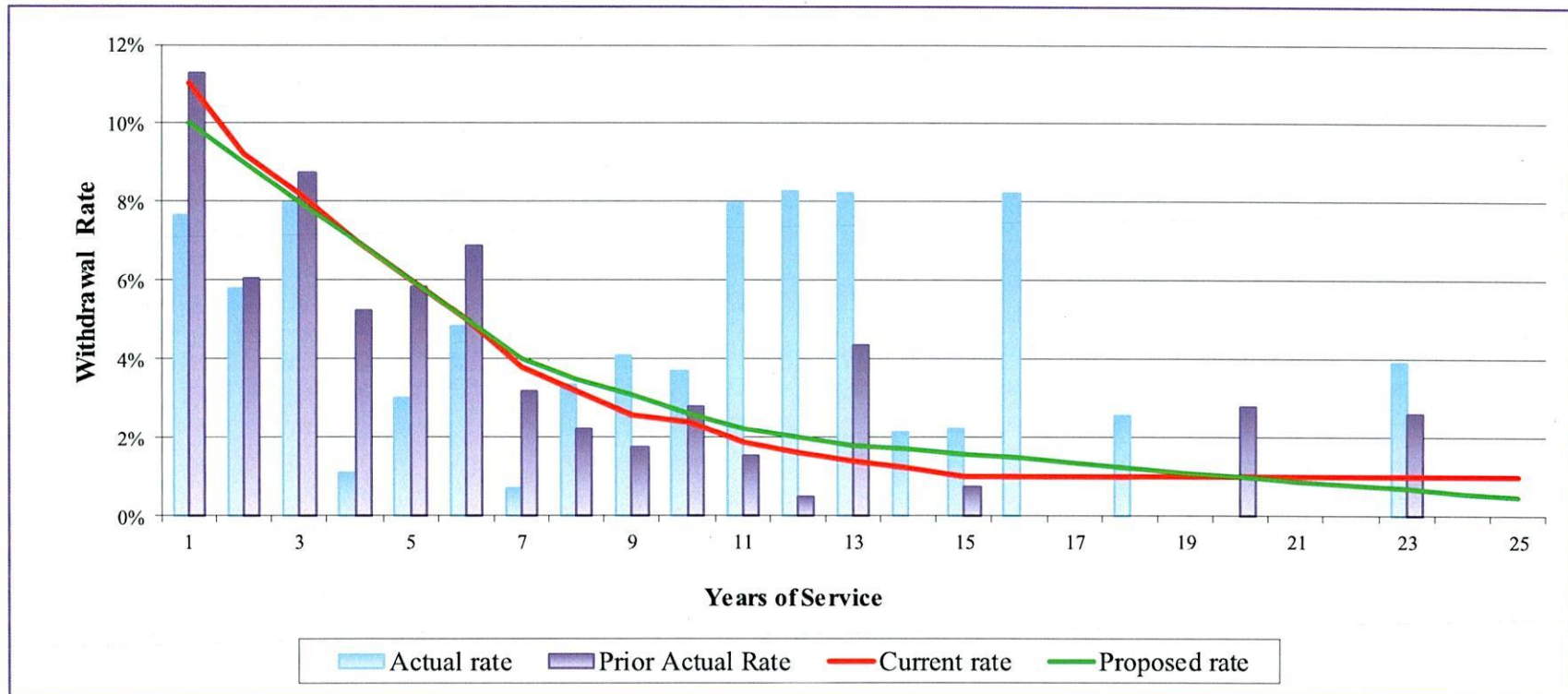
Omaha School Employees' Retirement System
Experience Study 2017-2020
Exhibit C-9
Rate of Termination of Employment
Certificated



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Weighted Count	305	284	289
Actual/Expected		108%	106%



Omaha School Employees' Retirement System
Experience Study 2017-2020
Exhibit C-10
Rate of Termination of Employment
Classified - Males



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Weighted Count	19	16	17
Actual/Expected		116%	111%



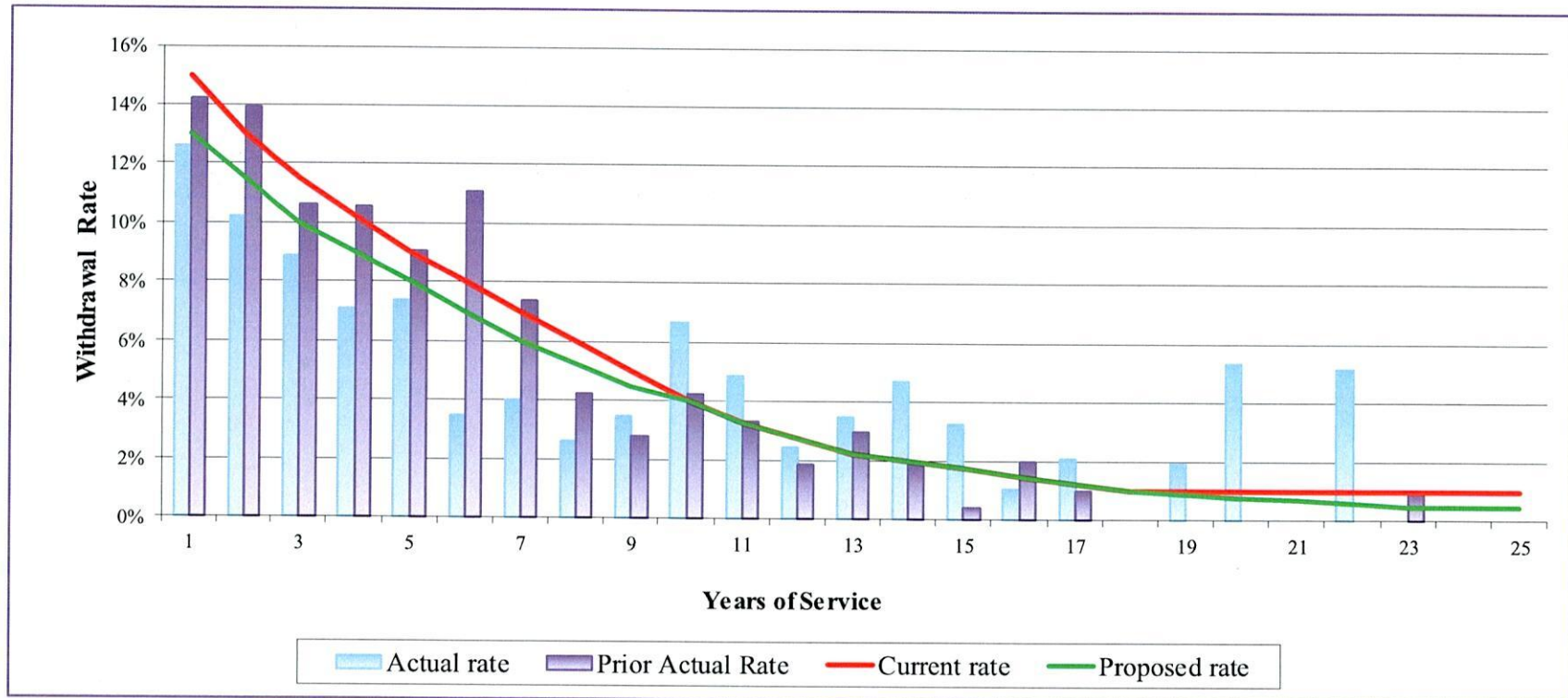
Omaha School Employees' Retirement System

Experience Study 2017-2020

Exhibit C-11

Rate of Termination of Employment

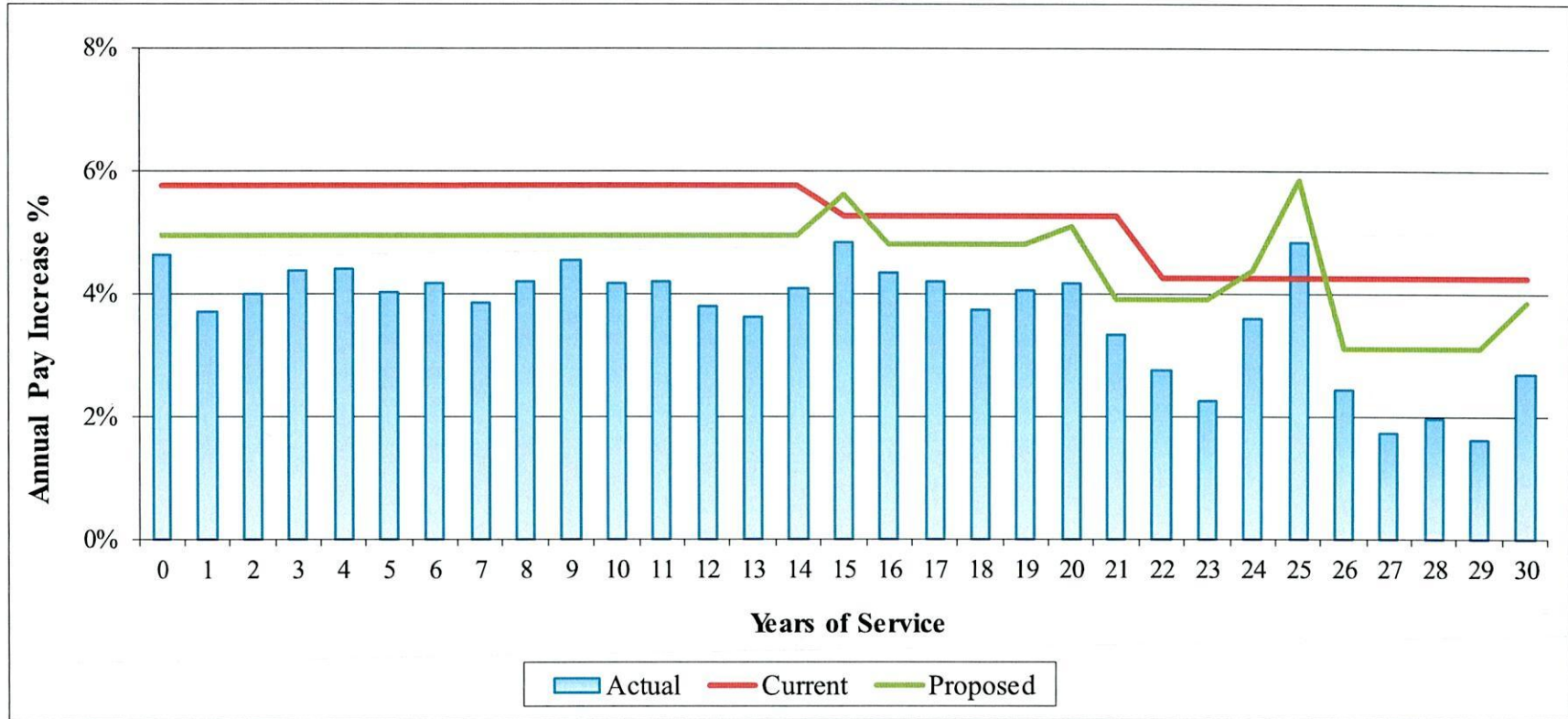
Classified - Females



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Weighted Count	30	34	30
Actual/Expected		90%	100%



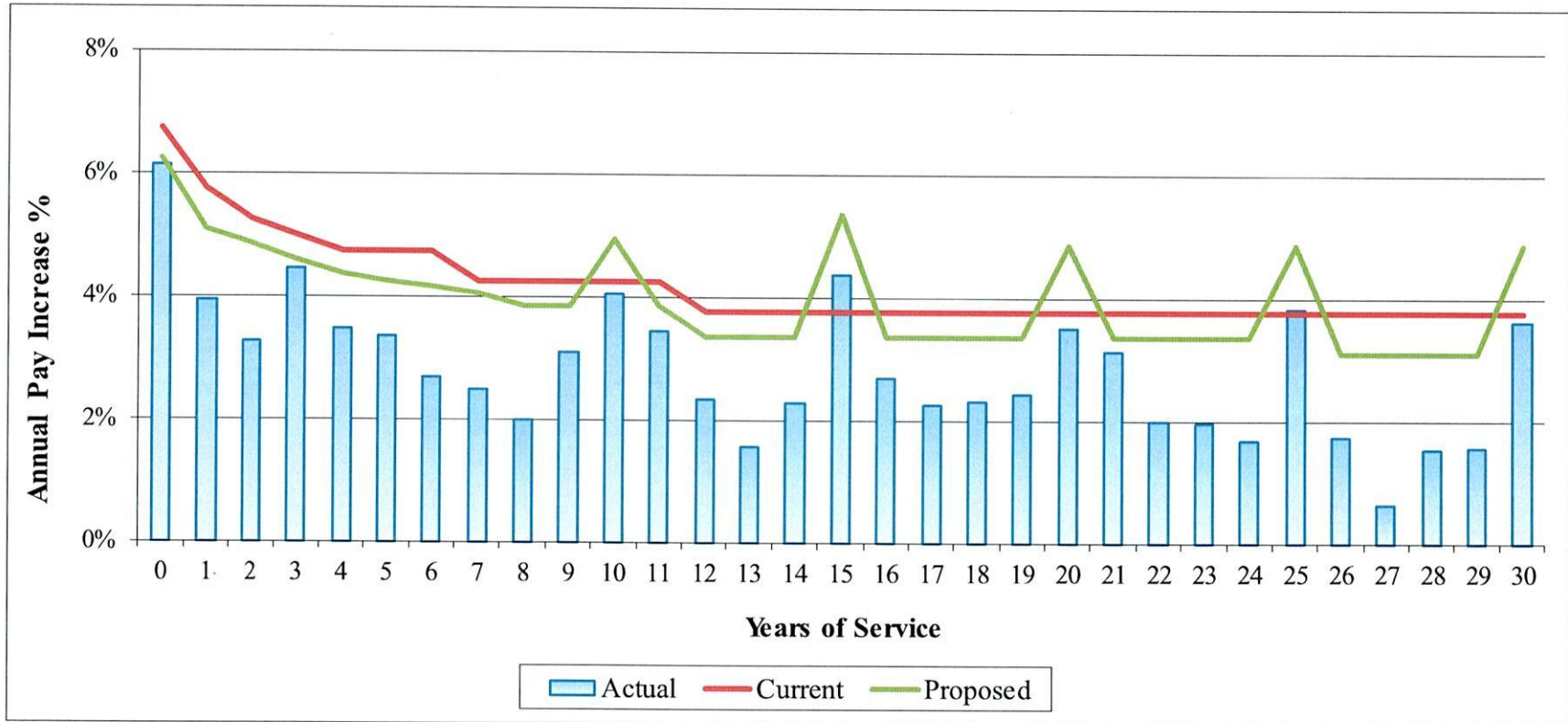
Omaha School Employees' Retirement System
Experience Study 2017-2020
Exhibit C-12
Total Salary Scale
Certificated



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Average Increase	3.89%	5.39%	4.83%
Actual/Expected		72%	81%



Omaha School Employees' Retirement System
 Experience Study 2017-2020
 Exhibit C-13
 Total Salary Scale
 Classified



	Actual	Expected - Current Assumptions	Expected - Proposed Assumptions
Average Increase	3.08%	4.40%	4.19%
Actual/Expected		70%	74%



APPENDIX C – EXHIBITS

Data Summary D-1
 Probability of Death - Healthy Retirees
 Males

<u>Age</u>	<u>Exposure</u>	<u>Actual Deaths</u>	<u>Actual Rate</u>	<u>Current Expected</u>	<u>Current Rate</u>	<u>Proposed Expected</u>	<u>Proposed Rate</u>
60	410,131	–	0.000%	3,538	0.863%	2,630	0.641%
61	447,102	5,431	1.215%	4,159	0.930%	3,086	0.690%
62	590,020	7,551	1.280%	5,918	1.003%	4,377	0.742%
63	717,329	12,677	1.767%	7,758	1.082%	5,703	0.795%
64	849,462	4,179	0.492%	9,910	1.167%	7,249	0.853%
65	1,021,335	7,448	0.729%	12,852	1.258%	9,382	0.919%
66	1,125,749	9,649	0.857%	15,300	1.359%	11,186	0.994%
67	1,131,577	9,468	0.837%	16,627	1.469%	12,230	1.081%
68	1,223,377	12,831	1.049%	19,483	1.593%	14,459	1.182%
69	1,222,804	19,067	1.559%	21,163	1.731%	15,894	1.300%
70	1,289,650	34,871	2.704%	24,312	1.885%	18,512	1.435%
71	1,183,087	13,732	1.161%	24,363	2.059%	18,811	1.590%
72	1,077,656	15,571	1.445%	24,310	2.256%	19,061	1.769%
73	1,004,875	30,224	3.008%	24,901	2.478%	19,810	1.971%
74	919,243	13,668	1.487%	25,076	2.728%	20,260	2.204%
75	901,204	8,021	0.890%	27,137	3.011%	22,251	2.469%
76	831,557	20,692	2.488%	27,707	3.332%	23,043	2.771%
77	725,794	16,965	2.337%	26,804	3.693%	22,606	3.115%
78	620,515	16,804	2.708%	25,470	4.105%	21,754	3.506%
79	586,485	13,551	2.311%	26,797	4.569%	23,164	3.950%
80	523,904	15,812	3.018%	26,696	5.096%	23,338	4.455%
81	457,263	26,648	5.828%	26,029	5.692%	22,990	5.028%
82	411,559	38,853	9.440%	26,209	6.368%	23,364	5.677%
83	351,456	24,881	7.079%	25,065	7.132%	22,513	6.406%
84	311,719	26,577	8.526%	24,914	7.992%	22,501	7.218%
85	265,237	26,419	9.961%	23,755	8.956%	21,541	8.121%
	20,200,091	431,591	2.137%	526,252	2.605%	431,713	2.137%



APPENDIX C – EXHIBITS

Data Summary D-2
Probability of Death - Healthy Retirees
Females

<u>Age</u>	<u>Exposure</u>	<u>Actual Deaths</u>	<u>Actual Rate</u>	<u>Current Expected</u>	<u>Current Rate</u>	<u>Proposed Expected</u>	<u>Proposed Rate</u>
60	1,214,013	6,811	0.561%	6,144	0.506%	4,920	0.405%
61	1,454,772	3,510	0.241%	7,968	0.548%	6,297	0.433%
62	1,674,869	17,389	1.038%	9,945	0.594%	7,773	0.464%
63	1,945,310	3,845	0.198%	12,528	0.644%	9,750	0.501%
64	2,167,665	10,025	0.462%	15,148	0.699%	11,758	0.542%
65	2,305,548	12,658	0.549%	17,516	0.760%	13,623	0.591%
66	2,637,520	28,489	1.080%	21,792	0.826%	17,054	0.647%
67	2,698,667	22,428	0.831%	24,307	0.901%	19,180	0.711%
68	2,666,474	16,455	0.617%	26,225	0.984%	20,962	0.786%
69	2,599,463	27,938	1.075%	27,987	1.077%	22,713	0.874%
70	2,455,616	30,462	1.241%	28,995	1.181%	23,935	0.975%
71	2,178,573	10,677	0.490%	28,291	1.299%	23,782	1.092%
72	2,016,070	22,889	1.135%	28,832	1.430%	24,715	1.226%
73	1,774,156	45,084	2.541%	27,987	1.577%	24,467	1.379%
74	1,456,882	29,369	2.016%	25,380	1.742%	22,628	1.553%
75	1,392,004	16,509	1.186%	26,819	1.927%	24,370	1.751%
76	1,312,630	32,287	2.460%	28,005	2.133%	25,901	1.973%
77	1,193,787	26,402	2.212%	28,224	2.364%	26,571	2.226%
78	1,085,325	24,761	2.281%	28,498	2.626%	27,263	2.512%
79	987,979	17,905	1.812%	28,862	2.921%	28,023	2.836%
80	867,747	33,034	3.807%	28,254	3.256%	27,830	3.207%
81	853,292	21,954	2.573%	31,033	3.637%	30,969	3.629%
82	759,479	28,461	3.747%	30,909	4.070%	31,223	4.111%
83	657,956	18,759	2.851%	30,010	4.561%	30,659	4.660%
84	593,979	39,237	6.606%	30,409	5.120%	31,399	5.286%
85	515,790	30,303	5.875%	29,682	5.755%	30,941	5.999%
	41,465,565	577,640	1.393%	629,748	1.519%	568,707	1.372%



APPENDIX C – EXHIBITS

Data Summary D-3
Retirement Rates
Certificated - Early
(Liability Weighted)

<u>Age</u>	<u>Exposure</u>	<u>Actual Retirements</u>	<u>Actual Rate</u>	<u>Current Expected</u>	<u>Current Rate</u>	<u>Proposed Expected</u>	<u>Proposed Rate</u>
55	309	14	4.661%	30.9	10.000%	18.5	6.000%
56	253	20	8.030%	15.2	6.000%	15.2	6.000%
57	217	8	3.828%	13.0	6.000%	13.0	6.000%
58	197	13	6.725%	11.8	6.000%	11.8	6.000%
59	190	13	6.619%	15.2	8.000%	15.2	8.000%
60	171	20	11.405%	20.6	12.000%	20.6	12.000%
61	144	13	9.178%	17.3	12.000%	17.3	12.000%
	1,482	102	6.859%	124.0	8.369%	111.7	7.536%



APPENDIX C – EXHIBITS

Data Summary D-4
Retirement Rates
Certificated - Select
(Liability Weighted)

<u>Age</u>	<u>Exposure</u>	<u>Actual Retirements</u>	<u>Actual Rate</u>	<u>Current Expected</u>	<u>Current Rate</u>	<u>Proposed Expected</u>	<u>Proposed Rate</u>
55	188	49	26.032%	113.0	60.000%	75.3	40.000%
56	78	32	40.621%	39.2	50.000%	31.3	40.000%
57	40	14	34.844%	18.2	45.000%	16.2	40.000%
58	32	4	11.305%	14.3	45.000%	12.7	40.000%
59	31	16	52.242%	14.1	45.000%	12.5	40.000%
60	34	6	17.807%	12.0	35.000%	10.3	30.000%
61	20	3	15.355%	5.1	25.000%	4.5	22.000%
62	143	31	21.965%	35.7	25.000%	31.4	22.000%
63	3	2	50.929%	0.8	25.000%	0.8	25.000%
64	1	–	0.000%	0.4	30.000%	0.3	25.000%
65	13	6	44.556%	4.6	35.000%	5.3	40.000%
	586	163	27.849%	257.4	43.965%	200.7	34.282%



APPENDIX C – EXHIBITS

Data Summary D-5
Retirement Rates
Certificated - Ultimate
(Liability Weighted)

<u>Age</u>	<u>Exposure</u>	<u>Actual</u> <u>Retirements</u>	<u>Actual</u> <u>Rate</u>	<u>Current</u> <u>Expected</u>	<u>Current</u> <u>Rate</u>	<u>Proposed</u> <u>Expected</u>	<u>Proposed</u> <u>Rate</u>
56	123	55	44.697%	43.1	35.000%	49.2	40.000%
57	134	33	24.508%	46.9	35.000%	26.8	20.000%
58	102	12	11.617%	35.6	35.000%	20.3	20.000%
59	90	20	22.166%	22.5	25.000%	18.0	20.000%
60	83	13	15.927%	20.7	25.000%	16.6	20.000%
61	98	21	21.105%	24.6	25.000%	19.7	20.000%
62	98	29	29.522%	24.4	25.000%	24.4	25.000%
63	194	39	20.010%	48.6	25.000%	38.9	20.000%
64	168	43	25.599%	50.5	30.000%	42.1	25.000%
65	153	43	28.368%	53.5	35.000%	45.8	30.000%
66	145	61	41.758%	50.8	35.000%	58.0	40.000%
67	102	46	44.936%	35.6	35.000%	40.6	40.000%
68	55	10	18.229%	19.1	35.000%	19.1	35.000%
69	46	16	34.399%	16.0	35.000%	16.0	35.000%
70	26	16	62.818%	26.1	100.000%	26.1	100.000%
	1,616	456	28.217%	517.9	32.045%	461.7	28.569%



APPENDIX C – EXHIBITS

Data Summary D-6
Retirement Rates
Classified - Early
(Liability Weighted)

<u>Age</u>	<u>Exposure</u>	<u>Actual Retirements</u>	<u>Actual Rate</u>	<u>Current Expected</u>	<u>Current Rate</u>	<u>Proposed Expected</u>	<u>Proposed Rate</u>
55	101	6	5.685%	3.0	3.000%	5.1	5.000%
56	91	2	2.399%	2.7	3.000%	2.7	3.000%
57	107	3	2.680%	3.2	3.000%	3.2	3.000%
58	112	4	3.145%	3.4	3.000%	3.4	3.000%
59	109	5	4.522%	3.3	3.000%	3.3	3.000%
60	93	1	1.581%	4.6	5.000%	2.8	3.000%
61	82	5	5.722%	8.2	10.000%	5.7	7.000%
	695	25	3.656%	28.4	4.090%	26.1	3.761%



APPENDIX C – EXHIBITS

Data Summary D-7
Retirement Rates
Classified - Select
(Liability Weighted)

<u>Age</u>	<u>Exposure</u>	<u>Actual Retirements</u>	<u>Actual Rate</u>	<u>Current Expected</u>	<u>Current Rate</u>	<u>Proposed Expected</u>	<u>Proposed Rate</u>
55	14	7	52.172%	2.7	20.000%	4.8	35.000%
56	9	0	0.000%	0.9	10.000%	1.1	13.000%
57	7	3	36.565%	0.7	10.000%	0.9	13.000%
58	6	0	0.000%	0.6	10.000%	0.8	13.000%
59	12	3	23.099%	1.8	15.000%	1.5	13.000%
60	18	1	7.004%	2.7	15.000%	2.3	13.000%
61	11	1	7.302%	1.7	15.000%	1.5	13.000%
62	85	14	16.524%	17.0	20.000%	15.3	18.000%
63	4	0	11.140%	0.8	20.000%	0.7	18.000%
64	2	0	13.143%	0.3	20.000%	0.3	18.000%
65	11	2	20.739%	2.6	25.000%	1.9	18.000%
	178	32	17.710%	31.9	17.915%	31.2	17.537%



