Bismarck
HUMAN RESOURCES

Bismarck Pension & Retirement

Board of Trustees

The 2023 Board of Pension Trustees meeting is scheduled for Wednesday, July 12, 2023 from 1:00 PM to 4:00 PM and will be held at the Bismarck Veterans Memorial Public Library, 515 N 5th St. in the Missouri River room located in the lower level.

1. Call To Order
2. Roll Call
3. State Investment Board Presentation
4. Review Of City Of Bismarck Combined Pension Plan Valuation Reports By Gallagher Benefit Services

4.A. Bismarck Trustees Meeting Presentation - City

Documents:

Bismarck_Trustees Meeting Presentation_City_07122023.pdf

4.B. Bismarck Trustees Meeting Presentation - Police

Documents:

Bismarck_Trustees Meeting Presentation_Police_07122023.pdf

5. Cost Of Living Adjustments (Action Item)
6. City Of Bismarck Combined Pension Plan Experience Study (Action Item)
7. City Of Bismarck Combined Pension Plan Legal Review
8. Other Business
9. Adjournment

City of Bismarck

Trustees Meeting

City Employees Pension Plan

Larry McNamara | July 12, 2023

Gallagher

Insurance | Risk Management | Consulting

Plan Provisions

Eligibility Requirements	Generally, every full-time employee of the city shall be included (other than Police Officers).

Normal Retirement Benefit	High 36 x 1.75% of recognized service prior to January 1, 2005, plus High 36 x 2.25% of recognized service after December 31, 2004
Recognized Service	Full and fractional years of contributing service during which the employee contributed to the fund
Average Basic Monthly Compensation	Highest 36 month period of employment. Excludes overtime, bonuses, severance payments, and other remuneration in excess of base compensation

Normal Retirement Date	Age 62
Early Retirement Date	Age 50 and 60 months of service

Normal Form of Benefit	Married Participants receive a Joint & Two-Thirds to Survivor annuity. Single Participants receive a Life Only annuity

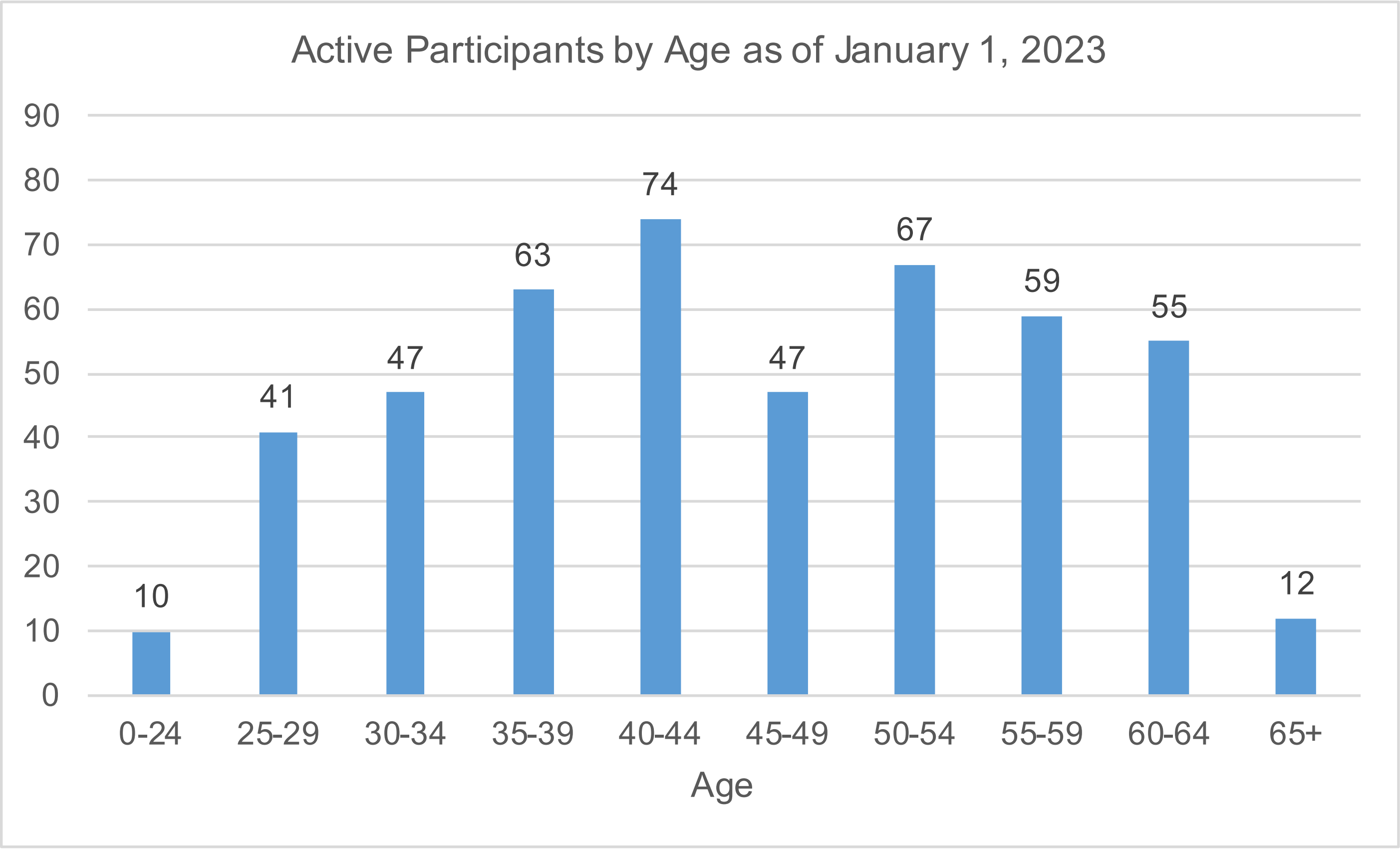
Employee Contributions	5.0% of basic salary

