City of Cincinnati Retirement System
Board of Trustees Meeting

Agenda

May 1, 2025 / 2:00 P.M.
City Hall, Council Chambers and via Zoom

Members	**CRS Staff**
Bill Moller, Chair	Jon Salstrom
Tom Gamel, Vice Chair	
Kathy Rahtz	
Mark Menkhaus, Jr.	**Law**
Monica Morton	Kevin Frank
Seth Walsh	
Aliya Riddle	
Sonya Morris	
Tom West	

Call to Order

Public Comment

Approval of Minutes

- April 3, 2025

Report on Investment Committee

Informational – Staff Report

- Marquette Investment Report (5-7)
- Staff Update
- Credit Service Purchase Update
- Fiduciary Audit Recommendations Update (8-10)

Old Business

- Term Limits Ordinance

New Business

- Cheiron 2024 Valuation Report and Presentation for the Pension and Healthcare Trusts (16-178)
- Disability Claim

Adjournment

Next Meeting: Thursday, June 5, 2025, 2:00 P.M. City Hall Council Chambers and via Zoom

City of Cincinnati Retirement System
Board of Trustees Meeting Minutes
April 3, 2025 / 2:00 P.M.
City Hall – Council Chambers and remote

Board Members
Bill Moller, Chair
Tom Gamel, Co-Chair
Kathy Rahtz
Mark Menkhaus Jr.
Monica Morton
Seth Walsh
Aliya Riddle
Sonya Morris
Tom West

Administration
Jon Salstrom

Law
Kevin Frank

CALL TO ORDER
Chair Moller called the meeting to order at 2:09 p.m. and a roll call of attendance was taken. Trustees Moller, Gamel, Rahtz, Menkhaus, Morton, Walsh, Riddle, and Morris, were present. Trustee West was absent.

PUBLIC COMMENT
No public comment.

APPROVAL OF MINUTES
Trustee Rahtz moved to approve the minutes of the Board meeting of February 6, 2025. The motion was seconded by Trustee Morton. The minutes were approved by unanimous roll call vote.

Report on Governance Committee
Trustee Menkhaus explained that an update was given on the status of outstanding audit items from Funston. The committee conducted a review of the latest draft of the Governance Manual. The document is nearing completion and is expected to be ready for a formal vote at the next Governance Committee meeting. A brief overview of the current Disaster Recovery Plan was provided. No motions or actions requiring full Board approval were made during this meeting.

Informational – Staff Report
Marquette Investment Report
The year-to-date total fund return is approximately 1.9%, which is generally consistent with the benchmark. This date reflects performance through February and March, with some preliminary

observations from the first week in April. Public markets have exhibited significant volatility during this period, and further fluctuations are expected. It is anticipated that performance will remain choppy through the first quarter and likely into the second quarter of the year, given the current market dynamics.

Motion to approve Index change (analysis of moving index assets from NT to BNY & securities lending education)

The Board received a presentation regarding securities lending and a recommendation to change index providers. CRS has engaged in securities lending for a long period; however, it does not frequently require Board action. As part of ongoing review efforts, staff evaluated switching the index provider from Northern Trust to Bank of New York Mellon (BNY Mellon).

Conversations were held with both Northern Trust and BNY Mellon to assess service offerings and cost savings. BNY Mellon, CRS's current custodian, offered favorable terms including a $50,00 reduction in the custodial fee with Northern Trust. An additional $236,000 in total savings by switching index providers to BNY Mellon.

Securities lending involves the temporary transfer of securities to a borrower (e.g., hedge funds) in exchange for collateral (cash or government securities) and a fee (rebate). The goal is to augment returns from these risks are typically well-contained, especially within commingled vehicles. Historical issues during the Global Financial Crisis were referenced, noting the importance of managing counterparty exposure carefully.

Revenue generated through securities lending is split between CRS and the lending agent (Northern Trust or BNY Mellon). CRS successfully negotiated a more favorable revenue sharing split with BNY Mellon, leveraging the custodial relationship to achieve better pricing.

Staff recommends approving the transition of index providers from Northern Trust to BNY Mellon to capture fee savings and improved revenue sharing terms through the existing custodian relationship.

Chair Moller made a motion to transfer CRS's index dollar investments to Bank of New York to capture the cost savings through lower index fees and reduce custody fees. Trustee Gamel seconded the motion. The motion was approved by unanimous roll call vote.

Staff Update

Kyle Brown is officially in the Division Manager position. Staff is currently scheduling interviews for the Administrative Technician position that's open, and they are going to start to work on backfilling the Members Counselors position that Kyle was working in.

Credit Service Purchase Update

Director Salstrom hopes to have a full update at the next Board meeting. He is still waiting on a few answers from impacted individuals, as well as working with legal on one specific complication, but those are going as expected.

Fiduciary Audit Recommendations Update

An update was provided regarding the status of recommendations from the Funston performance audit with reference to the spreadsheet included in the packet. Many of the governance-related recommendations were addressed during the last Governance Committee meeting. Specifically, section

2-consolidating governance bylaws into a single document-is near completion, and a final draft should be ready for the Board approval soon.

Remaining items largely fall under section 4, which focuses on pension operations. Progress on these items will align with the work being initiated with CEM Benchmarking. The contract with CEM Benchmarking is nearly finalized, after which they will assist with evaluating staff needs, advising on IT and operational goals, and providing peer comparisons to help prioritize and plan remaining improvements. The insights from CEM Benchmarking are expected to help address the outstanding operational recommendations from the Funston report and support long-term strategic planning.

Update on Board Letter to Council re the City Contribution Rate
No formal response has been received yet. It was acknowledged that Budget is actively working on the budget process currently. Trustee Walsh provided additional context that over the past several weeks, City Council has been hearing from various departments regarding their budget needs. By Friday, each Council member must submit their budget priorities. Trustee Walsh confirmed that his submission includes the full contribution amount recommended by the Board. Next Monday, City Council is expected to have a broader budget discussion that will trigger further direction to the City Manager. Trustee Walsh expressed confidence that Council, the City Manager, and the Mayor remain committed to supporting the full funding request, although no formal confirmation has been sent yet.

Old Business
Term Limits Ordinance
The Board's funding recommendation will move forward to City Council and will be on the April 9th agenda. Following that, it will be referred to the Public Safety and Governance Committee for review on April 15th. The plan is for the Director and Chair to attend the committee meeting and provide a brief explanation of the request and answer any questions.

New Business
No new business was discussed.

Adjournment
Following a motion to adjourn by Trustee Walsh and seconded by Trustee Gamel. The Board approved the motion by unanimous roll call vote. The meeting was adjourned at 2:27 p.m.

Meeting video link: https://archive.org/details/crs-board-4-3-25

Next Meeting: Thursday, May 1, 2025, at 2:00 p.m. – City Hall Council Chambers and via Zoom

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Secretary

Cincinnati Retirement

Monthly Report

Executive Summary
March 31, 2025

	Market Value	% of Portfolio	Policy %	Target Allocation	Difference
Fixed Income Composite	500,006,105	21.5	22.5	524,285,516	-24,279,412
Private Debt Composite	122,567,979	5.3	6.5	151,460,260	-28,892,281
U.S. Equity Composite	587,815,894	25.2	28.5	664,094,987	-76,279,094
Non-U.S. Equity Composite	358,918,928	15.4	16.0	372,825,256	-13,906,328
Volatility Risk Premium Composite	54,567,274	2.3	2.5	58,253,946	-3,686,672
Real Estate Composite	151,460,703	6.5	6.0	139,809,471	11,651,232
Infrastructure Composite	262,544,094	11.3	10.0	233,015,785	29,528,309
Private Equity Composite	263,562,376	11.3	8.0	186,412,628	77,149,748
Total Fund Composite	2,330,157,850	100.0	100.0	2,330,157,850	

	Last Month
Total Fund Composite	
Beginning Market Value	2,372,518,599
Net Cash Flow	-11,364,742
Gain/Loss	-30,996,007
Ending Market Value	2,330,157,850

	1 Mo	3 Mo	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	SI	Inception Date
Total Fund Composite	**-1.3**	**0.5**	**6.3**	**9.1**	**4.7**	**11.7**	**7.1**	**7.0**	**8.7**	**Jun 85**
Target Benchmark	-1.7	0.5	5.9	8.6	4.0	11.0	7.1	7.1	-	
Actuarial Rate 7.5%	0.6	1.8	7.5	7.5	7.5	7.5	7.5	7.5	7.5	
Fixed Income Composite	**0.0**	**2.8**	**5.5**	**4.2**	**1.4**	**2.7**	**2.5**	**2.6**	**5.0**	**Dec 95**
Blmbg. U.S. Aggregate Index	0.0	2.8	4.9	3.3	0.5	-0.4	1.6	1.5	4.2	
Private Debt Composite	**0.0**	**0.0**	**7.2**	**9.5**	**7.9**	**-**	**-**	**-**	**5.1**	**Oct 20**
Blmbg. U.S. Aggregate Index	0.0	2.8	4.9	3.3	0.5	-0.4	1.6	1.5	-1.2	
Bloomberg US High Yield TR	-1.0	1.0	7.7	9.4	5.0	7.3	4.9	5.0	4.8	
U.S. Equity Composite	**-5.6**	**-4.3**	**6.5**	**16.3**	**7.3**	**19.3**	**10.8**	**10.2**	**9.6**	**Mar 89**
Russell 3000 Index	-5.8	-4.7	7.2	17.7	8.2	18.2	12.5	11.8	10.7	
Non-U.S. Equity Composite	**0.0**	**5.5**	**6.6**	**9.9**	**5.0**	**12.2**	**3.7**	**4.9**	**5.9**	**Jun 93**
MSCI AC World ex USA (Net)	-0.2	5.2	6.1	9.6	4.5	10.9	4.5	5.0	-	
Volatility Risk Premium Composite	**-3.1**	**-1.4**	**5.9**	**10.2**	**5.6**	**-**	**-**	**-**	**5.6**	**Feb 22**
Cboe S&P 500 PutWrite Index	-4.7	-2.8	9.1	10.7	5.9	13.6	7.4	7.3	7.0	
Real Estate Composite	**0.6**	**0.9**	**2.9**	**-4.1**	**-3.7**	**3.2**	**4.1**	**5.9**	**4.8**	**Sep 07**
NFI-ODCE	0.3	0.8	1.2	-5.7	-5.1	2.0	2.9	4.7	3.8	
NCREIF Property Index	0.0	0.0	1.4	-3.0	-2.5	3.0	3.9	5.3	5.5	
Infrastructure Composite	**1.8**	**2.0**	**8.9**	**8.9**	**8.5**	**10.0**	**8.6**	**7.2**	**8.4**	**Sep 08**
3 Month T-Bill +4%	0.7	2.0	9.2	9.3	8.4	6.7	6.5	5.9	5.2	
Private Equity Composite	**0.0**	**0.0**	**4.8**	**7.2**	**4.3**	**15.2**	**12.8**	**12.2**	**8.7**	**Aug 93**
MSCI Private Capital Global All Private Equity	0.0	0.0	3.8	4.4	1.1	15.6	13.5	13.5	15.0	

DISCLOSURES

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Funston Performance Audit - Summary of Recommendations

1. Legal and Regulatory

No.	Recommendation	Status	Board	Board, Adm.	Priority	Assignment: Board	Goverance	IC	Staff	Performance evaluation	Audit
1.1	Improve definition and clarity of roles and authorities of:										
	• The Board of trustees	Completed	X		X						
	• Board chair	Completed	X		X						
	• Individual trustees	Completed	X		X						
	• City Council and Mayor	Initiated		X							
	• City Manager and City Finance Director	Completed		X							
	• CRS Director	Completed		X							
1.2	The City should expand Board of Trustees personnel authorities to align with the Board's responsibilities, for example, naming the CRS Director as a direct report to the Board, with authority to hire/fire, evaluate, and set compensation.	Reviewed		X							
1.3	The City Solicitor should provide the Board of Trustees with independent external legal counsel or establish a policy and process that allows CRS to retain independent external counsel and/or hire internal CRS counsel to address potential conflicts of interest associated with the City Solicitor's representation of other clients on the same matters.	Reveiwed		X	X						
1.4	Confirm the Board's authority, as the named fiduciary, to contract with actuaries, investment consultants, investment managers, custodial banks, benefit providers, and legal counsel, all of which require unique pension and investment expertise.	Completed		X	X						
1.5	The City Manager should allow CRS trustees who are not City employees to vote on CRS procurement decisions; the Board, as fiduciaries, should have final authority on those decisions.	Completed		X	X						
1.6	If the CRS Board is not given authority to hire/fire/evaluate/compensate the Director, work with the City Manager to develop a Memorandum of Understanding that addresses the City Manager's role as a potential fiduciary and formalizes procedures where the Board and City Manager, Finance Director or other officers have overlapping responsibilities (e.g., setting goals for and evaluating the Executive Director); CRS may need to consider options for engagement of independent fiduciary legal counsel to assist with this initiative.	Completed		X	X						

GREEN - SHORTER TERM COMPLETION
RED - LONGER TERM COMPLETION
Board - CRS Board has authority to complete
Board, Adm. - CRS Board and City Administration have shared authority to complete
Priority - CRS Board priority to complete as soon as possible
Note: Some Recommendations may require CSA update.

2. Governance Framework

No.	Recommendation	Status	Board	Board, Adm.	Priority	Assignment: Board	Goverance	IC	Staff	Performance evaluation	Audit
2.1	Aggregate and organize the Board policies from all sources into a Board Governance Manual with online access and links to underlying document provisions; include the mission statement, goals, trustee responsibilities, committee charters and the Code of Ethics.	Completed		X	X						
2.2	Develop new policies or formalize current policies and practices for:										
	• Trustee personal financial disclosures	Completed	X								
	• Board self-evaluation / Board education policy	Completed	X								
	• Funding	Initiated		X							
	• Separate investment policy statement for the 115 trust fund that is tailored to its liabilities	Reviewed	X								
	• Strategic planning, in coordination with the City	Completed		X							
	• Collection of claims in securities class actions	Completed	X								

#	Recommendation	Status	Board	Board, Adm.	Priority	Board	Goverance	IC	Staff	Performance evaluation	Audit
	• Succession planning, in cooperation with relevant City appointing authorities	Completed		X							
	• Business continuity and resumption	Completed		X							
	• Independent governance and benchmarking reviews	Completed		X							
	• External communications by Board members	Completed	X								
	• Due diligence and reporting for referral of service provider candidates by trustees, along with limits on candidate contacts with trustees during an RFP process	Completed	X								
2.3	Reduce the size of each committee to three or five members to better utilize trustee time.	Reviewed	X								
2.4	Adopt a consent agenda for approval of routine business and reports.	Reviewed	X								
2.5	Conduct periodic board retreats for more in-depth discussion on key topics, conducting board self-evaluations and executive director evaluations, and trustee education.	Completed	X								
2.6	Following implementation of the recommendations in this report, conduct a biennial self-evaluation process, potentially with external assistance; this process should help to inform educational priorities.	Completed	X								
2.7	Define ongoing training requirements for Board members, including onboarding plan for new trustees and required fiduciary training; link training to board self-assessment findings and the calendar of Board agenda action items.	Completed	X		X						
2.8	Formalize a CRS stakeholder communications plan that identifies key stakeholders, communications responsibilities, and messages and objectives.	Completed		X							
2.9	Issue new system email accounts to be used by trustees for all CRS-related business.	Reviewed	X		X						
2.10	Discuss with the Director and the investment consultant how reporting could be improved and executive summaries better utilized to enhance trustee understanding and insight.	Completed		X	X						
2.11	Appoint a Board Audit Committee with oversight of internal and external audits to commission an independent financial audit and obtain internal audit services from the City Internal Audit Department and/or an independent firm; include oversight of enterprise performance and risk in the committee charter responsibilities.	Reviewed		X	X						

3. Investment Program and Operations

#	Recommendation	Status	Board	Board, Adm.	Priority	Board	Goverance	IC	Staff	Performance evaluation	Audit
3.1	Develop a separate Statement of Investment Beliefs (SIB) to guide development and implementation of the strategic asset allocation.	Completed	X								
3.2	Develop a liquidity policy as part of the Investment Policy Statement (IPS) to ensure that the cash needs of the organization are effectively and efficiently met.	Completed	X		X						
3.3	Develop a separate IPS for the 115 Trust (Health Care Trust) that reflects the unique liability structure of the 115 Trust.	Reviewed	X		X						
3.4	Extend the time horizon for the strategic asset allocation to 3-5 years and only make changes to the target asset allocation as part of a comprehensive Asset Liability Study.	Completed	X								
3.5	Include a more comprehensive rebalancing policy in the IPS that describes how rebalancing is linked to the Board's investment philosophy and what the process should be.	Completed	X								
3.6	Discuss with Marquette Associates how reporting might be improved through development of an introductory executive summary, with an exception reporting approach, to the quarterly reporting package focused on actual performance compared to the IPS.	Completed	X		X						

4. Pension Operations

#	Recommendation	Status	Board	Board, Adm.	Priority	Board	Goverance	IC	Staff	Performance evaluation	Audit
4.1	Clarify the Board's responsibilities and role (or lack thereof) in pension and benefits administration.	Completed		X	X						
4.2	Consider if pension staffing resources and capabilities should be improved through Implementation of a member contact center telecommunications system.	Initiated		X	X						
4.3	Develop a long-term plan with service, performance, and cost objectives, to ensure that member self-service, website redesign, and other improvements, are all developed and implemented in a coordinated manner and achieve desired results.	Initiated	X								
4.4	Charter a pension administration cost and performance benchmarking report.	Comleted	X								
4.5	Consult with its actuary and determine if an adjustment to the investment assumed rate of return should be recommended.	Comleted			X						
4.6	Develop and adopt a formal actuarial and funding policy describing responsibilities and frequency of actuarial and asset/liability study processes and addressing investment, demographic and benefit risks.	Initiated	X		X						

5. Administrative Operations

			Board	Board, Adm.	Priority	Board	Goverance	IC	Staff	Performance evaluation	Audit
5.1	**Develop succession planning and implement a cross training program for staff to minimize key person risk and enhance staff development.**	Ongoing		X							
5.2	**Work with the City Administration and the Law Department to delegate authority to the CRS Board to engage external counsel to obtain more timely legal support or unique expertise when appropriate. See also Recommendation 1.3.**	Reviewed		X	X						
5.3	**Develop a long-term IT plan that identifies future needs.**	Completed		X							
5.4	**Work with the City Enterprise Technology Solutions (ETS) Department to ensure security is adequate and tested.**	Completed		X	X						
5.5	**Update the documented disaster recovery plan.**	Completed		X	X						

6. Compliance

			Board	Board, Adm.	Priority	Board	Goverance	IC	Staff	Performance evaluation	Audit
6.1	**Assign leadership, training, and monitoring responsibilities for compliance to ensure compliance with conflict of interest and ethics policies.**	Completed		X	X						
6.2	**Develop a repository of risk-ranked compliance requirements.**	Completed		X							
6.3	**Establish tracking mechanisms to identify and escalate non-compliance.**	Completed		X							

GREEN - SHORTER TERM COMPLETION
RED - LONGER TERM COMPLETION

Board - CRS Board has authority to complete
Board, Adm. - CRS Board and City Administration have shared authority to complete
Priority - CRS Board priority to complete as soon as possible

Note: Some Recommendations may require CSA update.

City of Cincinnati

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EESW

An Ordinance No. 95 - 2025

MODIFYING Article XV, "Retirement System," of the Administrative Code of the City of Cincinnati by **AMENDING** Section 1, "Board of Trustees," to revise the limitation on the terms of board members and to harmonize the Administrative Code with the provisions of the Collaborative Settlement Agreement reached in Sunyak, et. al. v. City of Cincinnati, et. al., Case Number 1:11-cv-445 in the U.S. District Court, Southern District of Ohio, Western Division.