APPENDIX C – EXHIBITS

Data Summary D-8
Retirement Rates
Classified - Ultimate
(Liability Weighted)

<u>Age</u>	<u>Exposure</u>	<u>Actual Retirements</u>	<u>Actual Rate</u>	<u>Current Expected</u>	<u>Current Rate</u>	<u>Proposed Expected</u>	<u>Proposed Rate</u>
56	17	2	10.842%	2.0	12.000%	1.7	10.000%
57	24	4	16.575%	2.9	12.000%	2.4	10.000%
58	26	1	4.911%	3.1	12.000%	2.6	10.000%
59	30	7	22.714%	3.6	12.000%	3.0	10.000%
60	28	1	2.318%	3.4	12.000%	2.8	10.000%
61	42	2	3.954%	8.4	20.000%	4.2	10.000%
62	56	9	16.325%	11.3	20.000%	8.4	15.000%
63	130	20	15.272%	26.0	20.000%	19.5	15.000%
64	119	11	9.310%	23.7	20.000%	17.8	15.000%
65	106	37	35.213%	37.2	35.000%	37.2	35.000%
66	80	34	42.270%	18.5	23.000%	28.1	35.000%
67	52	16	31.240%	11.9	23.000%	15.6	30.000%
68	41	16	38.548%	9.5	23.000%	12.4	30.000%
69	30	8	25.413%	7.0	23.000%	7.6	25.000%
70	24	7	28.281%	24.1	100.000%	6.0	25.000%
71	20	4	22.029%	19.6	100.000%	4.9	25.000%
72	17	3	19.533%	17.4	100.000%	4.4	25.000%
73	12	1	6.084%	11.8	100.000%	3.0	25.000%
74	10	2	22.560%	10.5	100.000%	2.6	25.000%
75	9	2	24.619%	9.1	100.000%	9.1	100.000%
	874	187	21.437%	261.0	29.853%	193.3	22.109%



APPENDIX C – EXHIBITS

Data Summary D-9
Rate of Termination of Employment
Certificated
(Liability Weighted)

<u>Duration</u>	<u>Exposure</u>	<u>Actual Terminations</u>	<u>Actual Rate</u>	<u>Current Expected</u>	<u>Current Rate</u>	<u>Proposed Expected</u>	<u>Proposed Rate</u>
1	63	6	9.062%	7.1	11.250%	6.3	10.000%
2	126	9	6.878%	13.2	10.500%	11.9	9.500%
3	186	13	6.737%	18.1	9.750%	16.8	9.000%
4	223	12	5.312%	20.1	9.000%	19.0	8.500%
5	262	21	8.123%	20.9	8.000%	20.9	8.000%
6	249	15	6.151%	17.4	7.000%	17.4	7.000%
7	248	14	5.765%	15.5	6.250%	15.5	6.250%
8	270	18	6.774%	14.8	5.500%	14.8	5.500%
9	289	20	6.892%	14.4	5.000%	14.4	5.000%
10	328	15	4.684%	14.8	4.500%	14.8	4.500%
11	395	14	3.644%	15.8	4.000%	15.8	4.000%
12	466	22	4.710%	17.5	3.750%	17.5	3.750%
13	472	16	3.398%	15.3	3.250%	16.5	3.500%
14	491	20	4.088%	13.5	2.750%	14.7	3.000%
15	471	13	2.807%	10.6	2.250%	11.8	2.500%
16	450	7	1.644%	9.0	2.000%	10.1	2.250%
17	485	13	2.780%	8.5	1.750%	9.7	2.000%
18	538	21	3.829%	8.1	1.500%	9.4	1.750%
19	539	7	1.392%	6.7	1.250%	8.1	1.500%
20	510	9	1.821%	5.1	1.000%	6.4	1.250%
21	472	8	1.640%	4.7	1.000%	4.7	1.000%
22	374	7	1.978%	3.7	1.000%	3.7	1.000%
23	315	0	0.000%	3.2	1.000%	3.2	1.000%
24	303	0	0.000%	3.0	1.000%	3.0	1.000%
25	279	3	1.112%	2.8	1.000%	2.8	1.000%
	8,803	305	3.468%	283.9	3.225%	289.3	3.286%



APPENDIX C – EXHIBITS

Data Summary D-10
 Rate of Termination of Employment
 Classified - Males
 (Liability Weighted)

<u>Duration</u>	<u>Exposure</u>	<u>Actual Terminations</u>	<u>Actual Rate</u>	<u>Current Expected</u>	<u>Current Rate</u>	<u>Proposed Expected</u>	<u>Proposed Rate</u>
1	7	1	7.695%	0.8	11.000%	0.7	10.000%
2	18	1	5.788%	1.7	9.250%	1.6	9.000%
3	23	2	7.969%	1.9	8.250%	1.8	8.000%
4	27	0	1.112%	1.9	7.000%	1.9	7.000%
5	29	1	3.019%	1.7	6.000%	1.7	6.000%
6	27	1	4.864%	1.4	5.000%	1.4	5.000%
7	26	0	0.724%	1.0	3.800%	1.1	4.000%
8	29	1	3.368%	0.9	3.200%	1.0	3.500%
9	24	1	4.098%	0.6	2.600%	0.7	3.100%
10	16	1	3.715%	0.4	2.400%	0.4	2.650%
11	17	1	7.990%	0.3	1.900%	0.4	2.250%
12	23	2	8.270%	0.4	1.650%	0.5	2.000%
13	26	2	8.242%	0.4	1.400%	0.5	1.800%
14	26	1	2.162%	0.3	1.250%	0.4	1.700%
15	29	1	2.225%	0.3	1.000%	0.5	1.600%
16	25	2	8.235%	0.3	1.000%	0.4	1.500%
17	25	0	0.000%	0.3	1.000%	0.3	1.350%
18	19	0	2.596%	0.2	1.000%	0.2	1.250%
19	24	0	0.000%	0.2	1.000%	0.3	1.100%
20	25	0	0.000%	0.3	1.000%	0.3	1.000%
21	22	0	0.000%	0.2	1.000%	0.2	0.900%
22	20	0	0.000%	0.2	1.000%	0.2	0.800%
23	18	1	3.936%	0.2	1.000%	0.1	0.700%
24	16	0	0.000%	0.2	1.000%	0.1	0.600%
25	8	0	0.000%	0.1	1.000%	0.0	0.500%
	549	19	3.375%	15.9	2.903%	16.7	3.034%



APPENDIX C – EXHIBITS

Data Summary D-11
Rate of Termination of Employment
Classified - Females
(Liability Weighted)

<u>Duration</u>	<u>Exposure</u>	<u>Actual Terminations</u>	<u>Actual Rate</u>	<u>Current Expected</u>	<u>Current Rate</u>	<u>Proposed Expected</u>	<u>Proposed Rate</u>
1	12	2	12.598%	1.9	15.000%	1.6	13.000%
2	26	3	10.260%	3.4	13.000%	3.0	11.500%
3	32	3	8.887%	3.7	11.500%	3.2	10.000%
4	37	3	7.099%	3.8	10.250%	3.3	9.000%
5	36	3	7.371%	3.2	9.000%	2.8	8.000%
6	35	1	3.520%	2.8	8.000%	2.4	7.000%
7	37	2	4.051%	2.6	7.000%	2.2	6.000%
8	38	1	2.630%	2.3	6.000%	2.0	5.250%
9	43	2	3.488%	2.2	5.000%	1.9	4.500%
10	37	2	6.680%	1.5	4.000%	1.5	4.000%
11	37	2	4.892%	1.2	3.250%	1.2	3.250%
12	34	1	2.480%	0.9	2.750%	0.9	2.750%
13	34	1	3.533%	0.8	2.250%	0.8	2.250%
14	30	1	4.751%	0.6	2.000%	0.6	2.000%
15	32	1	3.285%	0.6	1.750%	0.6	1.750%
16	31	0	1.092%	0.5	1.500%	0.5	1.500%
17	33	1	2.124%	0.4	1.250%	0.4	1.250%
18	29	0	0.000%	0.3	1.000%	0.3	1.000%
19	28	1	1.950%	0.3	1.000%	0.3	0.900%
20	25	1	5.359%	0.3	1.000%	0.2	0.800%
21	19	0	0.000%	0.2	1.000%	0.1	0.700%
22	16	1	5.186%	0.2	1.000%	0.1	0.600%
23	12	0	0.000%	0.1	1.000%	0.1	0.500%
24	8	0	0.000%	0.1	1.000%	0.0	0.500%
25	4	0	0.000%	0.0	1.000%	0.0	0.500%
	706	30	4.277%	33.7	4.767%	30.2	4.274%



APPENDIX C – EXHIBITS

Data Summary D-12
Total Salary Scale
Certificated

Duration	Initial Salary (Millions)	Subsequent Salary (Millions)	Actual Rate	Current Expected (Millions)	Current Rate	Proposed Expected (Millions)	Proposed Rate
0	7.6	8.0	4.63%	8.0	5.75%	8.0	4.95%
1	52.7	54.6	3.69%	55.7	5.75%	55.3	4.95%
2	54.8	57.0	3.97%	58.0	5.75%	57.5	4.95%
3	53.2	55.6	4.37%	56.3	5.75%	55.9	4.95%
4	50.3	52.6	4.39%	53.2	5.75%	52.8	4.95%
5	46.8	48.7	4.02%	49.5	5.75%	49.1	4.95%
6	38.2	39.8	4.16%	40.4	5.75%	40.1	4.95%
7	33.0	34.2	3.85%	34.9	5.75%	34.6	4.95%
8	31.5	32.8	4.20%	33.3	5.75%	33.0	4.95%
9	30.6	32.0	4.53%	32.4	5.75%	32.2	4.95%
10	34.6	36.1	4.17%	36.6	5.75%	36.4	4.95%
11	38.9	40.5	4.19%	41.1	5.75%	40.8	4.95%
12	42.2	43.8	3.78%	44.6	5.75%	44.3	4.95%
13	40.9	42.4	3.59%	43.3	5.75%	43.0	4.95%
14	39.8	41.4	4.09%	42.1	5.75%	41.8	4.95%
15	36.6	38.4	4.83%	38.5	5.25%	38.7	5.60%
16	34.0	35.5	4.34%	35.8	5.25%	35.6	4.80%
17	35.3	36.8	4.19%	37.2	5.25%	37.0	4.80%
18	36.7	38.0	3.72%	38.6	5.25%	38.4	4.80%
19	34.9	36.3	4.04%	36.7	5.25%	36.5	4.80%
20	31.7	33.0	4.15%	33.4	5.25%	33.3	5.10%
21	28.6	29.6	3.31%	30.1	5.25%	29.7	3.90%
22	22.4	23.0	2.73%	23.4	4.25%	23.3	3.90%
23	18.4	18.8	2.24%	19.2	4.25%	19.1	3.90%
24	17.2	17.8	3.59%	17.9	4.25%	18.0	4.35%
25	16.3	17.0	4.82%	16.9	4.25%	17.2	5.85%
26	15.1	15.5	2.41%	15.8	4.25%	15.6	3.10%
27	13.4	13.7	1.72%	14.0	4.25%	13.9	3.10%
28	12.1	12.3	1.97%	12.6	4.25%	12.5	3.10%
29	10.6	10.8	1.61%	11.1	4.25%	11.0	3.10%
30	8.8	9.1	2.68%	9.2	4.25%	9.2	3.85%
	967.3	1,005.0	3.89%	1,019.7	5.39%	1,013.5	4.83%



APPENDIX C – EXHIBITS

Data Summary D-13

Total Salary Scale

Classified

Duration	Initial Salary (Millions)	Subsequent Salary (Millions)	Actual Rate	Current Expected (Millions)	Current Rate	Proposed Expected (Millions)	Proposed Rate
0	7.8	8.3	6.13%	8.3	6.75%	8.3	6.25%
1	15.1	15.7	3.93%	16.0	5.75%	15.9	5.10%
2	17.9	18.5	3.27%	18.8	5.25%	18.7	4.85%
3	15.4	16.1	4.45%	16.1	5.00%	16.1	4.60%
4	14.0	14.5	3.46%	14.7	4.75%	14.6	4.35%
5	12.3	12.8	3.34%	12.9	4.75%	12.9	4.25%
6	10.1	10.4	2.70%	10.6	4.75%	10.6	4.15%
7	9.0	9.2	2.49%	9.3	4.25%	9.3	4.05%
8	8.3	8.5	1.99%	8.7	4.25%	8.6	3.85%
9	8.7	9.0	3.08%	9.1	4.25%	9.0	3.85%
10	8.8	9.2	4.05%	9.2	4.25%	9.3	4.95%
11	8.9	9.2	3.43%	9.3	4.25%	9.2	3.85%
12	9.3	9.5	2.33%	9.7	3.75%	9.6	3.35%
13	9.0	9.2	1.55%	9.4	3.75%	9.3	3.35%
14	8.0	8.2	2.27%	8.3	3.75%	8.3	3.35%
15	7.8	8.2	4.36%	8.1	3.75%	8.2	5.35%
16	7.0	7.2	2.69%	7.3	3.75%	7.3	3.35%
17	7.3	7.5	2.26%	7.6	3.75%	7.6	3.35%
18	6.9	7.1	2.31%	7.2	3.75%	7.2	3.35%
19	6.8	6.9	2.41%	7.0	3.75%	7.0	3.35%
20	6.5	6.7	3.51%	6.7	3.75%	6.8	4.85%
21	5.4	5.6	3.11%	5.6	3.75%	5.6	3.35%
22	4.9	5.0	1.99%	5.1	3.75%	5.1	3.35%
23	4.2	4.2	1.96%	4.3	3.75%	4.3	3.35%
24	3.3	3.4	1.66%	3.5	3.75%	3.5	3.35%
25	2.6	2.7	3.82%	2.7	3.75%	2.7	4.85%
26	3.2	3.3	1.72%	3.4	3.75%	3.3	3.10%
27	2.5	2.5	0.61%	2.6	3.75%	2.5	3.10%
28	2.1	2.2	1.51%	2.2	3.75%	2.2	3.10%
29	1.7	1.7	1.56%	1.8	3.75%	1.8	3.10%
30	1.3	1.3	3.61%	1.3	3.75%	1.3	4.85%
	236.3	243.6	3.08%	246.8	4.40%	246.2	4.19%



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October 15, 2025

Senator Beau Ballard
Nebraska Retirement Systems Committee
Sent via email only

Re: LR 97

Dear Chairman Ballard and Committee members,

Attached please find the report for the Regional Metropolitan Transit Authority of Omaha Collective Bargaining Employee Pension Plan, formerly known as Metro Area Transit Hourly Employee Pension Plan. The Plan name was updated effective January 1, 2025.

I have also included a copy of the most recent actuarial valuation report and experience study. On behalf of the Plan, I will be present at the Hearing on November 20, 2025 to provide testimony and answer Committee questions. If at all possible, I respectfully request to be at or near the beginning of the Hearing agenda.

If you have any questions or concerns, please don't hesitate to reach out.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Lauren A. Cencic', written in a cursive style.

Lauren A. Cencic
Chief Executive Officer

Cc: Trevor Fitzgerald via email

Encl:

Actuarial Valuation Report
Actuarial Experience Study

LB 759 REPORTING FORM
Regional Metropolitan Transit Authority of Omaha Collective Bargaining Employee Pension Plan

1. Plan Information for Years 2021 through Current Plan Year 2025

	2021	2022	2023	2024	2025
	68.50%	71.50%	72.00%	73.90%	76.20%
1b Assumed Rate of Return***	6.25%	6.25%	6.25%	6.25%	6.25%
1c Actual Investment Return	14.24%	12.21%	-15.76%	17.49%	14.94%
1d Member Contribution Rate	7.50%	7.75%	7.75%	8.25%	8.25%
Employer Contribution Rate**	7.75%	7.75%	7.75%	8.25%	8.25%
1e Normal Cost Percentage	8.81%	8.73%	8.17%	7.63%	7.48%
1f Actuarially Determined Contribution (ADC)					
Percentage	7.60%	7.50%	7.40%	8.10%	N/A
Dollar Amount	\$1,161,981	\$1,095,523	\$1,057,889	\$806,671	\$825,304
1g Actuarially Required Contribution (ARC)					
Dollar Amount Contributed	\$939,928	\$911,110	\$964,927	\$1,097,377	TBD
Percentage of ARC Contributed	80.89%	83.17%	91.21%	136.04%	TBD

* Starting in 2019, Funding Status is based on Actuarial Value of Assets compared to Actuarial Accrued Liability in order to coincide with the basis for calculating the Actuarially Determined Contribution.

** Effective employer contribution rate was 7.5% from July 1, 2016-2020. The contribution rate increased to 7.75% from 2021-2023. The contribution rate increased to 8.25% in 2024-present.

*** Market value basis

2. Circumstances That Led to Underfunding the Plan

In prior periods, investment returns did not meet the return assumptions. In addition, due to lower capital market expectations, the interest rates used to value liabilities have been decreased several times in the last decade (see below).

2009 reduced from 8.00% to 7.50%
2015 reduced from 7.50% to 7.00%
2016 reduced from 7.00% to 6.75%
2020 reduced from 6.75% to 6.50%***
2021 reduced from 6.50% to 6.25%
2022 to current remained at 6.25%

3. Changes in Actuarial Methods/Assumptions Since Previous Actuarial Valuation Report

In 2024 our actuaries completed an experience study for the plan. This resulted in updates to the salary scale, retirement rates, termination rates, and expense assumptions used in the actuarial valuation.

4. In what year is the plan's funding ratio expected to reach 100%?

If the Metro pays the ADC each year, the investments earn exactly the assumed interest rate each year, and there are no changes in the plan provisions or in the actuarial methods and assumptions we project that the plan's funding ratio will reach 100% in approximately 2036.

5. What is the method used to amortize the unfunded actuarial liability?

Unfunded actuarial liability is amortized for 30 years starting in 2012, graded down for each successive year. The Individual Entry Age Normal Cost is the actuarial cost method used to value the liabilities. The amortization period will decrease each year until it reaches 10 years, after which it remains at 10 years.

6. Description of Corrective Actions Implemented to Improve the Funding Status of the Plan:

The Pension Committee has incrementally amended the plan document to increase both employer and employee contribution rates as noted above to 8.25%. For employees hired on or after January 1, 2018, the Pension Committee also (i) changed the normal retirement date from age 65 to the age when the employee reaches full retirement for purposes of receiving Social Security benefits, and (ii) eliminated the early retirement option. The benefit factor percentage used in the calculation of the monthly benefit for those employees hired on or after January 1, 2018, was also changed by the Pension Committee to a tiered structure based on years of service in lieu of the previous method of using the same benefit factor percentage regardless of years of service. The Pension Committee is comprised of bargaining unit employees, management representatives and a Metro Transit Board member. The actuarial assumptions are reviewed annually to give committee members data regarding plan performance. The Committee meets a minimum of once per year to review plan performance, assumptions, asset allocations and potential plan changes. The interest rate (the assumed actuarial rate of return) used on the actuarial report remained the same in 2025 as 2024.

To increase net investment returns, the entire portfolio has been indexed, reducing Plan investment management fees from 71 basis points to 9 basis points. A change in the net asset allocation guidelines as outlined in the revised Investment Policy Statement spreads the change gradually over a 5-year period reducing the bond investment while increasing the equities allocation. This was completed in 2022.

In 2025, the Pension Committee made incremental changes to the Plan's investment strategy portfolio in an effort to maximize returns and improve the funding status of the Plan.

7. Recent or Ongoing Negotiations

Metro and the Transport Workers Union Local 223 ratified a new collective bargaining agreement on November 1, 2023. This established a new employer and employee contribution rate of 8.25% for 2024 and 2025. Metro is currently negotiating the next collective bargaining agreement which is anticipated to cover 2026-2028. An increase in the contribution rate is not anticipated.

8. Most Recent Actuarial Experience Study

A complete Actuarial Experience Study was completed in 2025 and is attached. The Pension Committee reviews economic factors including assumed rates of returns annually with input from financial and actuarial advisors. Due to the relatively small size of the plan, full actuarial experience studies are undertaken less frequently. The next experience study is anticipated in five to ten years unless needed sooner based on market conditions, significant demographic changes or other factors.

9. Current Assumed Rate of Return

The current assumed rate of return is 6.25%.

10. Most Recent Actuarial Valuation Report

Attached please find the most recent valuation dated January 1, 2025. The valuations are completed every year with the next one due January 1, 2026.

Regional Metropolitan Transit Authority of Omaha Collective Bargaining Employee Pension Plan

Actuarial Valuation as of January 1, 2025

Prepared by

Rebecca A. Sielman, FSA

Consulting Actuary

R. Ryan Falls, FSA

Consulting Actuary



Issued July 21, 2025



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Certification

As part of our engagement with the Regional Metropolitan Transit Authority of Omaha ("Metro"), we have performed an actuarial valuation of the Plan as of January 1, 2025. Our findings are set forth in this actuary's report. The main purposes of this valuation are to review the Plan's experience since the prior valuation and to assess the funded position of the Plan.

Actuarial computations presented in this report are for the purposes of determining the recommended funding amounts for the Plan. The calculations in this report have been made on a basis consistent with our understanding of the Plan's funding policy and on our understanding of the plan provisions as summarized in this report. Determinations for purposes other than meeting these requirements, such as for financial reporting in accordance with GASB standards, may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

We believe that the measures of funded status contained herein are appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations and for assessing the need for or the amount of future contributions. Note that a Plan's funded status is dependent on the selection of both the actuarial cost method and the asset smoothing method; different measurements would result if, for instance, the Market Value of Assets were used in place of the Actuarial Value of Assets.

Actuarial assumptions, including interest rates, mortality tables, and others identified in this report, and actuarial cost methods are adopted by Metro, who is responsible for selecting the Plan's funding policy, actuarial cost methods, asset valuation methods, and actuarial assumptions. The policies, methods, and assumptions used in this valuation are those that have been so adopted and are described in this report. Metro is solely responsible for communicating to Milliman any changes thereto. All Costs, liabilities, rates of interest, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods which, in our professional opinion, are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated future experience affecting the Plan and are expected to have no significant bias.

This valuation is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, 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 or modifications to contribution calculations based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of future measurements.

Certification (continued)

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by Metro. This information includes, but is not limited to, benefit provisions, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different, and our calculations may need to be revised.

Milliman's work is prepared solely for the use and benefit of Metro. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) Metro may provide a copy of Milliman's work, in its entirety, to Metro's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit Metro; and (b) Metro may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the *Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States*, published by the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.



Rebecca A. Sielman, FSA
Consulting Actuary



R. Ryan Falls, FSA
Consulting Actuary

i. Summary of Principal Results

Actuarial Valuation for Plan Year Beginning	January 1, 2024	January 1, 2025
Membership		
Active Members	207	205
Terminated Members	58	62
Members in Pay Status	<u>207</u>	<u>211</u>
Total Count	472	478
Payroll	\$13,519,955	\$13,602,990
Assets and Liabilities		
Market Value of Assets	\$29,234,417	\$32,365,821
Actuarial Value of Assets	30,037,666	31,100,745
Accrued Liability for Active Members	14,277,978	13,713,562
Accrued Liability for Terminated Members	2,382,920	2,538,645
Accrued Liability for Members in Pay Status	<u>23,980,282</u>	<u>24,559,535</u>
Total Accrued Liability	40,641,180	40,811,742
Unfunded Accrued Liability	10,603,514	9,710,997
Funded Ratio	73.9%	76.2%
Actuarially Determined Contribution		
For Fiscal Year	2024	2025
Normal Cost	(\$3,553)	\$50,491
Past Service Cost	785,779	749,804
Interest	<u>24,445</u>	<u>25,009</u>
Actuarially Determined Contribution	806,671	825,304

This work product was prepared solely for Metro for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

ii. Changes Since the Prior Valuation

Plan Experience

From January 1, 2024 to January 1, 2025, the plan's assets earned 14.94% on a Market Value basis and 7.51% on an Actuarial Value basis. The interest rate assumption for this period was 6.25%; the result is an asset gain of about \$2.5 million on a Market Value basis and a gain of about \$0.4 million on an Actuarial Value basis.

From January 1, 2024 to January 1, 2025, the Accrued Liability was expected to grow from \$40.6 million to \$40.8 million, based on expected changes in the plan's membership per the actuarial assumptions. Actual changes in the plan's membership during this period resulted in an Accrued Liability as of January 1, 2025 of \$40.8 million (measured before any changes in the plan provisions or the actuarial methods and assumptions). This difference of \$0.0 million between the expected Accrued Liability and the actual Accrued Liability is termed a 'liability gain'. The primary factors contributing to this liability gain were: (1) a gain from compensation increases that were lower than expected; (2) a gain from mortality experience, reflecting more deaths than expected (both recent and occurring a few years ago); and (3) a gain from transfers to the Administrative Employee plan.

Plan Changes

The actuarial equivalence basis was updated from the 1971 GAM Male mortality table using 7.00% interest to the PUB-2010 General Combined Healthy Annuitant (Contingent Annuitant for beneficiaries post member death) mortality table with 30 year static projection using the MP-2021 Ultimate Scale and an interest rate of 6.25%. Both the mortality and projection tables use an 80% male / 20% female blend for members and a 20% male / 80% female blend for beneficiaries. This change caused the Unfunded Accrued Liability to increase by about \$24,000 and the Actuarially Determined Contribution to increase by about \$3,100.

Changes in Actuarial Assumptions

None.

Changes in Actuarial Methods

None.

Other Significant Changes

None.

