

City of Minot

Trustees Meeting

City Employees Pension Plan

Larry McNamara | June 13, 2023



Gallagher

Insurance | Risk Management | Consulting

Plan Provisions

Eligibility Requirements	<p>Every full time Employee of the City of Minot (excluding all non-civil service employees) shall become a Member at the time he commences employment provided he is contributing to the fund. Plan is closed to new entrants effective January 1, 2014.</p>
Normal Retirement Benefit	<p>Members hired before January 1, 2004 receive the greater of (1) and (2). Members hired after December 31, 2003 and before July 6, 2010 receive (2). Members hired after July 5, 2010 receive (3):</p> <p>(1) 3.3% times Average Monthly Earnings times years of service, not to exceed 20 years</p> <p>(2) 2.5% times Average Monthly Earnings times years of service, not to exceed 30 years, plus 1.0% times Average Monthly Earnings times years of service in excess of 30 years, not to exceed 10 years</p> <p>(3) 2.3333% times Average Monthly Earnings times years of service, not to exceed 30 years, plus 0.5% times Average Monthly Earnings times years of service in excess of 30 years, not to exceed 10 years</p>
Recognized Service	<p>The number of years of service for determining retirement benefits will be measured in terms of years, months, and days (which often will result in a fraction).</p>
Average Basic Monthly Compensation	<p>For Members hired before July 6, 2010, the average of the highest 36 months (need not be consecutive) of pay within the last 120 months.</p> <p>For Members hired after July 5, 2010, the average of the highest 48 months (need not be consecutive) of pay within the last 120 months.</p>

Normal Retirement Date	Vested Members who have attained age 60 are eligible for a monthly pension benefit. In addition, after December 31, 2003: <ul style="list-style-type: none"> • Vested Members hired before July 6, 2010 satisfying the Rule of 85 are eligible for an unreduced monthly pension benefit. • Vested Members hired after July 5, 2010 satisfying the Rule of 90 and who have attained age 55 are eligible for an unreduced monthly pension benefit. • The Rule of 85/90 is satisfied when the Member's age (measured in years, months, and days) plus the Member's total period of Membership (measured in years, months, and days) equals 85/90 years.
Early Retirement Date	Vested Members are eligible for a monthly pension commencing at age 60
Normal Form of Benefit	Married Members receive a Joint & Two-Thirds to Survivor annuity. Single Members receive a Life Only annuity.
Vesting Schedule	60 months for Members hired before July 6, 2010; 120 months for Members hired after July 5, 2010
Employee Contributions	14.74% of salary
Cost of Living Adjustment	Pension payments are increased 1% annually for Members receiving pension payments who have attained age 65
Retiree Health Care Supplement	Retired Members hired before July 6, 2010 receive monthly health supplement until age 65

Summary of Participant Data

	1/1/2022	1/1/2023	Percentage Change
Active Members			
Number of Members	160	142	-11.3%
Average age	46.2	47.7	3.2%
Average service	15.4	16.5	7.1%
Average base salary	\$ 74,605	\$ 78,773	5.6%
Retired Members			
Number of Members	295	296	0.3%
Average age	71.6	72.9	1.8%
Average pension monthly benefit	\$ 2,785	\$ 2,836	1.9%
Terminated Vested Members			
Number of Members	28	30	7.1%
Average age	50.6	49.6	-2.0%
Average monthly benefit at Normal Retirement	\$ 2,327	\$ 2,283	-1.9%
Terminated Non-Vested Members due a refund			
Number of Members	16	14	-12.5%
Average refund due	\$ 13,450	\$ 10,953	-18.6%