WHEREAS, on May 7, 2015, the City entered into a Collaborative Settlement Agreement ("CSA") to resolve multiple consolidated court cases against the City that were pending in the U.S. District Court for the Southern District of Ohio, Western Division, Case Number 1:11-cv-445; and

WHEREAS, the terms of the CSA prevail over conflicting provisions of Article XV of the Administrative Code; and

WHEREAS, harmonizing the Administrative Code to the terms of the CSA and current policies and procedures of the Cincinnati Retirement System provides increased clarity and transparency; and

WHEREAS, the Cincinnati Retirement System Board ("Board") wants to amend the limitation on the number of terms which board members may serve to provide flexibility and continuity in Board membership and to maintain attendance of a sufficient number of Board members for quorum; and

WHEREAS, the Board has voted to amend the limitation on the number of terms that board members may serve to provide that members may serve a maximum of three consecutive terms, after which board members must wait at least four years before they are eligible to serve again; now, therefore,

BE IT ORDAINED by the Council of the City of Cincinnati, State of Ohio, with three-fourths of its members concurring:

Section 1. That Section 1, "Board of Trustees," of Article XV, "Retirement System," of the Administrative Code of the City of Cincinnati is amended as follows:

ARTICLE XV. – RETIREMENT SYSTEM

Sec. 1. Board of Trustees.

a) The general administration and responsibility for the proper operation of the retirement system shall be vested in a board of trustees. The board of trustees shall consist of nine members:

i. Four members with qualifications specified in subsection (b) shall be appointed by the Mayor with the advice and consent of Council.

ii. Two members, who shall be employee members of the system, shall be elected by deferred members and active members, as defined in Sections 203-1-D and 203-1-A2, who are not currently receiving a retirement benefit.

iii. Three members, who shall be retired members of the system, shall be elected by persons who are receiving retirement allowances, optional benefits, or survivor benefits from the system.

b) At least two of the ~~appointed~~ members who are appointed to ~~of~~ the board pursuant to Article XV, Section 1(a)(i) shall have the following qualifications:

i. Baccalaureate degree from an accredited college or university in finance, economics, business, or other field of study involving financial management; or

ii. A minimum of ten years of experience in pension administration, pension actuarial practice, institutional investment management, employee benefits/investment law, banking, asset/liability management for an insurance company, or university or college professor with a focus on fiduciary or trust fund law or quantitative background in financial theory or actuarial math.

iii. The appointed member shall not have any business, personal, or family interests related to the city or the retirement system that would constitute a conflict of interest, or that would create the appearance of a conflict of interest, with the duties of a trustee. Being a member of the Cincinnati Retirement System or a beneficiary of the Cincinnati Retirement System shall not constitute a conflict of interest.

iv. Residency shall not be considered as a qualification for any appointed member.

v. A current or former elected city official appointed as a member of the board pursuant to this section does not have to meet the requirements of subsection b)i and b)ii of this section. No more than two current or former elected city officials appointed as members of the board pursuant to this section shall be eligible to simultaneously serve as members of the board.

c) Board members shall have terms of the following lengths ~~serve four-year terms, except that~~:

i. Mayoral appointees: Members who are appointed to the board pursuant to Article XV, Section 1(a)(i) may have a term of any length of time not exceeding four years. ~~when the Mayor makes initial appointments to the board under this Article, the Mayor shall appoint two members to serve~~

~~four-year terms, and two members to serve two-year terms, so that the terms overlap to establish continuity in board membership from year to year~~.

ii. Elected members: Members who are elected to the board pursuant to Article XV, Section 1(a)(ii) or (iii) shall serve a term of four years ~~for the initial election of the board members elected pursuant to subsection a)ii of this section, the active employee candidate with the highest vote total shall serve a four-year term and the active employee candidate with the next highest vote total shall serve a two-year term~~.

~~iii. for the initial election of the board members elected pursuant to subsection a)iii of this section, the two retiree candidates with the two highest vote totals shall serve four_year terms and the retiree candidate with the third highest vote total shall serve a two_year term~~.

d) Term limits: ~~Each~~ No board member may serve ~~up to~~ ~~three four-year terms either consecutive or non-consecutive, except that persons serving two-year terms upon their initial appointments to the board may serve the initial term and two subsequent four-year terms~~ consecutive terms consisting of more than twelve years. Appointment to an unexpired term shall be counted against the term limitation except that an interim term of no more than 300 days as provided under Article XV, Section (1)(f) shall not be counted against the term limitation under this subsection. A board member shall not be eligible for appointment or election to a subsequent term if serving the full subsequent term will cause the board member to exceed the twelve-year limitation.

e) Effect of break in service: Re-election or re-appointment to the board after a break in service of less than four years shall be treated as a consecutive term and will be counted against the term limitation under Article XV, Section (1)(d). A board member who reaches the term limit in Article XV, Section 1(d) becomes eligible to serve on the board again four years after the board member left the board. If elected or appointed after the four-year break in service, a new term limit of no more than twelve consecutive years shall apply.

~~e~~f) Each board member shall hold office from the first date of the term until the end of the term for which the member was appointed or elected. ~~Any member appointed to fill a vacancy occurring before the expiration of the term for which the member's predecessor was appointed shall hold office for the remainder of the unexpired term~~. Any member shall continue in office after the expiration date of the member's term until the member's successor takes office~~,~~ or until a period of ~~thirty~~180 days has elapsed, whichever occurs first. The election process shall begin at least 120 days prior to the end of an active board member's term.

i. Appointed members: A vacancy on the board shall be filled in the same manner as the original appointment. If a vacancy occurs in the middle of a term, the member appointed to fill the vacancy shall serve the remainder of the vacated term.

ii. Elected members: ~~If the remaining portion of the unexpired term is nine months or less, the position will remain vacant until the next regularly scheduled election. If the remaining portion of the unexpired term is more than nine months, an election to elect a new board member shall be held in accordance with the election rules promulgated by the board.~~If a vacancy occurs in the position of a board member and the remaining portion of the member's unexpired term is 300 days or less no election shall be held to fill the unexpired term. If a vacancy occurs in the position of a board member and the remaining portion of the member's unexpired term is more than 300 days, an election shall be held to fill the unexpired term.

iii. If a vacancy occurs in the position of a board member elected pursuant to Article XV, Section 1(a)(ii) the remaining active member shall select an active member of the system as an interim replacement to serve until the term ends or until an active member is elected to fill the vacancy.

iv. If a vacancy occurs in the position of a board member elected pursuant to Article XV, Section 1(a)(iii) the remaining retiree members shall select a retiree member of the system as an interim replacement to serve until the term ends or until a retiree member is elected to fill the vacancy.

~~f~~g) An entity authorized to appoint or elect a member under subsection a) shall remove its appointee or representative from the board for any act of misconduct involving the trustee's duties, including breach of fiduciary duty and failure to properly discharge the duties of the trustee, to the extent permitted by state law.

~~g~~h) The board shall meet regularly and shall convene other meetings at the request of the chairperson or a majority of the members. A member who fails to attend at least two-thirds of the regular and special meetings of the board during any two-year period forfeits membership on the board.

~~h~~i) The board shall report to council at least annually on the following issues:

i. Success at meeting the investment and funding objectives.

ii. Investment performance and attribution.

iii. Compliance with conflict of interest and ethics policies.

iv. Compliance with benefit delivery policies.

v. Results of external and internal audit findings and follow-up efforts.

vi. Board member attendance, travel, and educational efforts.

~~i~~j) The board shall vote to disqualify any candidate from seeking election to the board or any member from remaining as a board trustee for any of the following reasons:

i. Finding of dishonesty in any civil proceeding or disciplinary decision.

ii. Conviction of a felony for an act committed while the candidate or member was an adult.

iii. Failure to comply with election requirements established by the board.

Section 2. That this ordinance shall take effect and be in force from and after the earliest period allowed by law.

Passed: April 16, 2025

Aftab Pureval, Mayor

Attest: ______________________
Clerk

Deletions are indicated by strikethrough; additions are indicated by underline.

I HEREBY CERTIFY THAT ORDINANCE NO 95-2025 WAS PUBLISHED IN THE CITY BULLETIN IN ACCORDANCE WITH THE CHARTER ON 4/29/2025
CLERK OF COUNCIL

Classic Values, Innovative Advice

Cincinnati Retirement System

Pension Actuarial Valuation as of December 31, 2024

Presented By

Kevin Woodrich, FSA, EA, MAAA
Janet Cranna, FSA, EA, MAAA

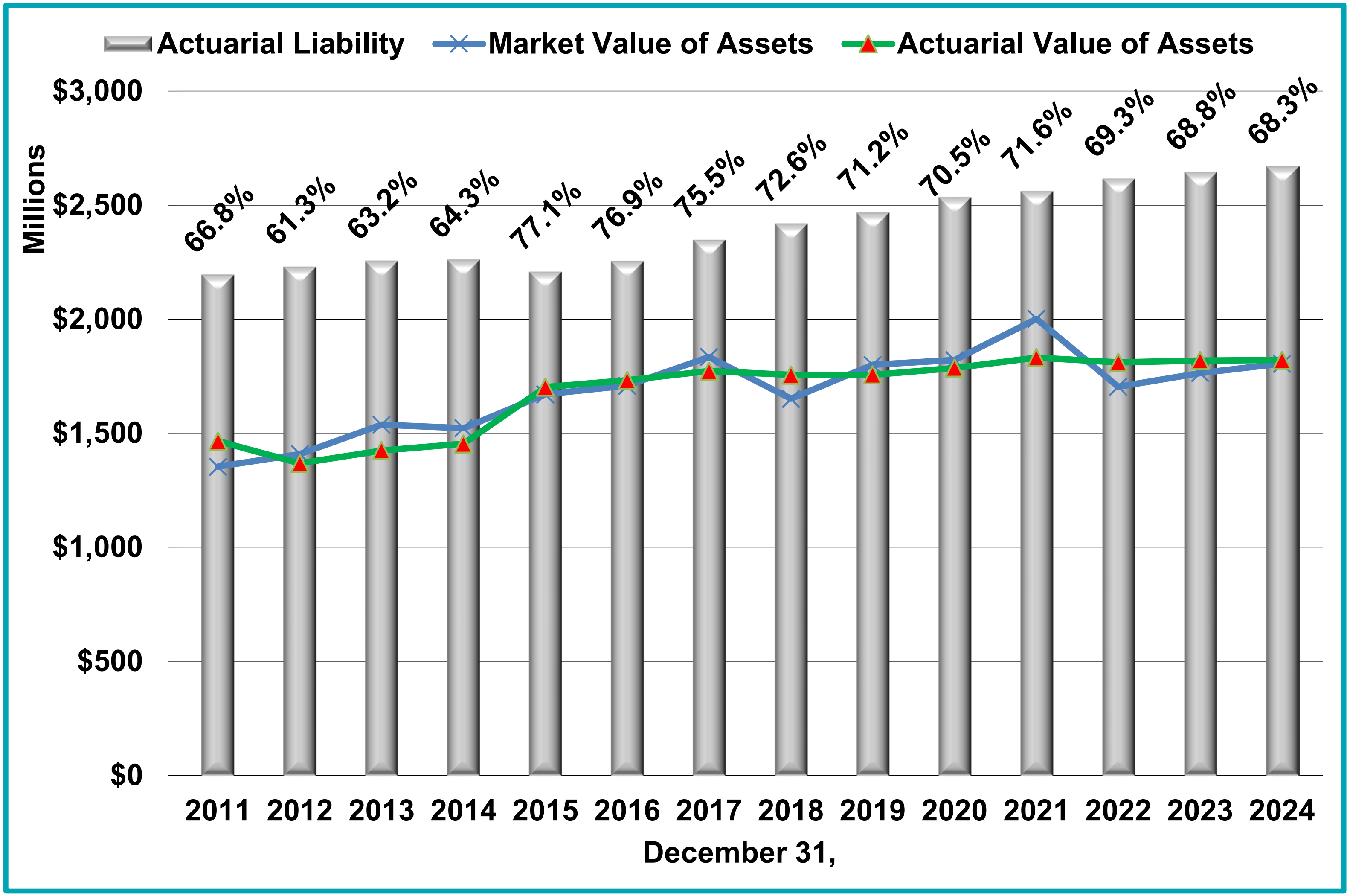
May 1, 2025

Agenda

- Historical Trends
- December 31, 2024 Valuation Results
- Stress Testing

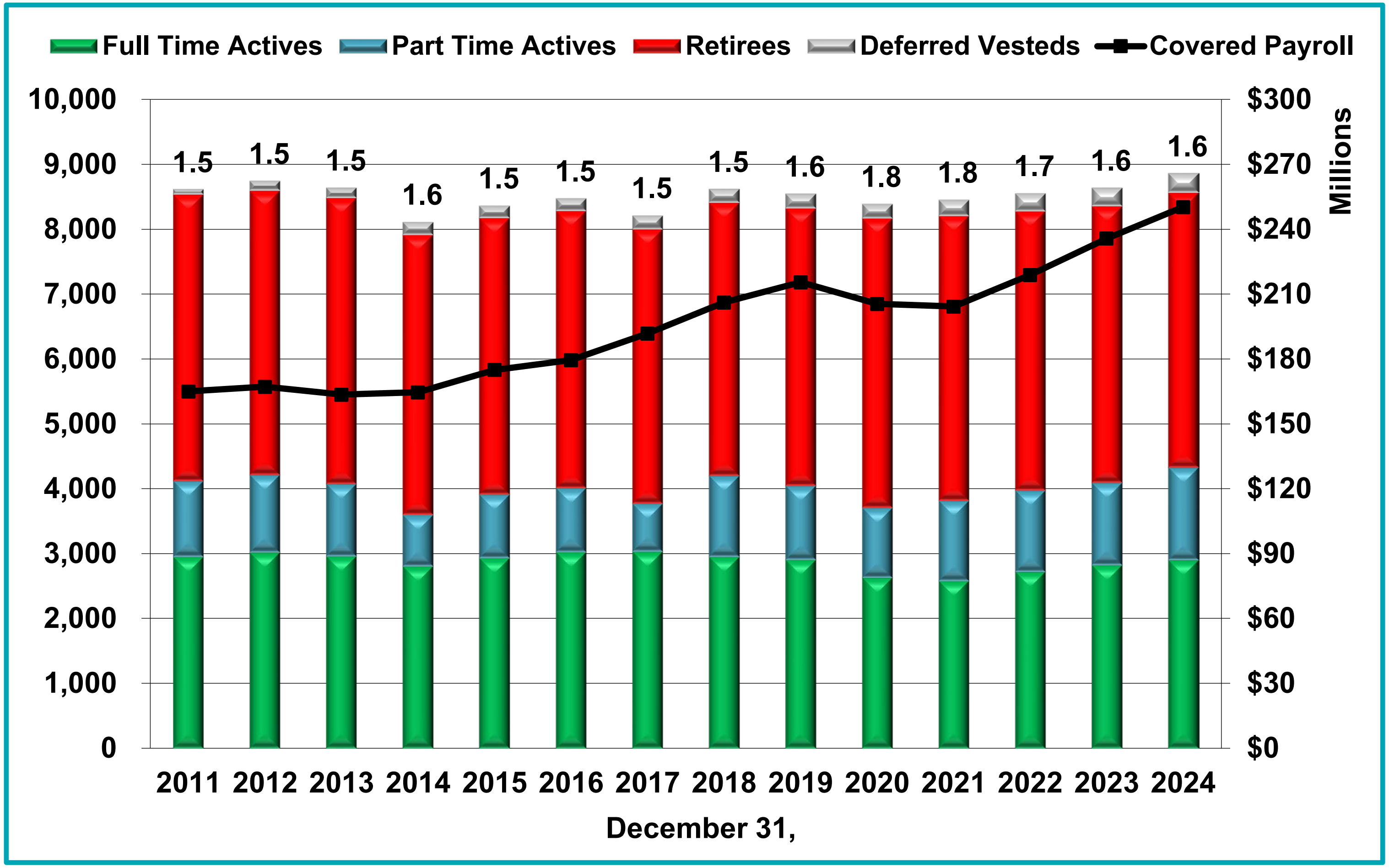
Historical Trends

Assets and Liabilities



Funded status shown above bars is Actuarial Value of Assets divided by Actuarial Liability.

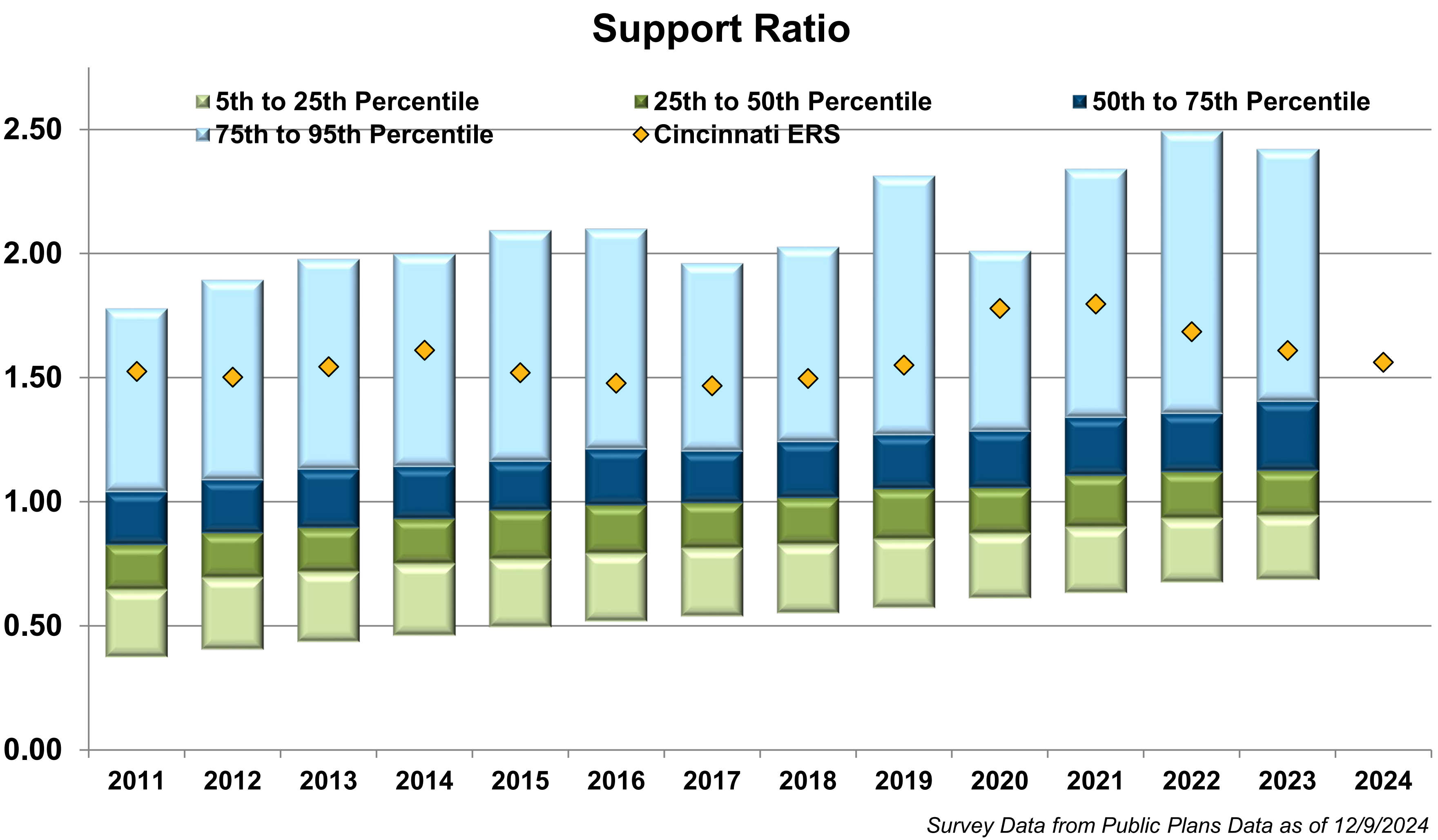
Membership Trends



Support ratio above bars is the ratio of the number of inactives (Retirees and Deferred Vesteds) per active (Full-Time only). Payroll includes Full-Time and Part-Time actives for years shown. Beginning in 2018, amount includes payroll of DROP participants.