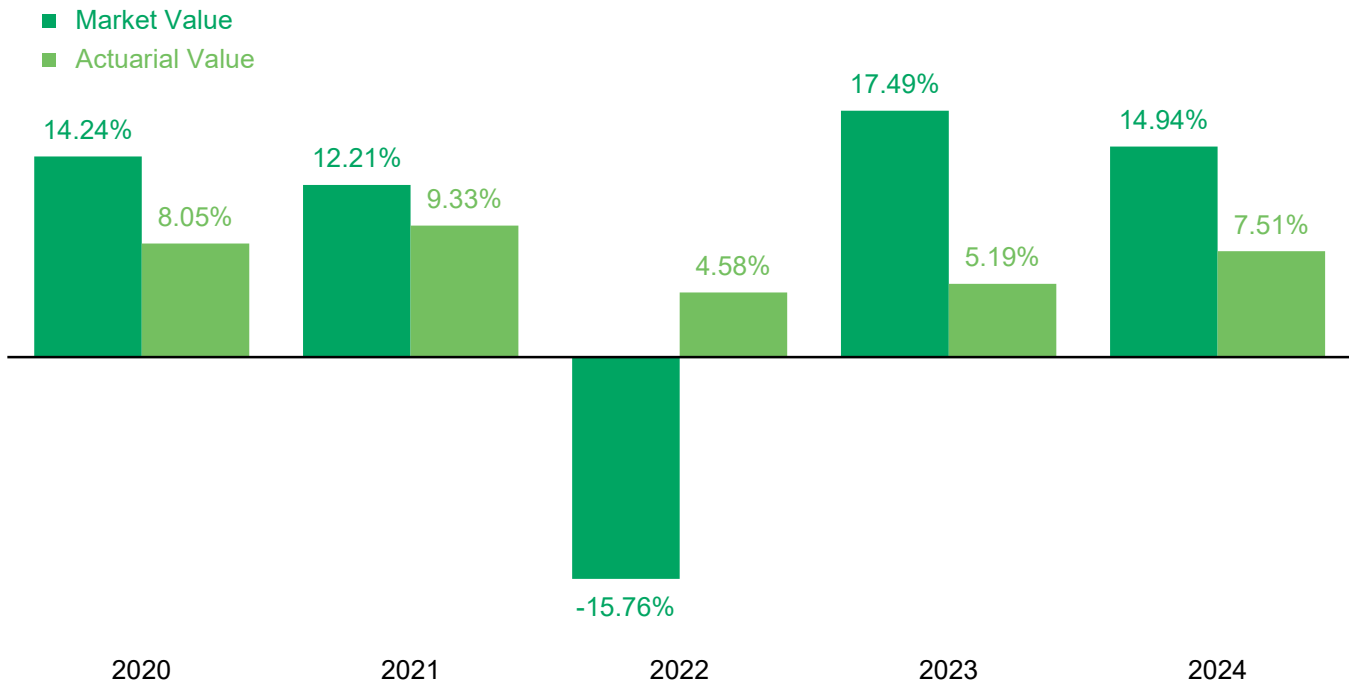
iii. Asset Performance

There are two different measures of the plan's assets that are used throughout this report. The Market Value is a snapshot of the plan's investments as of the valuation date. The Actuarial Value is a smoothed asset value designed to temper the volatile fluctuations in the market by recognizing investment gains or losses non-asymptotically over five years.

	Market Value	Actuarial Value
Value as of January 1, 2024	\$29,234,417	\$30,037,666
Metro Contributions and Member Contributions	2,194,496	2,194,496
Investment Income	4,281,979	2,213,654
Transfers	(503,516)	(503,516)
Benefit Payments and Administrative Expenses	(2,841,555)	(2,841,555)
Value as of January 1, 2025	32,365,821	31,100,745

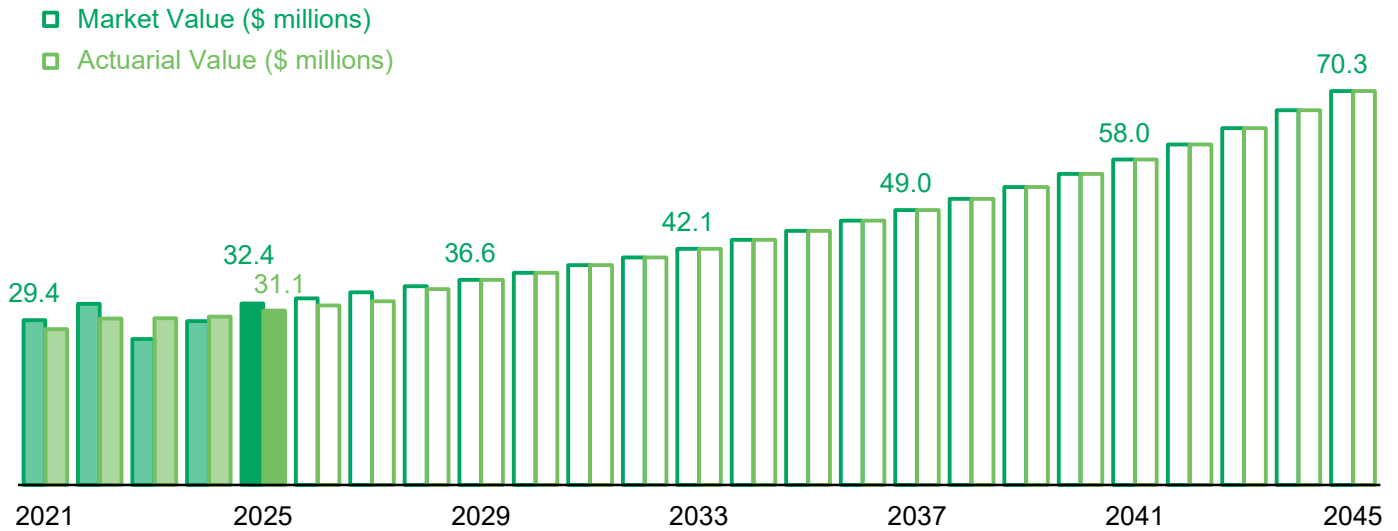
The Actuarial Value currently is less than the Market Value by \$1.3 million. This figure represents investment gains that will be gradually recognized in future years. This process will exert downward pressure on Metro's contribution, unless there are offsetting market losses.

Historical rates of return are shown in the graph below:

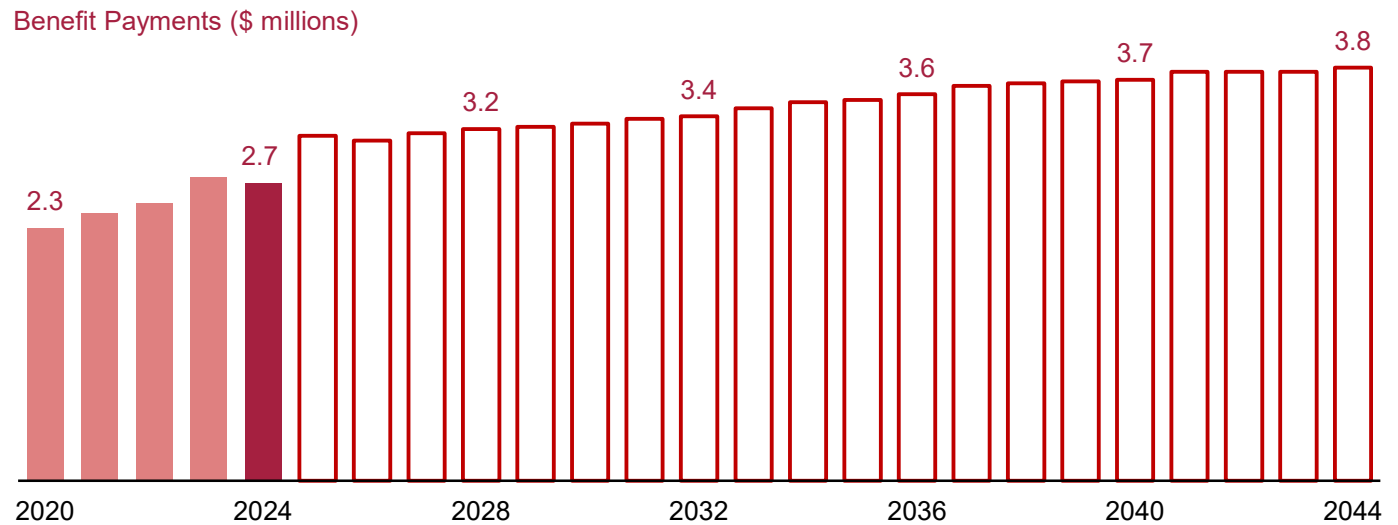


iv. Asset Forecast

The graph below shows how this year's asset values compare to where the plan's assets have been over the past several years and how they are projected to change over the next 20 years. For purposes of this Projection, we have assumed that Metro always contributes the Actuarially Determined Contribution and the investments always earn the assumed interest rate each year.



In 2024, the plan paid out \$2.7 million in benefits to members. Over the next 20 years, the plan is projected to pay out a total of \$70 million in benefits to members.

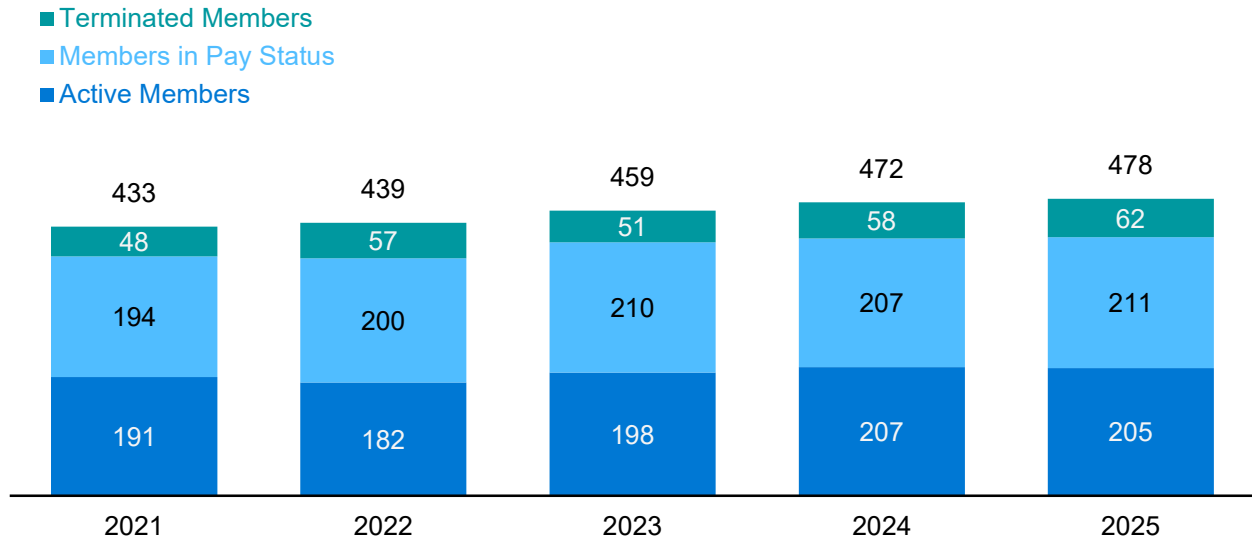


To the extent that there are future investment or liability gains or losses, changes in the actuarial assumptions or methods, or plan changes, the actual valuation results will differ from these forecasts. Please see Appendix A for more details of the long range forecast.

v. Membership

Overview

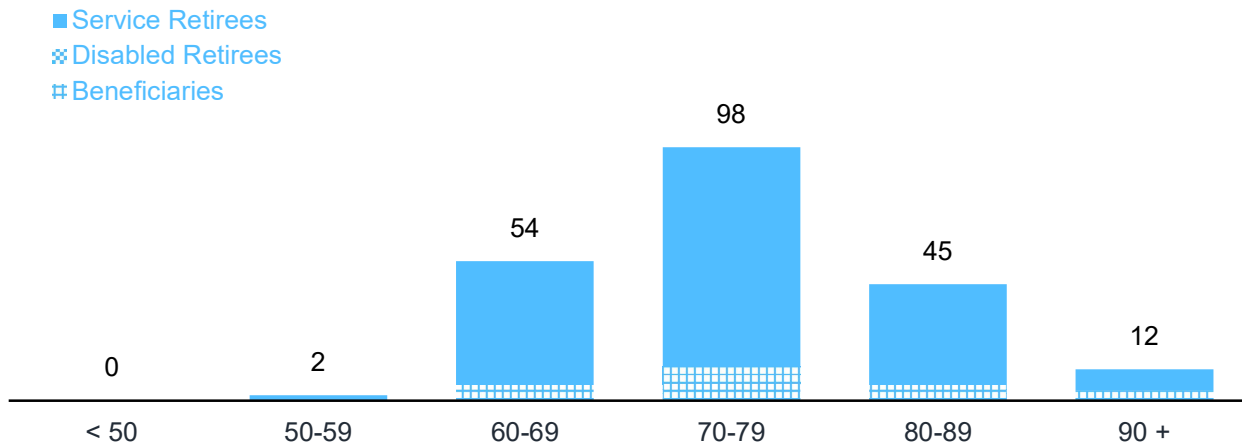
There are three basic categories of plan members included in the valuation: (1) active employees who have met the eligibility requirements for membership, (2) members who are currently receiving monthly pension benefits, and (3) former employees who have a right to benefits but have not yet started collecting.



Members in Pay Status on January 1, 2025

Service Retirees	182	Average Age	75.2
Disabled Retirees	0	Total Annual Benefit	\$2,620,516
Beneficiaries	29	Average Annual Benefit	12,420
Total	211		

The members in pay status fall across a wide distribution of ages:



v. Membership (continued)

Terminated Vested Members on January 1, 2025

Count	38
Average Age	60.6
Total Annual Benefit	\$245,939
Average Annual Benefit	6,472

Nonvested Members Due Refunds on January 1, 2025

Count	24
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Active Members on January 1, 2025

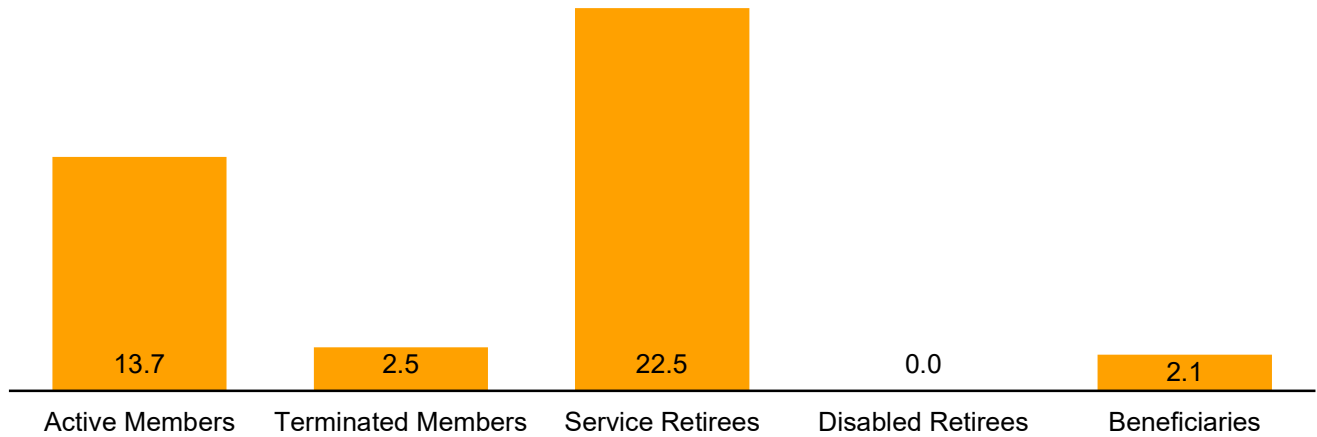
Count	205
Average Age	52.7
Average Service	8.1
Payroll	\$13,602,990
Average Payroll	66,356

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	2							2
25-29	4							4
30-34	10	1						11
35-39	16	3						19
40-44	10		1	1				12
45-49	8	5	2	2	2			19
50-54	22	6	5	5		1		39
55-59	18	13	3	5	3	2		44
60-64	9	8	7	6	4	4		38
65+		1	8	1	3	2	2	17
Total	99	37	26	20	12	9	2	205

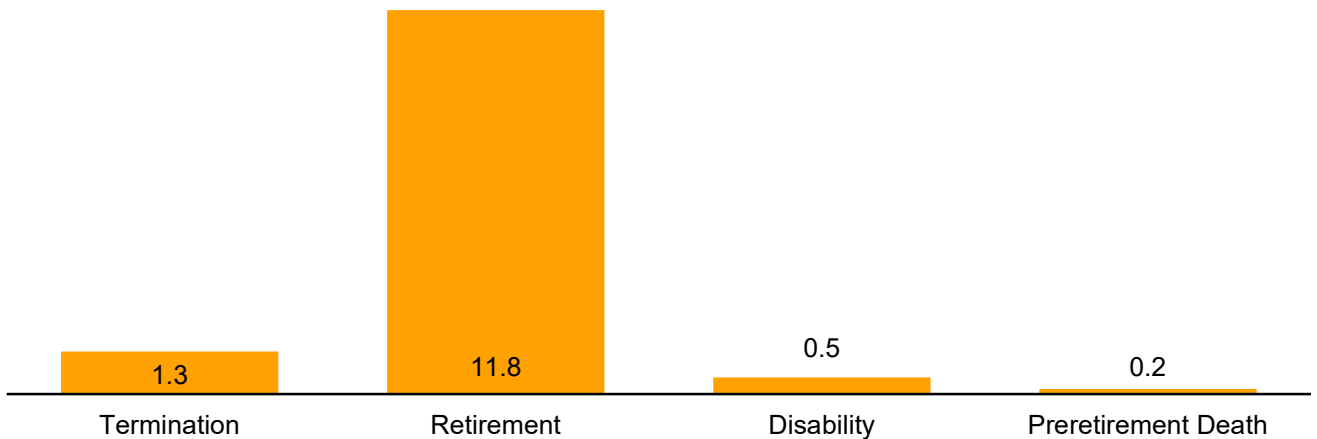
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vi. Accrued Liability

The Accrued Liability as of January 1, 2025 equals \$40,811,742, which consists of the following pieces (in \$ millions):



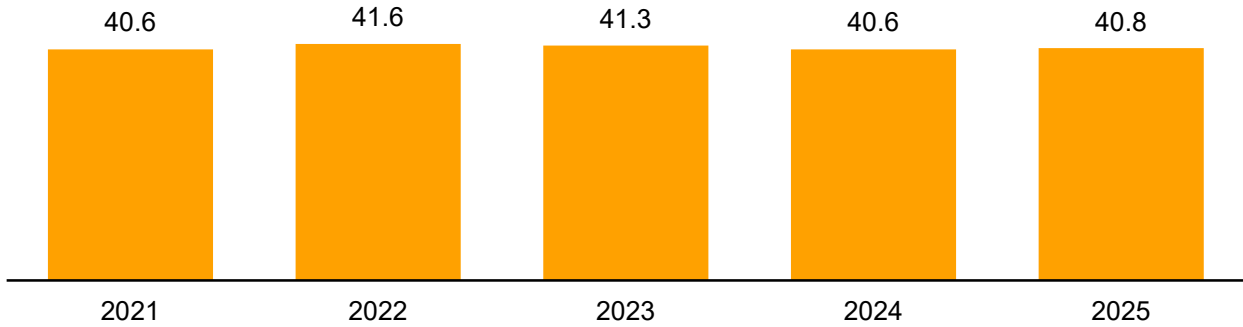
The Accrued Liability for active members can be broken down further by the different types of benefits provided by the plan:



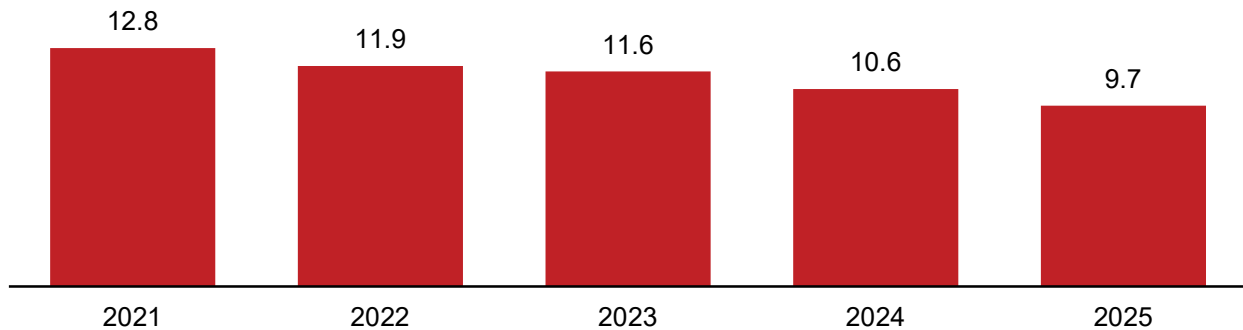
vii. Funded Status

The Accrued Liability grows over time as active members earn additional benefits, and goes down over time as members in pay status receive benefits; it may also change when there are changes to the plan provisions or changes in the actuarial assumptions. The Unfunded Accrued Liability is the dollar difference between the Accrued Liability and the Actuarial Value of Assets; the Funded Ratio is the ratio of the two.

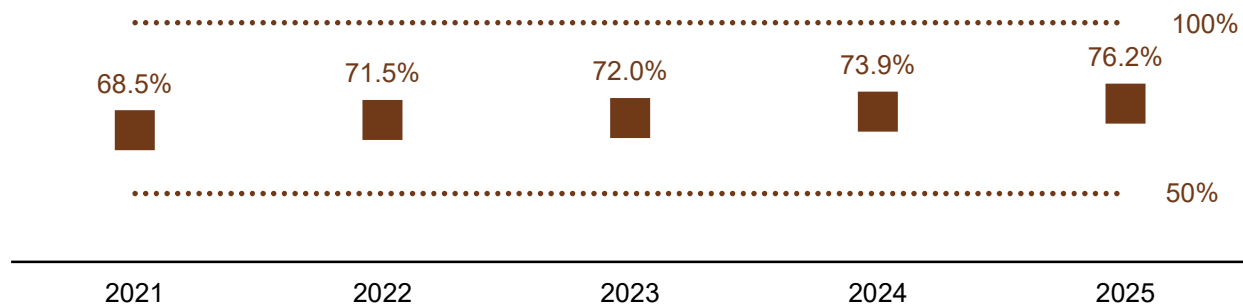
Accrued Liability (\$ millions)



Unfunded Accrued Liability (\$ millions)

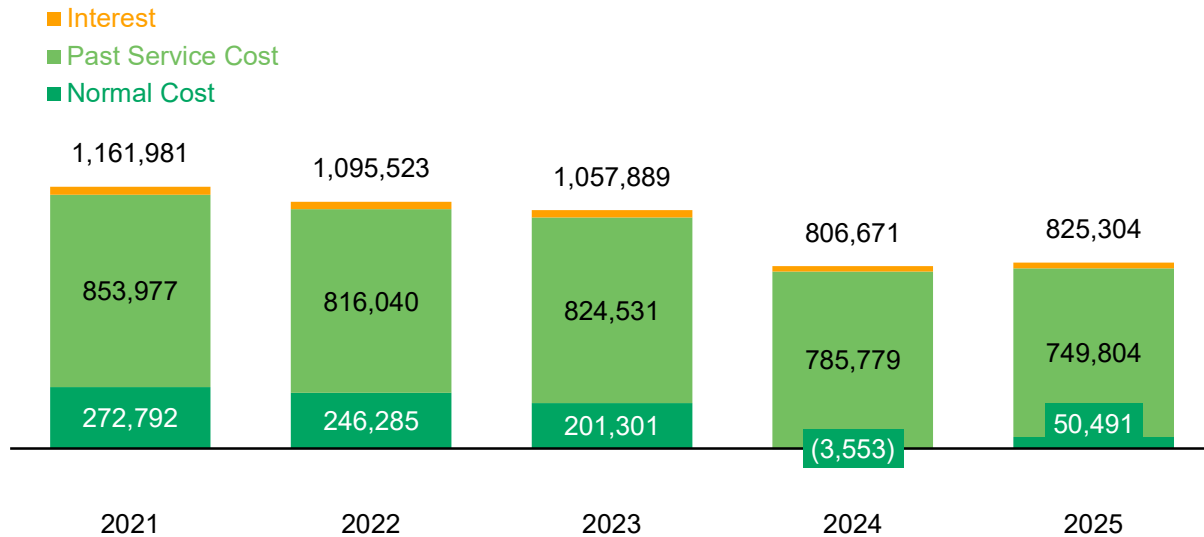


Funded Ratio



viii. Actuarially Determined Contribution (ADC)

The ADC consists of three pieces: a Normal Cost payment to fund the benefits earned each year, a Past Service Cost to gradually reduce any unfunded or surplus liability, and Interest to reflect the timing of the contribution relative to the valuation date. The ADC for fiscal year 2025 is \$825,304. The ADC for the past five years is shown below:

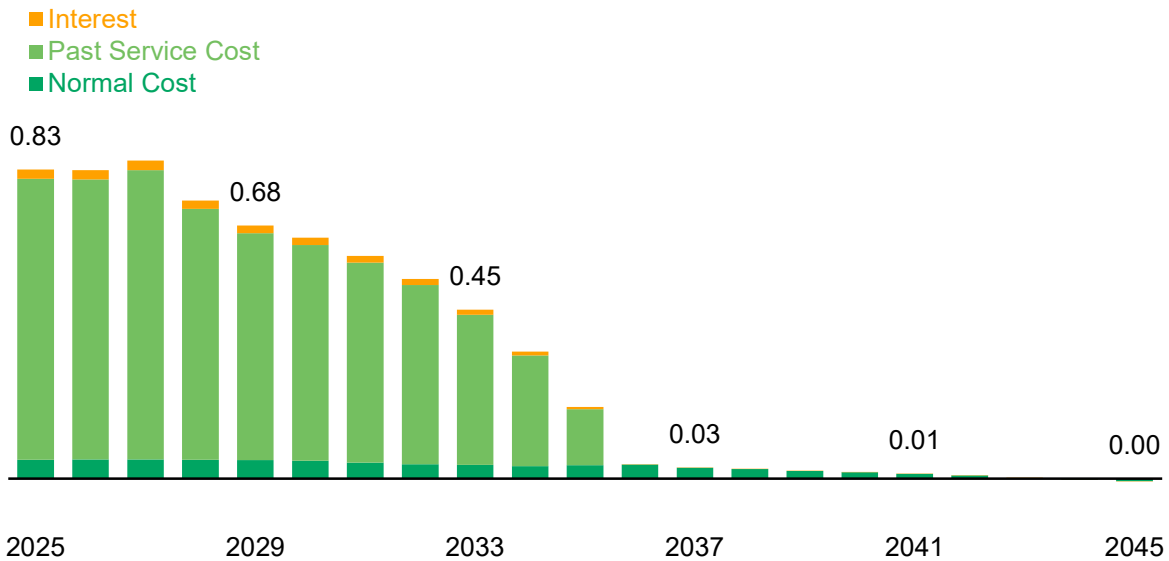


Actuarial Standard of Practice (ASOP) No. 4 requires the actuary to calculate and disclose a 'reasonable' ADC, which considers whether the actuarial methods and actuarial assumptions are in compliance with all applicable ASOPs. Based on the actuarial assumptions and methods used in this report, we believe the ADC meets this standard and reflects a balance among benefit security for plan members, intergenerational equity among stakeholders, and stability of periodic Costs.