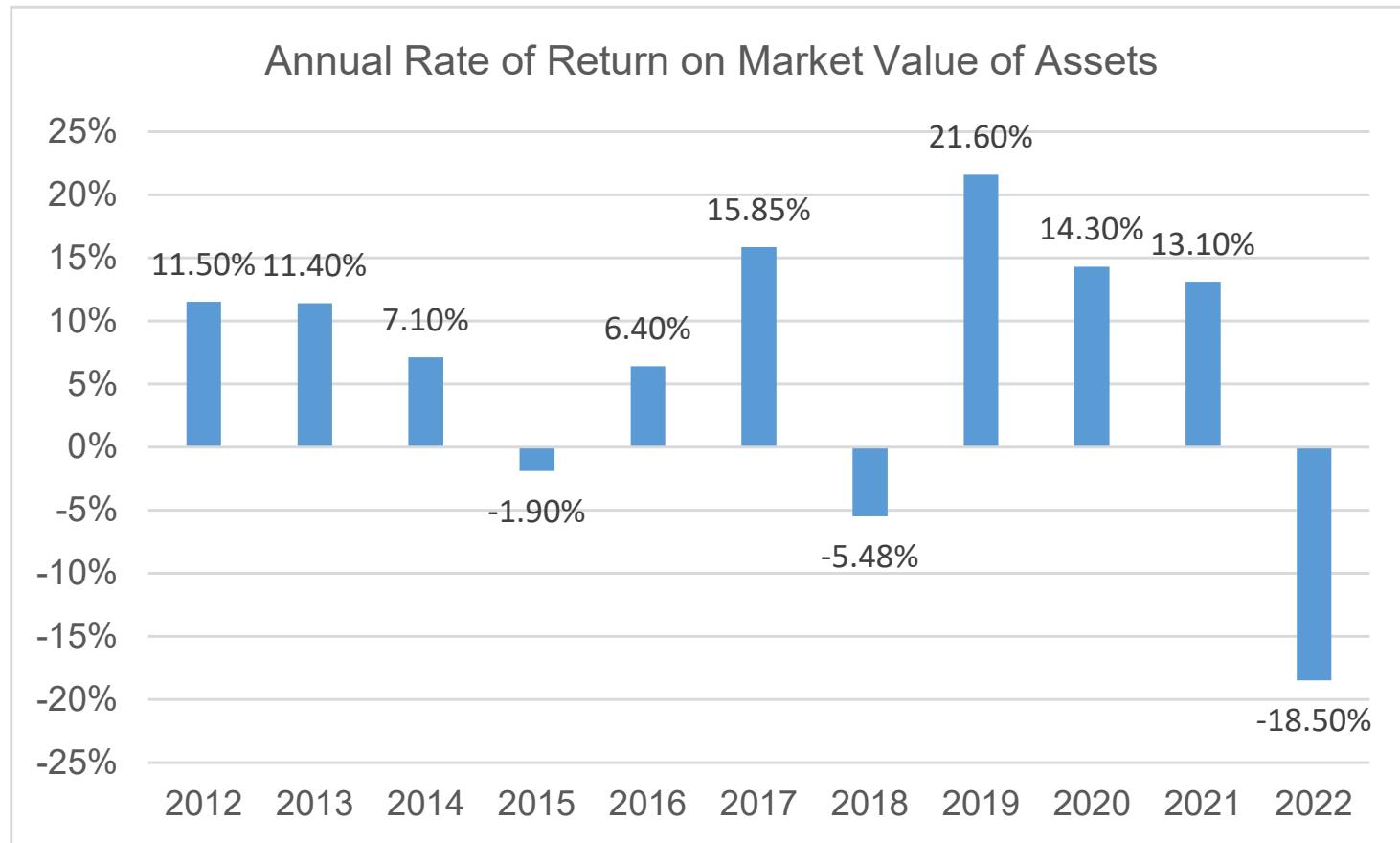
Reconciliation of Assets

	2022	2023
Asset Value as of Prior January 1	\$ 88,421,158	\$ 97,327,530
▪ City Contributions	5,779,045	5,777,650
▪ Employee Contributions	1,850,074	1,762,463
▪ Investment Income	11,417,984	(17,756,035)
▪ Benefit Payments	(9,994,312)	(10,243,551)
▪ Retiree Health Care Supplement	(128,249)	(122,220)
▪ Administrative Expenses	(18,170)	(19,250)
Asset Value as of January 1	\$ 97,327,530	\$ 76,726,587
Actual Rate of Return	13.1%	(18.5)%
Assumed Rate of Return	7.5%	7.5%
Excess/(Deficiency)	5.6%	(26.0)%