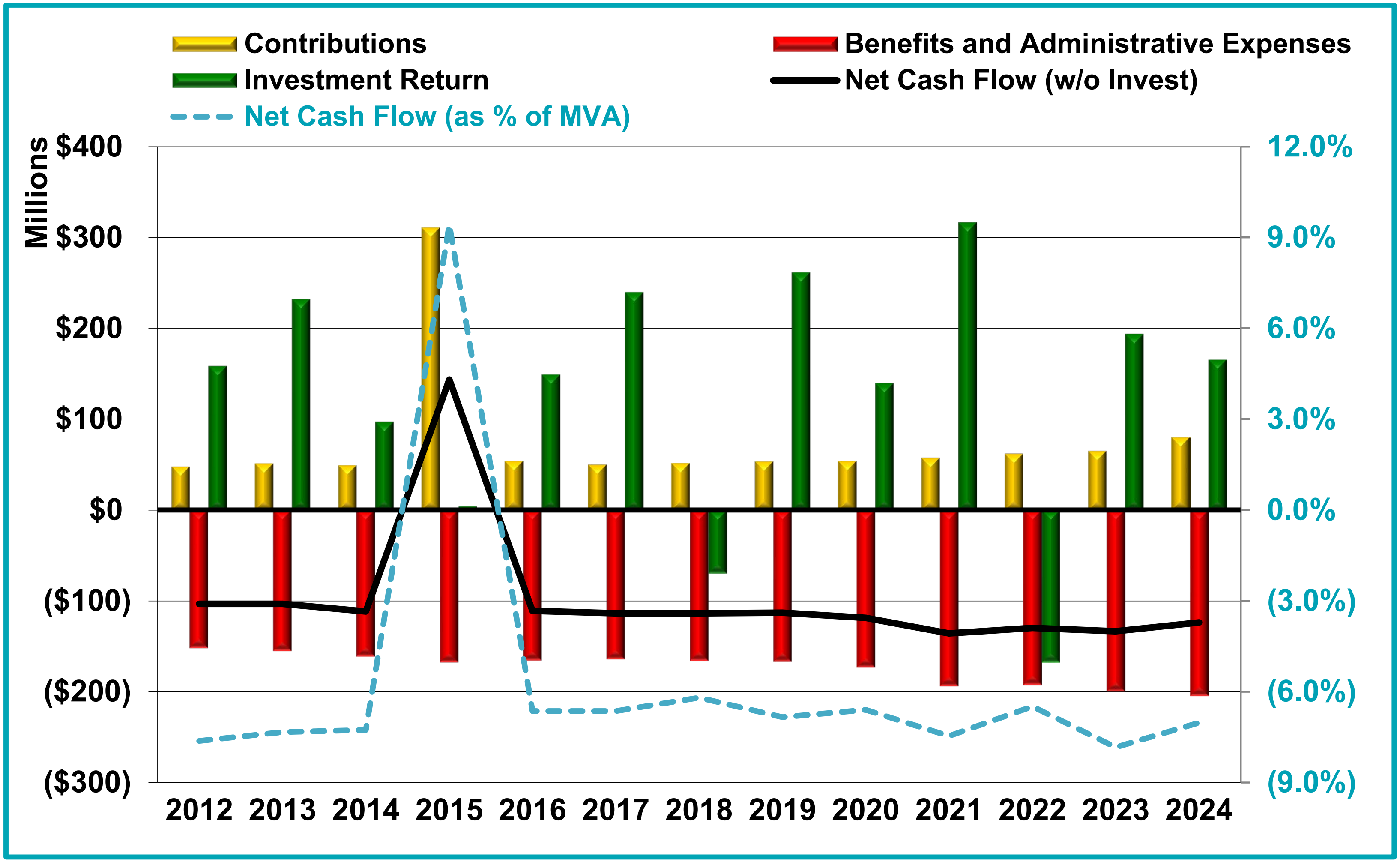
May 1, 2025

Public Survey Comparisons

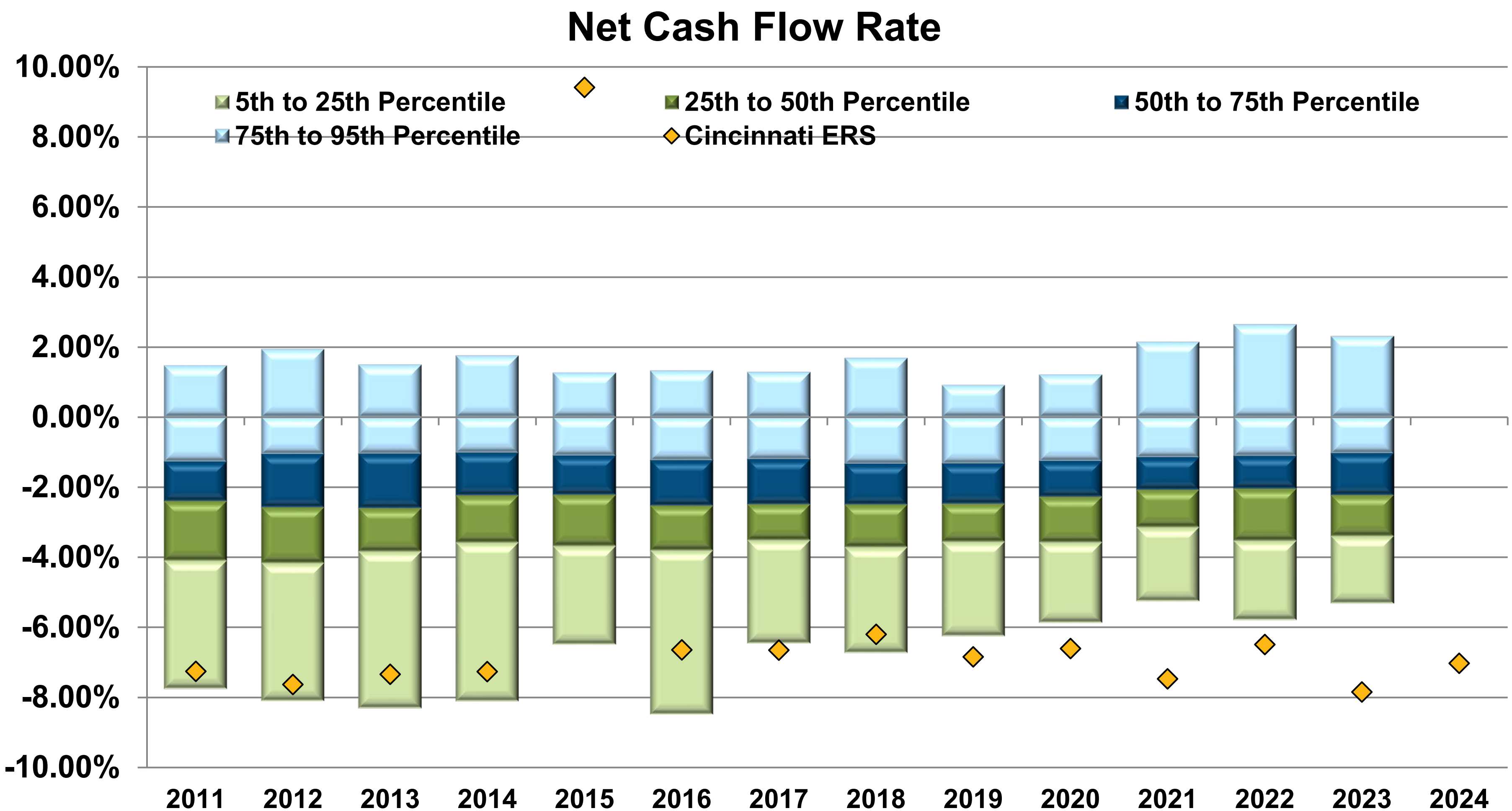


Support ratio is the ratio of the number of inactives (Retirees and Deferred Vesteds) per active (Full Time only).

Cash Flows



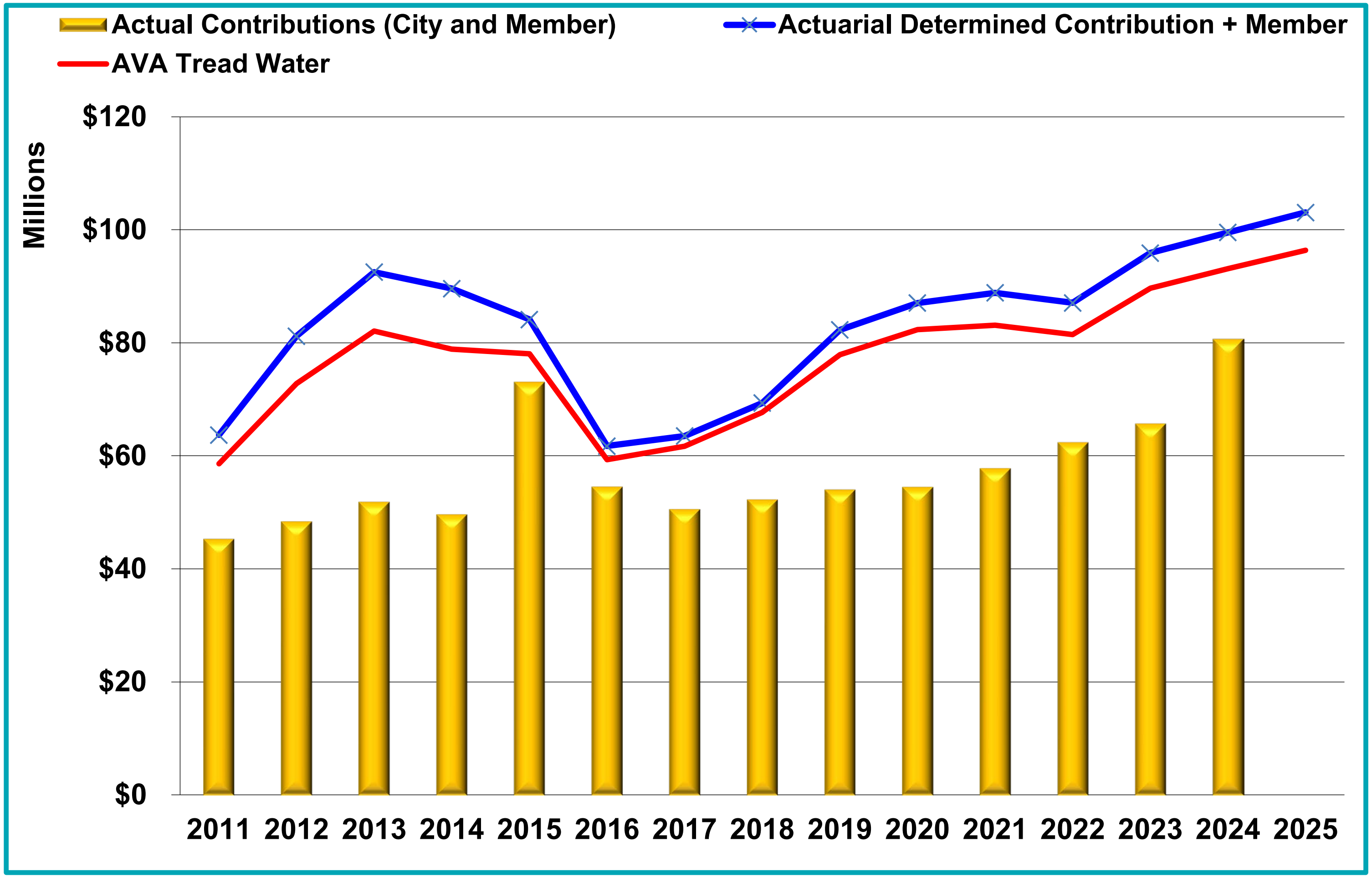
For 2015, there was an additional contribution of $220.0 million per the CSA and $17.9 million for transferred earnings and expenses.



Survey Data from Public Plans Data as of 12/9/2024

For 2015, there was an additional contribution of $220.0 million per the CSA and $17.9 million for transferred earnings and expenses.

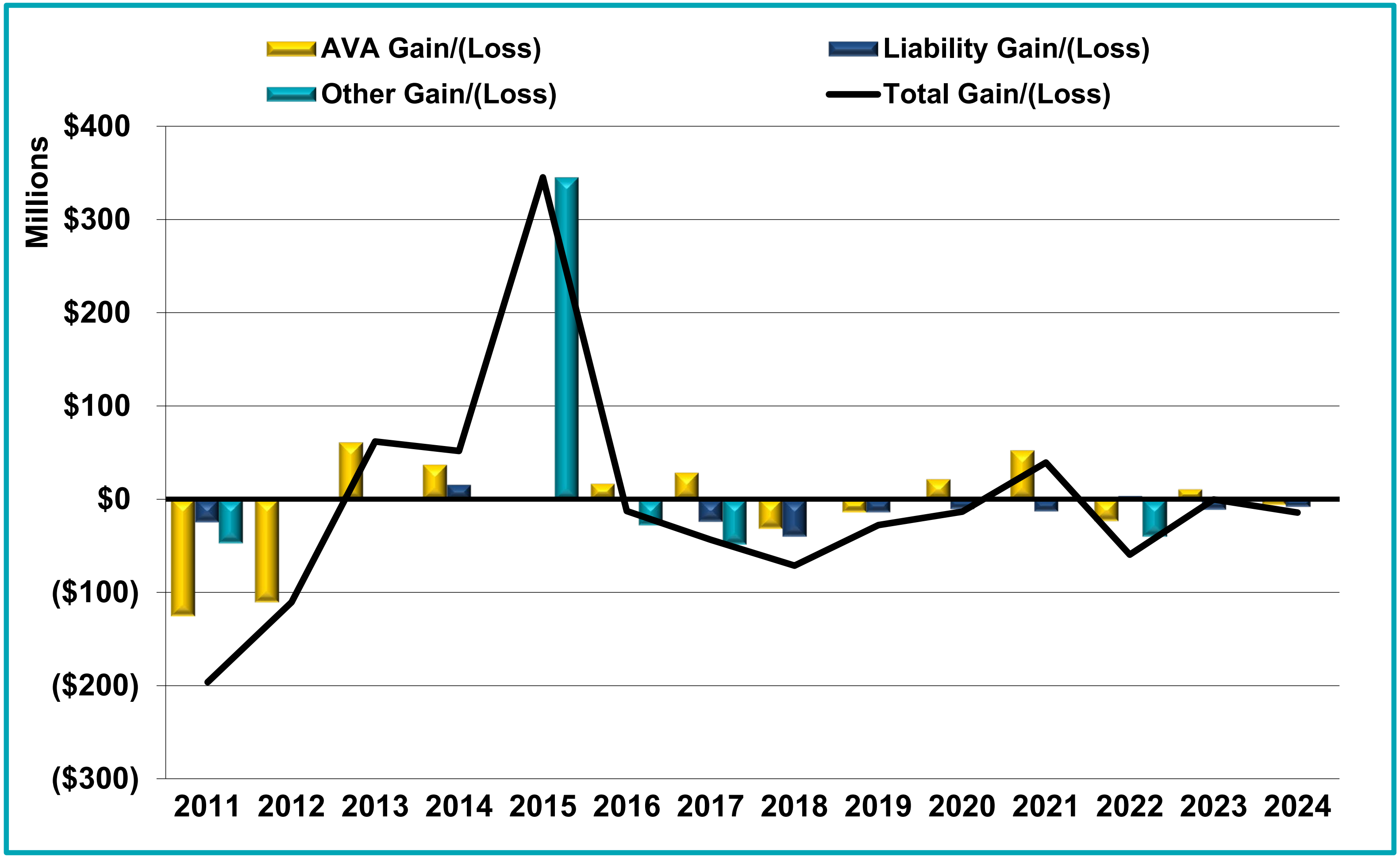
Contribution versus ADC



Actuarial Determined Contribution (ADC) calculated as of December 31 preceding year shown.

For 2015, there was an additional contribution of $220.0 million per the CSA and $17.9 million for transferred earnings and expenses.

Actuarial Gain/(Loss) History



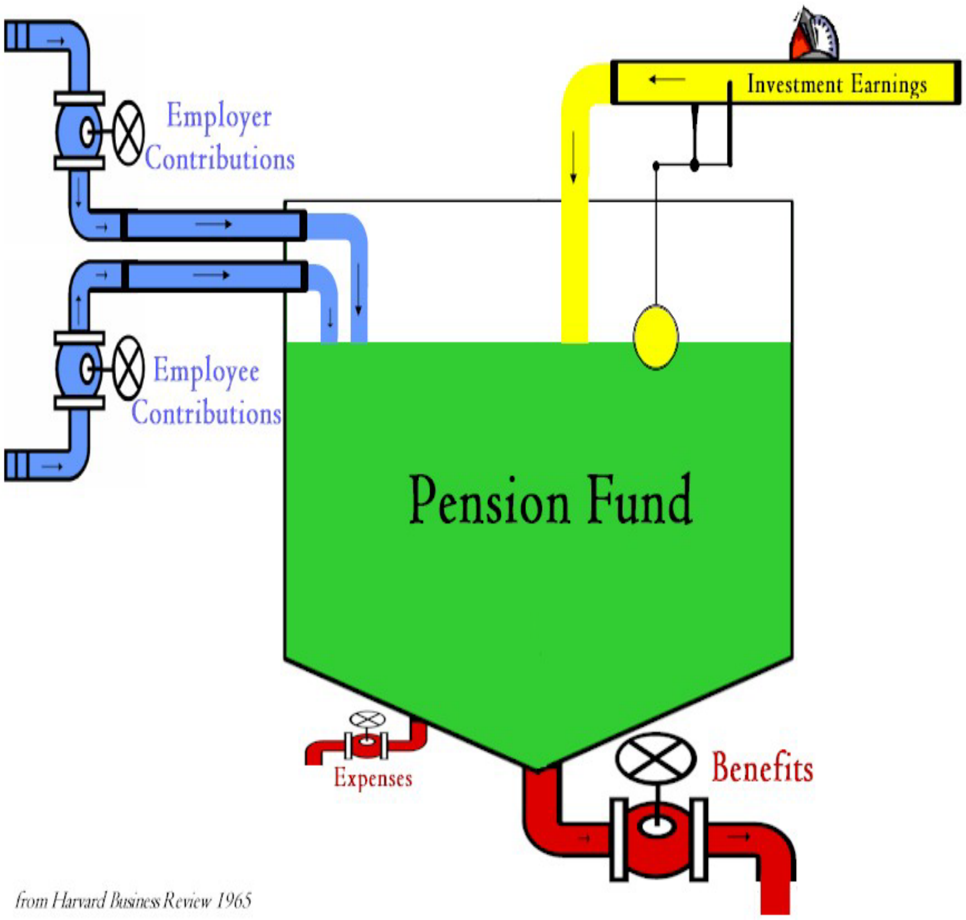
Other Gain/(Loss) includes assumption, method or plan changes.

December 31, 2024 Actuarial Valuation Results

May 1, 2025

The Actuarial Valuation Process

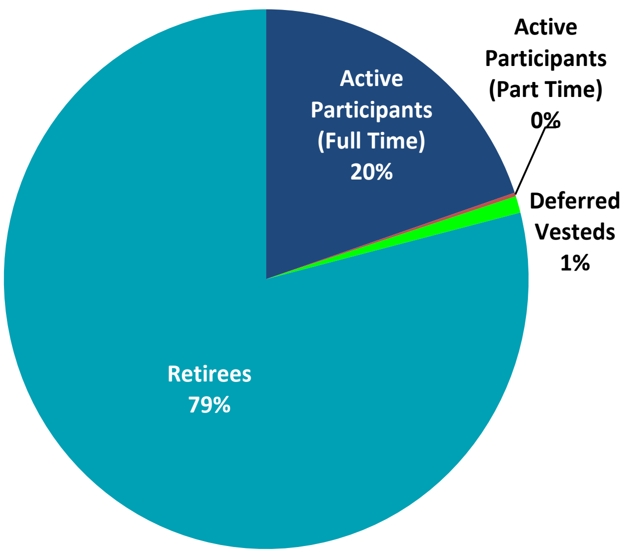
1. Collect information
   - Member data
   - Plan provisions
   - Asset information
2. Apply assumptions
   - Demographic
   - Economic
3. Project all future benefit payments
4. Determine a present value of the benefits
5. Compare to assets
6. Calculate employer and employee contributions



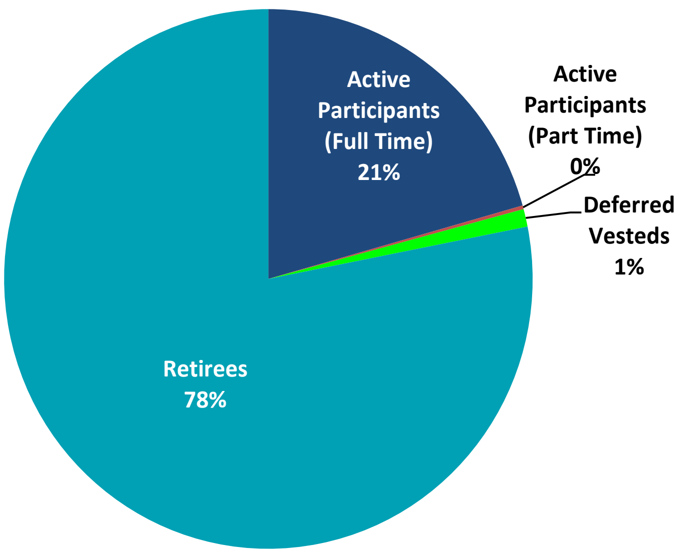
Key Results

- Return on Market Value of Assets = 9.73% (dollar-weighted)
- Return on Actuarial Value of Assets = 7.15%
- Actuarial Determined Contribution rate decreased from 32.46% to 31.43%
  – Despite larger Unfunded Actuarial Liability dollar amount, total payroll (i.e. denominator) increased by 7.6%.
- Funded Ratio (AVA/AL) slightly decreased from 68.8% to 68.3%