Vesting Schedule	60 months

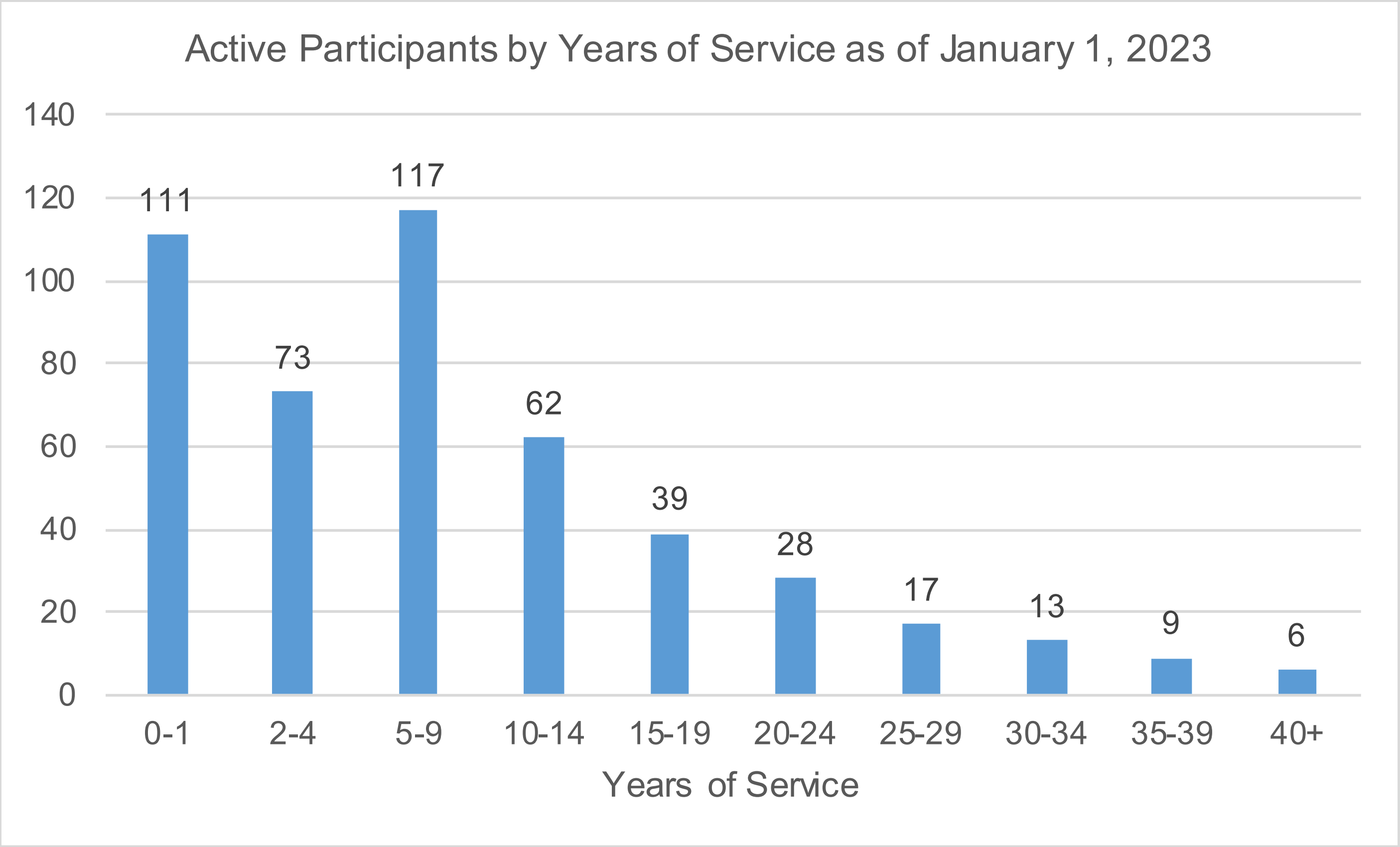
Summary of Participant Data

		1/1/2022		1/1/2023
Active Participants				
• Number of Participants				
- Fully Vested		301		291
- Non-vested		176		184
- Total		477		475
• Average Age		46.1		45.9
• Average Service		10.5		10.0
• Average Salary	$	58,605	$	58,143
Terminated Vested Participants				
• Number of Participants		77		82
• Average Age		48.1		48.8
• Average monthly benefit at Normal Retirement	$	843	$	921
Retired Participants				
• Number of Participants		272		286
• Average age		73.2		73.4
• Average monthly benefit	$	2,091	$	2,173