Metro's current contribution policy is to contribute 8.25% of active member payroll to the plan. To the extent that this policy results in smaller plan contributions than the ADC, it is likely that the Unfunded Accrued Liability will not be eliminated over the amortization period incorporated into the ADC calculation (17 years as of 2025).

ix. Long-Range Forecast

If Metro pays the expected percent of projected active payroll each year, the investments earn exactly the assumed interest rate each year, and there are no changes in the plan provisions or in the actuarial methods and assumptions, then we project the following long-range Actuarially Determined Contributions (in \$ millions):



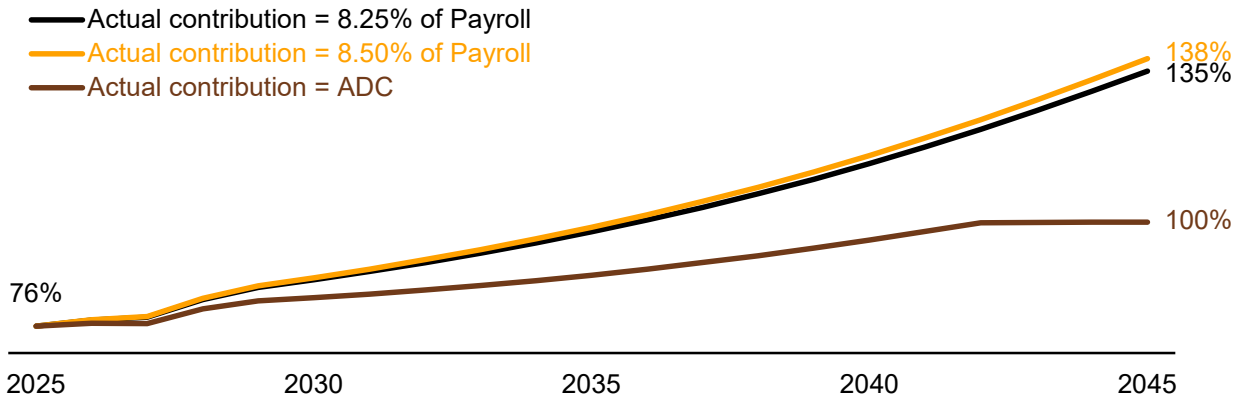
On the basis of this forecast, the Actuarially Determined Contribution currently exceeds the sum of the Normal Cost plus one year's interest on the Unfunded Accrued Liability and the Unfunded Accrued Liability is expected to be fully amortized by 2036.

To the extent that there are future investment or liability gains or losses, changes in the actuarial assumptions or methods, or plan changes, the actual valuation results will differ from these forecasts. Please see Appendix A for more details of the long range forecast.

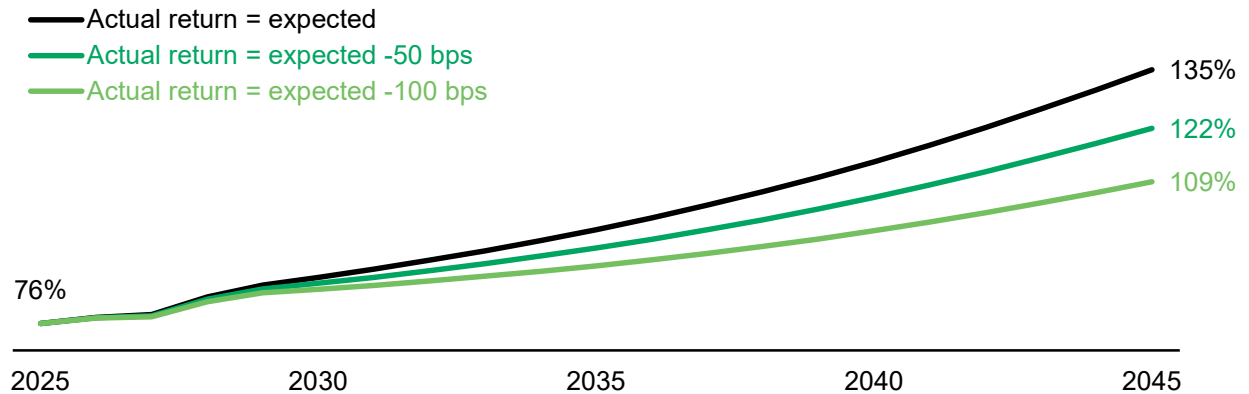
ix. Long-Range Forecast (continued)

Pension benefits are paid for through a combination of contributions from Metro and from active members, and investment income. If Metro contributes less than the ADC, or if the investments persistently earn less than the assumed interest rate, then the plan's funded status will suffer.

The impact of various contribution levels on the plan's long-term funded ratio is shown below; for this graph, the plan's asset returns are assumed to always equal the assumed interest rate:



The impact of chronic investment underperformance on the plan's long-term funded ratio is shown below; for this graph, the annual contributions are based on the current contribution rate of 8.25% of active member payroll:



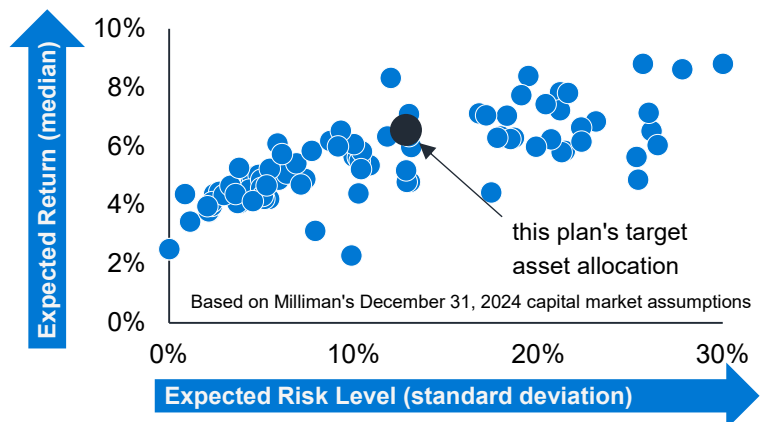
The scenarios illustrated above are based on deterministic projections that assume emerging plan experience always exactly matches the actuarial assumptions; in particular that actual asset returns will be constant in every year of the projection period. Variation in asset returns, contribution amounts, and many other factors may have a significant impact on the long-term financial health of the plan, the liquidity constraints on plan assets, and Metro's future contribution levels. Stochastic projections could be prepared that would enable Metro to understand the potential range of future results based on the expected variability in asset returns and other factors. Such analysis was beyond the scope of this engagement.

x. Asset Allocation Considerations

Monies that flow out of a pension plan (benefits and expenses) must be matched over the long term by monies that flow into the plan (contributions and investment income). This is expressed in a classic equation: **B** (benefits) + **E** (expenses) = **C** (contributions) + **I** (investment income).

Actuarial assumptions enable us to anticipate the long-term levels of **B** (benefits) and **E** (expenses) that will be paid out of the plan. In order to determine the appropriate level of **C** (contributions) that should come in to the plan, we must first anticipate the long-term level of **I** (investment income) the plan is likely to receive. That is why, for purposes of determining future funding levels, we measure *this* plan's liability using the long-term rate of investment returns *this* plan's portfolio is expected to generate.

Pension plans construct their portfolios by allocating assets across a wide range of asset classes with different risk and return profiles; the graph includes nearly 100 asset classes that pension plans invest in. As the graph illustrates, asset classes with higher expected returns also have higher risk levels; that is, a higher likelihood of experiencing both very good returns and very bad returns. Asset classes with lower expected returns also have lower risk levels.



The plan's target allocation represents a balance. Investing in lower-returning asset classes should reduce future investment returns and therefore increase future Metro contributions, but the lower risk levels would result in lower year-over-year volatility in the Actuarially Determined Contribution and might provide more benefit security for plan members. Conversely, investing in higher-returning asset classes should increase future investment returns and therefore reduce future Metro contributions, but would also increase the volatility of those contributions and potentially reduce benefit security for plan members.

In the graph above, the asset class with the lowest risk level is US Cash, and the asset class with the highest risk level is Private Equity. If the plan were invested 100% in either of these extremes, it would impact the interest rate assumption and therefore the Accrued Liability, Funded Ratio, and ultimately Metro's annual contributions; the volatility of the contributions would also change based on the risk level of the portfolio:

	100% US Cash *	Plan's Interest Rate Assumption	100% Private Equity
Expected long-term return (median)	3.4%	6.25%	8.8%
Expected risk level (standard deviation)	1.1%	12.8%	30.0%
Accrued Liability on January 1, 2025 **	\$51.9 million	\$40.8 million	\$32.8 million
Funded Ratio on January 1, 2025 ***	60%	76%	95%

* This would be considered a "low-default-risk obligation measure" (LDRM) using the language of ASOP 4.

** Calculated using the same actuarial assumptions and methods that were used for this valuation, except for the interest rate; the plan's duration on the valuation date, as measured for GASB 68 purposes, was used to estimate the impact of the interest rate difference relative to the valuation interest rate assumption.

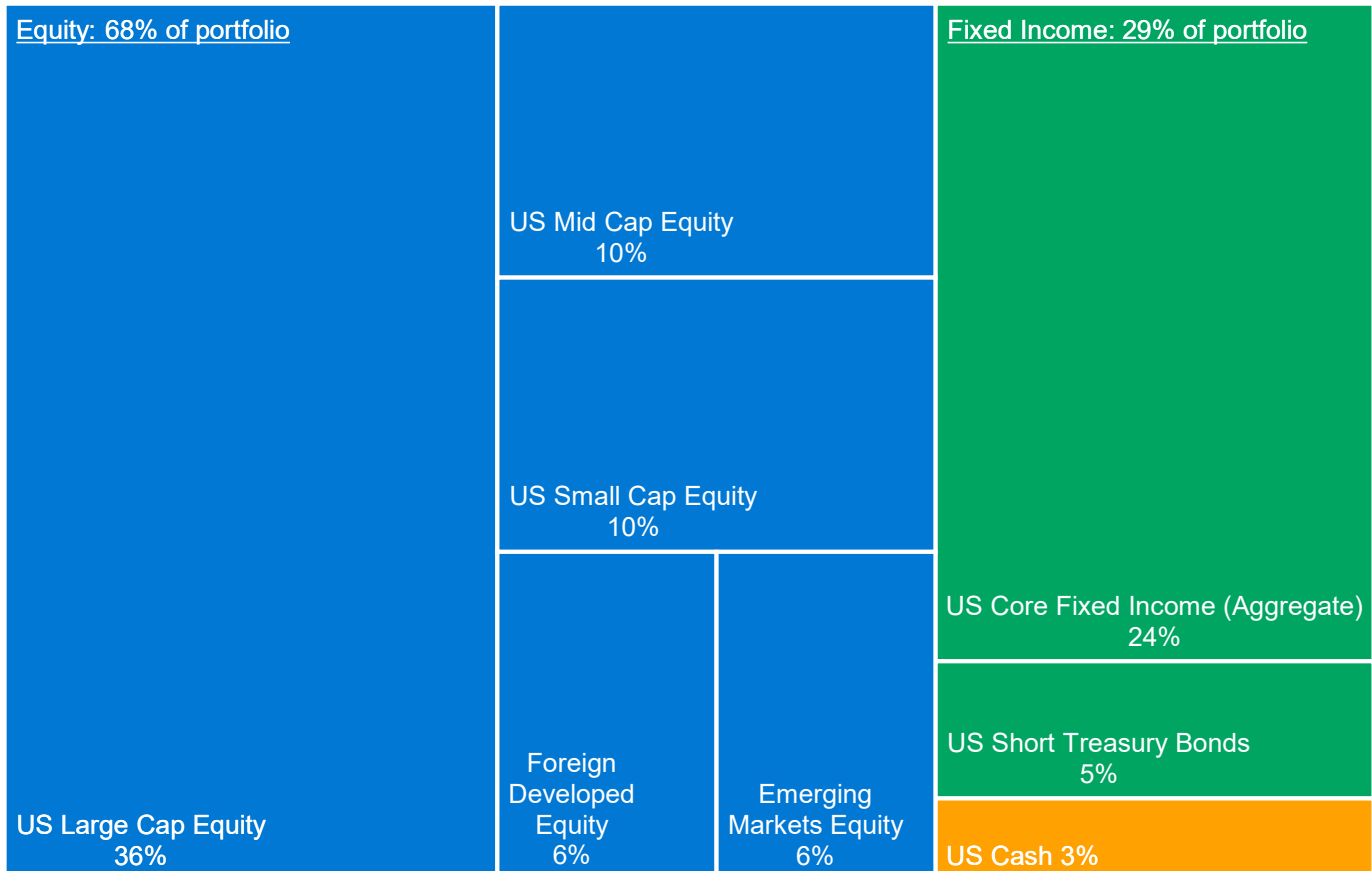
*** Measured using the Actuarial Value of Assets

1. Summary of Fund Transactions

Market Value as of January 1, 2024	\$29,234,417
Metro Contributions	1,097,377
Member Contributions	1,097,119
Net Investment Income	4,281,979
Benefit Payments	(2,737,821)
Transfers	(503,516)
Administrative Expenses	(103,734)
 Market Value as of December 31, 2024	 32,365,821
Expected Return on Market Value of Assets	1,791,323
Market Value (Gain)/Loss	(2,490,656)
Approximate Rate of Return *	14.94%

* The rate shown here is not the dollar or time weighted investment yield rate which measures investment performance. It is an approximate net return assuming all activity occurred on average midway through the year.

Target Asset Allocation as of December 31, 2024



3. Past Service Cost

In determining the Past Service Cost, the Unfunded Accrued Liability is amortized as a level percent over a closed period of 30 years starting on January 1, 2012.

	January 1, 2024	January 1, 2025
1. Accrued Liability		
Active Members	\$14,277,978	\$13,713,562
Terminated Members	2,382,920	2,538,645
Service Retirees	21,754,061	22,455,271
Disabled Retirees	0	0
Beneficiaries	<u>2,226,221</u>	<u>2,104,264</u>
Total	40,641,180	40,811,742
2. Actuarial Value of Assets (see Exhibit 2)	30,037,666	31,100,745
3. Unfunded Accrued Liability: (1) - (2)	10,603,514	9,710,997
4. Funded Ratio: (2) / (1)	73.9%	76.2%
5. Amortization Period	18	17
6. Amortization Growth Rate	2.50%	2.50%
7. Past Service Cost: (3) amortized over (5)	785,779	749,804

4. Actuarial Gains / Losses

From one valuation to the next, the Accrued Liability and the Actuarial Value of Assets may change in ways that were not anticipated by the actuarial assumptions that were used in the last valuation. If the Accrued Liability is lower than expected or the Actuarial Value of Assets is higher than expected, we say that the plan has experienced an 'actuarial gain', and if the Accrued Liability is higher than expected or the Actuarial Value of Assets is lower than expected, we say that the plan has experienced an 'actuarial loss'. The actuarial gains / (losses) that arose during 2024 are shown below, along with the impact of plan changes and changes in the actuarial assumptions and method. Please see page 4 for more details on any changes since the last valuation.

	Accrued Liability A	Actuarial Value of Assets B	Unfunded Accrued Liability = A - B
1. Value as of January 1, 2024	\$40,641,180	\$30,037,666	\$10,603,514
2. Normal Cost as of January 1, 2024	1,031,139		1,031,139
3. Metro Contributions during 2024		1,097,377	(1,097,377)
4. Member Contributions during 2024		1,097,119	(1,097,119)
5. Benefit Payments during 2024	(2,737,821)	(2,737,821)	0
6. Administrative Expenses during 2024		(103,734)	103,734
7. Transfers during 2024	(602,225)	(503,516)	(98,709)
8. One year of interest on (1) thru (2) at 6.25%	2,604,520	1,877,354	727,166
9. Half year of interest on (3) thru (7) at 6.25%	<u>(104,376)</u>	<u>(35,099)</u>	<u>(69,277)</u>
10. Expected value as of January 1, 2025	40,832,417	30,729,346	10,103,071
11. Actual value as of January 1, 2025 before any plan, assumption, or method changes	40,787,604	31,100,745	9,686,859
12. Experience gains / losses: (11) - (10)	(44,813)	371,399	(416,212)
13. Impact of plan changes (see page 4)	24,138	0	24,138
14. Impact of assumption changes (see page 4)	0	0	0
15. Impact of method changes (see page 4)	0	0	0
16. Final value as of January 1, 2025	40,811,742	31,100,745	9,710,997

5. Actuarially Determined Contribution

	2024	2025
1. Total Normal Cost	\$1,031,139	\$1,017,759
2. Expected Member Contributions	1,082,692	1,074,068
3. Expected Administrative Expenses	48,000	106,800
4. Net Normal Cost: (1) - (2) + (3)	(3,553)	50,491
5. Past Service Cost (see Exhibit 3)	785,779	749,804
6. Interest on (4) + (5) reflecting payment on average halfway through the year	24,445	25,009
7. Actuarially Determined Contribution: (4) + (5) + (6)	806,671	825,304

6. Long Range Funded Status Forecast

This forecast is based on the results of the January 1, 2025 actuarial valuation and assumes that Metro will pay 8.25% of active member payroll each year, the assets will return the assumed interest rate on a market value basis each year, and there are no future changes in the actuarial methods or assumptions or in the plan provisions. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets.

Valuation Date	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio
1/1/2025	\$40,811,742	\$31,100,745	\$9,710,997	76.2%
1/1/2026	41,288,000	32,028,000	9,260,000	77.6%
1/1/2027	41,875,000	32,762,000	9,113,000	78.2%
1/1/2028	42,444,000	34,939,000	7,505,000	82.3%
1/1/2029	43,002,000	36,601,000	6,401,000	85.1%
1/1/2030	43,567,000	37,853,000	5,714,000	86.9%
1/1/2031	44,130,000	39,186,000	4,944,000	88.8%
1/1/2032	44,680,000	40,591,000	4,089,000	90.8%
1/1/2033	45,249,000	42,112,000	3,137,000	93.1%
1/1/2034	45,772,000	43,682,000	2,090,000	95.4%
1/1/2035	46,275,000	45,335,000	940,000	98.0%
1/1/2036	46,789,000	47,121,000	(332,000)	100.7%
1/1/2037	47,305,000	49,025,000	(1,720,000)	103.6%
1/1/2038	47,779,000	51,008,000	(3,229,000)	106.8%
1/1/2039	48,273,000	53,157,000	(4,884,000)	110.1%
1/1/2040	48,808,000	55,495,000	(6,687,000)	113.7%
1/1/2041	49,377,000	58,038,000	(8,661,000)	117.5%
1/1/2042	49,934,000	60,725,000	(10,791,000)	121.6%
1/1/2043	50,563,000	63,656,000	(13,093,000)	125.9%
1/1/2044	51,269,000	66,851,000	(15,582,000)	130.4%

7. Long Range Cash Flow Forecast

This forecast is based on the results of the January 1, 2025 actuarial valuation and assumes that Metro will pay 8.25% of active member payroll each year, the assets will return the assumed interest rate on a market value basis each year, and there are no future changes in the actuarial methods or assumptions or in the plan provisions. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets.

Fiscal Year	Metro Contributions	Member Contributions	Benefit Payments	Administrative Expenses	Net Cash Flows
2025	\$1,122,247	\$1,074,068	(\$3,173,874)	(\$106,846)	(\$1,084,405)
2026	1,132,000	1,118,000	(3,130,000)	(110,000)	(990,000)
2027	1,151,000	1,151,000	(3,196,000)	(113,000)	(1,007,000)
2028	1,171,000	1,159,000	(3,234,000)	(117,000)	(1,021,000)
2029	1,188,000	1,185,000	(3,256,000)	(120,000)	(1,003,000)
2030	1,206,000	1,201,000	(3,286,000)	(124,000)	(1,003,000)
2031	1,229,000	1,215,000	(3,329,000)	(128,000)	(1,013,000)
2032	1,251,000	1,246,000	(3,351,000)	(131,000)	(985,000)
2033	1,276,000	1,256,000	(3,427,000)	(135,000)	(1,030,000)
2034	1,298,000	1,279,000	(3,482,000)	(139,000)	(1,044,000)
2035	1,323,000	1,307,000	(3,503,000)	(144,000)	(1,017,000)
2036	1,354,000	1,341,000	(3,556,000)	(148,000)	(1,009,000)
2037	1,384,000	1,352,000	(3,632,000)	(152,000)	(1,048,000)
2038	1,411,000	1,395,000	(3,657,000)	(157,000)	(1,008,000)
2039	1,448,000	1,431,000	(3,673,000)	(162,000)	(956,000)
2040	1,485,000	1,472,000	(3,688,000)	(166,000)	(897,000)
2041	1,522,000	1,500,000	(3,764,000)	(171,000)	(913,000)
2042	1,557,000	1,544,000	(3,762,000)	(177,000)	(838,000)
2043	1,598,000	1,586,000	(3,763,000)	(182,000)	(761,000)
2044	1,641,000	1,616,000	(3,801,000)	(187,000)	(731,000)

8. History of Funded Status

Valuation Date	Actuarial Value of Assets	Accrued Liability	Unfunded Accrued Liability	Funded Ratio
January 1, 2014	\$19,886,881	\$31,038,929	\$11,152,048	64.1%
January 1, 2015	20,939,210	31,851,815	10,912,605	65.7%
January 1, 2016	21,663,121	32,548,681	10,885,560	66.6%
January 1, 2017	22,443,739	33,896,866	11,453,127	66.2%
January 1, 2018	23,825,275	35,249,385	11,424,110	67.6%
January 1, 2019	24,167,487	35,906,116	11,738,629	67.3%
January 1, 2020	25,950,904	38,889,416	12,938,512	66.7%
January 1, 2021	27,823,549	40,642,312	12,818,763	68.5%
January 1, 2022	29,703,691	41,555,251	11,851,560	71.5%
January 1, 2023	29,752,332	41,310,613	11,558,281	72.0%
January 1, 2024	30,037,666	40,641,180	10,603,514	73.9%
January 1, 2025	31,100,745	40,811,742	9,710,997	76.2%

9. History of Metro Contributions

Fiscal Year	Actuarially Determined Contribution	Actual Metro Contribution	Payroll	Actual Contribution as a Percent of Payroll
2014	\$833,212	\$702,245	\$11,362,603	6.2%
2015	847,243	748,129	11,514,912	6.5%
2016	901,256	705,467	11,390,621	6.2%
2017	958,333	904,824	11,497,480	7.9%
2018	835,474	855,109	12,169,930	7.0%
2019	891,105	836,227	11,485,056	7.3%
2020	1,165,834	1,286,538	11,605,482	11.1%
2021	1,161,981	939,928	12,376,694	7.6%
2022	1,095,523	911,110	12,203,356	7.5%
2023	1,057,889	964,927	13,081,391	7.4%
2024	806,671	1,097,377	13,519,955	8.1%
2025	825,304	TBD	13,602,990	TBD

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10. Reconciliation of Membership from Prior Valuation

Details of the changes in the plan's membership since the last valuation are shown below. Additional details on the membership are provided in the following exhibits.

	Active Members	Terminated Vested Members	Deferred Beneficiaries	Service Retirees	Disabled Retirees	Beneficiaries	Total
January 1, 2024	207	56	2	178	0	29	472
Terminated							
- no benefits due	-	-	-	-	-	-	0
- refund due	(7)	7	-	-	-	-	0
- paid refund	(13)	(7)	(1)	-	-	-	(21)
- vested benefits due	(3)	3	-	-	-	-	0
Retired	(5)	(3)	-	8	-	-	0
Died							
- with beneficiary	(1)	(3)	3	(1)	-	2	0
- no beneficiary	-	-	-	(3)	-	(2)	(5)
Benefits expired	-	-	-	-	-	-	0
New member	35	6	-	-	-	-	41
Rehired	1	(1)	-	-	-	-	0
New Alternate Payee	-	-	-	-	-	-	0
Transfer to Admin Plan	(9)	-	-	-	-	-	(9)
Correction	-	-	-	-	-	-	0
January 1, 2025	205	58	4	182	0	29	478

11. Statistics of Active Membership

	January 1, 2024	January 1, 2025
Number of Active Members	207	205
Average Age	53.0	52.7
Average Service	8.3	8.1
Payroll	\$13,519,955	\$13,602,990
Average Payroll	65,314	66,356

12. Statistics of Inactive Membership

	January 1, 2024	January 1, 2025
Terminated Vested Members and Deferred Beneficiaries		
Number	40	38
Total Annual Benefit	\$255,062	\$245,939
Average Annual Benefit	6,377	6,472
Average Age	0.0	60.6
Nonvested Members Due Refunds		
Number	18	24
Service Retirees		
Number	178	182
Total Annual Benefit	\$2,275,447	\$2,355,549
Average Annual Benefit	12,783	12,943
Average Age	74.6	75.0
Disabled Retirees		
Number	0	0
Total Annual Benefit	\$0	\$0
Average Annual Benefit	0	0
Average Age	0.0	0.0
Beneficiaries		
Number	29	29
Total Annual Benefit	\$265,118	\$264,967
Average Annual Benefit	9,142	9,137
Average Age	76.6	76.8

13. Distribution of Inactive Membership as of January 1, 2025

	Age	Number	Annual Benefits
Terminated Vested Members and Deferred Beneficiaries	< 50	1	\$5,697.72
	50 - 59	13	49,542.48
	60 - 69	24	190,698.84
	70 - 79	0	0.00
	80 - 89	0	0.00
	90 +	<u>0</u>	<u>0.00</u>
	Total	38	245,939.04
<hr/>			
Service Retirees	< 50	0	\$0.00
	50 - 59	2	39,395.76
	60 - 69	48	780,125.40
	70 - 79	85	1,015,936.32
	80 - 89	39	456,642.12
	90 +	<u>8</u>	<u>63,448.92</u>
	Total	182	2,355,548.52
<hr/>			
Disabled Retirees	< 50	0	\$0.00
	50 - 59	0	0.00
	60 - 69	0	0.00
	70 - 79	0	0.00
	80 - 89	0	0.00
	90 +	<u>0</u>	<u>0.00</u>
	Total	0	0.00
<hr/>			
Beneficiaries	< 50	0	\$0.00
	50 - 59	0	0.00
	60 - 69	6	42,733.20
	70 - 79	13	135,949.08
	80 - 89	6	47,339.88
	90 +	<u>4</u>	<u>38,944.92</u>
	Total	29	264,967.08

Appendix A - Actuarial Funding Method

Cost Method

The actuarial cost method used in the valuation of this Plan is known as the Entry Age Normal Method. The Actuarially Determined Contribution consists of three pieces: Normal Cost plus a Past Service Cost payment to gradually eliminate the Unfunded Accrued Liability plus Interest to reflect the timing of the contribution relative to the valuation date.