December 31, 2023 Actuarial Liability



December 31, 2024 Actuarial Liability



Valuation Results

Key Results

Valuation as of:		December 31, 2023	December 31, 2024	% Change
Participant Counts				
a)	Full Time Actives	2,823	2,900	2.7%
b)	Part Time Actives[1]	1,270	1,427	12.4%
c)	Deferred Vesteds	282	298	5.7%
d)	Members in Pay Status[2]	4,263	4,234	(0.7%)
e)	Total	8,638	8,859	2.6%
f)	Annual Salaries of Full Time Active Members[2]	$ 223,059,661	$ 239,916,648	7.6%
g)	Annual Retirement Allowances	$ 190,059,353	$ 193,592,145	1.9%
Assets and Liabilities				
h)	Present Value of Future Benefits	$ 2,884,673,296	$ 2,925,908,766	1.4%
i)	Actuarial Liability	$ 2,643,382,463	$ 2,667,823,053	0.9%
j)	Actuarial Value of Assets (AVA)	$ 1,819,308,605	$ 1,820,976,645	0.1%
k)	Unfunded Actuarial Liability [(i) - (j)]	$ 824,073,858	$ 846,846,408	2.8%
l)	Funded Ratio on AVA basis [(j) ÷ (i)]	68.8%	68.3%	(0.5%)
m)	Market Value of Assets (MVA)	$ 1,763,884,000	$ 1,805,588,000	2.4%
n)	Funded Ratio on MVA basis [(m) ÷ (i)]	66.7%	67.7%	1.0%
City's Actuarial Determined Contribution (ADC)		FYE June 30, 2025	FYE June 30, 2026	
o)	Gross Normal Cost Rate	12.24%	12.10%	(0.14%)
q)	Plan Changes[3]	1.13%	1.06%	(0.07%)
r)	Unfunded Actuarial Liability Amortization Rate	27.29%	26.47%	(0.82%)
s)	Administrative Expenses	0.80%	0.80%	0.00%
t)	Expected Employee Contributions	(9.00%)	(9.00%)	0.00%
u)	City's ADC Rate [(o) + (p) + (q) + (r) + (s) + (t)]	32.46%	31.43%	(1.03%)

[1] *As of December 31, 2024, 364 of the 1,427 Part Time actives had reported last pay periods before December 2024.*

[2] *Includes 96 and 143 members as of December 31, 2024 and 2023 respectively currently participating in DROP.*

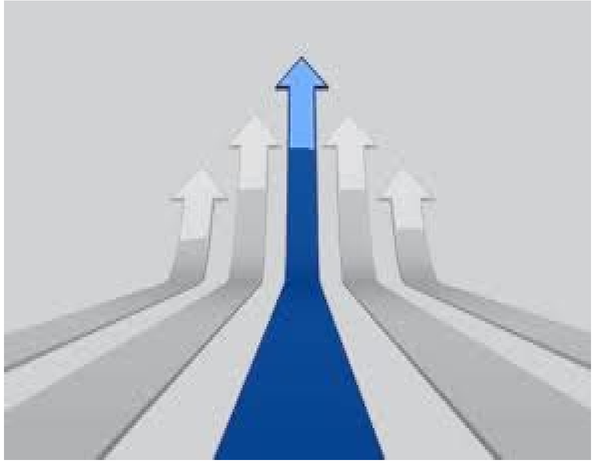
[3] *The City is currently contributing the remaining annual payments of $2.7 million by July 31 of each year, with the last contribution due by July 31, 2035.*

Reconciliation of UAL

($ millions)	Liability	Actuarial Assets	UAL	Funded Ratio
As of December 31, 2023	$2,643.4	$1,819.3	$ 824.1	68.8%
Expected Changes*	$ (176.4)	$ (123.9)	$ (52.5)	
Assumption Changes	0.0	0.0	0.0	
Expected Interest / Invest Return	192.7	131.8	60.9	
Total	$ 16.3	$ 7.9	$ 8.4	
Expected at December 31, 2024	$2,659.7	$1,827.2	$ 832.5	68.7%
Actual at December 31, 2024	$2,667.8	$1,821.0	$ 846.8	68.3%
(Gain) / Loss	$ 8.1	$ 6.2	$ 14.3	

**Normal Cost, Expenses, Contributions, and Benefit Payments*

A Look Ahead



Stress Testing Projections - Baseline

CHEIRON

PYE 12/31	Return	ER Rate
2025	7.50%	17.75%
2026	7.50%	17.75%
2027	7.50%	17.75%
2028	7.50%	17.75%
2029	7.50%	17.75%
2030	7.50%	17.75%
2031	7.50%	17.75%
2032	7.50%	17.75%
2033	7.50%	17.75%
2034	7.50%	17.75%
2035	7.50%	17.75%
2036	7.50%	17.75%
2037	7.50%	17.75%
2038	7.50%	17.75%
2039	7.50%	17.75%
2040	7.50%	17.75%
2041	7.50%	17.75%
2042	7.50%	17.75%
2043	7.50%	17.75%
2044	7.50%	17.75%
Avg	7.50%	

Baseline

Historical

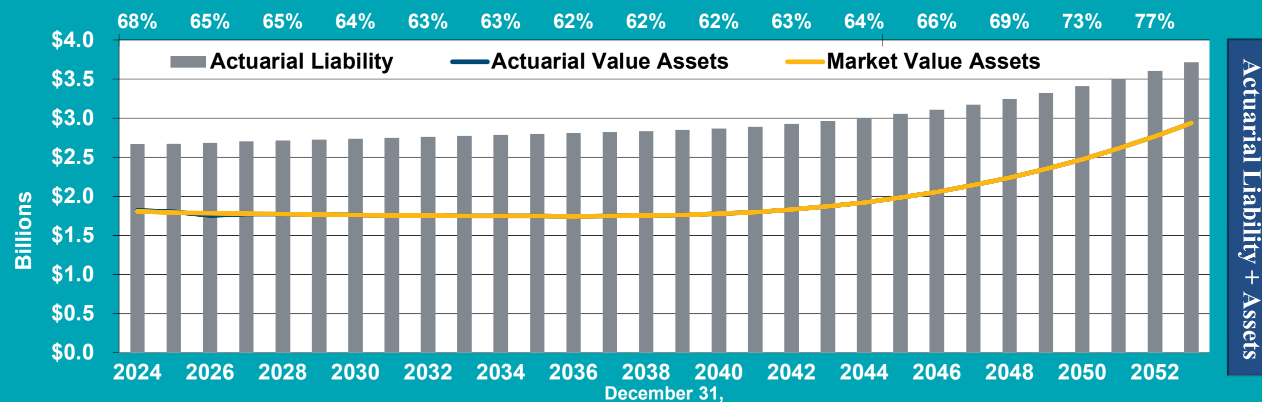
1932

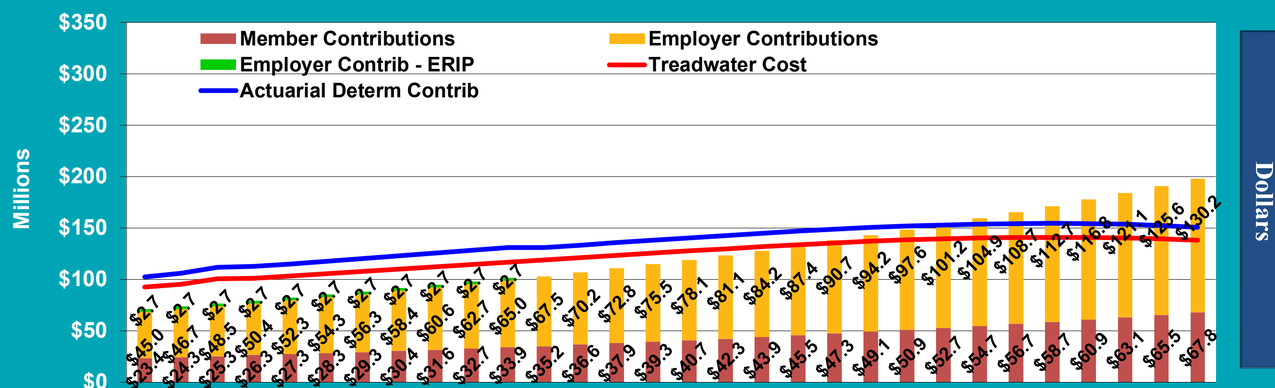
Insolvency Year: Never

Funding Policy

City Funding Policy	Current
EE Contribution Rate	9.00%
ADC Amortization Period	30
1=Fixed, 2=Layers, 3=Rolling	3
Amortization Pay Growth	0.00%

Discount Rate	7.50%
Fully Funded	2061





May 1, 2025

Projections – Implications of 2025

Assumed 2025 Investment Return*	Projected Insolvency Year	Projected Year to be 100% Funded
15.0%	None	2052
7.5%	None	2061
0.0%	None	2074
(7.5%)	None	Beyond 2100
(15.0%)	2052	None

**** Assumed 7.5% per year for 2026 and thereafter and annual contributions based on 17.75% of Full Time payroll.***

Required Disclosures

The purpose of this presentation is to present the actuarial valuation results for the Cincinnati Retirement System (CRS or System). This presentation is for the use of the Board and System staff.

In preparing this presentation, we relied on information (some oral and some written) supplied by the Cincinnati Retirement System. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23, Data Quality.

The actuarial assumptions and methods are the same as those used in the preparation of the Actuarial Valuation Report as of December 31, 2024. The census data provided to us by CRS was as of December 31, 2024.

The assumptions reflect our understanding of the likely future experience of the System, and the assumptions as a whole represent our best estimate for the future experience of the System. The results of this presentation are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from the actuarial assumptions, the true cost of the System could vary from our results.

Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate the liabilities, normal costs and projected benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

Projections in this presentation were developed using *P-Scan*, our proprietary tool for developing deterministic projections to illustrate the impact of changes in assumptions and actual experience (particularly investment experience) on the future financial status of the Plan.

This presentation and its contents were prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This presentation was prepared solely for the Cincinnati Retirement System for the purposes described herein. Other users of this presentation are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

Kevin Woodrich, FSA, EA, MAAA
Principal Consulting Actuary

Janet Cranna, FSA, EA, MAAA
Principal Consulting Actuary

Classic Values, Innovative Advice

12/31/2024 OPEB Actuarial Valuation

May 1, 2025

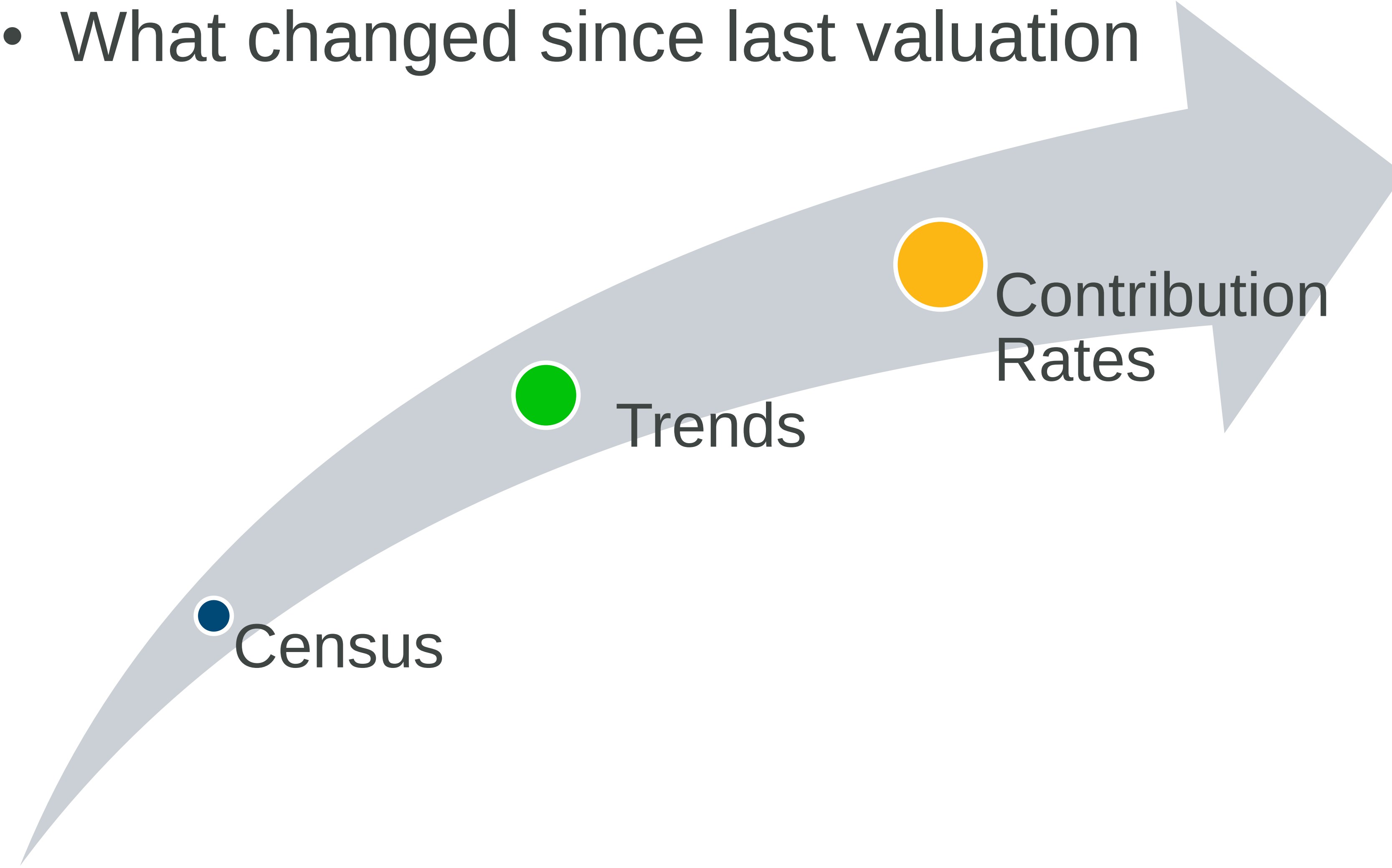
Gaelle Gravot, FSA, MAAA
Beth Mercer, FSA, EA, MAAA

Topics for Discussion

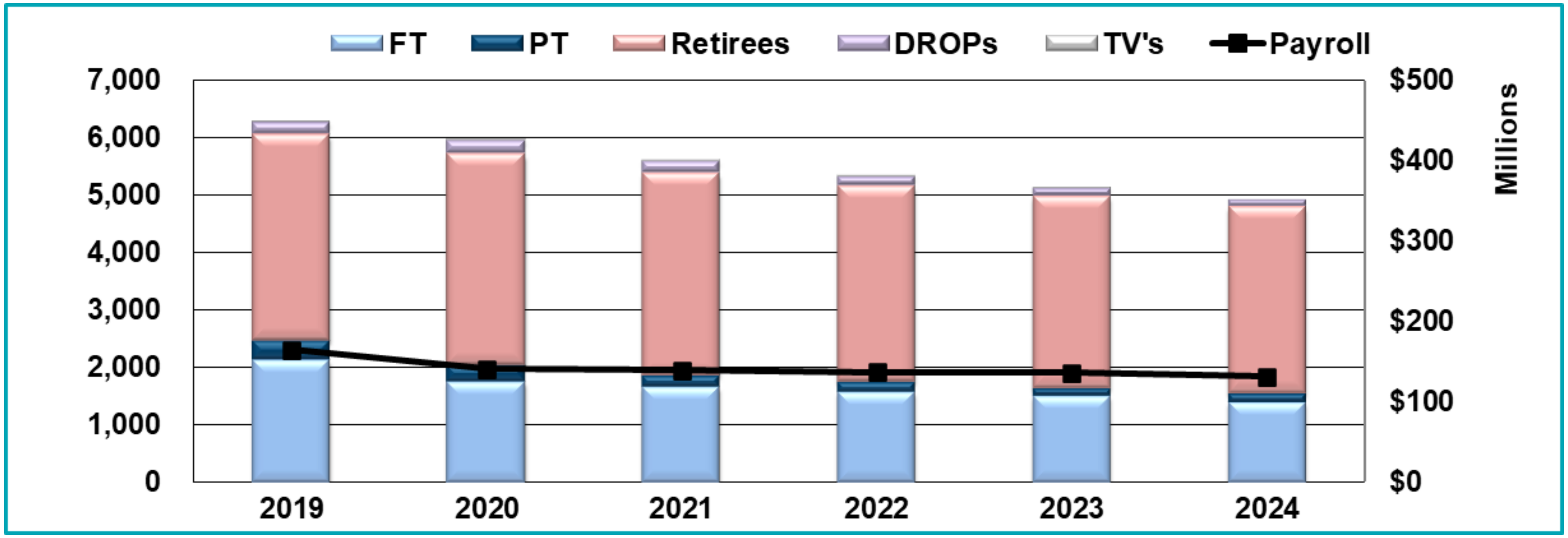
- Review of 12/31/2024 OPEB Actuarial Valuation
- Projections
- Next steps

About 2024 Actuarial Valuation

- What changed since last valuation



Historical Participant Information



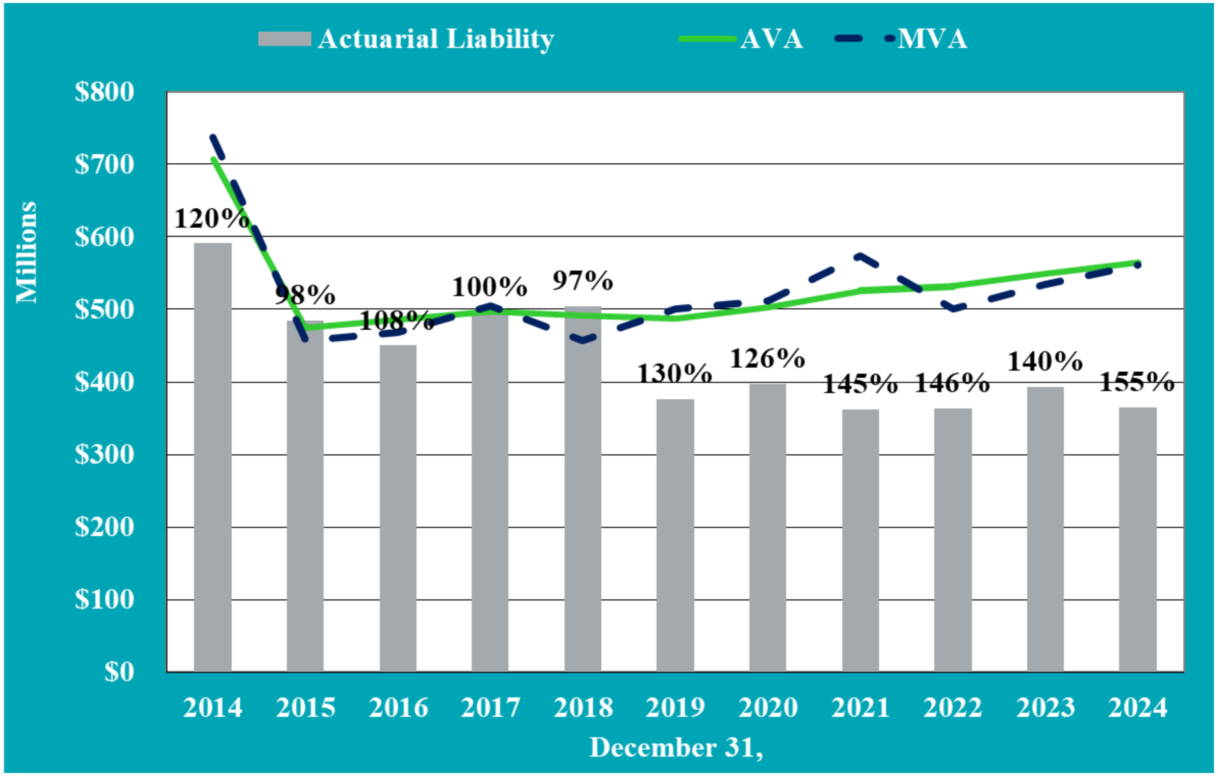
- Plan was closed December 31, 2015

Year	FT	PT	Retirees	DROP	TV's	Spouses*
2019	2,151	330	3,565	217	26	1,361
2020	1,767	279	3,683	209	25	1,427
2021	1,673	210	3,511	185	20	1,398
2022	1,593	163	3,409	157	18	1,353
2023	1,514	135	3,330	141	19	1,298
2024	1,414	144	3,259	95	19	1,246

* Spouses not shown above in graph

Historical Information (AL vs Assets)

As of December 31, 2024, the Fund is 155.0% funded on an AVA basis, and 153.9% on a MVA basis



- Plan was closed December 31, 2015
- Drop in liability in 2016 due to lower anticipated drug costs, contribution rate changes, and the asset Drop was due to transfer of assets to the pension
- Move to MA plan effective January 1, 2020, reduced 2019 liabilities by over $127 million

12/31/2024 Valuation Participant Data

Group	December 31, 2023	December 31, 2024
Active Participants		
Active Full Time Employees	1,514	1,414
Active Part Time Employees	135	144
Active DROP Employees	141	95
Total Actives and Active DROP Included in Valuation	**1,790**	**1,653**
Covered Payroll	$136,226,593	$131,267,041
Other Actives - Ineligible for Retiree Health Benefits		
Active Full Time Employees - ineligible for retiree health benefits	1,526	1,743
Active Part Time Employees - ineligible for retiree health benefits	630	674
Total Actives - Ineligible for Retiree Health Benefits	2,156	2,417
Total Actives	**3,946**	**4,070**
Total Compensation	$235,731,737	$250,220,037
Inactive Participants		
Number of retirees and surviving spouses currently receiving retiree health benefits	3,330	3,259
Spouses currently receiving retiree health benefits	1,298	1,246
Total - Retirees and Spouses Receiving Benefits	**4,628**	**4,505**
Retired members and surviving spouses not currently receiving retiree health benefits but may elect coverage in the future	328	409
Total - Retirees and Spouses	**4,956**	**4,914**
Terminated vested members eligible for retiree health benefits	19	19
Terminated vested members not eligible for retiree health benefits	261	279
Total Inactives	**5,236**	**5,212**