Distribution of Active Plan Participants



Plan Participants



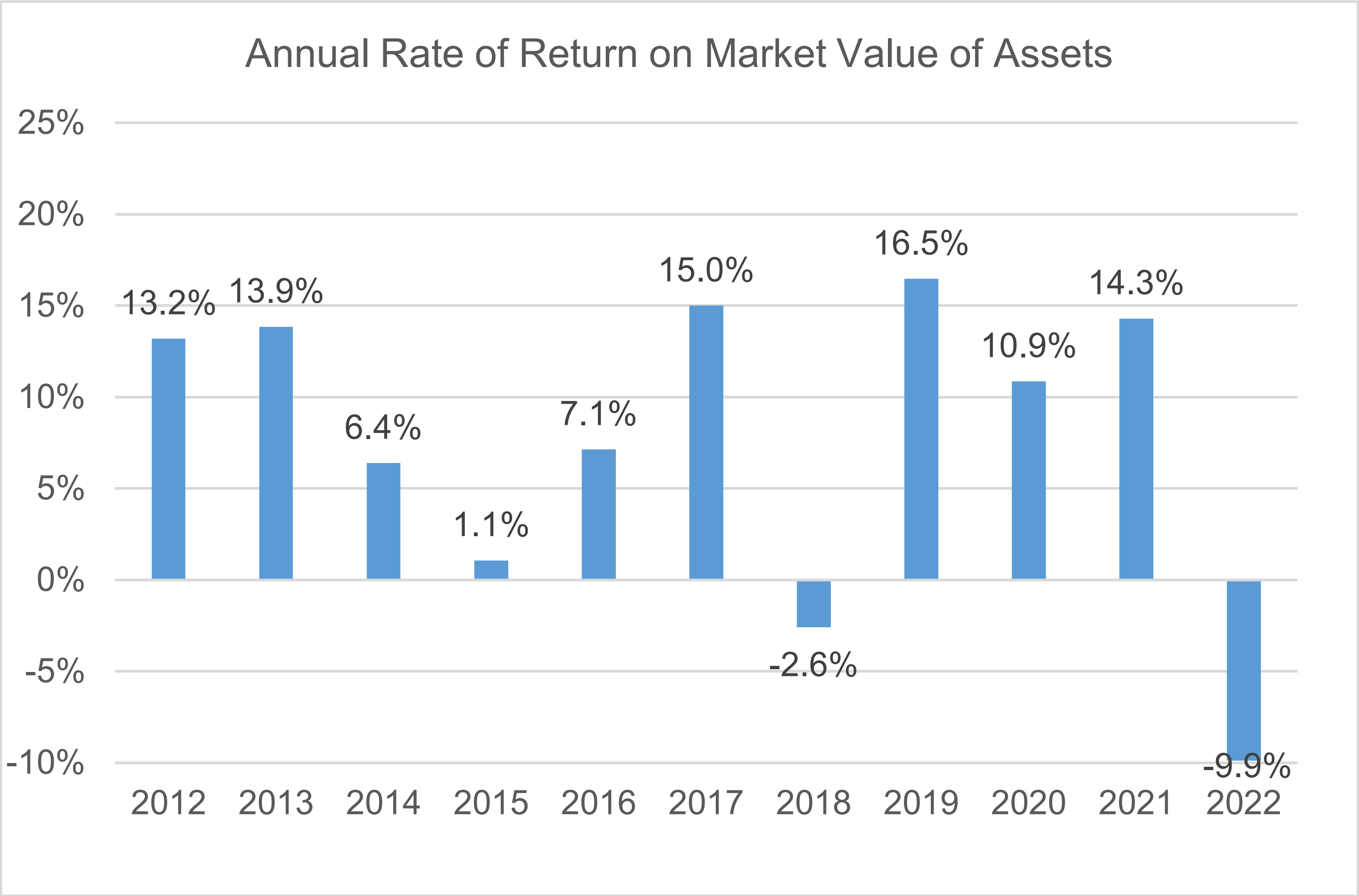
Key Assumptions and Methods

Interest Assumptions	7.25% per year *(updated as of January 1, 2023; previously 7.50%)*
Mortality	Mortality rates are based on the Pub-2010 Mortality Tables with Projection Scale MP-2020
Retirement Rates	Rates depending on age; 20% at ages 62-65, increasing 20% each year from ages 66-68, reaching 100% at ages 69 and later
Termination Rates	Rates depending on age and gender; Males - 8% at age 25 - 39, 2.5% at age 40-44, then decreasing to 1% at ages 50 and later Females - 20% at age 20-24; 15% at ages 25-35; 8% at ages 35-44, then decreasing to 3% at ages 50 and later
Salary Increase Rates	3.25% per year
Actuarial Asset Value	The Actuarial Value of Assets is equal to the Market Value of Assets reserved for employee pension benefits.
Actuarial Cost Method	Entry age normal

Key Assumptions and Methods (Cont.)

Funding	
• **Unfunded Liability Amortization**	16 years remaining as of 1/1/2023
• **Payroll Growth**	The amortization of the Unfunded Actuarial Accrued Liability is determined as a level percent of payroll using a 3.25% total payroll growth assumption
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
Expenses	Plan expenses are assumed to be 3.0% higher than the prior year and are added to the recommended contribution
City Contribution Rate	10.4% of salary

Historical Return on Assets



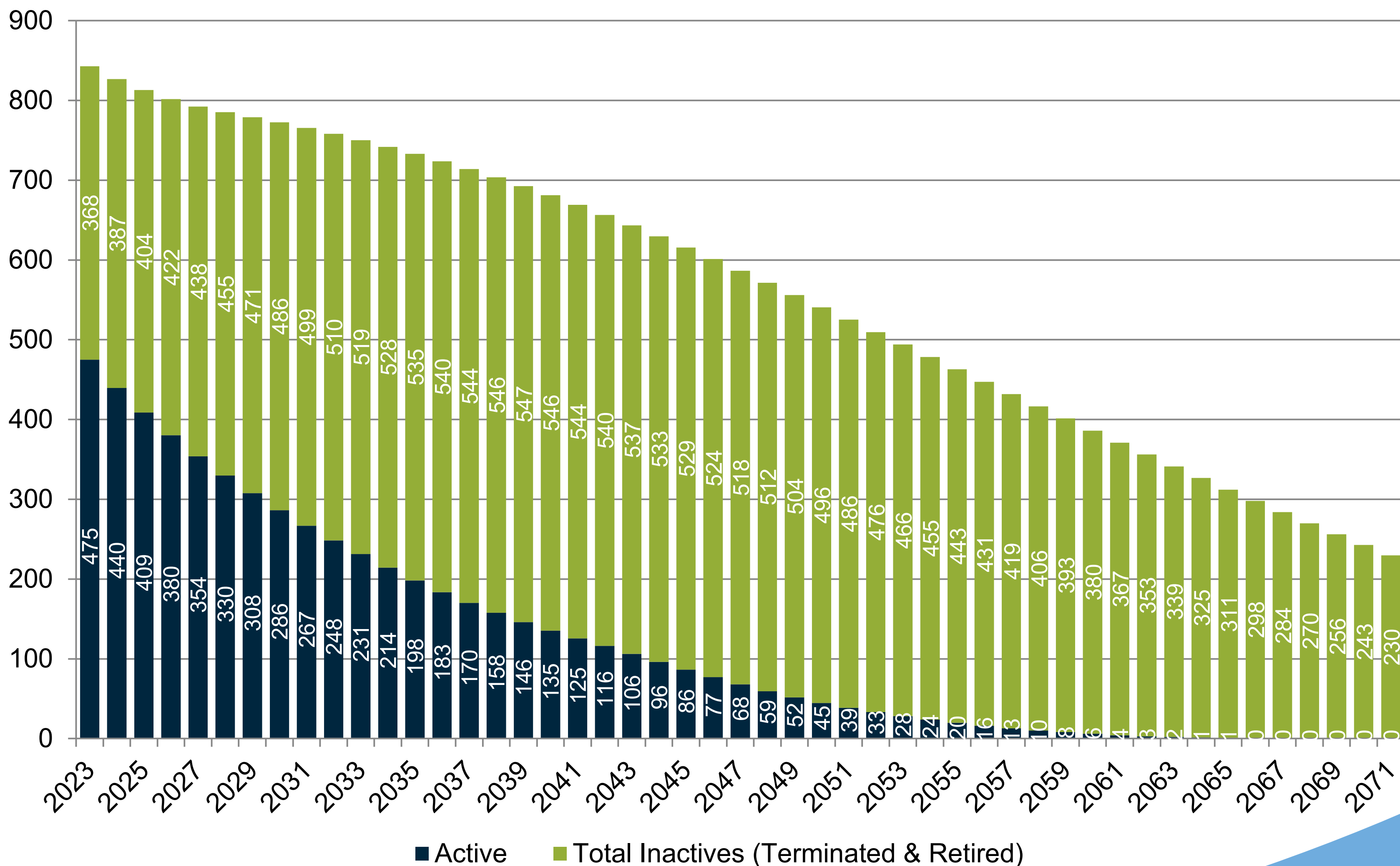
Expected Return on Assets

- Current Expected Rate of Return (EROA) = 7.25%
- Average geometric 10 year return = 6.9% (9.4% at December 31, 2022)
- Capital Market Assumptions from most investment firms, including Gallagher Financial Advisors, increased from last year
  - S&P 500 lost 18.11% in 2022
  - S&P 500 is up 15.9% as of 6/30/2023
  - Job market remains tight
  - Federal Reserve may raise interest rates later in 2023