The Normal Cost is determined by calculating the present value of future benefits for present Active Members that will become payable as the result of death, disability, retirement or termination. This cost is then spread as a level percentage of earnings from entry age to termination for each individual. If Normal Costs had been paid at this level for all prior years, a fund would have accumulated. Because this fund represents the portion of benefits that would have been funded to date, it is termed the Accrued Liability. In fact, it is calculated by adding the present value of benefits for Members in Pay Status and Terminated Members to the present value of benefits for Active Members and subtracting the present value of future Normal Cost contributions.

The funding cost of the Plan is derived by making certain specific assumptions as to rates of interest, mortality, turnover, etc. which are assumed to hold for many years into the future. Since actual experience may differ somewhat from the assumptions, the Costs determined by the valuation must be regarded as estimates of the true Costs of the Plan.

Asset Smoothing Method

The Actuarial Value of Assets is determined by recognizing market gains and losses non-asymptotically over a five year period.

Amortization Method

The Unfunded Accrued Liability is the excess of the Accrued Liability less the Actuarial Value of Assets. This Unfunded Accrued Liability is amortized as a level percent over a closed period of 30 years starting on January 1, 2012. The amortization period will decrease each year until it reaches 10 years, after which point it will remain at 10 years.

Long-Range Forecast

The long-range forecasts included in this report have been developed by assuming that members will terminate, retire, become disabled, and die according to the actuarial assumptions with respect to these causes of decrement, and that pay increases, cost of living adjustments, and so forth will likewise occur according to the actuarial assumptions. For those groups whose new employees are eligible to participate in this plan, members who are projected to leave active employment are assumed to be replaced by new active members with the same age, service, gender, and pay characteristics as those hired in the past few years.

Appendix B - Actuarial Assumptions

Each of the assumptions used in this valuation was set based on a formal study of the plan's experience for the period July 1, 2017 through June 30, 2023 which reflected industry standard published tables and data, the particular characteristics of the plan, relevant information from the plan sponsor or other sources about future expectations, and our professional judgment regarding future plan experience. We believe the assumptions are reasonable for the contingencies they are measuring, and are not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

Interest Rate	6.25%												
Inflation	2.50%												
Amortization Growth Rate	2.50%												
Expenses	Prior year actual administrative expenses increased by 3.0% and rounded to the nearest \$100.												
Salary Scale	<table border="0"> <thead> <tr> <th style="background-color: #2c3e50; color: white;">Service</th> <th style="background-color: #2c3e50; color: white;">Rate</th> </tr> </thead> <tbody> <tr> <td>0-2</td> <td>8.50%</td> </tr> <tr> <td>3+</td> <td>3.00%</td> </tr> </tbody> </table>	Service	Rate	0-2	8.50%	3+	3.00%						
Service	Rate												
0-2	8.50%												
3+	3.00%												
Turnover	<table border="0"> <thead> <tr> <th style="background-color: #2c3e50; color: white;">Service</th> <th style="background-color: #2c3e50; color: white;">Rate</th> </tr> </thead> <tbody> <tr> <td>0-3</td> <td>10.5%</td> </tr> <tr> <td>4-14</td> <td>7.5%</td> </tr> <tr> <td>15+</td> <td>4.5%</td> </tr> </tbody> </table>	Service	Rate	0-3	10.5%	4-14	7.5%	15+	4.5%				
Service	Rate												
0-3	10.5%												
4-14	7.5%												
15+	4.5%												
Disability	Based on Table 5, Period 2 of the Society of Actuaries 1942 Disability Study.												
Retirement	<table border="0"> <thead> <tr> <th style="background-color: #2c3e50; color: white;">Service</th> <th style="background-color: #2c3e50; color: white;">Rate</th> </tr> </thead> <tbody> <tr> <td>< 58</td> <td>2%</td> </tr> <tr> <td>58 - 64</td> <td>5%</td> </tr> <tr> <td>65 - 66</td> <td>35%</td> </tr> <tr> <td>67 - 69</td> <td>15%</td> </tr> <tr> <td>70+</td> <td>100%</td> </tr> </tbody> </table>	Service	Rate	< 58	2%	58 - 64	5%	65 - 66	35%	67 - 69	15%	70+	100%
Service	Rate												
< 58	2%												
58 - 64	5%												
65 - 66	35%												
67 - 69	15%												
70+	100%												
Mortality	PubG-2010 Mortality Table with generational mortality improvement per the MP-2021 Ultimate Scale. This assumption includes a margin for mortality improvements after the valuation date.												
Marital Status	80% of active participants are assumed to be married. Female spouses are assumed to be 3 years younger than male spouses.												

Appendix C - Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan. It is not intended to be, nor should it be interpreted as a complete statement of all plan provisions. All eligibility requirements and benefit amounts shall be determined in strict accordance with the plan document itself. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.

Original Effective Date	July 1, 1979																
Plan Year	January 1 through December 31																
Eligibility	First of the month following completion of 120 days of service. Employees hired after their 60th birthday may not participate in the plan.																
Compensation	Regular compensation plus overtime but excluding reimbursed expenses, bonuses, commissions, deferred compensation and other extra or unusual compensation.																
Final Average Compensation	Average of the Compensation paid during the five highest consecutive paid years out of the last ten years of employment.																
Year of Service	Twelve consecutive month period beginning with the person's employment date during which the member works 1,000 hours.																
Vesting	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #333; color: white;"> <th style="text-align: left;">Years of Service</th> <th style="text-align: left;">Vesting %</th> </tr> </thead> <tbody> <tr><td>0-4</td><td>0%</td></tr> <tr><td>5</td><td>50%</td></tr> <tr><td>6</td><td>60%</td></tr> <tr><td>7</td><td>70%</td></tr> <tr><td>8</td><td>80%</td></tr> <tr><td>9</td><td>90%</td></tr> <tr><td>10+</td><td>100%</td></tr> </tbody> </table>	Years of Service	Vesting %	0-4	0%	5	50%	6	60%	7	70%	8	80%	9	90%	10+	100%
Years of Service	Vesting %																
0-4	0%																
5	50%																
6	60%																
7	70%																
8	80%																
9	90%																
10+	100%																
Normal Retirement Eligibility	For members hired prior to January 1, 2018, age 65. For members hired after January 1, 2018, social security normal retirement age.																
Normal Retirement Benefit	For members hired prior to January 1, 2018, 1.40% of Final Average Compensation multiplied by Years of Service. For members hired after January 1, 2018, 1.20% of Final Average Compensation for years 1 through 10, 1.30% of Final Average Compensation for years 11 through 20, and 1.40% thereafter.																

Appendix C - Summary of Plan Provisions

Early Retirement Eligibility	Age 58 with 20 years of service, or any age with 30 years of service.
Early Retirement Benefit	Accrued benefit based on service and compensation to date with a 0.50% reduction for each month by which early retirement precedes normal retirement. No reduction applies if a member has 30 or more years of service.
Disability Retirement Eligibility	Total and Permanent Disability
Disability Retirement Benefit	Accrued benefit based on service and compensation to date of disability.
Preretirement Death Benefit	<p>Surviving spouses of members with at least 10 years of service are eligible to receive a benefit equal to the accrued benefit the member would have received if they terminated employment, deferred their benefit to their earliest retirement date, and elected the 100% joint and survivor annuity option.</p> <p>Surviving spouses of members with less than 10 years of service are entitled to a refund of the member's employee contributions with interest.</p>
Employee Contributions	Active members contribute 8.25% of payroll as of January 1, 2024.
Normal Form of Payment	Modified Cash Refund Annuity.
Optional Forms of Payment	10 year certain and life, 100%/75%/66.7%/50% joint and survivor annuity. The 100% joint and survivor annuity is automatic for married members unless another option is elected.
Metro Contributions	Metro contributes 8.25% of active member payroll
Transfers Between Metro Plans	When employees of Metro change positions that result in the employee changing pension plan eligibility between the Collective Bargaining Employee Pension Plan and the Administrative Employee Pension Plan, all of the employee's service transfers to the pension plan covered by the new position. Additionally, all of the employee's contributions and Metro's contributions on the employee's payroll are transferred to the new plan.

Appendix D - Risk Disclosure - Introduction

The results of this actuarial valuation are based on one set of reasonable assumptions. However, it is almost certain that future experience will not exactly match these assumptions. As an example, the plan's investments may perform better or worse than assumed in any single year and over any longer time horizon. It is therefore important to consider the potential impacts of these likely differences when making decisions that may affect the future financial health of the plan, or of the plan's members.

In addition, as plans mature they accumulate larger pools of assets and liabilities. The increase in size in turn increases the potential magnitude of adverse experience. As an example, the dollar impact of a 10% investment loss on a plan with \$1 billion in assets and liabilities is much greater than the dollar impact for a plan with \$1 million in assets and liabilities. Since pension plans make long-term promises and rely on long-term funding, it is important to consider how mature the plan is today, and how mature it may become in the future.

Actuarial Standard of Practice No. 51 (ASOP 51) directs actuaries to provide pension plan sponsors with information concerning the risks associated with the plan:

- Identify risks that may be significant to the plan.
- Assess the risks identified as significant to the plan. The assessment does not need to include numerical calculations.
- Disclose plan maturity measures and historical information that are significant to understanding the plan's risks.

This section of the report uses the framework of ASOP 51 to communicate important information about significant risks to the plan, the plan's maturity, and relevant historical plan data.

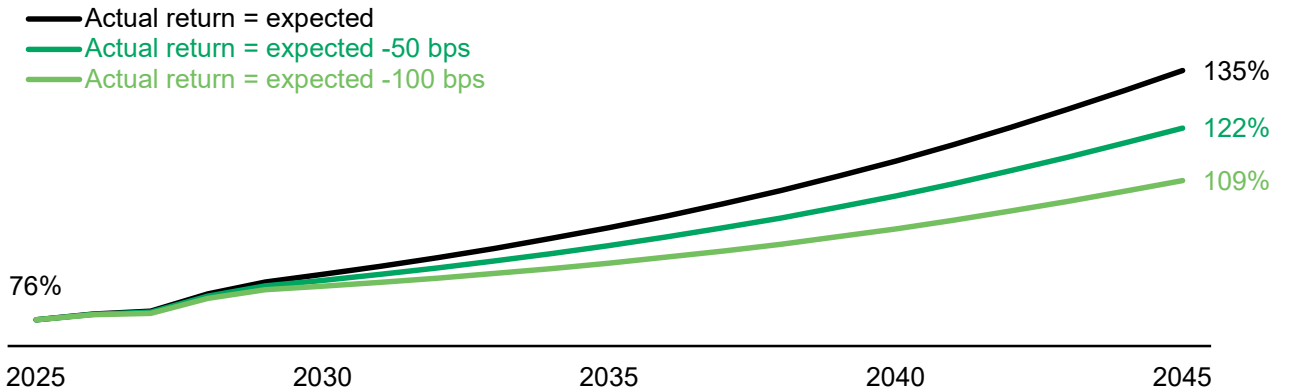
Please see Appendix A for more information on the basis for the projected results shown on the following pages.

Appendix D - Risk Disclosure - Identification and Assessment

Investment Risk

Definition: This is the potential that investment returns will be different than expected.

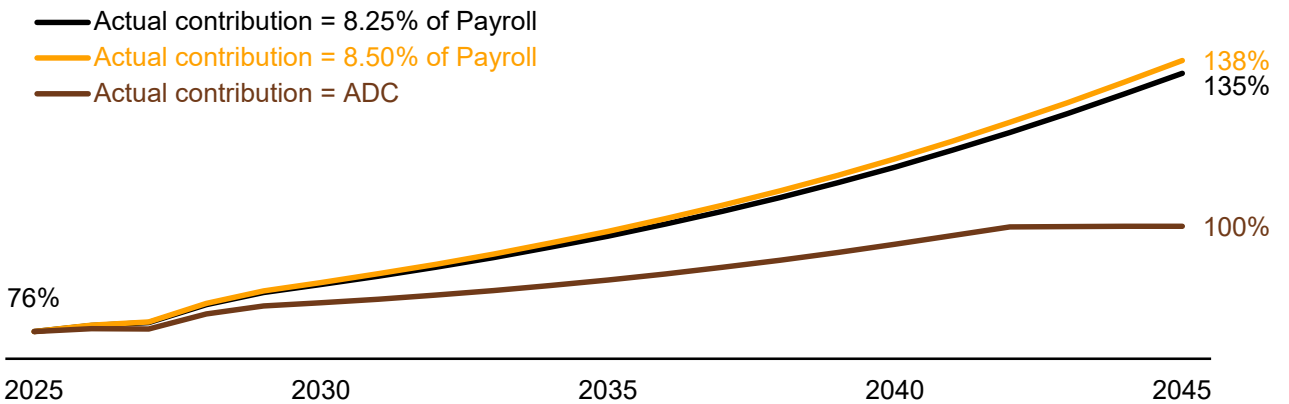
Identification: To the extent that actual investment returns differ from the assumed investment return, the plan's future assets and funded status may differ significantly from those presented in this valuation. The consequences of persistent underperformance on future funded ratios are illustrated below:



Contribution Risk

Definition: This is the potential that actual future contributions will be less than the Actuarially Determined Contribution.

Identification: Over the past 11 years, actual contributions have been 94.3% of the Actuarially Determined Contribution in total. The consequences of different contribution policies on future funded ratios are illustrated below:



Appendix D - Risk Disclosure - Identification and Assessment

Liquidity Risk

Definition: This is the potential that assets must be liquidated at a loss earlier than planned in order to pay for the plan's benefits and operating Costs. This risk is heightened for plans with negative cash flows, in which contributions are not sufficient to cover benefit payments plus expenses.

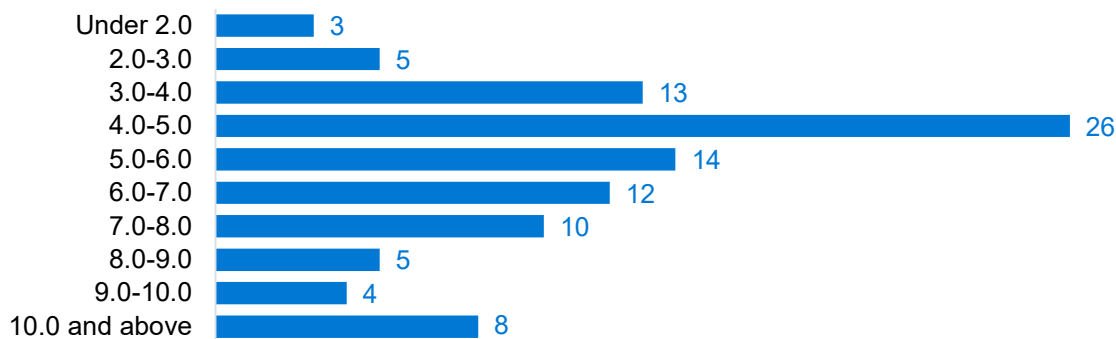
Identification: In 2024, the plan had negative cash flow, with Metro contributions and member contributions to the plan of \$2,194,496 compared to \$2,841,555 of benefit payments and administrative expenses paid out of the plan. We suggest that you consult with your investment advisors with respect to the liquidity characteristics of the plan's investment holdings.

Maturity Risk

Definition: This is the potential for total plan liabilities to become more heavily weighted toward inactive liabilities over time, and for plan assets and/or liabilities to become larger relative to the liability for active members.

Identification: The plan is subject to maturity risk because as plan assets and liabilities continue to grow, the dollar impact of any gains or losses on the assets or liabilities also becomes larger.

Assessment: As of January 1, 2025, the plan's Asset Volatility Ratio (the ratio of the market value of plan assets to payroll) is 2.4. According to Milliman's 2023 Public Pension Funding Study, the 100 largest US public pension plans have the following range of Asset Volatility Ratios:



Inflation Risk

Definition: This is the potential for a pension to lose purchasing power over time due to inflation.

Identification: The members of pension plans without fully inflation-indexed benefits are subject to the risk that their purchasing power will be reduced over time due to inflation.

Assessment: This plan does not contain a mechanism to regularly increase benefits after retirement, so members bear all of the inflation risk.

Appendix D - Risk Disclosure - Identification and Assessment

Insolvency Risk

Definition: This is the potential that a plan will become insolvent; that is, assets will be fully depleted.

Identification: If a plan becomes insolvent, contractually required benefits must be paid from the plan sponsor's other remaining assets.

Assessment: Under the GASB 68 depletion date methodology, the plan is not projected to become insolvent. Please see the GASB 68 report for more details on the underlying analysis.

Demographic Risks

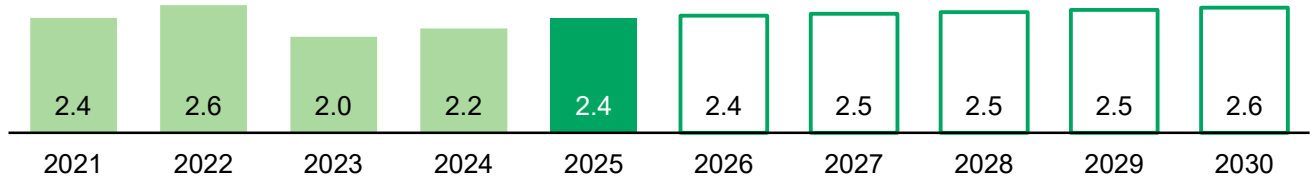
Definition: This is the potential that mortality, turnover, retirement, or other demographic experience will be different than expected.

Identification: The pension liabilities reported herein have been calculated by assuming that members will follow patterns of demographic experience as described in Appendix B. If actual demographic experience or future demographic assumptions are different from what is assumed to occur in this valuation, future pension liabilities, Actuarially Determined Contribution, and funded status may differ significantly from those presented in this valuation. Formal Experience Studies performed on a regular basis are helpful in ensuring that the demographic assumptions reflect emerging plan experience.

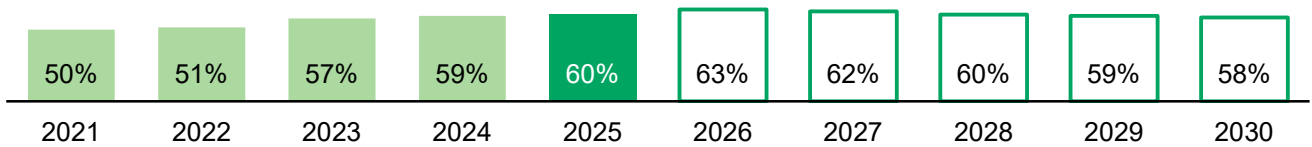
Appendix D - Risk Disclosure - Maturity Metrics

The metrics presented below are different ways of understanding the plan's maturity level, both in the past and as it is expected to change in the coming years.

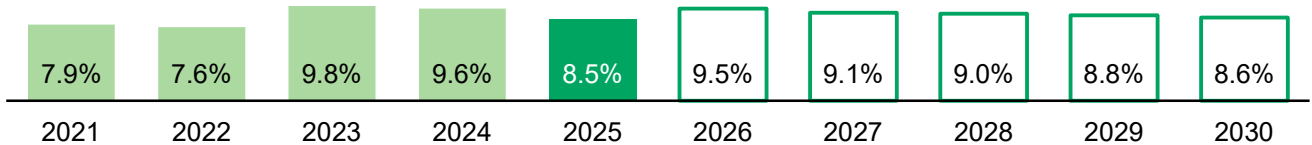
Asset Volatility Ratio: Market Value of Assets compared to Payroll



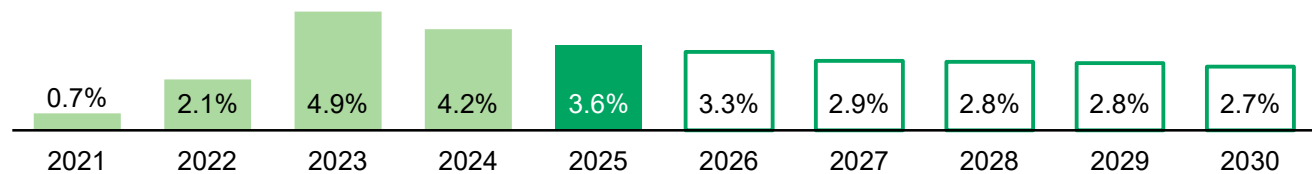
Accrued Liability for Members in Pay Status compared to total Accrued Liability



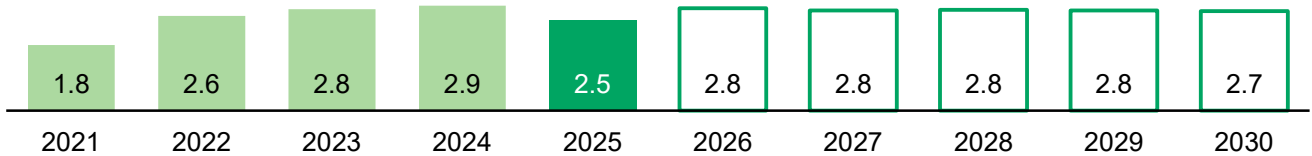
Benefit Payments compared to Market Value of Assets



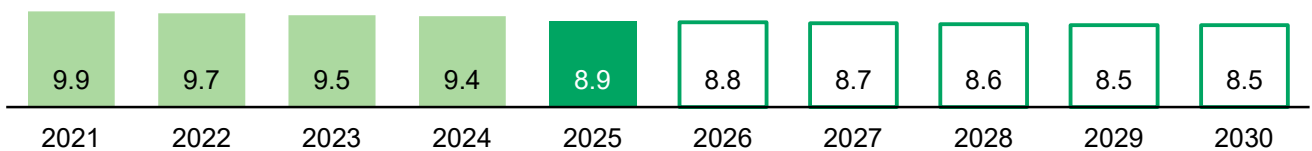
Net Cash Flows compared to Market Value of Assets



Benefit Payments compared to Metro Contributions



Duration of Accrued Liability (based on GASB 68 sensitivity disclosures)



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Appendix E - Glossary

Actuarial Cost Method	This is a procedure for determining the Actuarial Present Value of Benefits and allocating it to time periods to produce the Accrued Liability and the Normal Cost.
Accrued Liability	This is the portion of the Actuarial Present Value of Benefits attributable to periods prior to the valuation date by the Actuarial Cost Method (i.e., that portion not provided by future Normal Costs).
Actuarial Assumptions	With any valuation of future benefits, assumptions of anticipated future events are required. If actual events differ from the assumptions made, the actual cost of the plan will vary as well. Some examples of key assumptions include the interest rate, salary scale, and rates of mortality, turnover and retirement.
Actuarial Present Value of Benefits	This is the present value, as of the valuation date, of future payments for benefits and expenses under the Plan, where each payment is: a) multiplied by the probability of the event occurring on which the payment is conditioned, such as the probability of survival, death, disability, termination of employment, etc.; and b) discounted at the assumed interest rate.
Actuarial Value of Assets	This is the value of cash, investments and other property belonging to the plan, typically adjusted to recognize investment gains or losses over a period of years to dampen the impact of market volatility on the Actuarially Determined Contribution.
Attribution Period	The period of an active member's service to which the expected benefit obligation for that member is assigned. The beginning of the attribution period is the member's date of hire and Costs are spread across all service.
Interest Rate	This is the long-term expected rate of return on any investments set aside to pay for the benefits. In a financial reporting context (e.g., GASB 68) this is termed the Discount Rate.
Normal Cost	This is the portion of the Actuarial Present Value of Benefits allocated to a valuation year by the Actuarial Cost Method.
Past Service Cost	This is a catch-up payment to fund the Unfunded Accrued Liability over time (generally 10 to 30 years). A closed amortization period is a specific number of years counted from one date and reducing to zero with the passage of time; an open amortization period is one that begins again or is recalculated at each valuation date. Also known as the Amortization Payment.
Return on Plan Assets	This is the actual investment return on plan assets during the fiscal year.
Unfunded Accrued Liability	This is the excess of the Accrued Liability over the Actuarial Value of Assets.