12/31/2024 Valuation Results

- The results below are used for the Funding of the OPEB Trust and are not applicable for the financial statements
- These results are used to determine the Actuarially Determined Contribution (ADC), which is $0

Summary of Valuation Results				
Valuation Date		**December 31, 2023**		**December 31, 2024**
Discount Rate		7.50%		7.50%
Actuarial Liability (AL)	$	393,177,787	$	364,355,955
Actuarial Value of Assets		549,871,265		564,669,589
Unfunded actuarial liability (UAL)	**$**	**(156,693,478)**	**$**	**(200,313,634)**
Funded Ratio (AVA/AL)		139.85%		154.98%
Market Value of Assets	$	533,879,000	$	560,885,000
Funded Ratio (MVA/AL)		135.79%		153.94%
Fiscal Year Ending		**June 30, 2025**		**June 30, 2026**
Actuarially Determined Contribution	$	0	$	0
Calendar Year		**2024**		**2025**
Actual/Expected Net Benefit Payments		23,096,000		28,632,831

12/31/2024 Valuation Detail

The Trust remains over funded as of December 31, 2024

Actuarial Liability		
Valuation Date	**December 31, 2023**	**December 31, 2024**
Discount Rate	7.50%	7.50%
Actuarial Liability		
Current active members	$ 103,947,939	$ 94,792,053
Current retirees, beneficiaries, and dependents	289,229,848	269,563,902
Total Actuarial Liability (AL)	**$ 393,177,787**	**$ 364,355,955**
Actuarial Value of Assets (AVA)	549,871,265	564,669,589
Unfunded Actuarial Liability (UAL)	**$ (156,693,478)**	**$ (200,313,634)**
Funded Ratio (AVA/AL)	139.85%	154.98%
Market Value of Assets (MVA)	$ 533,879,000	$ 560,885,000
Unfunded Actuarial Liability (UAL)	**$ (140,701,213)**	**$ (196,529,045)**
Funded Ratio (MVA/AL)	135.79%	153.94%
Normal Cost	**$ 2,542,224**	**$ 2,442,338**

12/31/2024 Valuation Reconciliation

Reconciliation of Actuarial Liability		
Actuarial Liability at December 31, 2023	**$**	**393,177,787**
Normal Cost		2,542,224
Expected Benefits paid throughout the year		(27,097,862)
Interest		28,662,831
Expected Actuarial Liability at December 31, 2024	$	397,284,980
Actuarial Liability at December 31, 2024		**364,355,955**
(Gain) or Loss	$	(32,929,025)
(Gain) or Loss due to:		
Benefit changes	$	-
Census changes		(6,953,864)
Demographic Assumption changes		-
Trend Changes		(31,443,518)
Contribution Changes		5,468,357
Total changes	$	(32,929,025)

- Census change - $6.9 million gain
  - Was primarily due to reduction in the active and inactive populations
- Trend Changes - $31.4 million gain
  - The trend assumption was updated to reflect the updates to the implementation of the Inflation Reduction Act on the Medicare Part D (pharmacy EGWP) benefit.
- Contribution Changes - $5.5 million loss
  - The model contribution schedule was updated as of July 1, 2024, and the updated 2025 premiums have also been recognized.

12/31/2024 Valuation Projections – 7.5%

H-scan OPEB

Stress Testing

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Increase in trends: 0.00%

Health Trends	Starting Trend	2025 Year	2026 Year	2027 Year	2028 Year	2029 Year	2030 Year	2031 Year	2032 Year	2033 Year	Ultimate Trend	Years to Ultimate
Pre-Med	7.80%	6.20%	5.60%	5.50%	5.39%	5.29%	5.18%	5.08%	4.97%	4.65%	4.04%	19
Post-Med	11.22%	6.89%	5.60%	5.50%	5.39%	5.29%	5.18%	5.08%	4.97%	4.65%	4.04%	19

Valuation Year	31-Dec 2024	Valuation Method	EAN
Total or Closed Payroll	Total	Investment Return	7.50%
Open or Fixed Amortizatio	Open	GASB 74 Discount Rate	7.50%
Actuarial Amort. Years	30	ADC Max % Payroll	2.00%
Average Salary Increases	3.25%	2025 calendar year return	7.50%

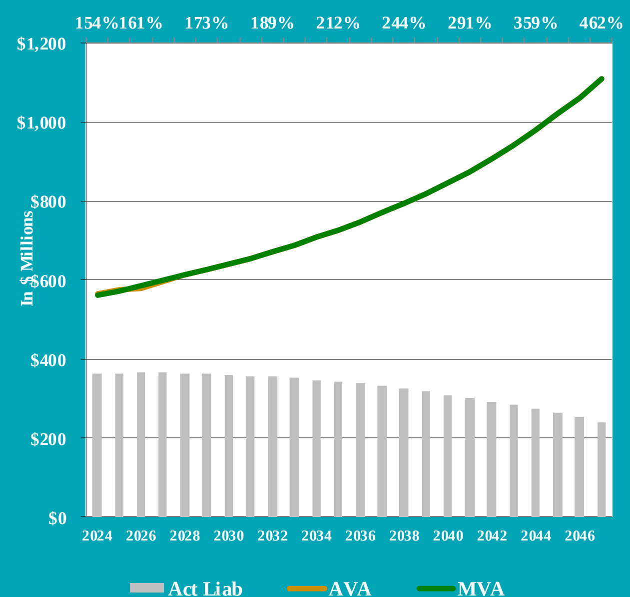
Baseline | Historical

2001

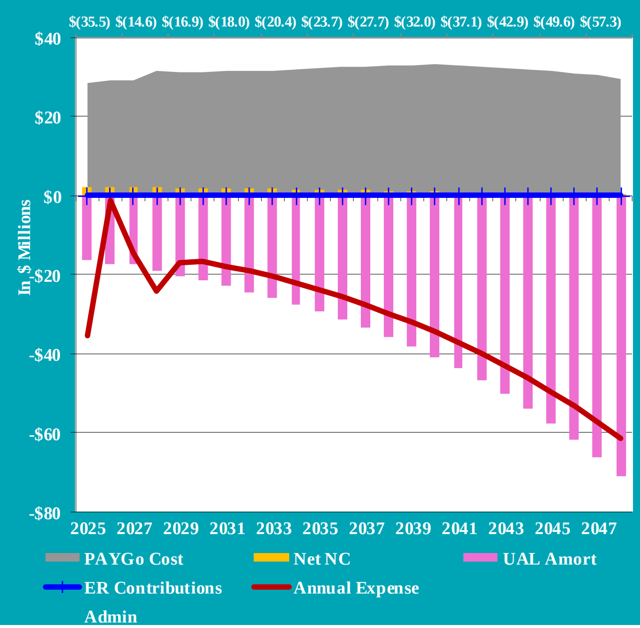
Equity % 80%

Calendar Year	
2025	7.50%
2026	7.50%
2027	7.50%
2028	7.50%
2029	7.50%
2030	7.50%
2031	7.50%
2032	7.50%
2033	7.50%
2034	7.50%
2035	7.50%
2036	7.50%
2037	7.50%
2038	7.50%
2039	7.50%
2040	7.50%
2041	7.50%
2042	7.50%
2043	7.50%
2044	7.50%
Avg	7.50%

Assets and Liabilities



Plan Expense and Funding
Fiscal Year Ending



12/31/2024 Valuation Projections
2025 Return Negative 23%

H-scan OPEB

Stress Testing

CHEIRON Classic Values, Innovative Advice.

Increase in trends

0.00%

Health Trends	Starting Trend	2025 Year	2026 Year	2027 Year	2028 Year	2029 Year	2030 Year	2031 Year	2032 Year	2033 Year	Ultimate Trend	Years to Ultimate
Pre-Med	7.80%	6.20%	5.60%	5.50%	5.39%	5.29%	5.18%	5.08%	4.97%	4.65%	4.04%	19
Post-Med	11.22%	6.89%	5.60%	5.50%	5.39%	5.29%	5.18%	5.08%	4.97%	4.65%	4.04%	19

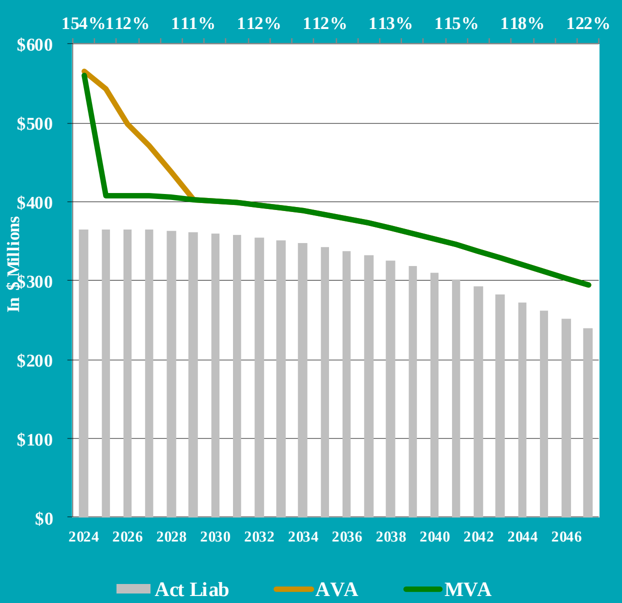
Valuation Year	31-Dec 2024	Valuation Method	EAN
Total or Closed Payroll	Total	Investment Return	7.50%
Open or Fixed Amortizatio	Open	GASB 74 Discount Rate	7.50%
Actuarial Amort. Years	30	ADC Max % Payroll	2.00%
Average Salary Increases	3.25%	2025 calendar year return	-23.00%

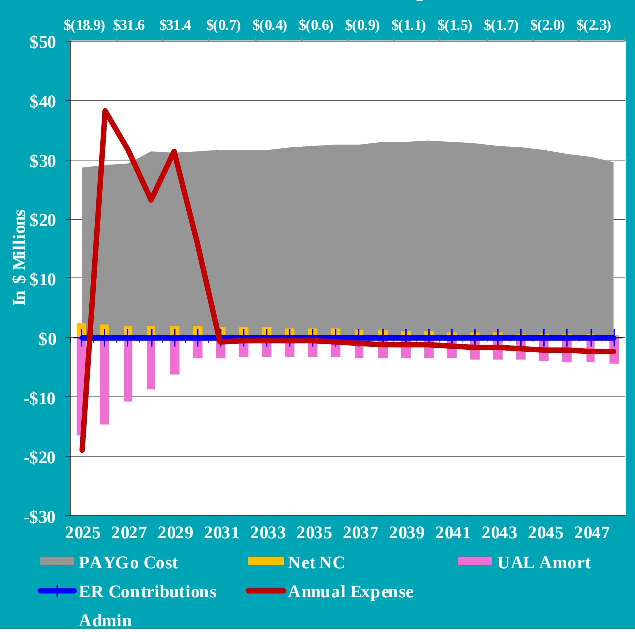
Baseline Historical

2001

Equity % 80%

Calendar Year	
2025	-23.00%
2026	7.50%
2027	7.50%
2028	7.50%
2029	7.50%
2030	7.50%
2031	7.50%
2032	7.50%
2033	7.50%
2034	7.50%
2035	7.50%
2036	7.50%
2037	7.50%
2038	7.50%
2039	7.50%
2040	7.50%
2041	7.50%
2042	7.50%
2043	7.50%
2044	7.50%
Avg	5.72%





12/31/2024 Valuation Projections – Average 7.26%
20 Year Historical Asset Mix (80% Equities / 20% Fixed)

H-scan OPEB

Stress Testing

Increase in trends

0.00%

Health Trends	Starting Trend	2025 Year	2026 Year	2027 Year	2028 Year	2029 Year	2030 Year	2031 Year	2032 Year	2033 Year	Ultimate Trend	Years to Ultimate
Pre-Med	7.80%	6.20%	5.60%	5.50%	5.39%	5.29%	5.18%	5.08%	4.97%	4.65%	4.04%	19
Post-Med	11.22%	6.89%	5.60%	5.50%	5.39%	5.29%	5.18%	5.08%	4.97%	4.65%	4.04%	19

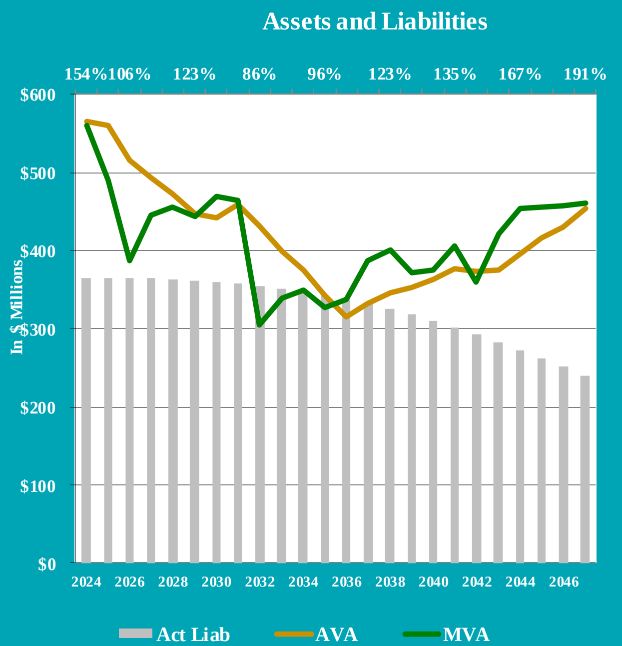
Valuation Year	31-Dec 2024	Valuation Method	EAN
Total or Closed Payroll	Total	Investment Return	7.50%
Open or Fixed Amortizatio	Open	GASB 74 Discount Rate	7.50%
Actuarial Amort. Years	30	ADC Max % Payroll	2.00%
Average Salary Increases	3.25%	2025 calendar year return	7.50%

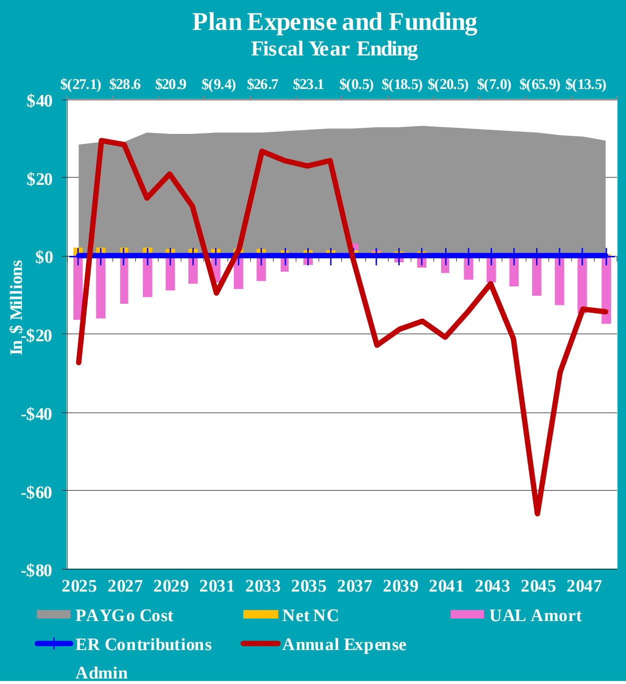
Baseline Historical

2001

Equity % 80%

Calendar Year	
2025	-7.82%
2026	-15.63%
2027	23.78%
2028	9.57%
2029	4.42%
2030	13.50%
2031	5.79%
2032	-28.55%
2033	22.36%
2034	13.40%
2035	3.26%
2036	13.65%
2037	25.51%
2038	12.14%
2039	1.22%
2040	10.10%
2041	18.17%
2042	-3.51%
2043	26.93%
2044	16.22%
Avg	7.26%





Next Steps

- GASB 74/75
  - Determine the blended discount rate
    - Preliminarily, the Fund should pass the depletion testing if assets return at least -23%
    - If test is passed, will use 7.5% for 6/30/2025
    - If test is *not* passed, the discount rate will be blended
    - Highly dependent on investment returns
      - Example, if return is -25%, the blended rate could be 6.8%
  - Draft GASB 75 report and provide in October 2025
- Develop contribution rates for the three health plans as of January 1, 2026
  - Provide results by September 2025

Disclosures

The purpose of this presentation is to present the results from the December 31, 2024, Retiree Health Benefits Plan for the City of Cincinnati OPEB Plan. Other users of this presentation are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other user.

In preparing this presentation, we relied on information, some oral and some written, supplied by the Cincinnati’s staff, its vendors. This information includes, but is not limited to, the plan provisions, member data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The analysis was based on financial data through December 31, 2024 and the January 1, 2025 membership data. Unless otherwise noted, the assumptions and methods are outlined in the December 31, 2024 Actuarial Valuation Report. Future results may differ significantly from this presentation due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable law.

Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate the liabilities, normal costs and projected benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

This report includes projections of future contributions, claims, assets, reserves, funded status for the purpose of assisting the Board of Trustees with the management of the Fund. We have used Cheiron’s H-Scan model to develop these projections. The model is also used to stress test the impact of volatile asset returns over the projection period.

This presentation and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

Gaelle Gravot, FSA, MAAA
Principal Consulting Actuary

Beth Mercer, FSA, EA, MAAA
Principal Consulting Actuary

Appendices

Eligibility

Per Ordinance 336-2016 adopted by the City Council on October 26, 2016, employees hired after December 31, 2015, **are not** eligible to receive retiree health benefits.

Eligibility requirements:

- Age 60 with 20 years of service (yos) (15 years of service for Group C) or 30 years of service at any age

- At least 20 years of service must be CRS membership service

Benefits Offered

- Medical, Prescription Drugs, Dental and Vision
- Eligible retirees, beneficiaries, and their dependents Pre and Post Medicare Eligibility
- Three Retiree Medical Plans:

Secure*	Select	Model
Retired prior to 9/1/07 with income <$30K	Group C, or retired between 9/1/07 and 1/1/16	Not Group C and retired after 1/1/16

* Participants not meeting the income requirement can elect either the Select or Model plan.

App A. CRS Health Benefits

Contribution Rules

	Secure	Select	Model
Group 1 (hired before 1/9/97)	$0	5% of full cost adjusted for Medicare Eligibility	10% of full cost adjusted for Medicare Eligibility
Group 2 (hired after 1/9/97)	$0	Varies - See sliding scale below	Varies - See Sliding scale below

Sliding Scale

Points	Select	Points	Model
90+	5%	85+	10%
80-89	25%	80-84	20%
70-79	50%	70-79	40%
60-69	75%	60-69	60%

Plan Benefit Comparison

Non-Medicare	Secure	Select	Model
Deductible (Ind / Fam)[1]	$0/$0	$300/$600	$500/$1,000
Coinsurance (INN / OON)[2]	20% / 50%	20% / 50%	20% / 50%
Out-of-Pocket Max (OOP Max)	$500 / $1,000	$1,500 / $3,000	$2,000 / $4,000
OON Deductible / OOP Max	2 x INN	2 x INN	2 x INN
Prescription Drug Mail Order	$5 / $15 / $30 $10 / $30 / $60	$10 / $20 / $30 $20 / $40 / $60	$10 / $20 / $30 $20 / $40 / $60
Medicare	**Secure**	**Select**	**Model**
Deductible (Ind)[1]	$0	$300	$500
Coinsurance (INN / OON)[2]	4% / 10%	4% / 10%	4% / 10%
Out-of-Pocket Max (OOP Max)	$500	$1,500	$2,000
OON Deductible / OOP Max	Combined INN	Combined INN	Combined INN
Prescription Drug Mail Order	$5 / $15 / $30 $10 / $30 / $60	$10 / $20 / $30 $20 / $40 / $60	$10 / $20 / $30 $20 / $40 / $60

[1] Ind / Fam: Individual / Family

[2] INN / OON: In-Network / Out-of-Network

App B. Actuarial Valuation Assumptions

- Demographic assumptions
  - Based on the City's 2023 actuary's experience study adopted March 23, 2023

- Economic assumptions:
  - Based on claims experience through December 2023
  - Trends reflect future information in medical and drug costs, plan design and general inflation

Claims Development

- 2024 claims were developed based on the calendar year (CY) 2021, 2022 and 2023 claims broken down by the three plans and four population subsets (Medicare Eligible Part A&B (ME part AB), Medicare Eligible Part B Only(ME part B), Medicare Eligible Part A Only (ME part A) and Non-Medicare Eligible (NME)).
- Retirees are enrolled in:
  - The Medicare Advantage plans if Part A&B, or Part B only eligible
  - The self-insured medical plans otherwise
- All participants age 65+ are assumed to be eligible for Part D

Trends

Trends were developed by determining the expected increase in trends for each type of coverage, medical vs pharmacy, Non-Medicare and Medicare. The Drug ME trend reflects our current understanding and the emerging market reaction to the redesign of Part D under the Inflation Reduction Act (IRA) of 2022.