Historical Asset Returns

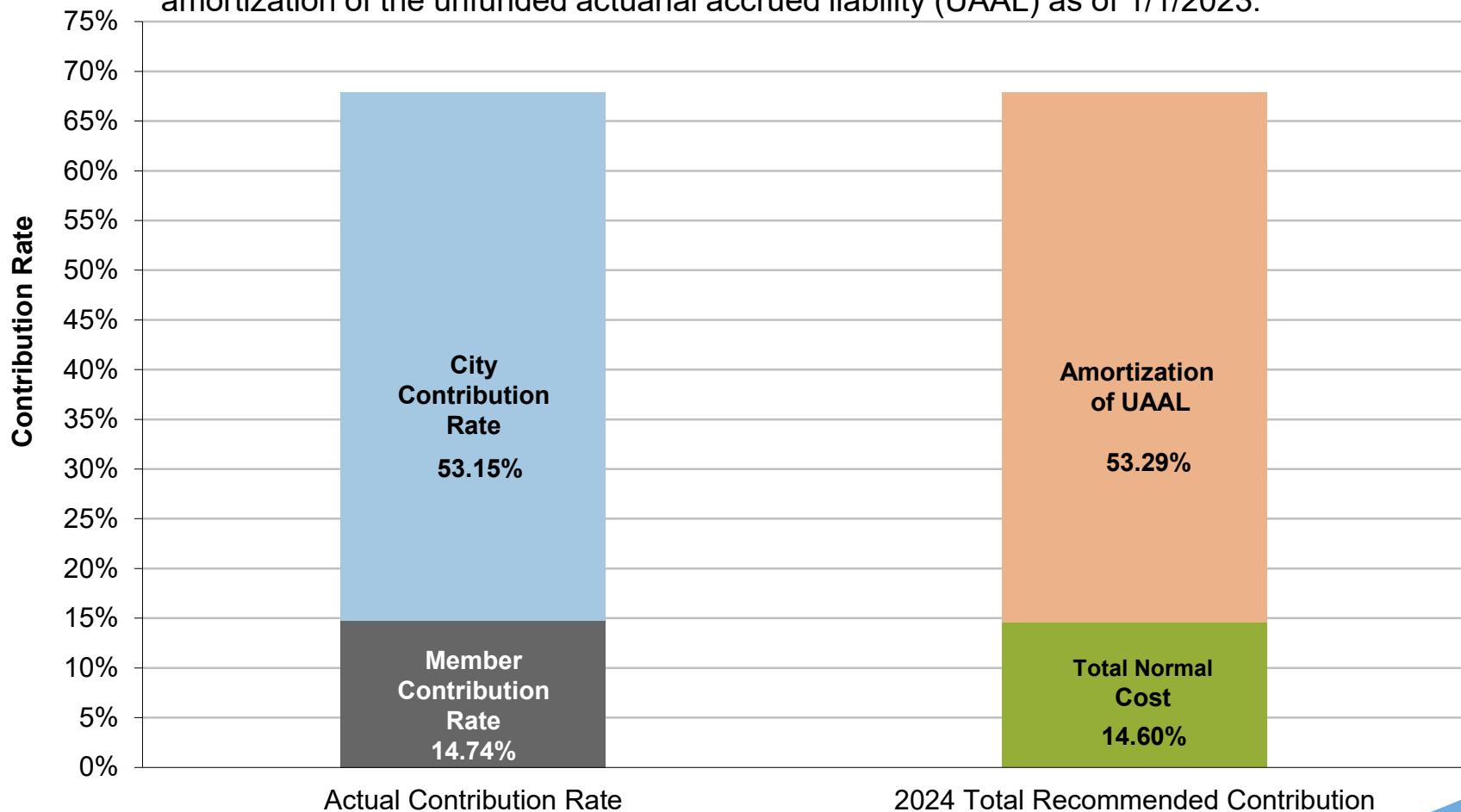
The 10 year geometric return dropped from 9.1% as of January 1, 2022 to 5.7% as of January 1, 2023.

The long term rate of return is assumed to be 7.50%. We believe this is within the acceptable range, but it is near the top of the range.



City Contribution Rate

City contribution rate of 53.15% of salary is needed to meet the 2024 total recommended contribution (67.89% of salary). This contribution was developed using a 21 year amortization of the unfunded actuarial accrued liability (UAAL) as of 1/1/2023.