Metro Area Transit Hourly Employees' Pension Plan 2023 Experience Study

Rebecca A. Sielman, FSA
Principal and Consulting Actuary

Scott Lindberg, FSA
Consulting Actuary

AUGUST 22, 2024



Topics

1 Overview of an Experience Study

2 Economic assumptions

3 Demographic assumptions

4 Funding method

5 Impact of proposed changes on valuation results

Experience Study

- **Objectives**

- Bring actuarial assumptions in line with recent experience
- Reflect emerging long-term trends

- **Scope**

- Economic assumptions: inflation, interest rate, pay increases, administrative expenses
- Demographic assumptions: mortality, turnover, retirement, disability
- Funding method: cost method, amortization method, asset smoothing method

- **Sources of data**

- Census data from 2017-2023 valuations
- Social Security Administration annual trustees report
- Milliman's Capital Market Assumptions

Topics

1 Overview of an Experience Study

2 Economic assumptions

3 Demographic assumptions

4 Funding method

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Economic Assumptions - Inflation

Current assumption: 2.50%

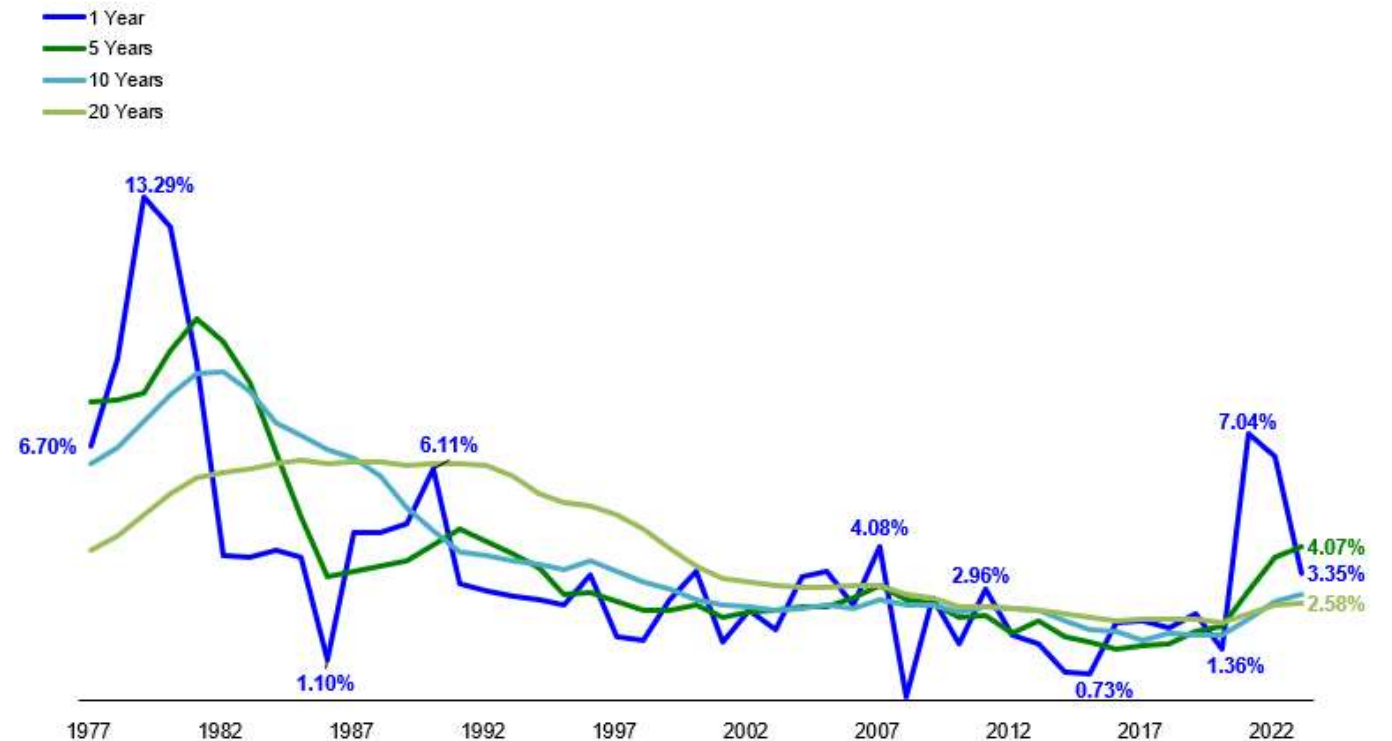
Analysis

The graph at right shows historical CPI-U through 2023; there is a clear pattern of declining inflation over the past 40+ years, with a temporary spike in the last few years.

The Social Security Administration studies long-term inflation trends and projections on an annual basis. In the 2023 Trustees report, the projected annual inflation for 2024 and thereafter under the intermediate cost assumptions was 2.40%.

Proposed assumption: No change

Consumer Price Index - All Urban Consumers (CPI-U)

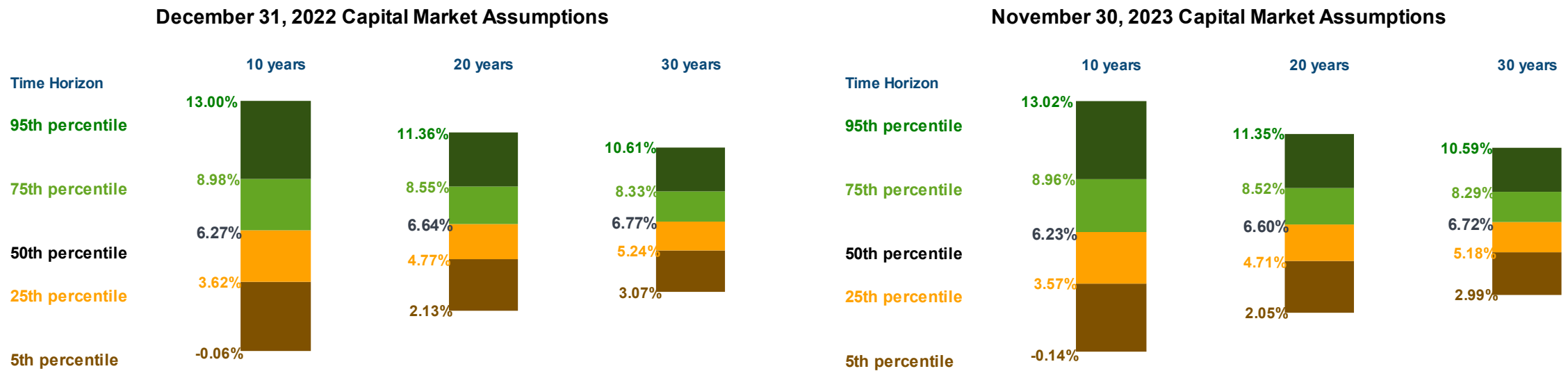


Economic Assumptions – Interest Rate

Current assumption: 6.25%

Analysis

Using Milliman’s December 31, 2022 capital market assumptions and the current 2.50% inflation rate, the expected long-term return for the target asset allocation (without margin for manager alpha) is 6.77%. The expected long-term return using Milliman’s November 30, 2023 capital market assumptions is 6.72%.



Proposed assumption: No change



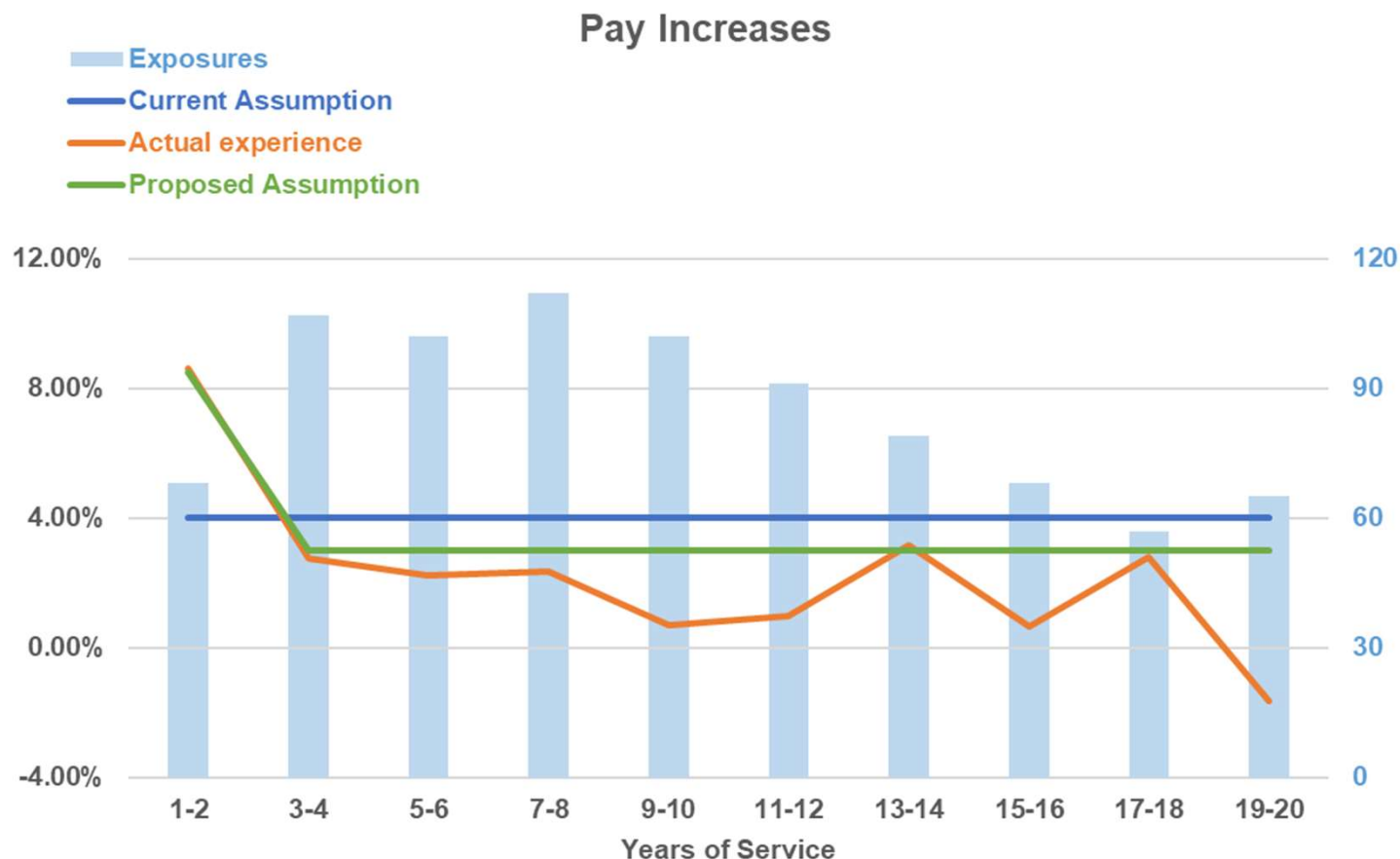
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Economic Assumptions – Pay Increases

Current assumption: 4.00% annual increases.

Analysis

Actual pay increases during the study period showed a pattern of pay increases that were related to service, with higher increases early in careers and lower increases for employees with more service.



Proposed assumption: 8.50% before three years of service and 3.00% after



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Economic Assumptions – Administrative Expenses

Current assumption: \$35,000 for administrative expenses, plus 0.07% of Market Value of Assets for investment expenses.

Analysis

Pension trusts are permitted to pay certain expenses associated with administering the plan:

- Fees for outside professional advisors such as actuaries and legal counsel
- The cost of calculating benefits for terminating / retiring plan members
- The cost of cutting and mailing pension checks, including withholding and transmitting taxes
- The cost of providing information to members about their benefits, including benefit statements, summary plan descriptions, educational seminars, etc.
- Any expenses associated with the Pension Board

Administrative expenses were higher than assumed over the study period.

Proposed assumption:

- Administrative expenses: prior year actual administrative expenses increased by 3% and rounded to the nearest \$100
- Investment expenses: the interest rate assumption implicitly relates to investment income net of investment expenses; remove explicit assumption for investment expenses

Topics

1 Overview of an Experience Study

2 Economic assumptions

3 Demographic assumptions

4 Funding method

5 Impact of proposed changes on valuation results

Demographic Assumptions – Mortality

Current assumption (adopted in 2022):

- PubG-2010 Mortality Table Generational
- Projection per the MP-2021 Ultimate Scale
- Employee rates before retirement; healthy or disabled annuitant rates after retirement

Analysis

The Plan does not have enough members for its mortality experience to be considered "credible". As a result, we look to large-scale studies of mortality to set this assumption. The Pub-2010 mortality tables were published in early 2019 and are the first mortality tables constructed solely using mortality data from public pension plans.

The MP Scale is the basis for projecting future improvements in longevity for many public and private plans. The scale is updated most years and the most recent update is the 2021 version.

Proposed assumption: No change



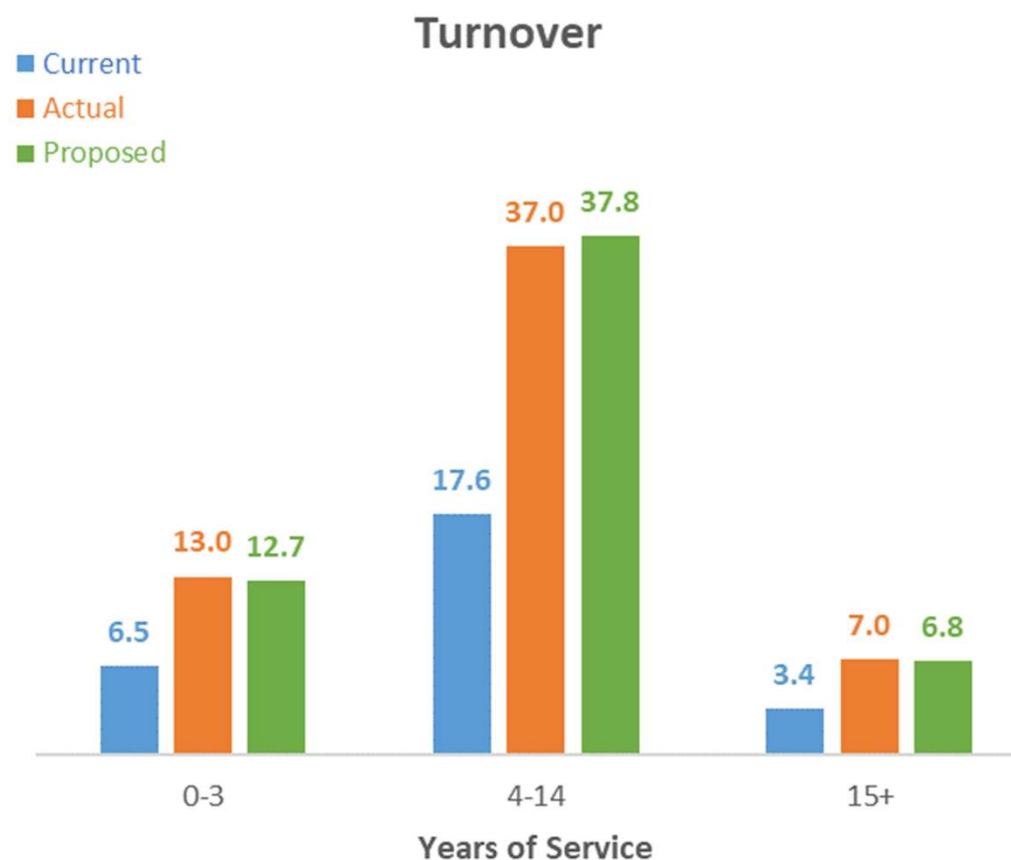
Demographic Assumptions – Turnover

Current assumption: Decreasing rates based on age with lower rates after 2 years of service.

Analysis

Turnover during the study period was higher than expected (57 actual versus 27.4 expected). Gender did not appear to be a significant factor in termination patterns. Turnover correlated more with service than with age.

Proposed assumption: Change to service based table that decreases from 10.5% to 4.5%



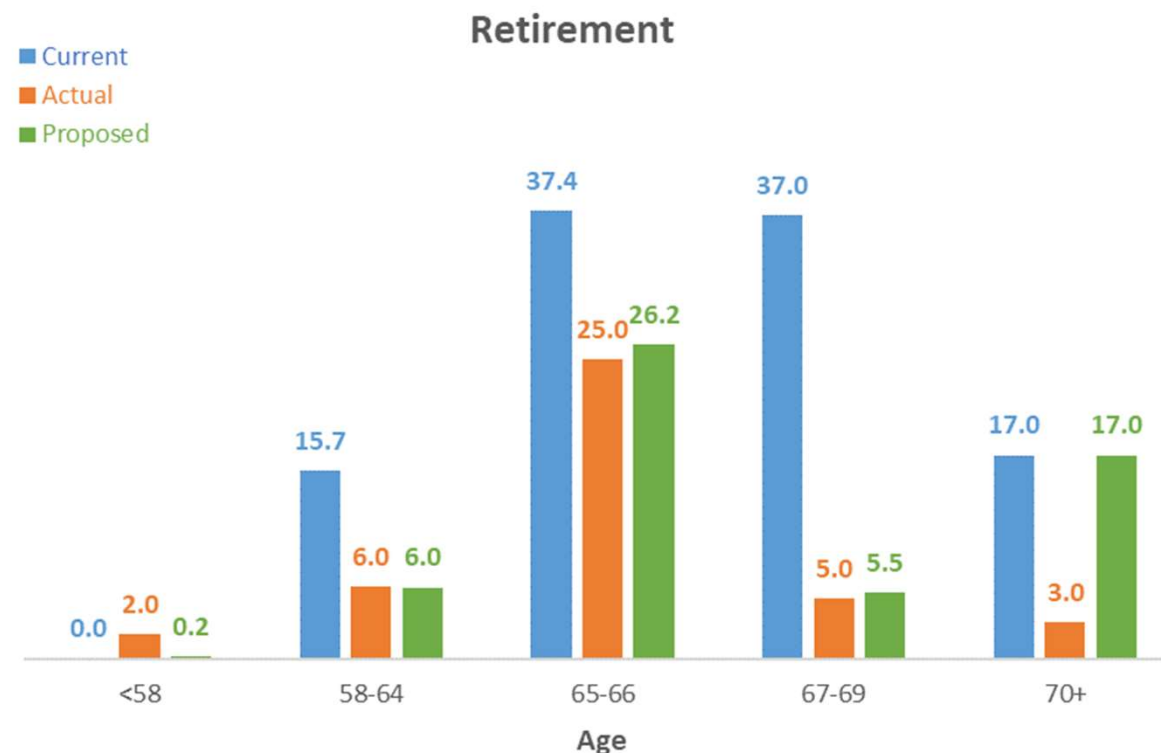
Demographic Assumptions – Retirement

Current assumption: Rates based on age, with higher rates for employees who are younger than 62 and have more than 30 years of service. All active members are assumed to retire by age 67.

Analysis

There were fewer retirements than expected at all ages during the study period (41 actual versus 107.2 expected). There was a higher rate of retirements when employees first became eligible for retirement.

Proposed assumption: Assume 15% retire upon becoming eligible for retirement. Thereafter, decrease rates prior to age 70 and extend the 100% retirement assumption to age 70.



Demographic Assumptions – Disability

Current assumption: Based on Table 5, Period 2 of the Society of Actuaries 1942 Disability Study

Analysis

There were no disabilities incurred during the study period, compared to 5.41 expected. Since the data is thin, we suggest the continued use of the published tables.

Proposed assumption: No change

Topics

1 Overview of an Experience Study

2 Economic assumptions

3 Demographic assumptions

4 **Funding method**

5 Impact of proposed changes on valuation results

Funding Method – Cost Method

Current method: Entry Age Normal

Analysis

Entry Age Normal is the method prescribed by GASB 67/68 for financial reporting purposes and provides a stable progression of costs over an active member's working lifetime.

Proposed method: No change

Funding Method – Amortization Method

Current method: level percent over a closed period of 30 years starting January 1, 2012 with an amortization growth rate of 2.50%

Analysis

Level percent amortization means that the annual amortization payment is the same each year as a percentage of payroll. The amortization period will decline by 1 each year until it reaches 10 years, after which it will remain at 10 years, which is reasonable given the demographic profile of the plan's active membership.

Closed period means that new amortization bases are not established each year for the Unfunded Accrued Liability. If the amortization period were allowed to decline below 10 years, the plan would be fully funded by the end of the closed period. However, having the amortization period decline to 10 years and remain there will also eventually lead to the plan becoming fully funded, while stabilizing the year-over-year contributions required by Metro Area Transit.

Amortization growth rate determines the rate at which the amortization payments will increase over the duration of the amortization period.

Proposed method: No changes



Funding Method – Asset Smoothing Method

Current method: five year non-asymptotic smoothing

Analysis

Five years is the predominant period for asset smoothing and provides a nice balance between dampening market fluctuations while not straying too far from market value.

Non-asymptotic smoothing means that each year's gain or loss is recognized in level increments over the smoothing period. For five year smoothing, this means 20% of the gain or loss for a given year will be recognized in the year it is incurred, 40% will be recognized the next year, and so on.

Proposed method: No change

Topics

1 Overview of an Experience Study

2 Economic assumptions

3 Demographic assumptions

4 Funding method

5 Impact of proposed changes on valuation results

Impact of Proposed Changes Based on January 1, 2023 Valuation

	No Changes	Pay Increases	Turnover	Retirement	Expenses	Employee Contributions
Pay Increases	Current	Proposed	Proposed	Proposed	Proposed	Proposed
Turnover	Current	Current	Proposed	Proposed	Proposed	Proposed
Retirement	Current	Current	Current	Proposed	Proposed	Proposed
Expenses	Current	Current	Current	Current	Proposed	Proposed
Employee Contributions	7.75%	7.75%	7.75%	7.75%	7.75%	8.25%
Discount Rate	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%
Accrued Liability	\$41,310,613	\$40,850,723	\$40,756,103	\$40,041,533	\$40,041,533	\$40,043,833
Actuarial Value of Assets	29,752,332	29,752,332	29,752,332	29,752,332	29,752,332	29,752,332
Unfunded Accrued Liability	11,558,281	11,098,391	11,003,771	10,289,201	10,289,201	10,291,501
Funded Ratio	72.0%	72.8%	73.0%	74.3%	74.3%	74.3%
Amortization Period	19	19	19	19	19	19
Amortization Growth Rate	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Past Service Cost	824,531	791,724	784,974	733,999	733,999	734,163
Total Normal Cost	1,069,083	1,020,954	941,461	970,312	970,312	983,776
Expected Employee Contributions	920,995	925,571	925,571	970,099	970,099	1,032,687
Expected Administrative Expenses	35,000	35,000	35,000	35,000	64,200	64,200
Expected Investment Expenses	18,213	18,213	18,213	18,213	0	0
Net Normal Cost	201,301	148,596	69,103	53,426	64,413	15,289
Interest	32,057	29,385	26,690	24,607	24,950	23,420
Actuarially Determined Contribution for FY 2023	1,057,889	969,705	880,767	812,032	823,362	772,872



This work product was prepared solely for Metro Area Transit for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

Summary of Proposed Changes

	Current			Proposed	
Salary Increase	4.00% at all years of service			Service	Increase
				0-2	8.50%
				3+	3.00%
Turnover	Age	Years 1 & 2	Years 3+	Service	Rate
	20	15.0%	12.0%	0-3	10.5%
	25	15.0%	12.0%	4-14	7.5%
	30	12.0%	11.0%	15+	4.5%
	35	10.0%	10.0%		
	40	8.0%	8.0%		
	45	8.0%	6.0%		
	50	8.0%	4.0%		
	55	8.0%	3.0%		



Summary of Proposed Changes (continued)

	Current			Proposed	
Retirement	Age	<30 Years	>30 Years	Age	Rate
	58-61	5.0%	20.0%	< 58	2.0%
	62-64	25.0%	25.0%	58-64	5.0%
	65-66	50.0%	50.0%	65-66	35.0%
	67	100.0%	100.0%	67-69	15.0%
				70+	100.0%

Along with 15% at first eligibility.

Administrative Expenses \$35,000 for administrative expenses, plus 0.07% of Market Value of Assets for investment expenses

Administrative expenses: Prior year expenses increased 3%, rounded to the nearest \$100

Investment expenses: the interest rate assumption implicitly relates to investment income net of investment expenses, with no explicit assumption for investment expenses.

Disability Based on Table 5, Period 2 of the Society of Actuaries 1942 Disability Study.

No changes.



Caveats

In preparing this study, we relied without audit on information furnished by Metro Area Transit as of each valuation date from January 1, 2017 through January 1, 2023. This information includes, but is not limited to, plan provisions, employee data, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the study results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. If any data or other information is inaccurate or incomplete, our calculations may need to be revised. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

The calculations reported herein have been made on a basis consistent with our understanding of the plan provisions of the Metro Area Transit Hourly Employees' Pension Plan. Furthermore, the calculations were determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations of the American Academy of Actuaries.

The study results were developed using models that use standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice (ASOP). The models, including all input, calculations, and output may not be appropriate for any other purpose.

Milliman's work is prepared solely for the internal business use of Metro Area Transit ("Metro"). To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) Metro may provide a copy of Milliman's work, in its entirety, to Metro's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit Metro; and (b) Metro may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs. If this report is distributed to other parties, we request that it be copied in its entirety and distributed along with a copy of the January 1, 2023 pension actuarial valuation report in its entirety as well, because that document provides background information that is important in understanding the basis for the results contained herein.

Caveats

The cost calculations reported herein have been made on a basis consistent with our understanding of the actuarial methods and assumptions adopted by Metro. Additional determinations may be needed for other purposes, such as judging benefit security at plan termination or meeting employer accounting requirements. On the basis of the foregoing, we hereby certify that, to the best of our knowledge, this report is complete and accurate and all costs and liabilities were determined in conformance with generally accepted actuarial principles and practices. We further certify that, in our opinion, each actuarial assumption, method and technique used is reasonable taking into account the experience of the Plan and reasonable expectations or would, in the aggregate, result in a total contribution equivalent to that which would be determined if each such assumption, method, or technique were reasonable. Differences between our projections and actual amounts depend on the extent to which future experience conforms to the assumptions made for this analysis. Actual experience will not conform exactly to the assumptions made for this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Rebecca A. Sielman, FSA, Principal and Consulting Actuary

Scott Lindberg, FSA, Consulting Actuary

Questions?