Year	Medical NME	Medical ME	Drug NME	Drug ME
2024	**8.00%**	**0.00%**	**10.00%**	**-2.60%**
2025	7.75%	12.15%	8.00%	10.90%
2044 (Ultimate)	4.04%	4.04%	4.04%	4.04%

CHEIRON

Classic Values, Innovative Advice

THANK YOU!

Classic Values, Innovative Advice

Cincinnati Retirement System

Actuarial Valuation as of December 31, 2024

Produced by Cheiron

April 2025

TABLE OF CONTENTS

April 16, 2025

Board of Trustees
Cincinnati Retirement System
801 Plum Street, Suite 328
Cincinnati, Ohio 45202

Re: ***Cincinnati Retirement System***
Actuarial Valuation as of December 31, 2024

Dear Members of the Board,

At your request, we have conducted our annual actuarial valuation of the Cincinnati Retirement System (CRS or System) as of December 31, 2024. The results of the valuation are contained in this report. The purpose of this report is to present the annual actuarial valuation of the Cincinnati Retirement System. This report is for the use of the Cincinnati Retirement System Board of Trustees and its auditors in preparing financial reports in accordance with applicable law and accounting requirements.

The results of this report are only applicable to the Fiscal Year Ending June 30, 2026, and rely on future plan experience conforming to the underlying assumptions. To the extent that actual plan experience deviates from the underlying assumptions, the results would vary accordingly.

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 assumptions, changes in assumptions, and changes in plan provisions or applicable law.

The actuarial assumptions are the same as those used in the December 31, 2023 valuation. The demographic and economic (other than the investment return) actuarial assumptions are based on the recommended assumptions from the January 1, 2017 to December 31, 2021 Experience Study, approved by the Board of Trustees on March 23, 2023. An investment return assumption of 7.50% was used as prescribed by item 29 of the Collaborative Settlement Agreement (CSA) signed October 5, 2015.

In preparing our report, we relied on information (some oral and some written) supplied by the Cincinnati Retirement System. This information includes, but is not limited to, plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standards of Practice No. 23, *Data Quality*.

This report was prepared exclusively for the Cincinnati Retirement System for the purpose described herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any such other users.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinions contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

Sincerely,
Cheiron

Janet H. Cranna, FSA, EA, MAAA, FCA
Principal Consulting Actuary

Kevin J. Woodrich, FSA, EA, MAAA
Principal Consulting Actuary

cc: Jon Salstrom
Robert Murray, Cheiron

SECTION I – BOARD SUMMARY

Cheiron has performed the actuarial valuation of the Cincinnati Retirement System as of December 31, 2024. The purpose of this report is to disclose the following as of the valuation date:

1) The financial condition of the System;
2) Past trends in the financial progress of the System;
3) Compare the City's current contribution rate of 17.75% of payroll to the City's Actuarially Determined Contribution (ADC) rate based on this valuation for Fiscal Year Ending June 30, 2026;
4) Identify and assess the risks to the System; and
5) Provide specific information and documentation required for the System's financial reporting.

An actuarial valuation establishes and analyzes the System's assets and liabilities on a consistent basis and traces the progress of both from one year to the next. It includes measurement of the System's investment performance as well as an analysis of actuarial liability gains and losses.

This report does not include calculations under GASB Statements Nos. 67 and 68 which are provided in separate reports.

Results shown in this report for years prior to December 31, 2018 were provided by the prior actuary.

Valuation Basis

The December 31, 2024 actuarial valuation results were based on the same actuarial methods and assumptions as used in the December 31, 2023 actuarial valuation. The demographic and economic assumptions (other than the investment return) were based on the January 1, 2017 to December 31, 2021 Experience Study. The results were presented to the Board at the March 2, 2023 meeting and later adopted by the Board on March 23, 2023. A detailed list of these assumptions can be found in Appendix B of this report. An investment return assumption of 7.50% was used as prescribed by item 29 of the Collaborative Settlement Agreement (CSA) signed October 5, 2015.

SECTION I – BOARD SUMMARY

Key Results

The following Table I-1 summarizes the key results of the valuation with respect to the System's membership, assets and liabilities, and contributions. The results are presented and compared for both the current and prior year.

Table I-1
Key Results

Valuation as of:	December 31, 2023	December 31, 2024	% Change
Membership Counts			
a) Full Time Actives	2,823	2,900	2.7%
b) Part Time Actives[1]	1,270	1,427	12.4%
c) Terminated Vesteds	282	298	5.7%
d) Members in Pay Status[2]	4,263	4,234	(0.7%)
e) Total	8,638	8,859	2.6%
f) Annual Salaries of Full Time Actives	$ 223,059,661	$ 239,916,648	7.6%
g) Annual Salaries of DROP Members[2]	$ 12,672,076	$ 10,367,713	(18.2%)
h) Annual Retirement Allowances	$ 190,059,353	$ 193,592,145	1.9%
Assets and Liabilities			
i) Present Value of Future Benefits	$ 2,884,673,296	$ 2,925,908,766	1.4%
j) Actuarial Liability	$ 2,643,382,463	$ 2,667,823,053	0.9%
k) Actuarial Value of Assets (AVA)	$ 1,819,308,605	$ 1,820,976,645	0.1%
l) Unfunded Actuarial Liability (UAL) [(j) - (k)]	$ 824,073,858	$ 846,846,408	2.8%
m) Funded Ratio on AVA basis [(k) ÷ (j)]	68.8%	68.3%	(0.5%)
n) Market Value of Assets (MVA)	$ 1,763,884,000	$ 1,805,588,000	2.4%
o) Funded Ratio on MVA basis [(n) ÷ (j)]	66.7%	67.7%	1.0%
City's Actuarially Determined Contribution (ADC)	FYE June 30, 2025	FYE June 30, 2026	
p) Gross Normal Cost Rate	12.24%	12.10%	(0.14%)
q) Plan Changes - ERIP[3]	1.13%	1.06%	(0.07%)
r) UAL Amortization Rate (excluding ERIP)	27.29%	26.47%	(0.82%)
s) Administrative Expenses	0.80%	0.80%	0.00%
t) Expected Employee Contributions	(9.00%)	(9.00%)	0.00%
u) City's ADC as % of Payroll [(p) + (q) + (r) + (s) + (t)]	32.46%	31.43%	(1.03%)

[1] *As of December 31, 2024, 364 of the 1,427 Part Time actives had reported last pay periods before December 2024.*

[2] *Includes 96 and 143 members as of December 31, 2024 and 2023 respectively currently participating in DROP.*

[3] *The City is currently contributing the remaining annual payments of $2.7 million by July 31 of each year, with the last contribution due by July 31, 2035.*

SECTION I – BOARD SUMMARY

Below we highlight significant results of this valuation.

- The return on the Market Value of Assets was 9.73% for the year ended December 31, 2024 which was higher than the assumed rate of return of 7.50%. In dollars, the total actuarial investment gain (the difference between actual and expected returns on a market value basis) was $38.0 million.
- For various purposes, the System uses an Actuarial Value of Assets which smooths annual actuarial investment gains and losses over a period of five years. This means the $38.0 investment gain described above will be phased in at a rate of approximately $7.6 million per year over the next five years. The smoothed Actuarial Value of Assets is $1,821.0 million (101% of the market value of $1,805.6 million). The $15.4 million difference between the Market Value of Assets and the Actuarial Value of Assets represents a net deferred investment loss that will be recognized in the future.
- The return on the Actuarial Value of Assets was 7.15%, resulting in an actuarial investment loss of $6.2 million. This return is lower than the return on the Market Value of Assets primarily due to the 2022 investment loss not being fully recognized in the Actuarial Value of Assets.
- The Actuarial Liability increased from $2,643.4 million as of December 31, 2023 to $2,667.8 million as of December 31, 2024. During the year, there was a small liability experience loss of $8.1 million (0.30% of liabilities).
- The funded ratio based on the Actuarial Value of Assets decreased from 68.8% to 68.3% and the Unfunded Actuarial Liability (UAL) increased from $824.1 million to $846.8 million. However, based on the Market Value of Assets, the funded ratio increased from 66.7% to 67.7%.
- The City currently contributes 17.75% of payroll on behalf of full-time active members and members participating in the Deferred Retirement Option Program (DROP). The City contributes 3% of payroll for part-time active members. Based on these fixed contribution rates, the UAL is currently projected to be paid off by 2061 if all assumptions are realized, including an investment return of 7.50% each year. However, under some investment scenarios, the System is projected to go insolvent. Detailed projections of the System's funded status and contributions are presented later in this section and in Section II.
- As elected by the Board, the System also calculates the City's Actuarially Determined Contribution (ADC) rate, using an open 30 year amortization method in accordance with the Board's funding benchmark. It was calculated to be 31.43% of payroll for Fiscal Year ending June 30, 2026. As a result of the fixed contribution rate of 17.75% being less than the City's Actuarial Determined Contribution rate, the UAL is not projected to be paid off over the same 30-year period. The ADC is a snapshot measurement which does not take into account expected future increases in total payroll over the next 30 years, the continued recognition of the net deferred investment loss or the expected decrease in the projected value of benefits (i.e., normal cost) accrued by actives in the future due to new entrants earning a benefit under Group G.

Recent Trends

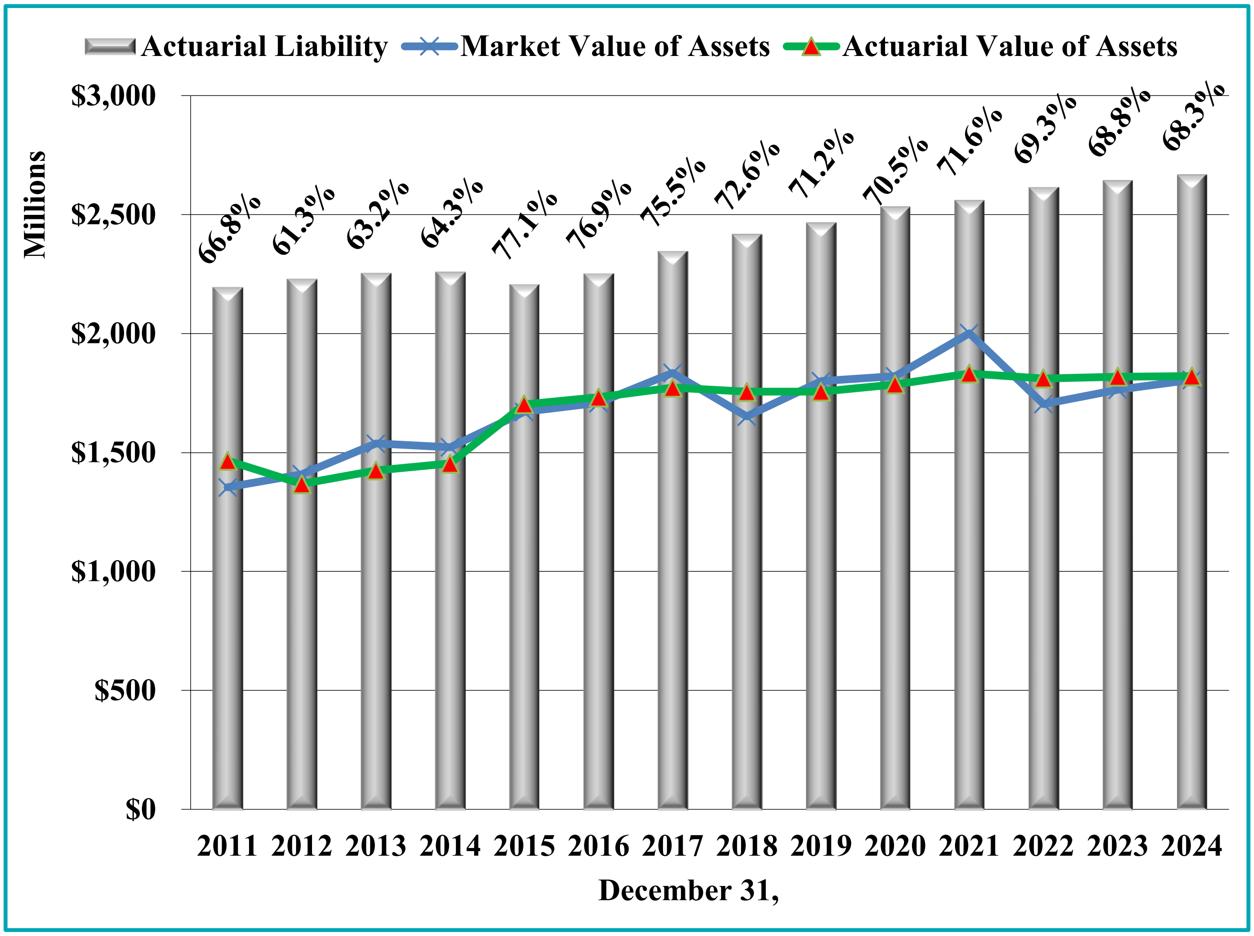
Although most of the attention given to the valuation reflects the most recently computed unfunded actuarial liability, funded ratio, and contribution amounts, each valuation is merely a snapshot of the long-term progress of a pension fund. It is important to take a step back from the current year results and view them in the context of the System's recent history as well as trends expected into the future. Beginning on the following page, we present a series of graphs that display historical trends for key factors in the valuations of the last 14 years.

SECTION I – BOARD SUMMARY

Assets and Liabilities

The gray bars represent the Actuarial Liability (AL). The blue line is the Market Value of Assets (MVA) and the green line is the Actuarial Value of Assets (AVA). The System's funded ratio (ratio of actuarial assets to actuarial liability) is shown along the top of the bars.

The sharp increase in the funded ratio from December 31, 2014 to December 31, 2015 was due primarily to $220 million in additional monies transferred from the healthcare assets to the pension assets as a result of the Collaborative Settlement Agreement. With the exception of 2021, the plan had experienced a gradual decline in the funded ratio since December 31, 2015 due to the System's experience as well as the City not making contributions sufficient to pay off the UAL. In 2021, the funded ratio increased slightly due to the strong investment performance.

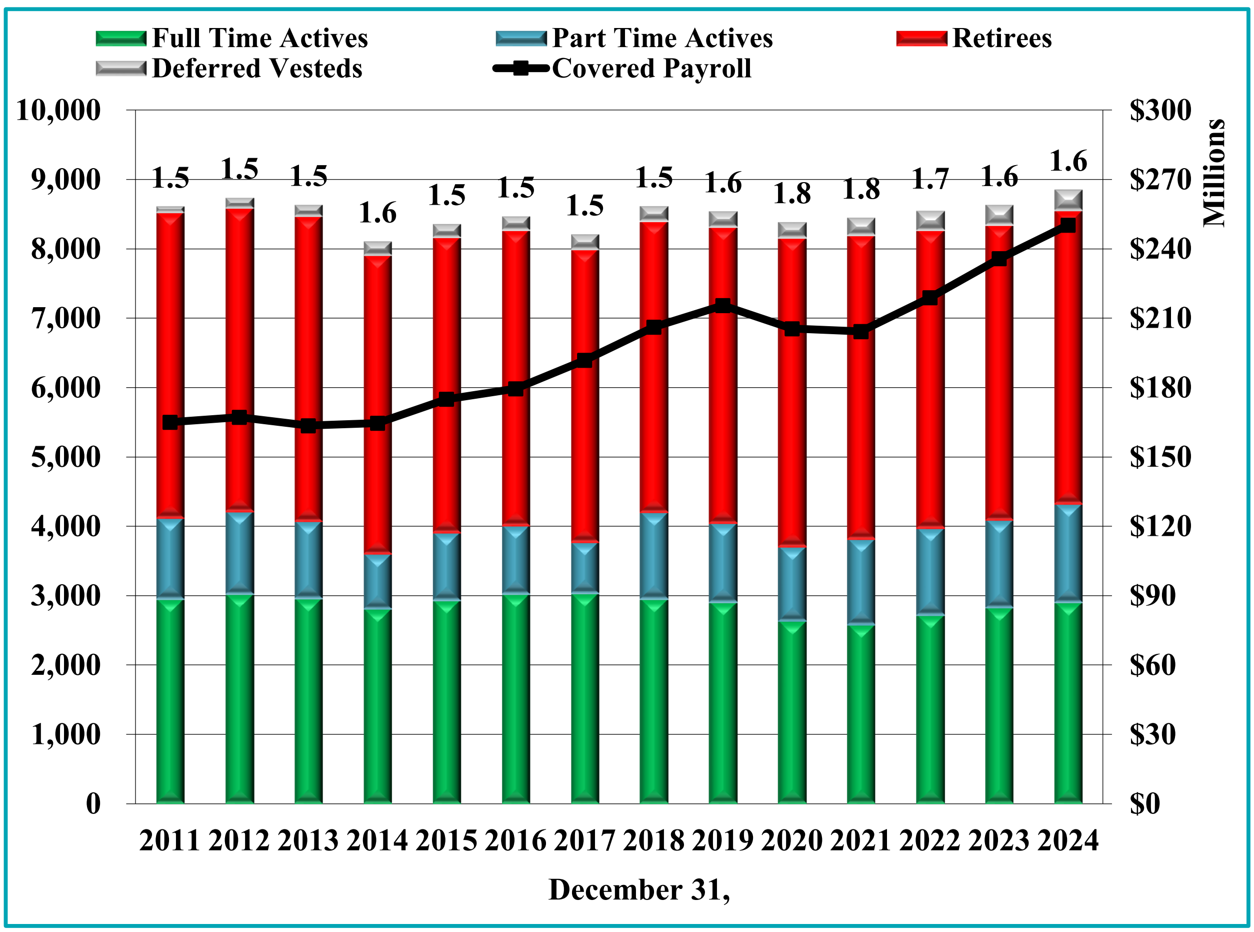


SECTION I – BOARD SUMMARY

Membership Trends

The graph below shows the membership counts of the System for the last fourteen valuations. The numbers which appear at the top of each bar (the "support ratio") represent the ratio of the number of inactive members, including DROP members, to full time active contributing members at each valuation date, and provide a measure of the maturity of the System. The support ratio peaked at 1.8 for 2020 and 2021 but has slightly decreased in recent years due to an increase in full-time active employees. As the System matures, it will be subject to higher risk exposure from market volatility. This is because the impact of investment losses will have to be offset by future contributions. These contributions, in turn, are only made on behalf of proportionately fewer active members compared to the total number of members.

The black line represents the payroll for active members over the period, and it corresponds with the scale on the right. The payroll for the part-time actives of $17.9 million was not included since the City does not contribute the full 17.75% of payroll for part-time actives.

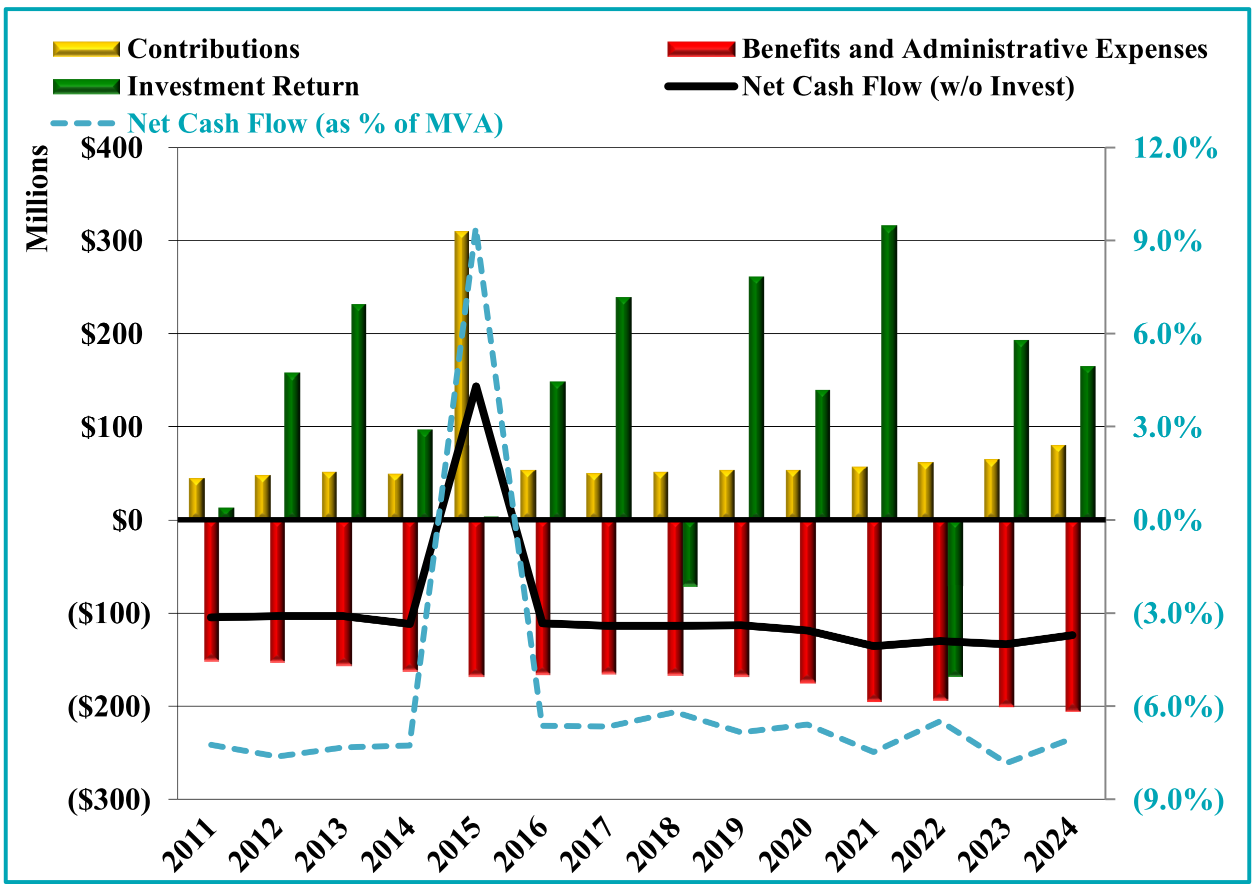


SECTION I – BOARD SUMMARY

Cash Flows

The following graph shows the System's net cash flow (contributions less benefit payments and expenses) at the end of each plan year. For the entire period shown, the net cash flow excluding investments has been negative except for 2015 when $220 million was transferred into the System pursuant to the Collaborative Settlement Agreement. This illustrates that contributions have not been sufficient to cover benefits and expenses in any year over the past decade. A major implication of negative cash flow is that the difference each year must be met first from cash generated by investments and then paid out of the principal assets, representing additional risk for the System if investments need to be sold in a down market to cover benefit payments.