Accrued Liability by Participant Category

	1/1/2022	1/1/2023
Participants Receiving Benefits	\$103,753,396	\$104,840,462
Terminated Vested Participants	\$6,726,447	\$7,515,901
Terminated Non-Vested Member Refunds	\$215,197	\$153,337
Active Participants	\$42,562,869	\$42,014,988
Total Participants	\$153,257,909	\$154,524,688

Net Pension Liability

	As of December 31		
	2020	2021	2022
Total Pension Liability	\$149,489,870	\$153,257,909	\$154,524,688
Plan fiduciary net position	\$88,421,158	\$97,327,530	\$76,726,587
Net pension liability (asset)	\$61,068,712	\$55,930,382	\$77,798,101
Plan fiduciary net position as a percentage of the total pension liability	59%	64%	50%
Covered-employee expected payroll	\$13,723,399	\$12,443,766	\$11,660,064
Net pension liability (asset) as a percentage of covered-employee payroll	445%	450%	667%

Net Pension Liability – Discount Rate Sensitivity

As of December 31, 2022

	Baseline	Interest Rate	Baseline w/10% Asset
Market Value of Assets	\$ 76,726,587	\$ 76,726,587	\$ 69,053,928
Liabilities	\$ 154,524,688	\$ 172,243,504	\$ 154,524,688
Funded Ratio	50%	45%	45%
Interest Rate	7.50%	6.50%	7.50%

- Our estimates are based on the interest rate used for funding purposes, a 100bp decline in interest rate, as well as the impact of a 10% decrease in Plan asset values.
- The interest rate sensitivity is shown comparing the funding baseline and a funding run at 6.50%. The interest rate change of 1% changed the liabilities by 11.5%.

Key Assumptions and Methods

Interest Assumptions 7.5% per year

Mortality

Mortality rates are based on the amounts-weighted Pub-2010 and PubS-2010 Mortality Tables with Projection Scale MP-2021

Retirement Rates

If Hired Before 7/6/2010 and meet Rule of 85		If Hired After 7/5/2010, meet Rule of 90 and are at least age 55	
Years after Rule of 85	Rate	Years after Rule of 90	Rate
0-1	50%	0-1	50%
1-2	15%	1-2	15%
2-3	10%	2-3	10%

For participants not meeting the above criteria:

Age	City Employee	Age	Police Employee
60-65	20%	60-61	67%
66	40%	62+	100%
67	60%		
68	80%		
69+	100%		

Key Assumptions and Methods

Termination Rates

	Employees		Police		
	Age	Male	Female	Male	Female
25-35	12%	8%	14%	14%	14%
35-45	3%	4%	4%	4%	10%
45-50	3%	2%	4%	10%	
50-55	3%	2%	0%	0%	0%
55+	1%	1%	0%	0%	0%

Salary Increase Rates

7% per year for 0-4 years of service, 4.5% per year for 5-12 years of service, 4.0% per year for 13+ years of service

Actuarial Asset Value

Market Value with gains and losses smoothed over a 5 year period.

Actuarial Cost Method

Entry Age Normal – Level Percent of Pay

Key Assumptions and Methods (Cont.)

Funding

- **Unfunded Liability Amortization** 21 years remaining as of 1/1/2023
- **Amortization Method** Level Dollar Amount

GASB

Amortization periods:

- Differences between actual and expected non-investment experience and changes in assumptions - average future working lifetime
- Differences between actual and expected investment experience – 5 years

City Contribution Rate

We assume that active participants will continue to contribute 14.74% of salary in all future years and that the City will contribute 47.17% of covered payroll.