Mortality

- Current Mortality Table: PUB-2010 Public Safety Employees Amount Weighted Mortality Tables
- Current Projection Scale: MP-2020
- The underlying mortality table is likely to be the most recent table for several years
- Generally, the Society of Actuaries updates the projection scale annually
- MP-2021 is the most recent projection table published; no update was released in 2022
- 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

Projected Plan Participants

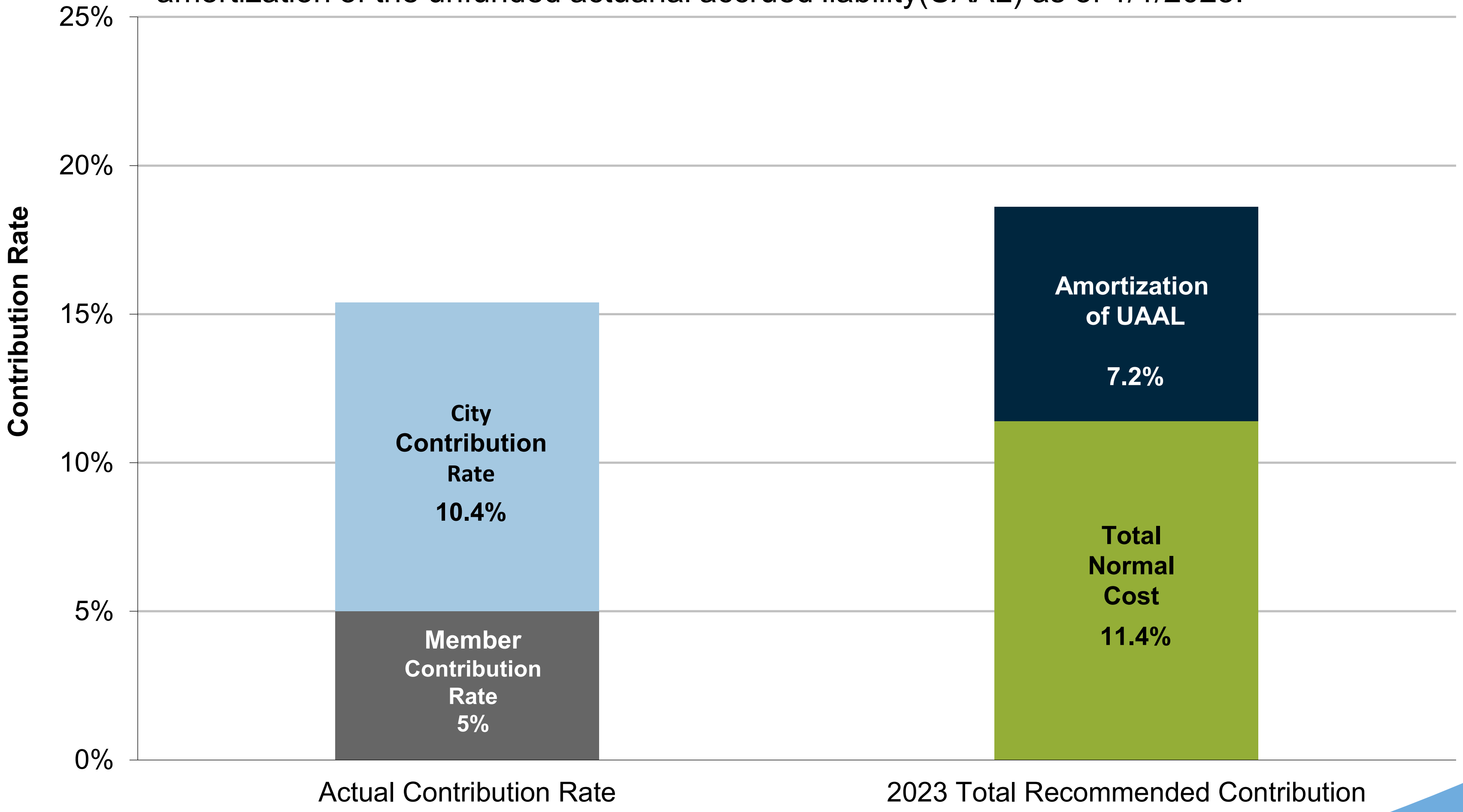


Reconciliation of Assets

	2022	2023
Asset Value as of prior January 1	$ 118,296,160	$ 132,135,296
Employer Contributions	3,022,124	3,186,234
Employee Contributions	1,417,105	1,492,188
Investment Income	16,376,360	(13,180,710)
Benefit Payments	(6,877,653)	(7,443,357)
Administrative Expenses	(98,800)	(109,044)
Asset Value as of January 1	$ 132,135,296	$ 116,080,607
Actual Rate of Return	14.30%	-10.10%
Assumed Rate of Return	7.50%	7.50%
Excess/(Deficiency)	6.80%	-17.60%

City Contribution Rate

City contribution rate of 13.6% of salary is needed to meet the 2023 total recommended contribution (18.6% of salary). This contribution was developed using a 16-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	$65,367,495	$72,895,820
Terminated Vested Participants	$4,506,492	$5,602,728
Active Participants	$61,048,427	$62,127,102
Total Participants	**$130,922,414**	**$140,625,650**

Lowering interest rate from 7.50% to 7.25% as of January 1, 2023 increased the accrued liability by $3,954,846.