The dotted line shows the net cash flow as a percent of the market assets and goes with the axis on the right. For the 14-year period shown (ignoring 2015) the net cash flow as a percent of assets has ranged between -8% and -6%. This indicates that a plan is expected to defund with an increased risk of insolvency if the contributions do not catch up to cover a higher portion of the benefit payments and expenses.



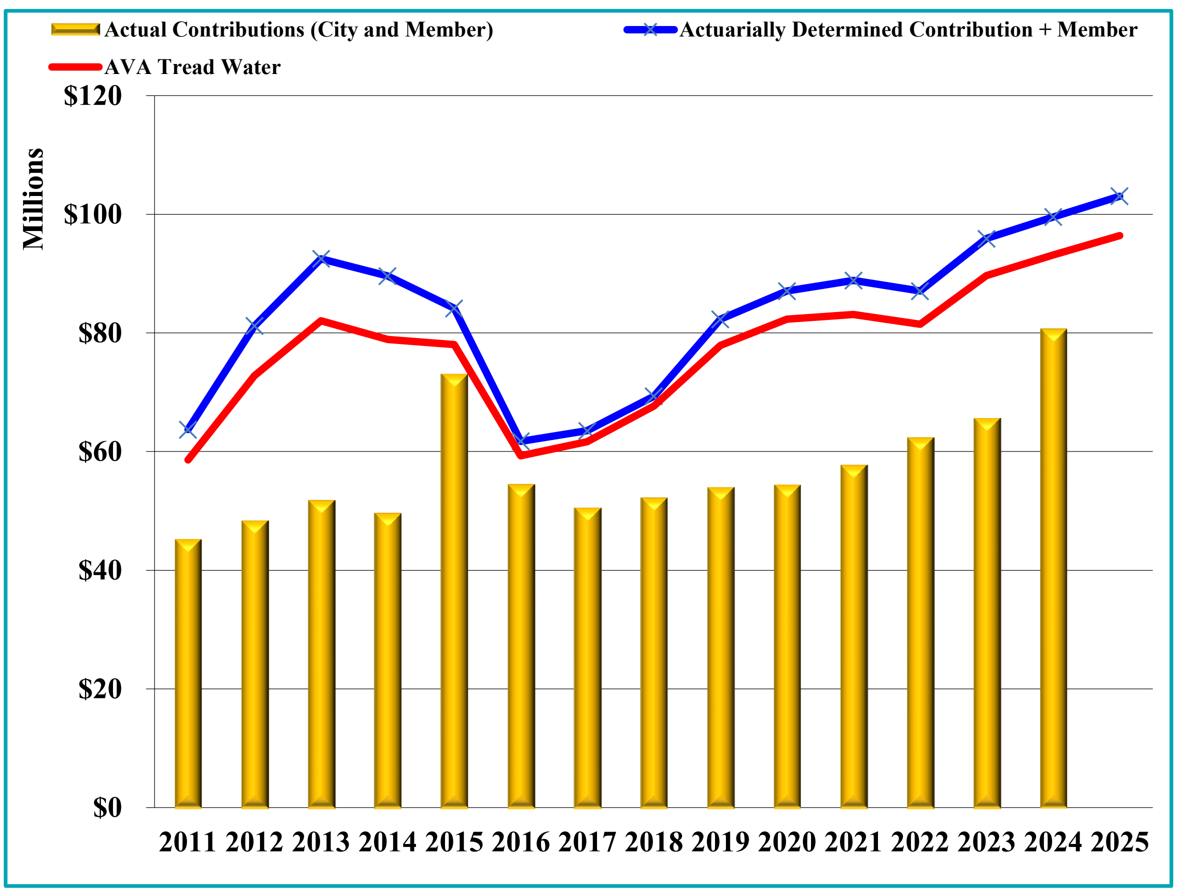
SECTION I – BOARD SUMMARY

Contributions

This graph shows the historical trends for the actual contribution amounts made by both the City and members (yellow bars). The blue line shows the actuarially determined contributions over the period. The Actuarially Determined Contribution (ADC), based on the Board's Funding Benchmark, is comprised of four components: normal cost which represents the value of the benefits expected to be earned for the upcoming year, assumed administrative expenses, ongoing contributions for the ERIP and an open 30-year level dollar amortization of any unfunded actuarial liability (net of the present value of future amounts expected to be contributed for the ERIP).

The red line is the **Tread Water** line, which is the normal cost plus the interest on the UAL based on an actuarial value of assets basis. The tread water line shows the minimum contributions needed to avoid an increase in the UAL.

The graph shows that not only has the City been making contributions less than the Actuarially Determined Contribution, but that the contributions are significantly below the tread water line. When contributions are lower than the normal cost plus interest on the UAL, the unfunded actuarial liability can normally be expected to grow from one year to the next. Please refer to the projections on the next page for more details, and to Section II for illustrations of the sensitivity of the System's funded status to investment returns.



Projected Future Outlook

The analysis of the projected financial trends is perhaps the most important component of the valuation. The graphs presented in this section show the expected progress of the System's funded status over the next 30 years, measured in terms of the expected funded ratios, and the projected contributions made by the members (9% of payroll) and by the City (17.75% of payroll for full-time active members and DROP members; 3.0% for part-time members). In addition, we have assumed that the City will continue to make a contribution of $2.7 million by July 31 each year with the last payment due by July 2035 to pay for the increase in liabilities due to the ERIP. The System also received contributions of $2 million and $4 million from the General Fund in April and October 2024. However, we have not assumed any future amounts from the General Fund in our projections.

While the experience will not conform exactly to the assumptions every year, the trends reflect reasonable expectations. As a result, in addition to the baseline projection, we provided additional **stress testing** based on varying investment returns in the future. These scenarios are shown in Section II.

The projections assume a constant active population. As members retire, terminate, and die based on the current valuation assumptions, it is assumed that new members will replace them based on characteristics (age/gender/salary) similar to recent new members.

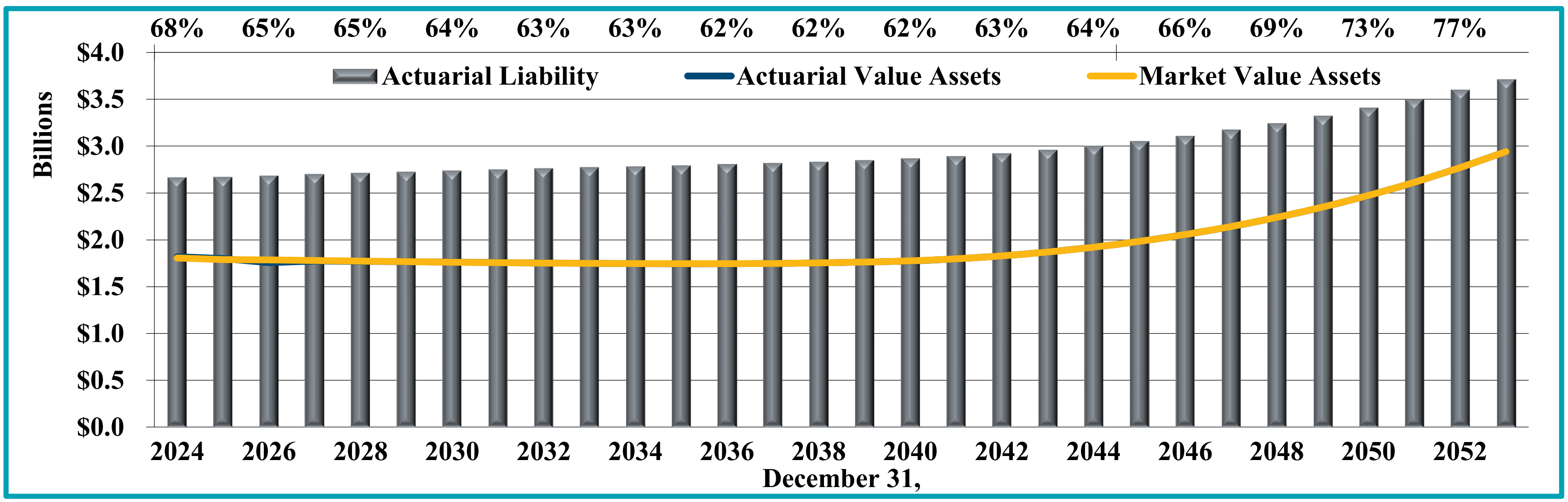
SECTION I – BOARD SUMMARY

Baseline Scenario

The baseline projection shows the outcome if all actuarial assumptions, including the long-term rate of return assumption of 7.50%, are exactly met.

The first graph compares the Market Value of Assets (gold line) and the Actuarial or smoothed Value of Assets (blue line) to the System's Actuarial Liabilities (gray bars). In addition, at the top of the graph, we show the System's funded ratio on an Actuarial Value of Assets basis (ratio of Actuarial Value of Assets to Actuarial Liabilities). The years shown in the graph signify the valuation date as of December 31 of the labeled year.

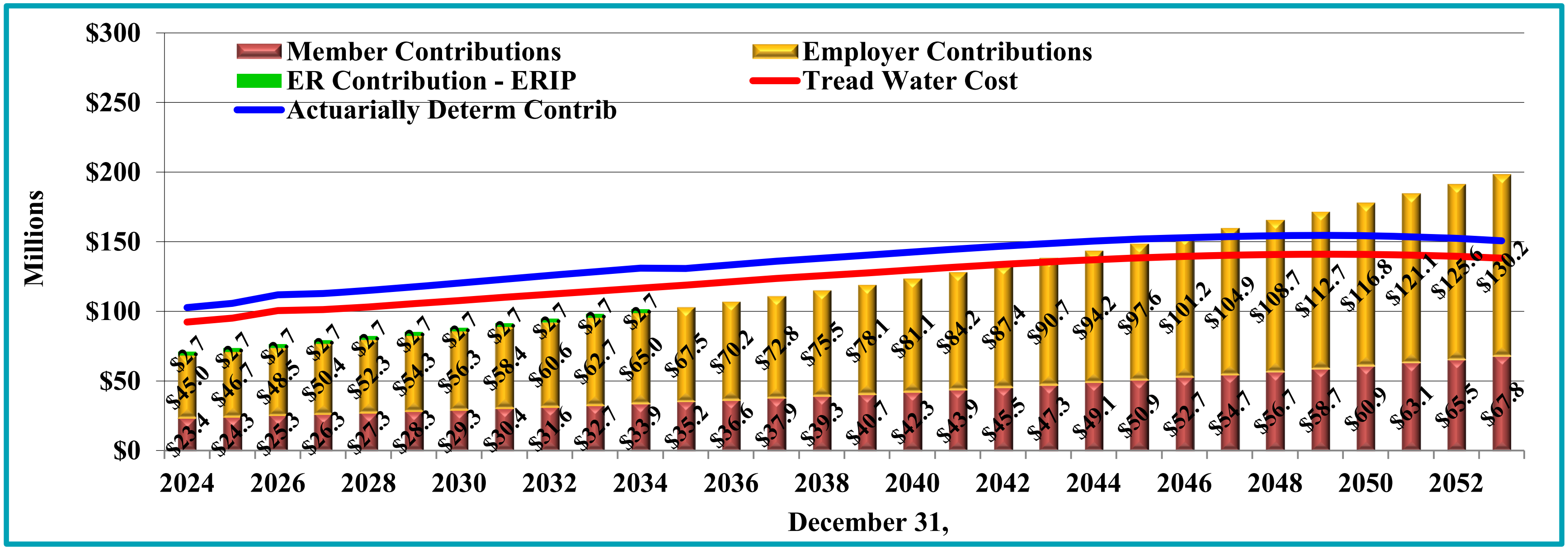
As shown in the graph below, the System's funded ratio on an Actuarial Value of Assets basis is projected to decrease to 62% by 2026 before increasing to 77% over the next 30 years. The System is expected to be 100% funded by 2061.



SECTION I – BOARD SUMMARY

The second graph below shows the projected contributions compared to the actuarially determined contributions shown in dollars. The member contributions are in maroon and the City's contributions are in gold. Similar to the historical graph before, the red line represents the Tread Water cost necessary to avoid decreasing funded status.

As shown below, total contributions are expected to increase throughout the projection period as total payroll is expected to increase. Without additional contributions or plan changes, the City's Actuarially Determined Contributions and the Tread Water Cost are expected to increase. For purposes of the projection, we assumed that the active population would remain constant. Projected payroll is based on the number of members valued as actives for this valuation and assumes that their positions are filled upon leaving employment with a new hire with an average starting salary of $65,000 (indexed by wage inflation for years beyond 2025).



Please see Section II for additional scenarios illustrating the sensitivity of these projections under various economic scenarios.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

Actuarial valuations are based on a set of assumptions about future economic and demographic experience. These assumptions represent a reasonable estimate of future experience, but the actual future experience will undoubtedly be different and may be significantly different. This section of the report is intended to identify the primary risks to the System, provide some background information about those risks, and provide an assessment of those risks.

Identification of Risks

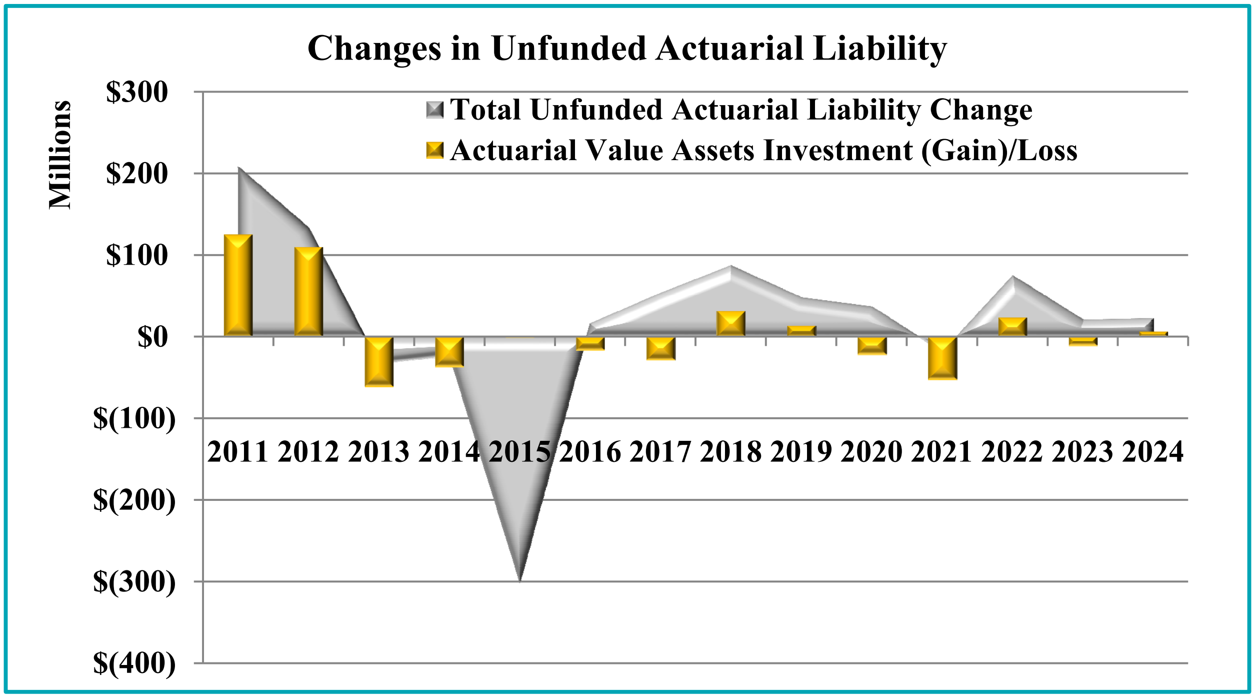
As we have discussed with the Board, the fundamental risk to the System is that the contributions needed to pay the benefits become unaffordable. While there are a number of factors that could lead to contribution amounts becoming unaffordable, we believe the primary risks are:

- Investment risk,
- Interest rate risk,
- Longevity and other demographic risks,
- Contribution risk; and
- Assumption change risk.

Other risks that we have not identified may also turn out to be important.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

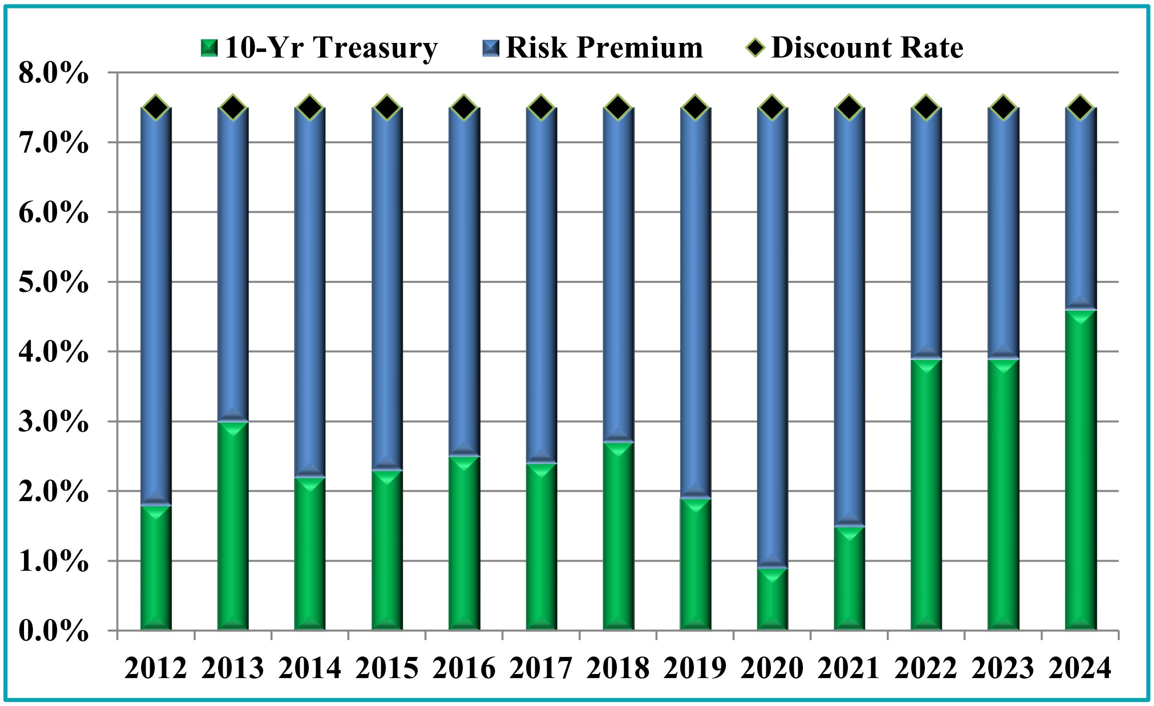
Investment Risk is the potential for investment returns to be different than expected. Lower investment returns than anticipated will increase the Unfunded Actuarial Liability necessitating higher contributions in the future unless there are other gains that offset these investment losses. The potential volatility of future investment returns is determined by the System's asset allocation and the affordability of the investment risk is determined by the amount of assets invested relative to the size of the plan sponsor or other contribution base.



The graph above shows the impact of investment gains and losses on the smoothed Actuarial Value of Assets over the last 14 years compared to the System's total change in Unfunded Actuarial Liability. There was a small actuarial investment loss this year due to the lower than 7.50% assumed return.