Mortality

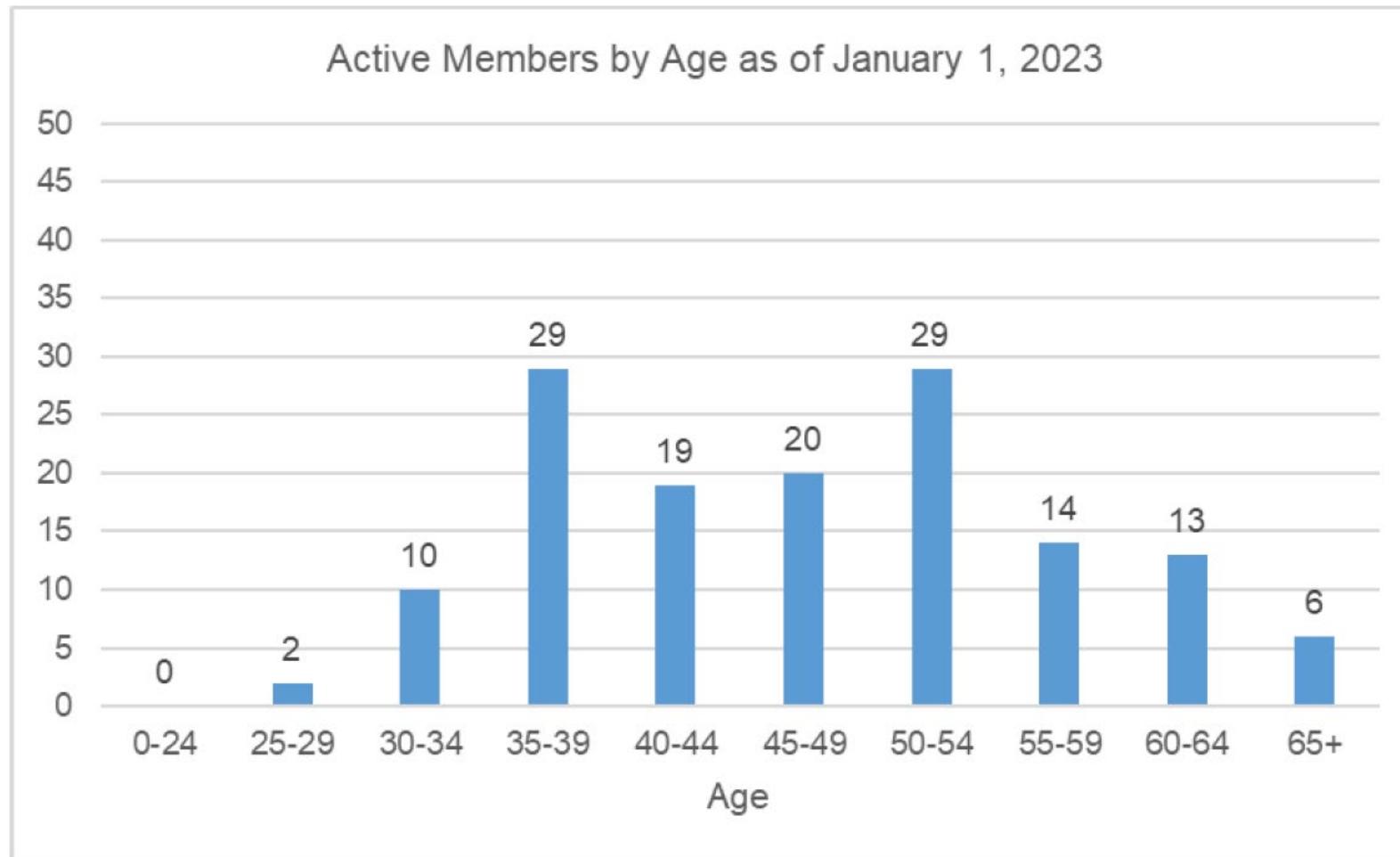
- Current Mortality Table: Pub-2010 and PubS-2010 Mortality Tables with Projection Scale MP-2021
- Current Projection Scale: MP-2021, no update was released in 2022
- The underlying mortality table is likely to be the most recent table for several years
- The Society of Actuaries generally updates the projection scale annually
- Scale MP-2020 to Scale MP-2021 resulted in an increase in benefit obligations between 0.2% and 0.4%
- It is common to automatically approve the most recent projection scale without going to the board

Other Topics

- Experience Study
- Stress Testing
- Low-Default Risk Obligation Measure (LDROM) required next year.