Net Pension Liability

	As of December 31,		
	2020	**2021**	**2022**
Total Pension Liability	$ 124,726,114	$ 130,922,414	$ 140,625,650
Plan fiduciary net position	118,296,160	132,135,296	116,080,607
Net pension liability (asset)	$ 6,429,954	$ (1,212,882)	$ 24,545,043
Plan fiduciary net position as a percentage of the total pension liability	95%	101%	83%
Covered-employee Payroll	$ 28,310,578	$ 28,863,264	$ 28,515,711
Net pension liability (asset) as a percentage of covered-employee payroll	23%	-4%	86%

Net Pension Liability – Discount Rate Sensitivity

	As of December 31, 2022		
	Current Discount Rate (7.25%)	0.25% Decrease (7.00%)	0.25% Increase (7.50%)
Total Pension Liability	$ 140,625,650	$ 144,766,148	$ 136,670,804
Plan fiduciary net positio	116,080,607	116,080,607	116,080,607
Net Pension Liability	$ 24,545,043	$ 28,685,541	$ 20,590,197

Other Topics

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

Appendix

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 Bismarck Police 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 form 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!

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USA

Gallagher

Insurance | Risk Management | Consulting

City of Bismarck

Trustees Meeting

Police Employees' Pension Plan

Larry McNamara | July 12, 2023

Gallagher

Insurance | Risk Management | Consulting

Plan Provisions

Eligibility Requirements	Every full-time Police employee shall be included

Normal Retirement Benefit	High 36 x 2.5% of recognized service (shall not exceed 90% of Average Basic Monthly Compensation)
Recognized Service	Full and fractional years of contributing service during which the employee contributed to the fund
Average Basic Monthly Compensation	Highest 36 month period of employment. Excludes overtime, bonuses, severance payments, and other remuneration in excess of base compensation

Normal Retirement Date	Age 55
Early Retirement Date	Age 48 and 60 consecutive months of service

Normal Form of Benefit	Married Participants receive a Joint & Two-Thirds to Survivor annuity. Single Participants receive a Life Only annuity

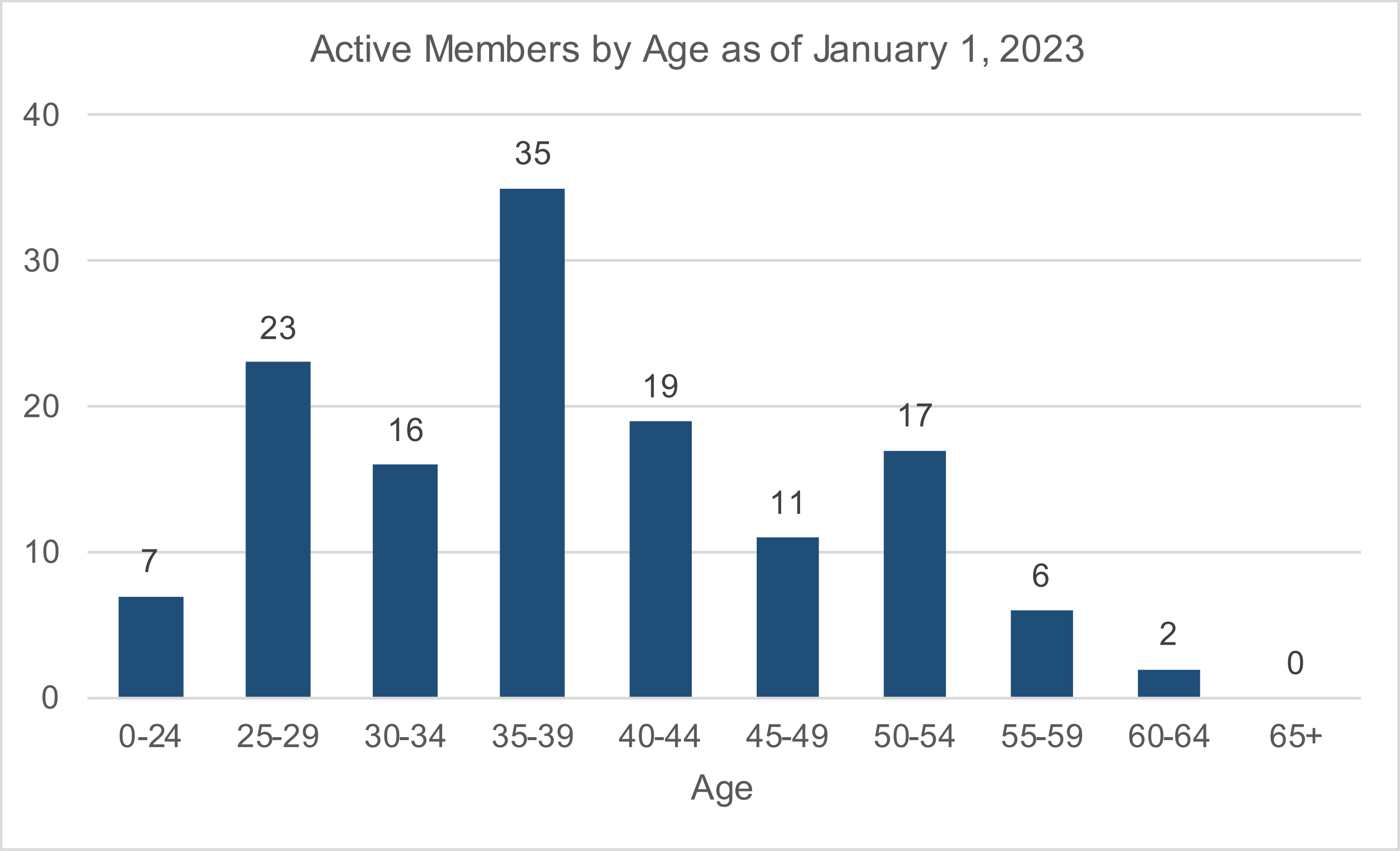
Required Employee Contributions	9.4% of basic salary