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BALLARD: Welcome to the Nebraska Retirement Systems Committee. My name is Senator Beau Ballard, I represent the 21st Legislative District in northwest Lincoln, northern Lancaster County. And we'll start out by having the members of the committee do self-introductions, starting with Senator Clements.

CLEMENTS: Rob Clements, District 2: Elmwood.

TREVOR FITZGERALD: Trevor Fitzgerald, committee legal counsel.

SORRENTINO: Tony Sorrentino, Legislative District 39: Elkhorn, and Waterloo.

BALLARD: Also assisting the committee is Connie Thomas, and our committee clerk, Cori. This afternoon we'll be hearing LR97. On the table near, near the entrance you'll find green testifier sheets. If you're planning to testify today, please fill one out and hand it to the page when you come up to help us keep an accurate record of the hearing. Also I'd like to note that the Legislature's policy that all letters for the record must be received via an online portal by 8 a.m., the day of the hearing. Any handouts submitted by testifiers will also be included as part of the record as exhibits. We'll ask if you have any handouts, please bring ten copies and give it to the page. If you need additional copies, copies, the page can make more. Testimony for each resolution begin with the introducer's opening statement. End of the opening statement, we hear invited testifiers and then allow for public testifiers. The introducer will then have the opportunity to make closing remarks, if they wish to do so. We ask that you begin your testimony by giving us your first and last name and please spell it for the record. We're not going to be using a light system today just for-- because information gathering purposes. Please note, Nebraska basketball tips off at 6:00, so I would like not to be here by 6:00. I would remind all the senators and hearing to turn off our silence their cell phones. With that, we'll begin with LR97. And we'll let-- oh, Senator Conrad, if you'd like to introduce yourself.

CONRAD: Sure. Hi. Danielle Conrad.

CLEMENTS: "Fighting 46th."

CONRAD: I've let go of that catch, catch phrase. Yes.

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TREVOR FITZGERALD: Good afternoon, Chairman Ballard and members of the Nebraska Retirement Systems Committee. For the record, my name is Trevor Fitzgerald, T-r-e-v-o-r F-i-t-z-g-e-r-a-l-d, and I'm introducing LR97 on behalf of the committee. LR97 is an interim study that was introduced by the committee to carry out the provisions of Nebraska Revised Statute Section 13-2402, which requires that the committee monitor underfunded defined benefit plans administered by political subdivisions. In 2014, the Legislature passed LB759, which requires that each political subdivision which offers a defined benefit plan annually file the most recent actuarial valuation report for the plan with the committee no later than October 15th. If either the contributions to the plan do not equal the actuarial requirement for funding, or the funded ratio of the plan is less than 80% according to the most recent actuary evaluation report, then the plan is considered underfunded and the political subdivision is required to submit a more detailed report to the committee and may be required to present its report to the committee at a public hearing. In 2024, there were six political subdivisions with underfunded defined benefit plans which were required to present to the committee, with a total of seven plans presenting at last year's hearing. In addition to those underfunded defined benefit plans that reported in 2024, the city of Lincoln Police and Fire Pension fund saw its funded ratio decrease below the 80% threshold and is required to report this year as well. A memo briefly summarizing the reports filed regarding each of the eight plans is included in your materials, and a complete copy of all the political subdivision submissions can be found on the committee's drive. Representatives from each of the political subdivisions will be called up as invited testifiers behind me prior to any other public testimony, and I would be happy to answer any technical questions at this time.

BALLARD: Are there any questions? Seeing none. Thank you, Trevor. All right, first, we're gonna start with the Omaha Public Power District, Bradley Underwood. Welcome.

BRAD UNDERWOOD: Thank you. Good afternoon, Chairman Ballard and members of the Nebraska Retirement Systems Committee. My name is Brad Underwood, B-r-a-d U-n-d-e-r-w-o-o-d, and by title, I'm the vice president and chief financial officer of the Omaha Public Power District. Previous to today's hearings, we have provided the committee information on the district's retirement fund. To summarize the information. The district's retirement fund's 2024 annual return was 7.6 percent higher than our discount rate of 6.5 percent. The fund's return has exceeded our discount rate in two of the last three years.

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The retirement plan's January 1, 2024 funded ratio was 73.2 percent, which is a small decline from the 2023 ratio of 74.3 percent. And that's due to the five-year amortization of 2022 negative fund return. The district is funding its entire ARC or annual retired contribution this year of \$68.2 million in 2025, as it always has in previous years. Further, the district has made additional contributions, elective contributions totaling \$145 million above our ARC payments since 2021. The district expects the retirement fund's funded ratio to be above 90% within the 10-year period. I would be happy to answer any questions regarding the retirement fund today for you. Thank you.

BALLARD: Thank you, Mr. Underwood. Are there any questions from the committee?

CLEMENTS: I have one.

BALLARD: Senator Clements.

CLEMENTS: Thank you. Thank you, Mr. Underwood. Your 2025 ARC is \$68.2 million. And what are your actual contributions going to be?

BRAD UNDERWOOD: A \$68.2 million plan.

CLEMENTS: OK. What was the hundred million dollars that you said you put in extra?

BRAD UNDERWOOD: Yes, sir. So over the last few years, the board had agreed with management to establish a fund that in the event our collections had exceeded our planned collections for the year, that we would fund the fund that we had established. And then the purpose of that fund was in part to make incremental contributions to the retirement fund, if, if that allowed. And we were able to do that. So in other words, if the--

CLEMENTS: I didn't understand that at all.

BRAD UNDERWOOD: OK. Well, I apologize. Another way to say it would be that if our receipts were higher than expected, we were going to fund those receipts from electric sales into a fund, and those funds that we had gathered that were better than our plans were going to be used to make contributions into the retirement plan. And that's where those \$140 million of elective contributions were made that exceeded our ARC in those years.

CLEMENTS: OK. Those were, those were done in prior years.

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BRAD UNDERWOOD: Yes, sir.

CLEMENTS: Thank you.

BRAD UNDERWOOD: Yes, sir, of course.

BALLARD: Additional questions? Senator Conrad.

CONRAD: Thank you, Chair. Thank you for being here. So just to put a finer point on it, two questions. One, is any current employee or retiree at risk of losing the benefits that they had planned on because of this structural deficiency that's presently apparent?

BRAD UNDERWOOD: We don't anticipate or expect any drop in benefits other than the benefits that are agreed upon by us in our plan.

CONRAD: Great. And then, what is your plan, actually, to get back to a better place?

BRAD UNDERWOOD: Yeah, thank you for the question. So the, the plan is pretty rigorously structured where we do an ARC assessment every year. And then the primary means to fund the plan are we satisfy the ARC requirements on a per-year basis. We review the inputs into the funded plan evaluation, and those inputs are incorporated into the ARC. So if mortality changes, if our discount rate is moving around, we would make those adjustments and fund accordingly.

CONRAD: OK, right. That's fairly general. I understand that.

BRAD UNDERWOOD: Yeah.

CONRAD: But are you starting to explore rate increases? Are you looking at reducing executive compensation packages? What exactly are you going to be doing to address this?

BRAD UNDERWOOD: Yeah, the primary mechanism to make sure the plan is funded correctly is whether or not your ARC is properly established. And the biggest driver to the ARC is the discount rate. Relative to other organizations, we have a very low discount rate, which is assuming lower future earnings. And that's driving more contributions into the plan each year from an ARC perspective.

CONRAD: OK, so you want a re-evaluation of the plan under current assumptions.

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BRAD UNDERWOOD: We, we look at the plan assumptions on an annual basis, and then that would shape our ARC contribution. And we're very diligent to make the annual required contributions. Yes.

CONRAD: All right, thank you.

BRAD UNDERWOOD: Of course.

BALLARD: Thank you, Senator Conrad. Senator Sorrentino.

SORRENTINO: Thank you, Chairman Ballard. Regarding ARC, can you give me an idea? I know the ARC assumptions change year to year to year. We've got a five-year history here. Has your ARC-- have the ARC assumptions changed considerably in the last five years or do they basically remain the same? It is fairly low compared to other employers.

BRAD UNDERWOOD: Yeah, the, the ARC relative-- is set relative to the assumptions in the plan, which you may be familiar with. And so while it may be low compared to other plans, it's very healthy based on the inputs that go into our ARC assessment. Generally speaking, I recall the ARC has climbed year over year. And so we've, we've been trying to fund accordingly.

SORRENTINO: And you've been, in the last five years, you've been, oh, 96% or more. And the assumptions would be-- you would be what I would consider, you know, healthy in the mid-2030s. I think, did you say that earlier, that--

BRAD UNDERWOOD: It's a 10-year period, we expect it to be in the 90%. Sorry to interrupt you, sir.

SORRENTINO: The last question on that, I don't know if you can even answer this. That actuarial assumptions that are made, this discount rate is a big thing, but there's things like growth in employee population, the age of those people who you're bringing on, et cetera. Is there anything that you know of as CFO in the next five to ten years that will change your workforce as far as it getting younger, it getting older, it expanding with new plants, et cetera? What can you tell us about that?

BRAD UNDERWOOD: Yeah, thank you for the question. I would say we are consistent with the macro workforce as a whole, which generally you see a much higher concentration of younger employees in the workforce. And so I think that is a lot of what we see, and I, I don't think we

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are too unique in that from my working knowledge. But that would be the primary change that we have been seeing the last few years.

SORRENTINO: Thank you.

BRAD UNDERWOOD: Absolutely.

BALLARD: Any additional questions?

CONRAD: Thank you.

BALLARD: Seeing none, thank you. Appreciate your time.

BRAD UNDERWOOD: Very good, thank you.

BALLARD: Thank you. Do we have any additional testifiers for OPPD? Seeing none, that will close our hearing-- or close on OPPD, and we'll move on to Eastern Nebraska Human Service Agency. Good afternoon.

BRIAN KIMMINAU: Good afternoon, members of the committee. My name is Brian Kimmanau, B-r-i-a-n K-i-m-m-i-n-a-u, I'm an actuarial analyst with Hub International Great Plains in Omaha. For the NSA Pension Plan, valuations are performed every other year, so the most recent valuation is 1-1-24. At that point, they had an unfunded liability of \$20.5 million, funded status of 72%. Down from the prior valuation in 2022, was 81%. That was due to a negative investment return in 2022. Just some preliminary analysis for the next year's valuation. We've had good market returns the last couple of years through-- and through three quarters of 2025. And we're anticipating being above 80% for the next valuation. The plan's population at 1-1-24 was 975 total participants, 490-- I'm sorry, 469 actives, which is 48% of the population. Assumed investment return is 7%, which we feel very comfortable with. Even with a negative return in 2022, the five-year average is 7.1%. 2024, last year, we had 13.5% return and through three quarters of 2025 an annualized return of 25-- or 12.4%. In 2022, employee contributions were increased from 2.75% to 3% and the employer contribution was increased from 9.5 % to 10%. Both of those were to help improve the funded position of the plan. Total contributions in 2024 were just under \$3.2 million, which is a little short of the ARC for that year. But the total ARC for the five-year period is \$15.3 million. And the total actual contributions for that same five-year period exceeds that at \$15.6 million. The forecast from 1-1-24, we were forecasting to reach 80% funded-- funding status in 2036, and 100% in 2049. But with the recent investment returns, assuming we don't have a market crash here in 2025, we anticipate

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being above 80% with the 1-1-26 valuation. So that's the highlights of the plan. I'd be happy to address any questions.

BALLARD: Perfect. Thank you for your testimony. Are there any questions? Senator Sorrentino.

SORRENTINO: Thank you, Chairman Ballard. Good afternoon, Brian. Full disclosure, Brian works for a company that bought my company before I was in the Legislature. Full disclosure. What do you see as the biggest impediment to, to this particular agency's retirement plan getting up to full funding? And generally speaking, as the actuary, what could go wrong?

BRIAN KIMMINAU: Investment performance is key. They've increased contributions in 2022. They are not in any negotiations to further increase that, but we continue to monitor that.

SORRENTINO: That could happen or maybe even should happen at some point?

BRIAN KIMMINAU: Yes. Possibly, yes.

SORRENTINO: Thank you.

BALLARD: OK, additional questions? Senator Clements.

CLEMENTS: Thank you, Chair. Thank you, sir. Let's see, my question was, you increased employer, employee contributions, were there benefit increases at that time?

BRIAN KIMMINAU: No.

CLEMENTS: It was strictly for enhancing the funded portion, right?

BRIAN KIMMINAU: Yes, correct.

CLEMENTS: OK, thank you.

BALLARD: Additional questions? Seeing none, [INAUDIBLE]. Appreciate it.

BRIAN KIMMINAU: [INAUDIBLE].

BALLARD: Thank you so much. Any additional testifiers? Seeing none, that will close that report and we'll move on to Metro Transit Authority of Omaha.

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LAUREN CENCIC: Good afternoon, Chairman Ballard and members of the Retirement Systems Committee. My name is Lauren Cencic, L-a-u-r-e-n C-e-n-c-i-c, and I'm the chief executive officer for the Regional Metropolitan Transit Authority of Omaha, doing business as Metro Transit. Metro is the public transit provider for the Omaha metropolitan area, as well as providing service to the cities of Council Bluffs, Bellevue, La Vista, Papillion, and Ralston by virtue of agreed upon service contracts. I'd like to start by providing a little bit of a brief overview of our plan. We're a little smaller than most. We have 205 active members in the plan, 211 members in pay status, and 62 terminated members and deferred beneficiaries as of January 1st, 2025. The actuarial value of the plan as of January 1st is \$31,100,745. We completed an experience study in 2024, which was the first for us in a long time, covering 2017 through 2023. That resulted in numerous updates to our assumptions, including pay increases, turnover, retirement ages, plan expenses and contributions. Our pension plan is governed by a pension committee comprised of Metro leadership, union leadership, a Metro board member and external experts. The committee-- the employee and employer contribution rates are subject to the collective bargaining agreement with the Transport Workers Union, local 223. In 2024, both the employee and employer rates were increased to 8.25%. The funding status of the plan, as of January 1st, is 76.2%. This marks a steady increase in the funding status of the plan each year for the last six years. In 2020, we were at 66.7%. Last year, we were at 73.92%. I would like to say this is my last year here, but given the 1% to 3% increase a year, I might have one more after that. But last year, Metro was very pleased to report that we contributed 136.04% of our actuary required contribution, or ARC. Our improvement year over year, since 2020 was accomplished, despite a past reduction in maintaining an extremely conservative assumed rate of return of only 6.25%. Our actual investment rate of return for last year was 14.94%. And our recent experience study identified an expected long-term return of 6.72%. Despite this, we've maintained our more conservative assumption of only six and a quarter and the actuarial assumptions. And I would just like to thank our partnership with Metro's Transport Workers Union as they have worked very closely with us to make sure that we are proactively addressing issues that led to previous underfunding of the plan, and that our recent joint increases in contributions have been a significant improvement. Thank you for the opportunity to address the committee. I'd be happy to answer any questions you may have.

BALLARD: Are there any questions? Senator Sorrentino.

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SORRENTINO: Thank you, Chairman Ballard. Not so much a question, but I just want to congrat-- the changes that you folks have made in the last three years, I'd like to see a lot of the other plans make. I mean, the normal retirement age going to Social Security age instead of 65, that's a big one, taking out early retirement. I think you guys are on the right path. Congratulations.

LAUREN CENCIC: Thank you.

BALLARD: I do have one. So the prod-- you have incredible rate of return. What do you contribute that to? Is it just--

LAUREN CENCIC: So Metro has actually taken the approach of not really chasing high levels of return. We have a pretty conservative mix with 75% equities for investment portfolio, 25% cash and fixed assets, and our approach is just quarterly rebalance to that. So we really are minimizing any fees that we're paying in terms of buying and selling. So we just kind of have decided to go with the slow and steady and to minimize expenses.

BALLARD: Great. Any additional questions? Seeing none, thank you for being here.

LAUREN CENCIC: Thank you.

BALLARD: Any additional testifiers? Seeing none, now we'll move on to the city of Lincoln. We'll grab you, we'll grab you a chair. So we'll get both testifiers here. Just make sure when you, when you testify, just make sure you're talking into the mic for our transcribers. Thank you.

PAUL LUTOMSKI: My name is Paul Lutomski, it's P-a-u-l, last name is L-u-t-o-m-s-k-i. I'm the pension officer for the city of Lincoln. I have with me today, Brian Hoge. He is the representative of the actuary firm for the pension plan. He's going to be making the presentation and hopefully answering most of the questions. If there's something that we can't get to, we'll definitely be happy to get back to you.

BRYAN HOGE: Good afternoon, Chairman Ballard and Retirement Systems Committee. My name is Bryan Hoge, B-r-y-a-n H-o-g-e, and I'm principal and consulting actuary with CavMac Consulting. Here to talk about the, the Lincoln Police and Fire retirement system. So we're here for the first time in a, a few years. We've been a little bit over 80% funded the last three years. The most recent valuation, August 31, 2024, we

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were 78.9% funded. So it just did drop below that 80% funded, attributable to a couple different factors. One, the 2022 investment return, we were minus 4.1%. And so that is still smoothing in with the actuarial smooting. In addition to that, we have continued to lower our investment return assumption. So with the, the most recent valuation, it was lowered another 5 basis points down to 7.2% as an assumed rate of return. The most recent experience study was in 2023. It was decided to lower the investment return in steps from 7.25 down to 7%. So over the following two valuations it will be lowered again from 7.2, 7.1, and then down to 7% in the 2026 valuation. The city continues to make the, the full actuarial contributions. They've done that for the last eight years. So it's a, I believe, a good funding policy. And we expect to be fully funded in 2024, if all assumptions are met actuarially so.

PAUL LUTOMSKI: 2024--

BRYAN HOGE: Sorry, 2044. I misspoke. But yes. So if there's any questions, happy to, to answer those.

BALLARD: Are there any questions from the committee? Seeing, seeing none, let you off easy.

BRYAN HOGE: All right. Thank you.

BALLARD: Appreciate it. All right, any additional testifiers for the city of Lincoln? Seeing none, we'll move on to Douglas County. Good afternoon.

LORI PIRSCH: Good afternoon. My name is Lori Pirsch, I am CFO at Douglas County and chairman of the pension committee there. That's L-o-r-i, last name is P-i-r-s-c-h. And I have one other handout that I'm going to give to you guys as well. So the most recent actuarial evaluation was performed by HUB International for the Douglas County Employees Defined Benefit Pension Plan as of January 1st, 2025. The report showed the plan was 68.6% funded, had net assets on an actuarial basis of \$457.2 million and an unfunded actuarial accrued liability of \$209.6 million. The plan had 4,781 participants who contributed 8.5%, as did Douglas County, the employer. The funded ratio, that was a slight increase to 68.6% from the 68.2% in the prior year. To understand why we're only 68.6% funded, I think it's important to look at the history of the changes of the plan, and that's in that, that handout that I just had them distribute to you. If you take a look at that bar, bar graph, the light blue is Douglas

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County funded ratio, and then the dark blue is the national average. For our purposes, you can kind of just focus on the, on the light blue. From '84 to '96, the plan was essentially 100% funded over this period, you know, give or take, 2% above or below. But roughly fully funded. In 1996, they did the rule of 75 and increased the benefit formula, so you could retire early and you could-- you got a little bit more benefit when you retired. So 60% of your pay from 45% of your highest five years' pay. They also gave a COLA. In '97, they granted the rule of 75 for all others. '98 was a COLA. 2000-- and so you can kind of see how the funded ratio falls with each, with each of these. So from 100, and by '99 it was down to 93%. 2001, it was down to 73%. There was another COLA, and then it fell to 65. And then I think after five or six years, they said, wow, we've got to make some changes here, obviously. So we increased member and county contribution rates from 5.5% to 6.5%. In '06 and '07, they were increased again from 6.5% to 7.5%. In '08, they increased again from 7.5% to 8.5. And in 2011, they eliminated the rule of 75 for all new hires. So you can see then that that is at least stabilized and, you know, started to directionally correct. If you go back to that initial form here, you can take a look at the, at the ARC. Our actuarial required contribution over the last, if you look at last five years, would have been \$114.5 million. We ended up paying over that same period \$117.5 million. So for whatever reason, our expected ARC, when they do this report, you know, based on what they estimate our payrolls to be, that number, that percentage always comes in a little bit below 100. But it turns out that typically, just through probably union increases, raises, whatever, we come in at at least 100 or more. Except for last year, where we were only 97.9%. For this year, the expected-- the ARC is \$34.7 million. The expected ARC is 33.4. When I look at actual contributions through the most recent pay period. There's actually a pay period today. We don't have the date on that, but through 10-25-25, we had contributed employee and employer together-- together at \$30.9 million. If you annualize that, that would be \$34.9 million. So that would be, you know, it's projected to be 104.6% of ARC. So hopefully we will be, you know, at least at that 100% again. So any questions?

BALLARD: Thank you for your testimony. Are there any questions?
Senator Sorrentino.

SORRENTINO: Thank you, Chairman Ballard. Just thank you for your testimony. One quick question, and I compare the seven or so that were here today with unfunded liabilities. The only thing that could possibly help other than what you're doing, I think you're doing some

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really good things. Can you talk about, and maybe it's the actual-- the assumed investment rate of seven and a half. Compared to almost everybody else, that's--

LORI PIRSCH: It's high, it's high.

SORRENTINO: It's high. Any explanation for that?

LORI PIRSCH: You know, we have left it there because we have been able to achieve that and maintain that over the last, you know, over numerous years. We had a contract with Mutual that had a guaranteed rate of 4 percent. So when, when rates were real low, we were still getting paid more. That kind of helped that, you know, buffered to keep that up for a while. Obviously, that's not terribly relevant right now. But because just through ACG that helps us too with our investments and we've actually been able to maintain it, and that's why we've kept it that high. But yeah, it is something that I have noted that most of the others have dropped, have dropped that.

SORRENTINO: How often is that reviewed, the assumed interest rate?

LORI PIRSCH: I mean, at least annually, but I mean honestly, I look at it like quarterly so.

SORRENTINO: OK, thank you.

BALLARD: Thank you, Senator Sorrentino. Additional questions? Seeing none, thank you for your testimony.

LORI PIRSCH: Thanks.

BALLARD: Next-- are there additional testifiers for Douglas County? All right, seeing none, we'll move on to the city of Omaha. Good afternoon.

BERNARD in den BOSCH: Good afternoon, Chairman Ballard, members of the committee. My name is Bernard in den Bosch, I've been the attorney for the pension system for roughly 15 years and been with the city for quite a bit longer than that, fortunately or unfortunately, depending on your perspective. My name is spelled, first name is Bernard, B-e-r-n-a-r-d, last name is three words. First word is lowercase i-n, second word is lowercase d-e-n, third word is B-o-s-c-h. I do want to provide-- there's a couple new members of the committee, so I want to provide at least a historical basis as to kind of how we got here. So it helps then explain my, how-- what I'll conclude. So the system that

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we're talking about here is the City of Omaha Employee's Retirement System. That's the system that is in place for all non-sworn city employees. It's a system that was fully funded 25 years ago, but by, by about 12, 15 years ago there were significant issues. And frankly in 2014, the actuary informed us that we were not going to have cash flow to pay pensions by 2027. As a result, we negotiated, and all our pension contributions are subject to negotiations, and we also have a charter provision that the-- requires that the pension funds are funded by approximately equal contributions, and we'll talk about that in a moment. So in 2015, pension reform was instituted in the civilian pension system, which included two parts. The first part was based on the recommendation of the actuary, Cavanaugh Macdonald was the actuary at the time. We did establish a cash balance plan for new employees who were hired after March 1st of 20-- of 2015. And then-- which is a defined benefit plan, which is intended to share some of the benefits and risk of the investment returns. And part of the annual rate, interest rate is guaranteed at 4%, and then the other rate that's used for people in their accounts is based on the returns of the system. In regards to the legacy plan, which is what I refer to the plan for existing employees that were hired on-- who were already employed on March 1st of 2025, we decreased the annual multiplier per year from 2 and a quarter to 1.9. We went from the rule of 80 to the rule of 85. We went from your highest earnings in your last year to smoothing it into the highest three in your last five years of employment averaged out, so that your average-- ends up being your average earnings over your last five years. And then those were contributions that obviously employees made, because they-- the reduction in benefits applies to employees. And then there was also an increase in contributions by employees. The city then over a couple of-- a period of a couple years increased contributions roughly 8%. So as we sit here today, employee contributions are 10.13% and the city contributes 18.83%. And the disparity is as a result of the employee making their contributions towards trying to resolve the pension shortfall through a reduction in benefits. At the time that the pension reform was made, it was projected that the system would be fully funded in 2046. Obviously, a long time away. And if you talk to any actuary, and we, we do frequently, the first 20 years of this fix is gonna-- you're gonna see very small incremental increases. And then as you get towards the very, very end, the last 10 years, you're going to see that projection change. And in the documents that we sent you, that's what the projections indicate. So I provide that background as we talk about today. The funded ratio as of January 1st of 2025, and we do have an annual actuarial report prepared, is 54.3%, which is an increase from

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54% of last year. We did, however, have a change. It's now that it's projected that the system will be funded in 2044. The rate of return is, this past year, for 2024, was 5.92%. It's anticipated to be higher for this year. The assumed rate of return is 7.5%. And I appreciate that's higher than many of the others. We have a probably bigger corpus to, to do so. Plus, I think their DeMarche Associates is the system's investment advisor, shows a historical return of well over 8%. And they, 7.45%, at least they view as a relative-- something that's attainable. We did have an experience study that was conducted this year, and the results of the experience study showed that the anticipated return for the system based on the investment portfolio was approximately 8.3%. So there were no recommendation for any change to the assumed rate of return in the experience study. Obviously the, the earnings were below the same-- by the same rate of return this particular year, but yet the system showed an increase. That's in part because of the smoothing of the returns over a five-year period. It's also in part, because, and if you-- when you read the report, you'll see this, we have had-- we currently have 61.5% of our employees in the cash balance plan. Meaning since March 1st of 2025, 61.5% of employees have been hired since then. And that particular, because the risk is shared, that particular plan, it's a benefit for the system as more people go into that particular plan. I did provide the experience study that was recently completed. As I indicated, it didn't recommend a change in the assumed rate of return. There was a change made in 2018 as a result of an experience study at that time. It did recommend a change in the mortality table, a small change in termination rates, more people coming and going than was expected. And then a couple of changes, minor changes to some retirement assumptions. There were a few people that were tak-- more taking earlier retirement than was expected. You can retire early, but you lose 8% per year that you retire. So it's a pretty significant hit. But the other thing that they observed is those who qualified for the pension, there was an assumption that a certain percentage would leave immediately, and people are continuing to work even though they were eligible to retire. Talk about everybody uses the word "art," our report you'll notice uses the word "actuarially determined rate of contribution." And I think there's an explanation for that. Because of how we did our pension reform back in 2016, the actuary looked at our unfunded liability and amortized that over a 25-year period. And when they do that, that's the number that's used in the actuarially determined rate of contribution as the bogey to meet. And so that's the rate that would be needed if we were to be fully funded in 2041. And obviously you'll see in this particular report the difference between our ARC

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and the actuarially determined rate of contribution, what's contributed is narrowed. It's a little bit under half a percent, which is less than it was last year. But again, and, and at least in our system-- and I didn't truly understand that very well until this particular year that the actuarially determined is based on the amortization of the unfunded liability that we had. We-- I don't stand here saying no one is proud of the funded ratio. I've been, several of you have been here many years. I have been here every year. I don't think I've ever attempted to put lipstick on the pig that is the, the funded ratio. But what I would say is that the system, and it goes for both systems, had severe problems. There were plans put together to address those severe problems. This particular system was 10 years ago. We are exactly where it was projected we would be 10 years after putting that system fix in. Actually, we're a little ahead of schedule because our funded ratio, our projection date is two years ahead of what was done. Again, I appreciate that can change from year to year, so it's not something to necessarily rely upon a lot. But the reality is the plan was put in place. We're-- that plan is working. We're no longer in a position where there's any cash flow issues. And I'll be honest with you, we're going to be in the 55 to 60% funded ratio for several more years. And then when we get, you know, we get to 2035, where I won't be the person that's coming here, or 2040, you're going to see 5, 6% per year increases as you get closer to that 80 and 90%. So it's not uncommon for people that are funded at the ratio that we are to be in 50% funded for over 10 years. And that's what you're going to see from us. Nothing that anybody's particularly excited about. But the reality is a plan's been put in place. It's working. The employees and the city both work to fix the problem. And that's why, that's why we are here today. I'm happy to answer any questions.