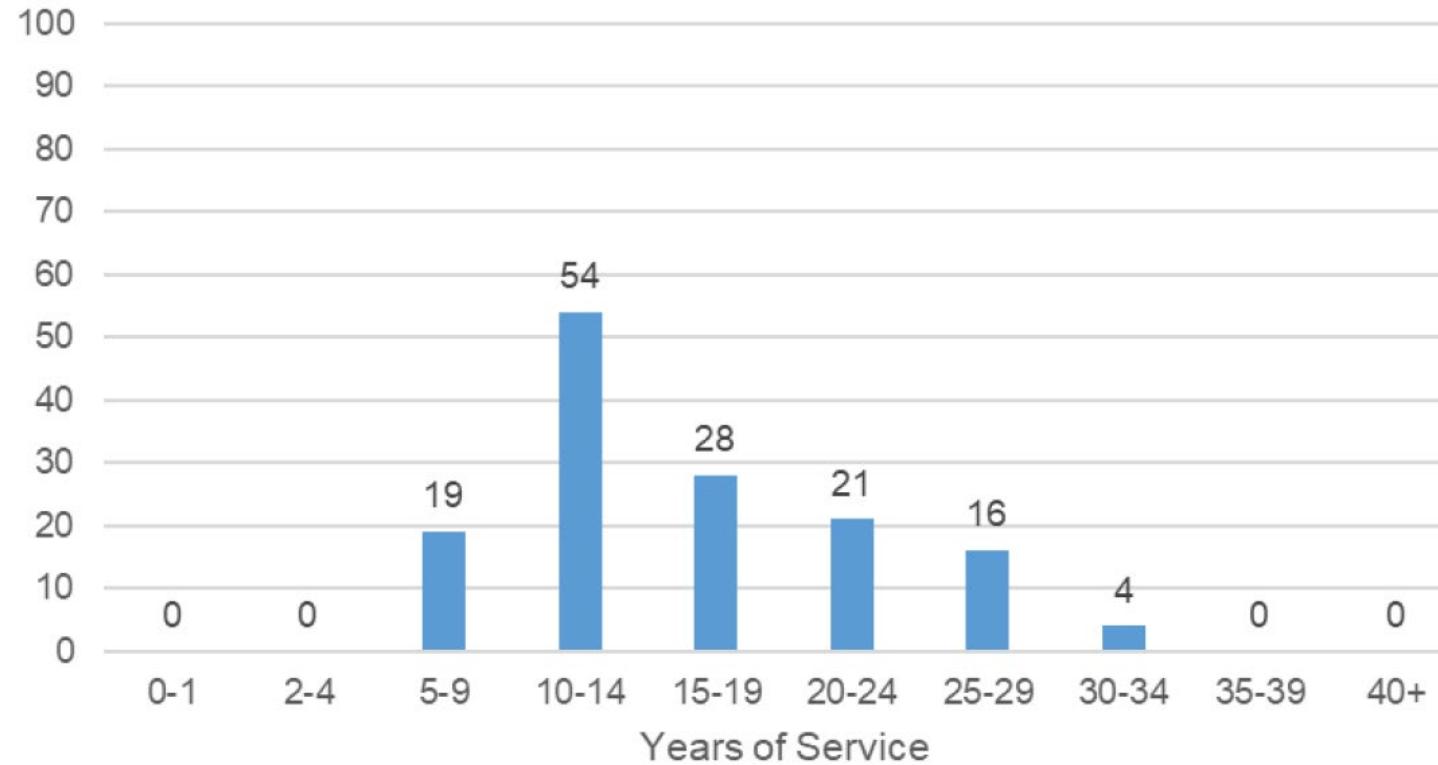
Appendix

Distribution of Active Plan Participants

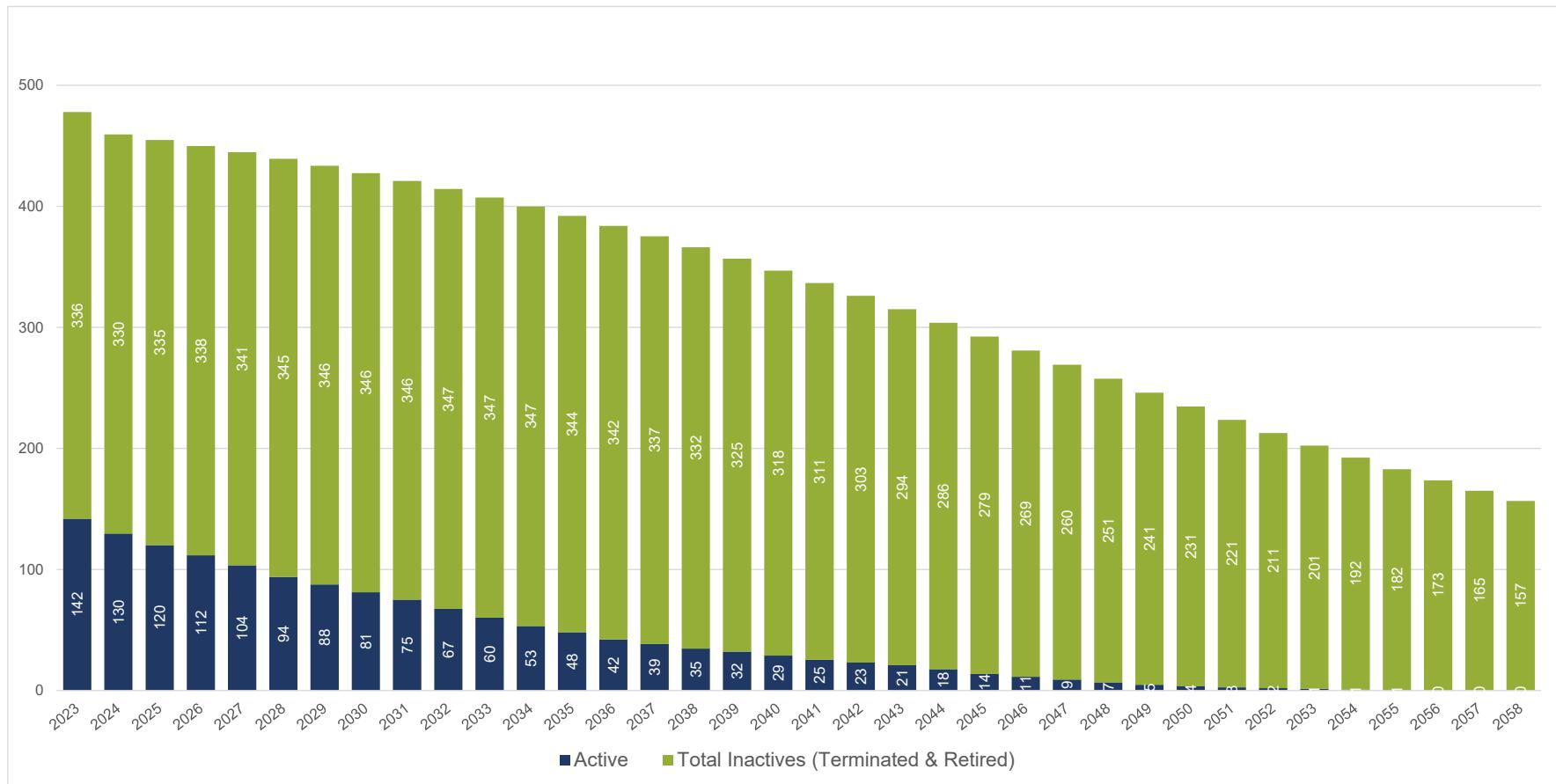


Plan Participants

Active Members by Years of Service as of January 1, 2023



Projected Plan Participants



Actuarial Value of Assets

	2022	2023
Asset Value as of January 1 – Market Value	\$ 97,327,530	\$ 76,726,587
Deferred gains (losses)		
▪ December 31, 2018	(1,855,676)	N/A
▪ December 31, 2019	3,709,543	1,854,771
▪ December 31, 2020	3,280,129	2,186,752
▪ December 31, 2021	4,025,003	3,018,752
▪ December 31, 2022	<u>N/A</u>	<u>(19,959,133)</u>
Total Deferred gains (losses)	9,158,999	(12,898,858)
Asset Value as of January 1 – Actuarial Value	\$ 88,168,531	\$ 89,625,445

Unfunded Liability - Funding

	1/1/2022	1/1/2023
Total Accrued Liability	\$153,257,909	\$154,524,688
Actuarial Value of Assets	\$88,168,531	\$89,625,445
Unfunded Liability	\$65,089,378	\$64,899,243

Actuarial Certification

- The data, actuarial assumptions, actuarial methods and plan provisions used within this report are the same as those documented in our January 1, 2023 actuarial valuation report for the City of Minot Employees' Pension Plan unless otherwise noted within.
- The following information is provided in accordance with the Actuarial Standard of Practice No. 41 regarding actuarial communication.
- The values shown in this report are estimates and are based on the actuarial valuation as of January 1, 2023. The information date is January 1, 2023. We are not aware of any subsequent events since the information date which would materially impact the nature of our comments.
- Projected results will depend on a number of future factors, including demographic changes, actual investment return and contributions to the program, and future plan design decisions. Actual projected results will differ from the estimates provided here. A discussion of the risk factors impacting contribution amounts, as required under ASOP 51, is provided in these slides and in the January 1, 2023 valuation reports.
- Edwin L. McNamara, EA, FSPA, MAAA, FRM, CFA is the responsible actuary for purposes of these projections and is qualified to provide this information. We are available to answer questions regarding these projections. We are not aware of any conflicts of interest which would impair the objectivity of our work other than those (if any) specifically identified here, nor any limitations or constraints which impeded our work.

Thank You!

Larry McNamara
Phone: 952.918.3954
E-mail: Larry_McNamara@ajg.com

3600 American Blvd. W., Suite 500
Bloomington, MN 55431
USA



Gallagher

Insurance | Risk Management | Consulting