Vesting Schedule	60 consecutive months

Summary of Participant Data

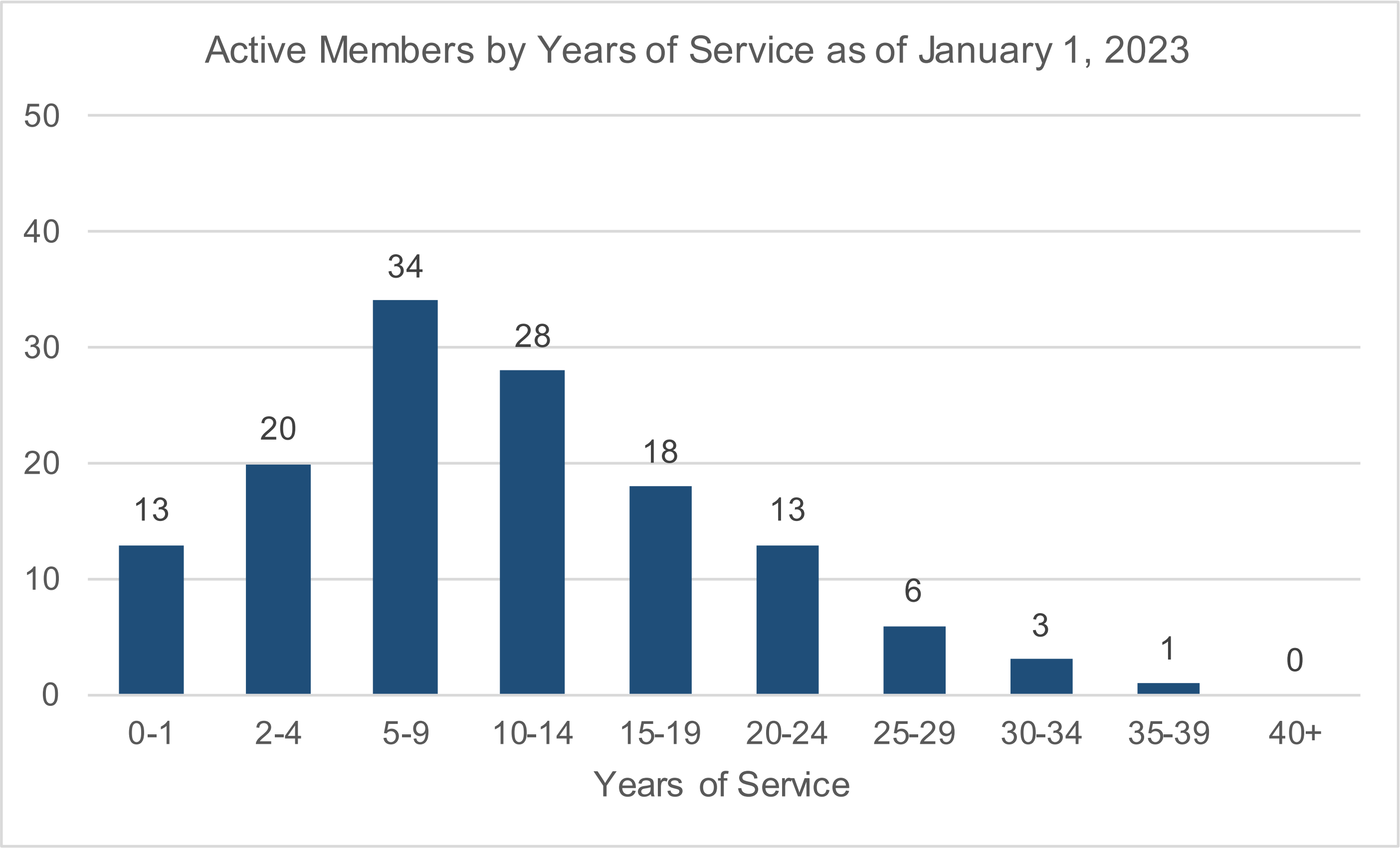
		1/1/2022		1/1/2023
Active Participants				
• Number of Participants				
- Fully Vested		98		104
- Non-vested		37		32
- Total		135		136
• Average Age		39.2		39.1
• Average Service		11.5		11.5
• Average Salary	$	65,891	$	66,502
Terminated Vested Participants				
• Number of Participants		25		24
• Average Age		44.9		44.6
• Average monthly benefit at Normal Retirement	$	981	$	1,103
Retired Participants				
• Number of Participants		87		92
• Average age		68.7		69.1
• Average monthly benefit	$	2,673	$	2,708