BALLARD: Thank you for your testimony. Are there any questions?
Senator Sorrentino.

SORRENTINO: Thank you, Chairman Ballard. On your point about your funding ratio staying in the 50s for a bit, backing up, would it be a valid comparison if, if I had a 30-year mortgage and in the first four or five years, I'm paying nothing but interest, and I get to the last five years, I'm making big dents in the principal and it spikes up?

BERNARD in den BOSCH: I think it's--

SORRENTINO: Sort of a similar deal?

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BERNARD in den BOSCH: I think it's very similar to that because your-- you have a certain amount of money and it has to, has to pay for, basically, the debt that you have. And the little bit goes to decrease, it doesn't happen, but you do get to a certain point where it increases a lot, lot more quickly.

SORRENTINO: Thank you.

BALLARD: Thank you, Senator Sorrentino. Additional questions? Senator Clements.

BERNARD in den BOSCH: Absolutely.

CLEMENTS: Thank you, sir. You mentioned you think the cash flow is going to be there, but with not having any new employees anymore, you think the-- are the projections that the cashflow is really adequate?

BERNARD in den BOSCH: So we, we do have more-- the number of employees is increasing slightly because the dimensions of the city are increasing and there's more services. But I-- but we're switching from employees being in the legacy plan where the cost is probably slightly higher to the cash balance plan where some of the risk if we don't have the returns is borne by the employees. So, the actuary and the experience study looked at our, the flow of money that's going in and the flow that's going, and did not ask to make any recommend-- any changes. Obviously they do look at pay raises that are happening each year, and they're not so much looking at pay raises, they're looking at the increased amount of money, that's going into the pension system each year. And based on that experience study did not believe that there was a need to change any assumption. There's an assumption that income-- that salaries will incur-- income will increase, I think it's 3.25%. And that's based on a combination of employees getting annual cost of living increases plus most of our pay plans have numerous steps, so employees particularly in their first seven or eight years in addition to cost of living increases make step increases, so their, their return is much-- and higher than that what it is. Hopefully I answered your question, Senator.

CLEMENTS: No, you didn't. So the legacy plan is what I was referring to--

BERNARD in den BOSCH: OK.

CLEMENTS: --having no more participants. Isn't that true?

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BERNARD in den BOSCH: The legacy plan still has participants, it's 38.5--

CLEMENTS: New participants.

BERNARD in den BOSCH: But no new participants, 100%.

CLEMENTS: But you're talking about increases in, in more employees. The cash balance people are paying into the legacy plan?

BERNARD in den BOSCH: There's only one plan, and so the cash balance and the legacy plan are paying into the same plan.

CLEMENTS: At the same rate?

BERNARD in den BOSCH: Correct.

CLEMENTS: Interesting. So the new employees are subsidizing the legacy plan, would you say?

BERNARD in den BOSCH: I would say that all employees are subsidizing those people who have retired. I don't know that-- at least based on what the actuaries have told us, if you have somebody who's a legacy person with 25 years of service when they retire and a cash balance person with 25 of service, what we've been told is those pensions will be roughly the same. So there is, there's certainly a question and that issue does come up as to whether or not the normal cost for all the people that are currently employed is something like 9.65%. So most of the overages is, it's going to pay for those people that are already retired. And that's where it's going.

CLEMENTS: OK, well, it seems kind of, seems kind of strange to me to keep it all in one plane. You don't separate it. But if, if that's legal, that's OK with me.

BERNARD in den BOSCH: Well, if you separate it, then you have to find \$300 million to, to try to do it. I mean, that's the reality of defined benefit pension systems is obviously future payments are contingent upon present employees making the contributions and earnings being made.

CLEMENTS: All right. Thank you.

BALLARD: Thank you, Senator Clements. Additional questions? I do have one question. You talked about the rate of return of 5.9, which I

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appreciate this moving process. Everyone had a bad year in 2022. I appreciate that.

BERNARD in den BOSCH: Yeah.

BALLARD: But most of the plans we're talking about today have the same process. So I'm just trying to-- help me understand 5.9. In the research I've done, that's one of the lowest in the country, I believe, at 5.9, one of the top 20 lowest. So just help me to understand, is it just a conservative portfolio? Is it conservative, like, what is the-- why is it 5.9?

BERNARD in den BOSCH: And I'll try to do it. I'm not-- if I-- I may not do a good enough job and I can follow up and get more information to you because the investment committee is made up of a subset of the board that oversees this. And with the advice of the-- I think there were a couple investments that didn't go well. I think they've moved from some investment options. I've heard they were-- had more real estate than they should, so they're trying to realign their portfolio. We had a presentation in front of the pension board yesterday indicating that they think the returns are good. But there's no question, I mean, if that the returns on the system were, were lower than what you would have liked. I don't have a great answer to the question. I can try to get more information for you, if you want it.

BALLARD: Yeah, I'm just curious because it's--

BERNARD in den BOSCH: Yeah.

Yes, I appreciate that. Additional questions? Seeing none, thank you for being here year after year. Appreciate it.

BERNARD in den BOSCH: Yeah, I'm not done yet.

BALLARD: Thank you.

BERNARD in den BOSCH: I get the next one too.

BALLARD: Yes, OK. We'll go, go on to the next plan.

BERNARD in den BOSCH: Good afternoon, Chairman Ballard, members of the Retirement Committee. Myself-- my name is Bernard in den Bosch. First name is B-e-r-n-a-r-d, last name is three words. First word is lowercase i-n, second word is lower case d-e-n, and third word is capital B-o-s-c-h, and I'm here on behalf of the City of Omaha Police

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and Fire Retirement plan, which is the system that applies for sworn police and firefighters in the city of Omaha. There is a annual actuarial report that's prepared, so the information I'm going to talk about is from the report from January 1st of 2025. And there was an experience study done this year. Again, kind of for the benefit of a couple of new members of the committee, I'll talk a little bit about the history. This particular system back in 2000 was fully funded. By 2008, after some of the investment losses in 2008, its funded status was below 39%. At that point in time, the mayor at that point established what's called as the Bates Commission. The Bates Commission is because Mr. Bates was the leader of the commission. He was a business leader in Omaha. But that commission was made up of business leaders, the union and city leaders, about addressing what kind of pension reform needed to occur. They came up with recommendations. Many of those recommendations were implemented. They were recommended-- implemented through negotiations with the police union in 2010, and then with the fire union primarily right at the end of 2012. And some of the changes that were made at that time was moving the minimum retirement age from 45 to 50, moving it from 25 to 30 years to receive the maximum benefit. The salary for purposes of pension calculation, instead of being in your last year, was averaged over three years. Probably the most significant thing for existing employees was something called the career overtime average. What we had noted was one of the significant problems is people were working a lot of overtime in the last year of their employment. And because their pension was determined on their income in the last year, that allowed them to spike, was the word that was used. So the career overtime average-- and keep in mind that employees made contributions to the pension system for any overtime that they earned. But the career overtime average basically indicated that you looked at the overtime somebody worked over their career, averaged that number of hours out, put a pay rate on it, and that was-- that's your pension would include that career overtime average as opposed to your overtime that you earned in the last year. Then the last thing that they did is they created a tier 3 pension for any employee it was hired after the labor agreements were put in place. Those particular pensions raised the retirement age to 55, unless you had 30 years of service before reaching age 55, provided that your pension would be based solely on your regular income and you only paid pension contributions on your regularly income. Took away the spiking and that, that particular issue. The cost of those particular changes was roughly 13% of payroll. And the city increased its contributions, roughly 13 to 14%. Depends a little-- the different bargaining groups were slightly

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different depending on what it was. The original projection for this plan to be fully funded was in 2048. And as a result of the changes that we're talking about there, city employees, city employees in the police and fire pension system, and appreciate they don't contribute to Social Security, they don't get any benefit from Social Security for their income, but their contributions are between 16.3% and 17.2%, and the city's contributions are between 33% and 34%. Which includes that 13%. It includes one other amount that comes from a lawsuit settlement from the 1970s as well. That's why it's a little bit higher than the, the amount in the charter comes from that other part. So that's the background. The system is funded at 58.2%, down from 58.4% in 2024. But it's the system was projected to be fully funded in 2054. Last year it's now projected to be funded-- fully funded in 2050. And we'll talk-- and a lot of that has to do with a couple of the assumptions that were changed in the experience study. The rate of return was 6.83% last year, the assumption is 7.75%. And the experience-study analysis indicated that, in kind of the average year, the expectation based on the portfolio is that it would be an 8.6% return. When the experience study was done this past year, there was no recommendation for a change in the investment assumption. There were some changes in some salary assumptions for police and fire. Maybe a little smaller increases early in their career and bigger increases later in their career. There was a change in the mortality table. There was a change in the turnover rate assumption, meaning there were slightly more people leaving than was expected. And quite frankly, that's a trend I think most employers have seen between 2020 and 2025, due to COVID in part. And then in public safety, we've seen it a little bit in reaction to some of the things that have occurred relative to the protests that were related to, to the events involving Mr. Floyd in, in Minneapolis. And then the last change in the experience study was a slight change in COTA load assumption, which increased the assumption as far as what people's COTA would be for both police and fire separately. Again, we have actuarially determined rate of contribution, and much like I talked about last time, in this particular case, the actuary in 2014 amortized the unfunded liability over a 30-year period. And as a result, if we were to-- we'd like to meet the actuarially required determined rate of contribution and would meet it if we were going to be fully funded in 2044. Obviously, we're not, not there. The rate came down a little bit, but that's still over 3.5%. So I appreciate that we don't meet the actuarially determined rate of contribution, but as the actuary reports show, we're moving in the direction towards fully, fully funded. So much like I said with the civilian system, again, when you're deep in

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your-- drinking yourself out of a deep hole, they came up with a plan that was instituted in part in late 2010, the rest instituted in late 2012. So we've been working on this plan for 13 or 14 years. The projections and the growth that we've seen is exactly what was anticipated, we're-- 2048, I think, was the initial projection, we're at 2050. So a year or two behind, but very close to what the projections are. And if we have a good return this year, that may, in fact, change, because it does change a year or two every year, it seems to think. So much like the message I delivered with the last plan, the plan was put in place to fix it. It's been slow. You're gonna see, and I think the example that Senator Sorrentino gave is one that I'm gonna steal in the future, much like-- it is much like a mortgage. It takes a while to get it to where your money is going towards the principal, and that's the case here. So it's a slow path, but for particularly Senator Clements, because you've been here a number of years, you've heard me many, many times, but it's a path that we're moving towards. And, and even though you might look at one year to another, you're not seeing as much growth when you like. But if you went back and looked at the stuff that you were looking at six or seven or eight years ago, you know, there's a 3 or 4% increase in funding ratio. Nobody's bragging about that, but that's, that's the plan that was put in place. And that's what the fix is. So I'm happy to answer any questions if you have any.

BALLARD: Thank you. Senator Clements.

CLEMENTS: Thank you.

BERNARD in den BOSCH: No question.

CLEMENTS: Thank you, Mr. in den Bosch. Excuse me. You're not going to quite contribute your full contribution amount. What percent of that amount will you be contributing?

BERNARD in den BOSCH: So I believe our combined contribution is roughly 51.5% is what the employees and the city give. And I think the number that we need to fund the actual-- actuarially determined contribution is close to 55%. So there's a deficit of about 3.5%.

CLEMENTS: Are there any plans to improve that?

BERNARD in den BOSCH: There's two ways you can improve it. One, you can put-- negotiate increases in what people put into the pension system. That's difficult because the contributions are already fair,

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fairly significant. The second is to put an infusion of money into it. We have that-- we have the limitation that exists in our city charter that indicates it's supposed to be roughly equal. And I appreciate that you can look at it and say it's not roughly equal. But I think if you look at historically, fixing the problem, both parties ended up contributing roughly 13.5% towards fixing the problem. Employees did it through a reduction in benefits. So we obviously, we discuss pension-- our pension status in all our negotiations. It's difficult to, to ask the employees to contribute more when it looks like the fix is working like it was supposed to. And but I also know that if things-- if we started to see that it was not working like it was supposed to, then it would have-- there would have to be something. So again, and I know ARC is the phrase we use. In ours we always talk about actuarially determined because it's based on that unfunded liability. And there's no question that we're going to take longer to get to that point than what was originally amortized in 2014, so.

CLEMENTS: Well the 2050 target is using the 51.5% contribution.

BERNARD in den BOSCH: Yes, correct.

CLEMENTS: But so 55% is being recommended?

BERNARD in den BOSCH: That would be the percentage we would need to contribute in order to be fully funded by 2044.

CLEMENTS: That's the 2044 number.

BERNARD in den BOSCH: Yes.

CLEMENTS: Oh, OK.

BERNARD in den BOSCH: And I didn't understand that till this year. We had a new actuary show up and we had, had some conversations with him. And I, I didn't truly understand that very well till, till I had a chance to discuss it with him this year.

CLEMENTS: OK, thank you.

BALLARD: Thank you, Senator Clements. Senator Sorrentino.

SORRENTINO: Thank you, Chairman Ballard. Is it a safe assumption on the plan that covers fire and police that there's more police officers in that than firefighters? Is that correct?

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BERNARD in den BOSCH: Correct.

SORRENTINO: It states here that you have collective bargaining agreements with the firefighters and their management through 2027, but with the police officers and their management only through 2025, which is six weeks away.

BERNARD in den BOSCH: Correct.

SORRENTINO: Any idea--

BERNARD in den BOSCH: We're in negotiations right now.

SORRENTINO: Does any of that negotiation revolve around contributions to the pension plan? Are you aware of that?

BERNARD in den BOSCH: I would not, would not anticipate additional contributions, but the-- the discussion is to ensure that the contributions remain what they are. And I say that because there's, there's one portion of the police contract that has ostensible temporary contributions, and there's an effort to try to address that. So again, it's difficult because the system-- the plan is working like it would, like it-- like we said it would. It's difficult to request additional contributions, but it's also imperative that we continue the contributions that we have presently. We can't diminish them. And there's--

SORRENTINO: One additional question. Does the police officers' plan and the plan that covers the city employees, does that use the same plan actuarial element?

BERNARD in den BOSCH: They do.

SORRENTINO: OK. One of them has-- I just noticed that the police and fire one has an assumed investment rate of 7.75, which is the highest we've seen today. Is that simply-- and the other is 7.5. Is that simply because the corpus of this plan is so large, it's 768 main versus 200 main? Is that reason you're going with a higher [INAUDIBLE]?

BERNARD in den BOSCH: I think, I think that's part of it. I also think the portfolio that the police use is a slightly higher risk. So slightly more, slightly more potential for benefit. And that's seen in the analysis in the experience study where Milliman looked at the two, at the two investment portfolios and estimated based in a typical

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year, the civilian system, you'd expect an 8.3% return. And in a typically year, you'd look at an 8.6 return-- 8.6% return in the police and fire system. And there's also part of that is historical. The police and fire systems return for the last 30 years averages out as over 8.6. 8.5%. The civilian return is 8.2. They used to both be at 8%. In 2018, they were changed at the result-- the request of the actuary. At that time, the actuar was Cavanaugh Macdonald. And the recommendation was a quarter percent increase for the police and fire and a half percent for the civilian system. And I think it was based on investment strategy-- investment management strategy primarily.

SORRENTINO: Thank you.

BALLARD: Additional questions? You had back and forth with Senator Clements about the city charter. Can you outline, can you dig into that a little bit more?

BERNARD in den BOSCH: Sure. Sure. There is a city charter provision. Obviously the city has a home rule charter. It was adopted in 1956. It's amended periodically by vote of the people. And it does establish the creation of, of separate pension systems for civilians and for the police and fire. And in that language that establishes it indicates that that pension system should be funded in a substantially equal position by both the city and the employees. We haven't read that to mean that it has to be exact, but I believe that it has to be somewhat similar, which of course was all skewed by the pension reform. But again, that goes back to when you're reducing benefits, there was-- it was actuarially determined what percentage of the reduction in benefits that were negotiated in 2010 and 2015 justified.

BALLARD: OK. And is-- I was reading transcripts from years past and you talk about how the city charter maybe handcuffs you a little bit. Is there, there movements to change that, amend it?

BERNARD in den BOSCH: I, I--

BALLARD: And maybe don't step into city politics that I--

BERNARD in den BOSCH: Well, I'll be hon-- certainly it does handcuff you, because it means that you couldn't auto-- you couldn't just put in a huge contribution without negotiating something. On the other hand, you could also argue that it, it minimizes the-- I appreciate you guys are looking at the pension system as a whole. And that's if we look at it as just one thing, being able to put additional funds in

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unilaterally might be a good thing. But sometimes it, it ensures that it doesn't go too far one way or the other, meaning that the city doesn't lower contributions either. So yes, it does, it, it does handcuff you. But it also provides, I think some, some protection, but also avoids, you know, maybe one particular group in negotiations is popular and other groups are not. You could have somebody say, we're going to put this a huge amount of money into theirs at the expense of another. You're unable to do that as well because of the limitation in the charter. So yes, it's a handcuff as far as if you want to make a \$20 million payment towards the ARC, yes, it is a handcuff towards that. But it also ensures, it ensures a process has to occur before somebody can unilaterally maybe do something. I appreciate every entity here is public. City politics is, is probably, in my view, probably a little more public than some of the others that we've seen here today. So it's a little bit different world that would-- that I think we live in than maybe some of others. And I'm sure I'll get slapped around from other people from behind when I leave but-- so yeah, it is a handcuff. It also provides some assurance that other things that shouldn't happen don't happen either.

BALLARD: OK, thank you. All right, seeing no additional questions, thank you for being here.

BERNARD in den BOSCH: Thank you. Appreciate it.

BALLARD: I appreciate it.

BERNARD in den BOSCH: And nobody brought [INAUDIBLE].

BALLARD: All right. So, any additional testifiers for the city of Omaha? All right, we'll move on to Omaha Public Schools. Good afternoon.

SHANE RHIAN: Good afternoon, Chairman Ballard and members of the Retirement Committee. My name is Shane Rhian, S-h-a-n-e R-h-i-a-n, and I'm the Chief Financial Officer for the Omaha Public Schools and the former administrator of the Omaha School Employees Retirement System. Omaha Public School is the largest school district in Nebraska, serving over 52,000 students and their families. And is one of the largest employers in the state with over 9,000 employees. I want to start my testimony by thanking the members and staff of this committee and the staff at the Public Employees Retirement Board. In my brief time as the Administrator of OSERS, I've had the opportunity to work with many of you as we continue to do everything that we can to

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solidify the funding of OSERS. As you know, these past several years have been transformational for OSERS. The transfer of management to the PERB successfully occurred on September 1, 2024, and we remain committed to working with the PERB staff as they administer the plan moving forward. Their partnership and expertise have been and will be invaluable. I'm here today to speak about the report submitted for this year for the Omaha Public Schools and Omaha School Employees Retirement System. As we shared with you previously, the plan actuary, Cavanaugh Macdonald, made recommendations to the then current actuarial assumptions. Those recommended changes were adopted by the OSERS trustees and by the Board of Education and included a gradual reduction of the assumed rate of return from 7.5% to 7% to match NPRS and the state teachers' plan, which was fully implemented for the January 1, 2025 valuation report. Obviously, the reduction in the actuarial assumptions that have been phased in have resulted in increases in the actuarially required contribution. It has also, has also contributed to the decrease in the funded ratio contained in our report. Speaking of the actuarially required contribution, I am pleased to report that our district was once again able to budget for and contribute to OSERS the full amount of the actuarially required contribution. Our district made an ARC payment of \$36.4 million in August, the full amount required by the January 1, 2025 valuation report. The previous six years, budget favorability allowed the Board of Education to prove-- to approve additional contrib-- contributions above the required ARC payment amount, totaling \$31.1 million. As we noted in last year's testimony, we anticipate it will become more difficult for the district to contribute amounts more than what is actuarially required, and that was true for this year. The district remains committed to making the statutorily required ARC payments for the foreseeable future, and will consider making additional contributions above that when budget favorability allows, and it is prudent to do so. We all understand that each decision the district makes affects every employee in our workforce and every student in our care. Our commitment to sound financial management and fiscal prudence is essential to our ability to manage both our responsibility to educate students and to our duty to OSERS. Thank you for the opportunity to speak with you today. I would be happy to answer any questions you might have.

BALLARD: Thank you for being here. Are there any questions? Senator Clements.

CLEMENTS: Could you tell me what your funded ratio is last year and this current year?

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SHANE RHIAN: 60% on the actuarial basis.

CLEMENTS: Both years?

SHANE RHIAN: Yes.

CLEMENTS: All right, thank you.

BALLARD: Thank you, Senator Clements. Senator Sorrentino.

SORRENTINO: Thank you, Chairman Ballard. In comparing your last five years' experience to all the others we've heard today, kind of an interesting anomaly. Nearly everybody just really did really well in 2021. And in 2022, they gave some of it back. Your investment return is, even then it's flat. I don't know, 8 to 3, but nothing like, you know, up 17 and down 6. Is there a-- there must be a different investment strategy for this fund versus all the others because your returns are completely different each and every year. Can you, can you-- and I like the fact that you're going down to 7, but, you know, 8, 3, 5, 6, 4, I'm writing backwards compared to, you know, 22 minus 6, 18. Everybody is all over the board, you guys are flat. What's the difference?

SHANE RHIAN: So in 2016, the responsibility for investing the OSERS portfolio was transferred to the Nebraska Investment Council.

SORRENTINO: Right.

SHANE RHIAN: And so they have been managing that for the past almost 10 years now. And so--

SORRENTINO: So I should ask them.

SHANE RHIAN: Yes.

SORRENTINO: OK, I'll do that.

SHANE RHIAN: But essentially, our portfolio mirrors the state-defined benefit plan portfolio, with the exception of some assets that were acquired in the-- during the Great Recession that were more derivative in nature. And as it becomes prudent to dispose of those, they're being moved out of the portfolio and rebalanced to be more in align with the state teacher's plan.

SORRENTINO: OK. Thank you.

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BALLARD: Thank you, Senator Sorrentino. Senator Clements.

CLEMENTS: And regarding those investments that are performing, what percent of the fund balance would those be?

SHANE RHIAN: I apologize, I do not remember that percentage off the top of my head, but I will make sure and follow up and email that to the committee tomorrow.

CLEMENTS: Yeah, I've been aware of that.

SHANE RHIAN: I think it would not be mischaracterizing to say it's between 5 and 10%. It's been gradually worked down over the course of years, again, as it becomes-- as it is prudent to liquidate them.

CLEMENTS: I've been aware that that was holding down your returns. And yeah, we'd like to have that information.

SHANE RHIAN: OK.

CLEMENTS: Thank you.

BALLARD: Additional questions. I just have one minor. So it's-- so you did say you're at 60% funded, correct?

SHANE RHIAN: I believe that to be correct, yes.

BALLARD: And then not too long ago, you were at 63% funded. So is that just because of the additional ARC payment that you made or was it--

SHANE RHIAN: So.

BALLARD: I just want to know what with the trend downward?

SHANE RHIAN: Sure. So I would say that the trend downward has to do with the reduction in the assumed the rate of return that we've been phasing in over the last four years and then the smoothing of negative returns from calendar year 2022 when only commodities were the only segment of the market that had any type of positive return.

BALLARD: OK. Thank you. Any additional questions? Seeing none, thank you for your time.

SHANE RHIAN: Thank you.

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BALLARD: OK, that was, that was the end of our-- additional testimony for, for OSERS? OK, seeing none, that will end our hearing on LR97 and our hearings for the day. Thank you, everyone.