Distribution of Active Plan Participants



Gallagher

Plan Participants



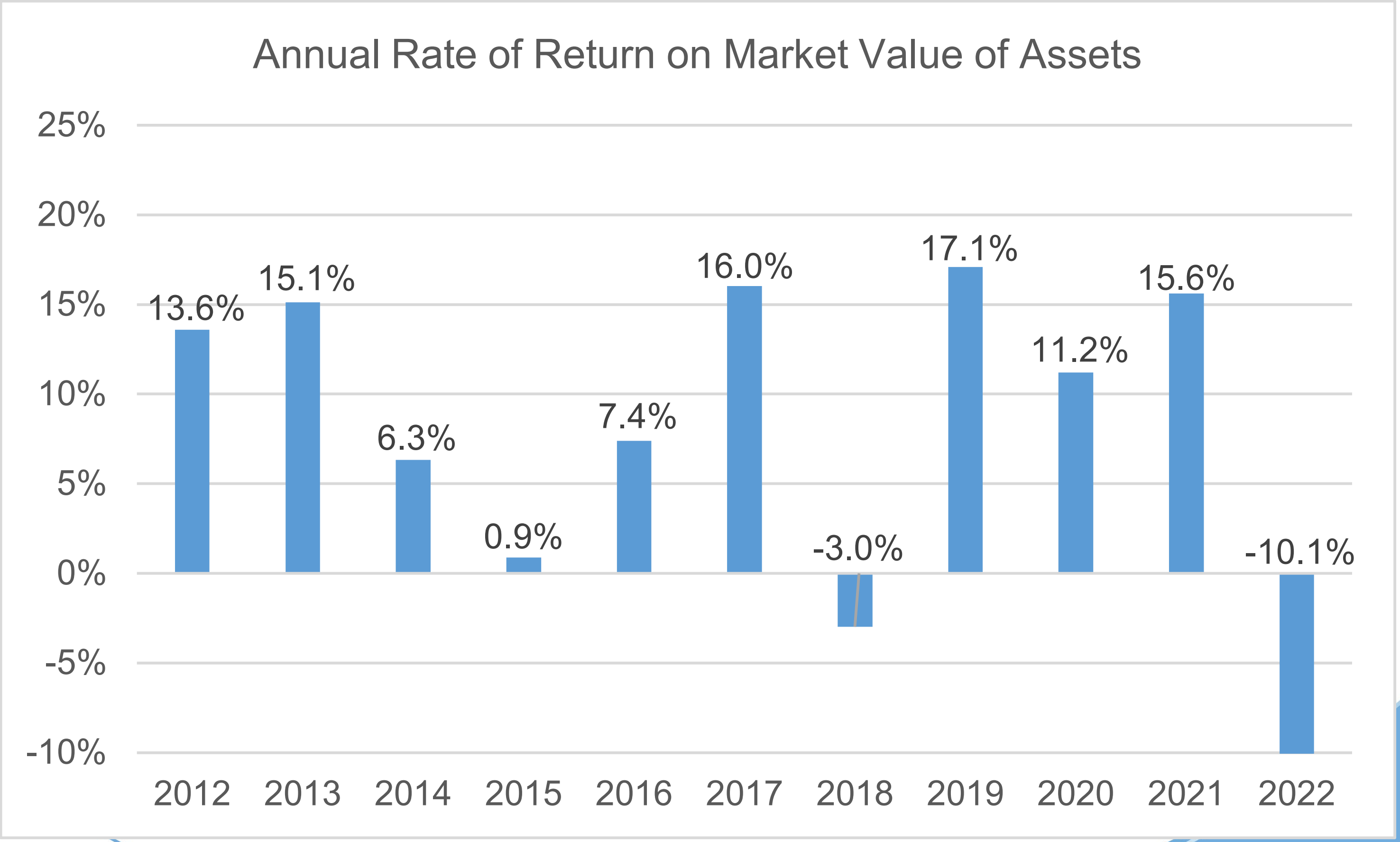
Key Assumptions and Methods

Interest Assumptions	7.25% per year *(updated as of January 1, 2023; previously 7.50%)*
Mortality	PUBS-2010 Public Safety Employees Amount Weighted Mortality Tables with Projection Scale MP-2020
Retirement Rates	Rates depending on age; 20% at ages 55-61, increasing 20% each year from ages 62-64, reaching 100% at ages 65 and later
Termination Rates	Rates depending on age and gender; 10% at age 25, decreasing gradually to 3% at age 45 for males (4% for females)
Disability Rates	Rates depending on age; Disability rates are based on the 1964 OASDI Experience Table. Sample rates are as follows: Age 35 0.147% Age 45 0.360% Age 55 1.009%
Salary Increase Rates	3.25% per year
Actuarial Asset Value	The Actuarial Value of Assets is equal to the Market Value of Assets reserved for employee pension benefits
Actuarial Cost Method	Entry age normal

Key Assumptions and Methods (Cont.)

Funding	
• **Unfunded Liability Amortization**	16 years remaining as of 1/1/2023
• **Payroll Growth**	The amortization of the Unfunded Actuarial Accrued Liability is determined as a level percent of payroll using a 3.25% total payroll growth assumption
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
Expenses	Plan expenses are assumed to be 3.0% higher than the prior year and are added to the recommended contribution
City Contribution Rate	14.53% of salary

Historical Return on Assets



Expected Return on Assets

- Current Expected Rate of Return (EROA) = 7.25%
- Average geometric 10 year return = 7.3% (9.8% at December 31, 2022)
- Capital Market Assumptions from most investment firms, including Gallagher Financial Advisors, increased from last year
  - S&P 500 lost 18.11% in 2022
  - S&P 500 is up 15.9% as of 6/30/2023
  - Job market remains tight
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Mortality

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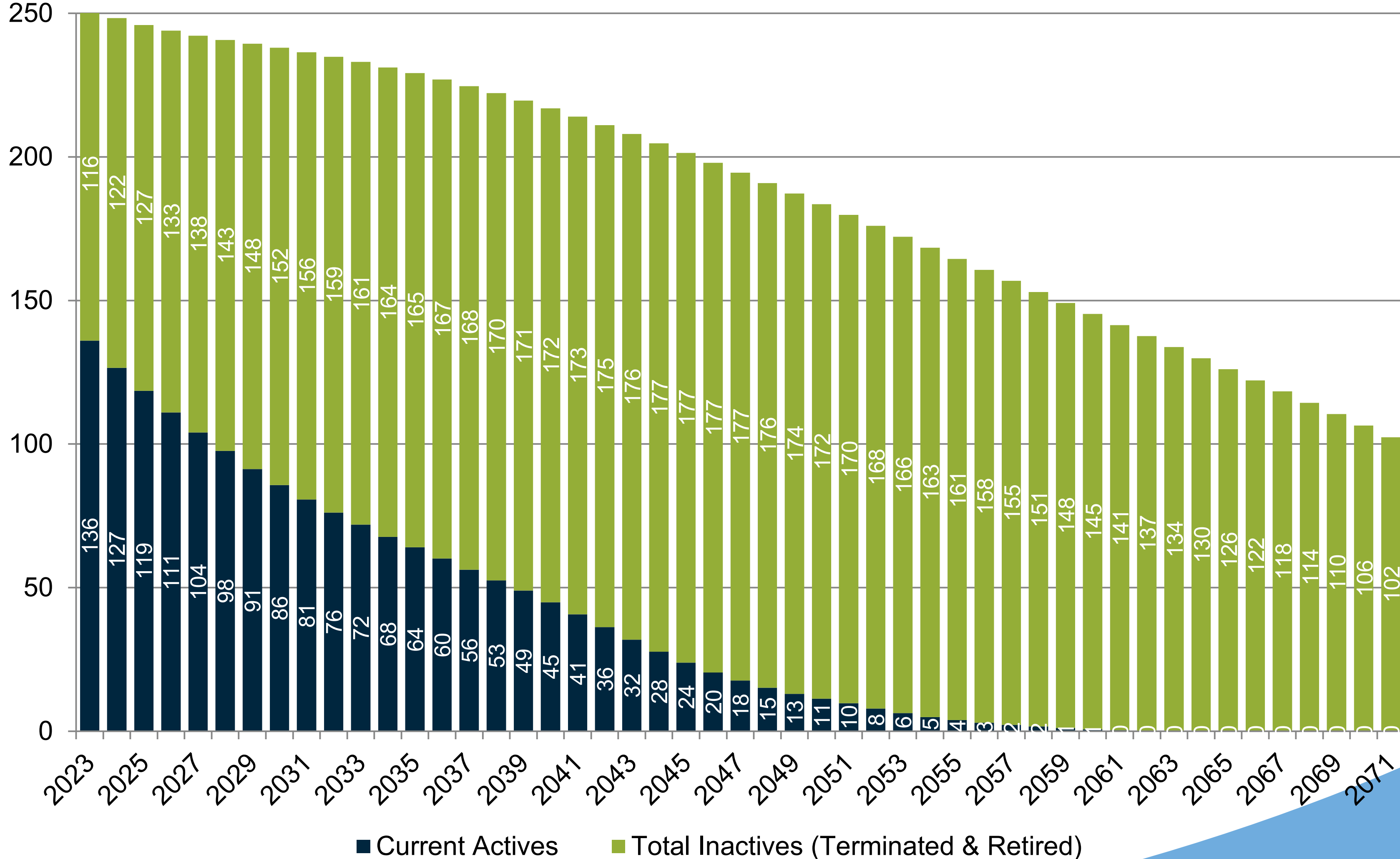
Projected Plan Participants

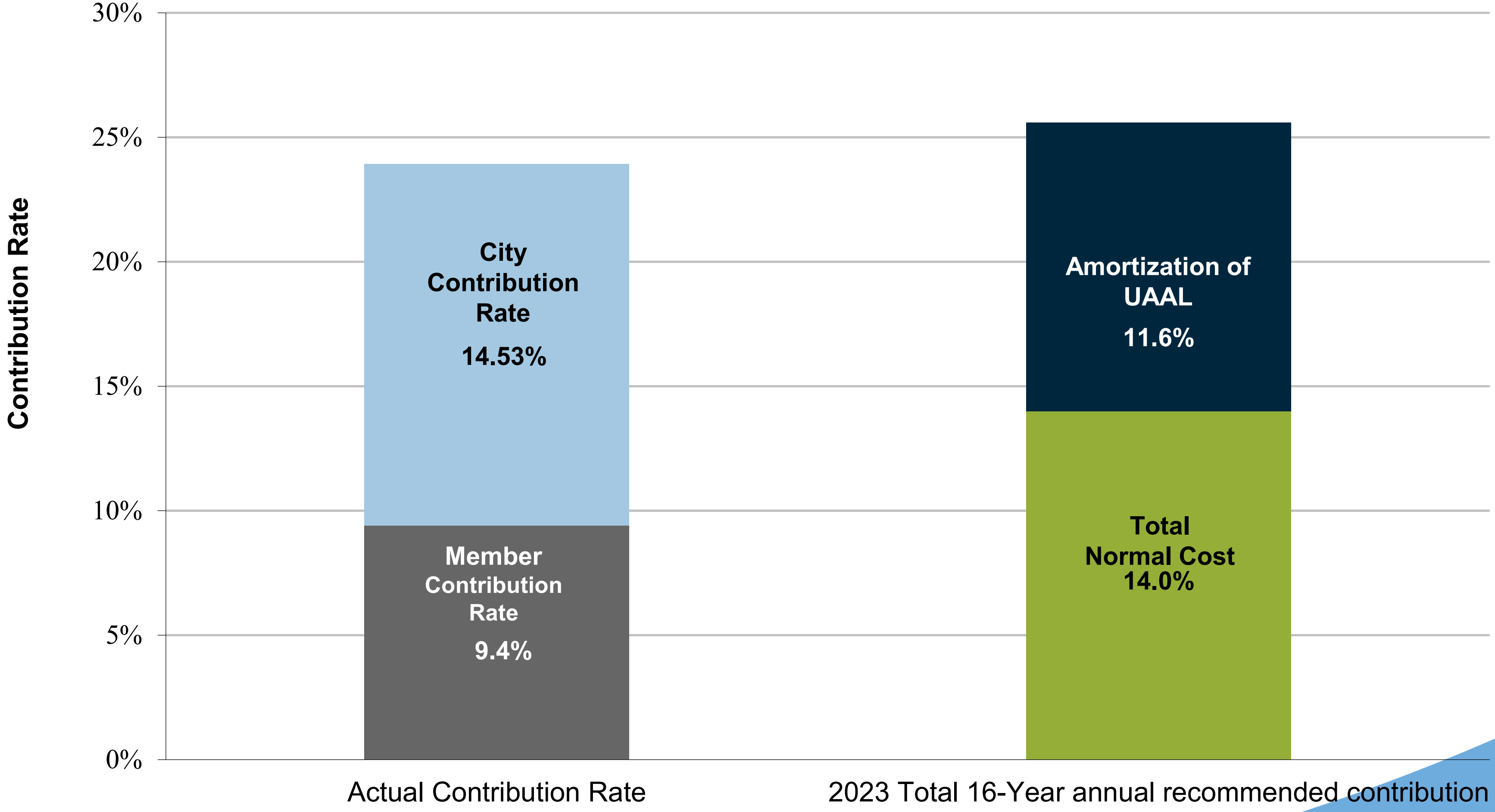


Reconciliation of Assets

	2022	2023
Asset Value as of prior January 1	$ 47,593,576	$ 53,951,296
Employer Contributions	1,364,923	1,461,898
Employee Contributions	850,805	892,212
Investment Income	7,190,718	(5,389,574)
Benefit Payments	(3,006,941)	(3,025,496)
Administrative Expenses	(41,785)	(42,745)
Asset Value as of January 1	$ 53,951,296	$ 47,847,591
Actual Rate of Return	15.60%	-10.10%
Assumed Rate of Return	7.50%	7.50%
Excess/(Deficiency)	8.10%	-17.60%

Contribution Margin

The city contribution rate of 16.2% of salary is needed to meet the 2023 total recommended contribution (25.6% of salary). This contribution was developed using a 16-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	$28,964,664	$31,636,984
Terminated Vested Participants	$2,071,255	$2,310,935
Active Participants	$24,180,341	$26,341,606
Total Participants	**$55,216,260**	**$60,289,525**

Lowering interest rate from 7.50% to 7.25% as of January 1, 2023 increased the accrued liability by $1,820,094.

Net Pension Liability

	As of December 31,		
	2020	2021	2022
Total Pension Liability	$ 53,476,479	$ 55,216,260	$ 60,289,525
Plan fiduciary net position	47,593,576	53,951,296	47,847,591
Net pension liability (asset)	$ 5,882,903	$ 1,264,964	$ 12,441,934
Plan fiduciary net position as a percentage of the total pension liability	89%	98%	79%
Covered-employee Payroll	$ 9,108,027	$ 9,184,417	$ 9,021,623
Net pension liability (asset) as a percentage of covered-employee payroll	65%	14%	138%

Net Pension Liability – Discount Rate Sensitivity

As of December 31, 2022

	Current Discount Rate (7.25%)	0.25% Decrease (7.00%)	0.25% Increase (7.50%)
Total Pension Liability	$ 60,289,525	$ 62,199,642	$ 58,469,431
Plan fiduciary net position	47,847,591	47,847,591	47,847,591
Net Pension Liability	$ 12,441,934	$ 14,352,051	$ 10,621,840

Other Topics

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

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Thank You!

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