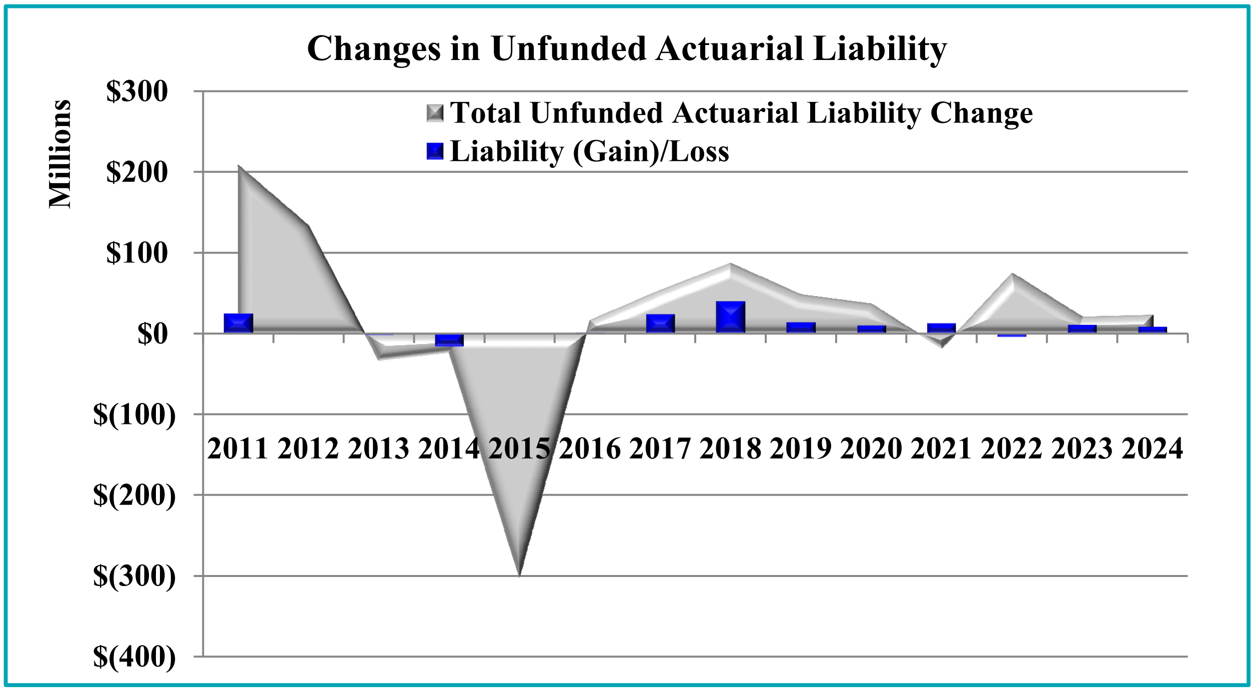
SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

Interest rate risk is the potential for interest rates to be different than expected. For public plans, short-term fluctuations in interest rates have little or no effect as the Plan's liability is usually measured based on the expected return on assets. Longer-term trends in interest rates, however, can have a powerful effect. The chart below shows the yield on a 10-year Treasury security compared to the System's assumed rate of return. The difference is a simple measure of the amount of investment risk taken. As illustrated below, the yield on a 10-year Treasury security was the lowest in 2020 (0.9%) while the yield for 2024 was the highest (4.6%).



SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

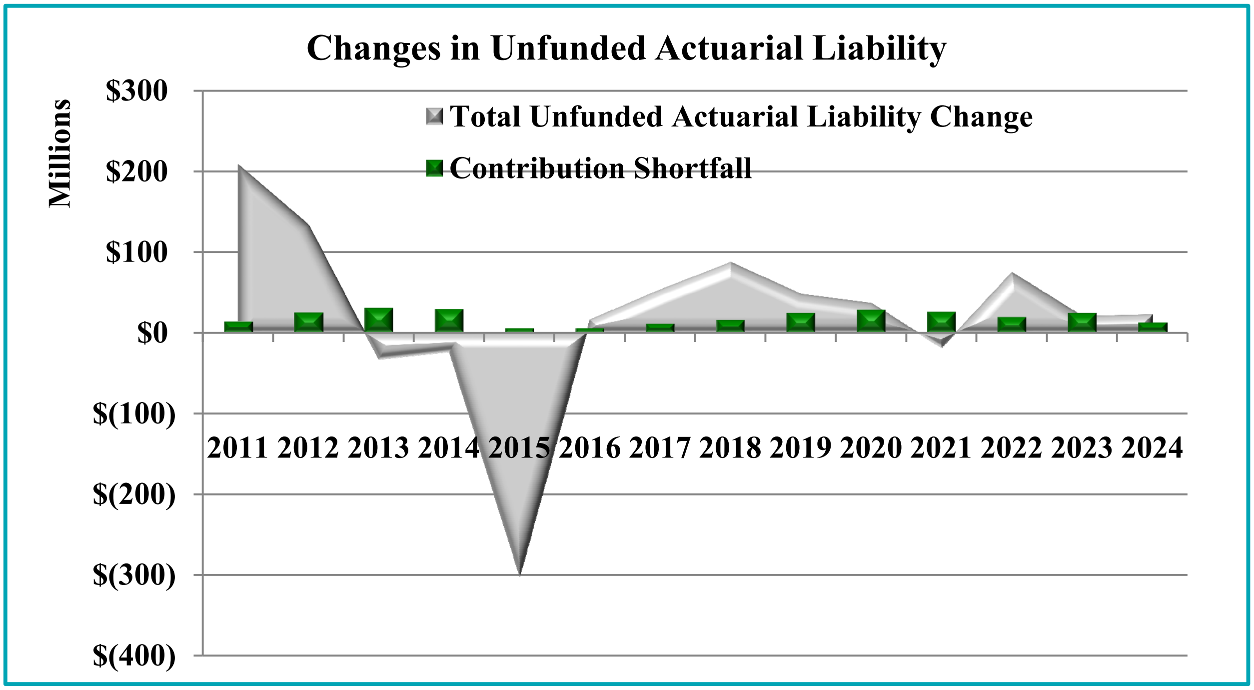
Longevity and other demographic risks are the potential for mortality or other demographic experience to be different than expected. Generally, longevity and other demographic risks emerge slowly over time and are often dwarfed by other changes, particularly those due to investment returns. The following graph shows the demographic gains and losses over the last 14 years compared to the total change in the UAL for each year. The big decrease in the UAL from 2014 to 2015 was due to the changes resulting from the Collaborative Settlement Agreement. There was a small liability loss for the 2024 experience.



Contribution risk is the potential for actual future contributions to deviate from expected future contributions. There are different sources of contribution risk ranging from the sponsor choosing to not make contributions in accordance with the funding policy to material changes in the contribution base (e.g., covered employees, covered payroll, sponsor revenue) that affect the amount of contributions the Plan can collect.

The normal cost plus the interest on the Unfunded Actuarial Liability is referred to as the “Tread Water Cost” because if contributions are less than the Tread Water Cost, the UAL is expected to grow; and if contributions are greater than the Tread Water Cost, the UAL is expected to decline. For this System, the City has consistently contributed less than the Tread Water Cost which has added to the growing UAL in the past. The following graph shows the contribution shortfall, which is the tread water cost over the actual contributions, compared to the change in the UAL.

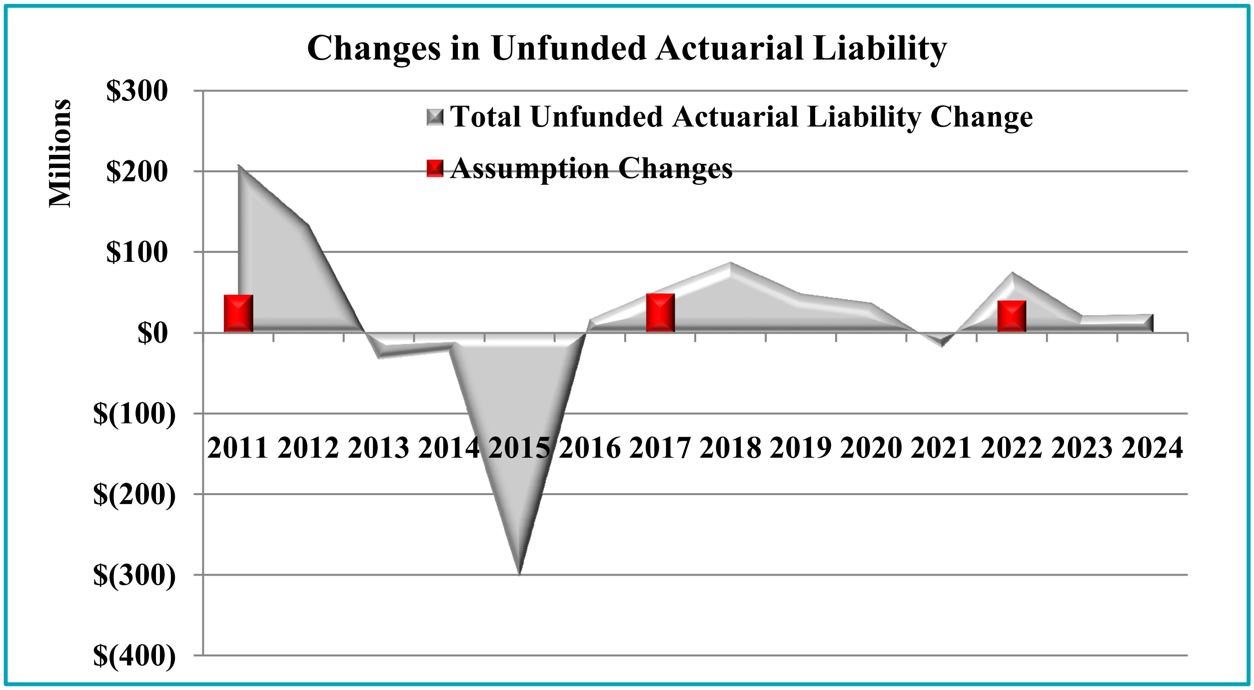
SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK



Assumption change risk is the potential for the environment to change such that future valuation assumptions are different than the current assumptions. For example, declines in interest rates over the last three decades resulted in higher investment returns for fixed-income investments but lower expected future returns necessitating either a change in investment policy, a reduction in discount rate, or some combination of the two. Assumption change risk is an extension of the other risks identified, but rather than capturing the risk as it is experienced, it captures the cost of recognizing a change in environment when the current assumption is no longer reasonable.

As shown in the following graph, the assumption changes in 2011, 2017 and 2022 had a significant impact on the measure of the UAL. It is important to note that some of these changes include a downward revision to the estimate of future investment earnings and ultimately costs will be determined by actual investment earnings. As a result, future expectations of investment returns may continue to decline necessitating a reduction in the discount rate.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK



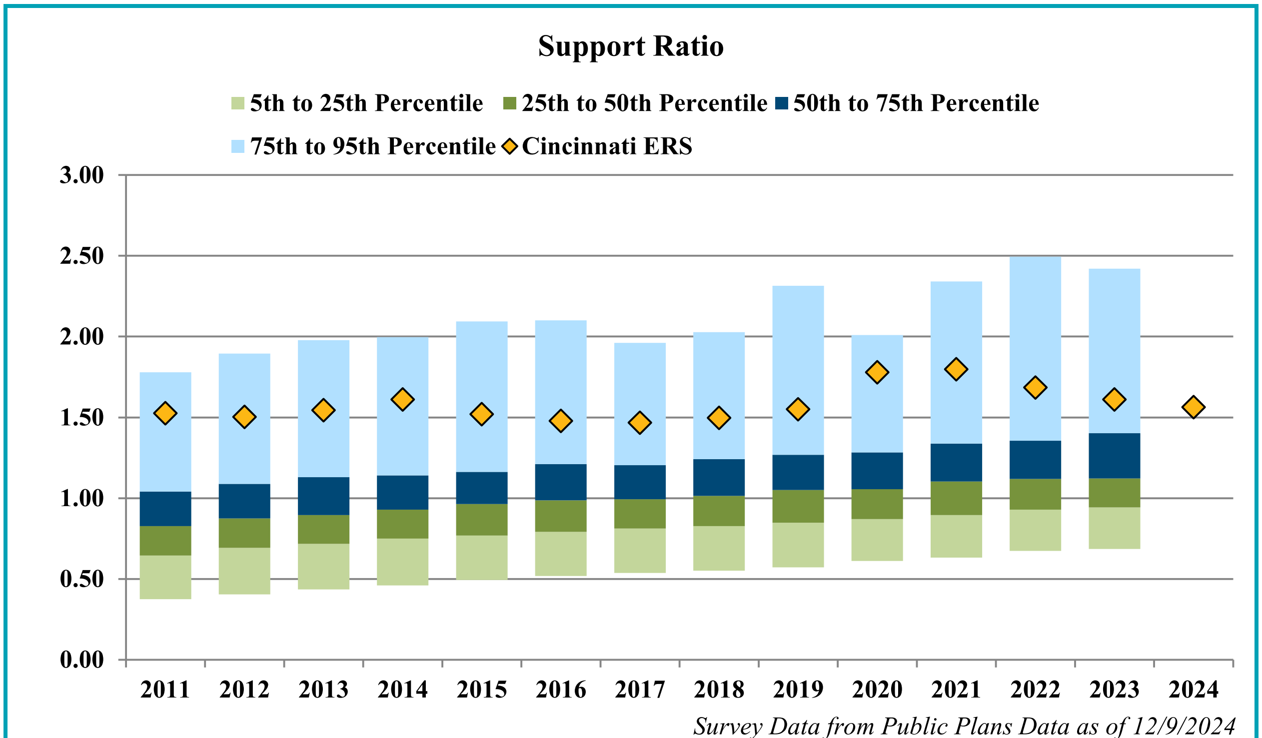
Plan Maturity Measures

The future financial condition of a mature pension plan is more sensitive to each of the risks identified above than a less mature plan. Before assessing each of these risks, it is important to understand the maturity of this System compared to other plans and how the maturity has changed over time.

Plan maturity can be measured in a variety of ways, but they all get at one basic dynamic - the larger the plan is compared to the contribution or revenue base that supports it, the more sensitive the plan will be to risk. The measures below have been selected as the most important in understanding the primary risks identified for this System.

Inactives per Active (Support Ratio)

One simple measure of plan maturity is the ratio of the number of inactive members (those receiving benefits, participating in DROP or entitled to a deferred benefit) to the number of active members. The revenue base supporting the plan is usually proportional to the number of active members, so a relatively high number of inactives compared to actives indicate a larger plan relative to its revenue base as well.

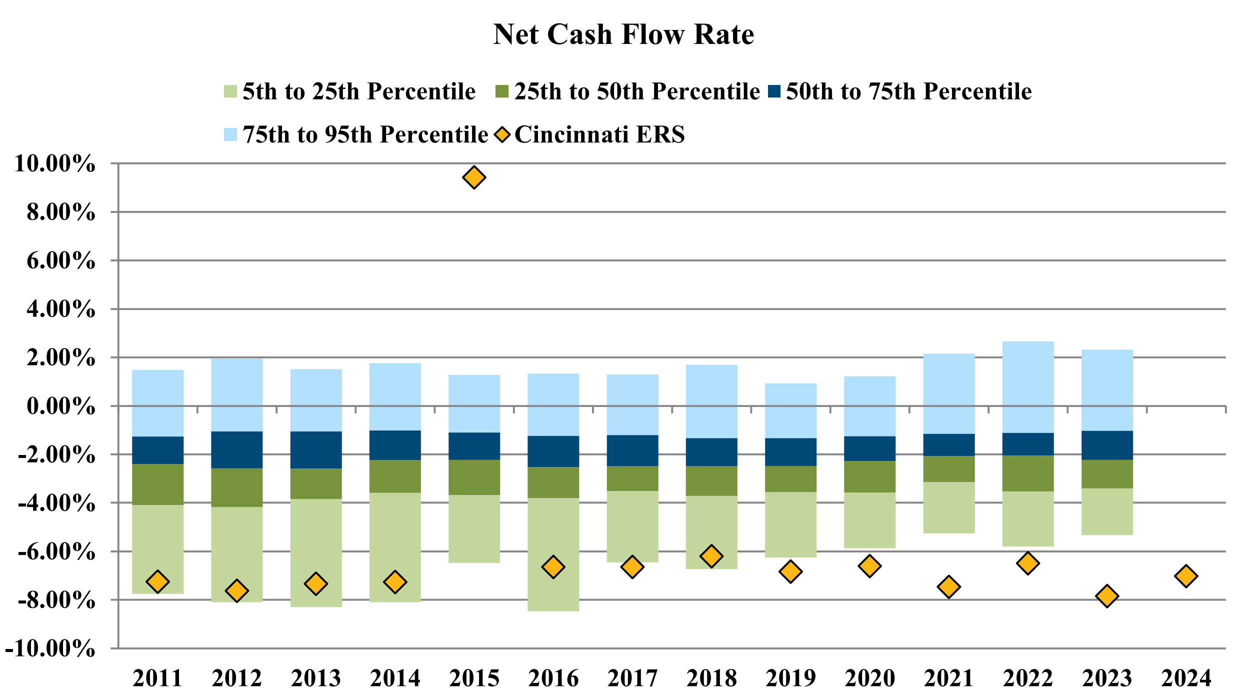


The graph above shows the distribution from the 5th to 95th percentile of support ratios for the plans in the Public Plans Database. The gold diamonds show how the Cincinnati Retirement System compares to the other plans. Whereas the support ratios for the plans as a whole have increased over the period as they mature, Cincinnati's support ratio has remained relatively stable over the last decade prior to the past five years and continues to be in the upper quartile.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

Net Cash Flow

The net cash flow of the plan as a percentage of the beginning of year assets indicates the sensitivity of the plan to short-term investment returns. Net cash flow is equal to contributions less benefit payments and administrative expenses. Mature plans can have large amounts of benefit payments compared to contributions, particularly if they are well funded. Investment losses in the short-term are compounded by the net withdrawal from the plan leaving a smaller asset base to try to recover from the investment losses. Large negative cash flows can also create liquidity issues.



Survey Data from Public Plans Data as of 12/9/2024

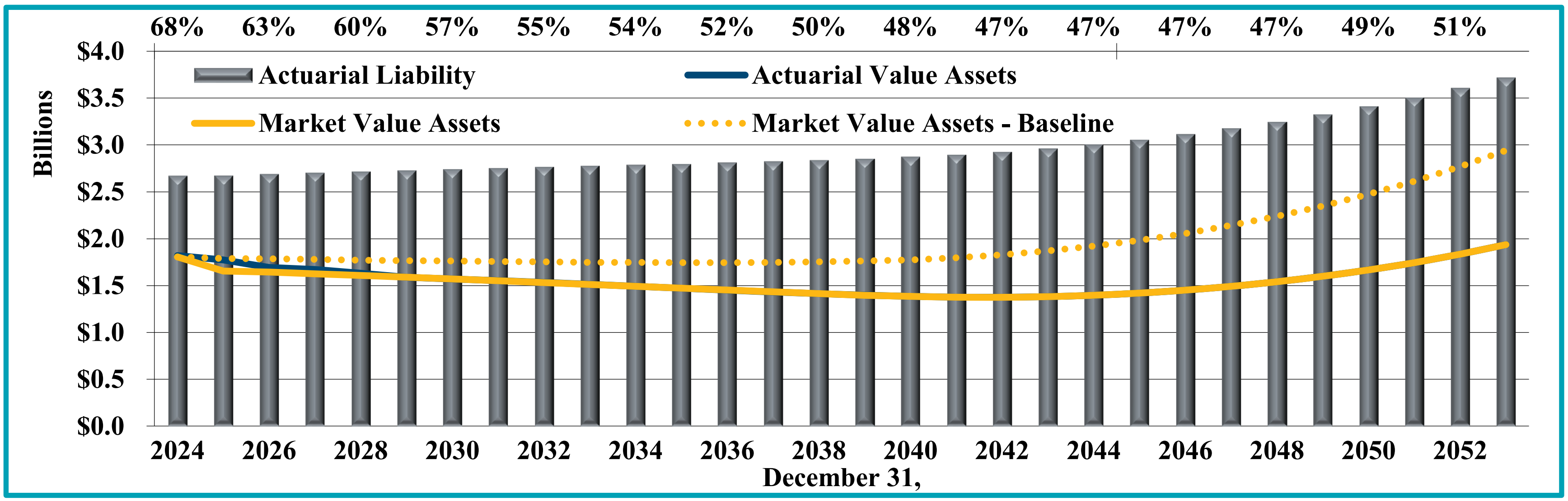
The graph above shows how the Cincinnati Retirement System's negative net cash flow as a percent of assets has compared to the other public plans in the database. With the exception of 2015, which reflects the large amount of monies transferred pursuant to the Collaborative Settlement Agreement, the System has been amongst the top 5 percentile in having the largest negative cash flow. This higher negative cash flow subjects the System to a higher amount of investment risk since assets must earn more to avoid the System's assets from decreasing from one year to the next. In periods of market underperformance, the impact on the System is greater due to this higher negative cash flow.

Deterministic Scenarios/Stress Testing

We developed several hypothetical scenarios to illustrate the impact actual investment returns may have on future funded status and contribution rates. The scenarios are balanced between positive and negative scenarios and are intended to illustrate the importance of both the return itself as well as the timing of such returns.

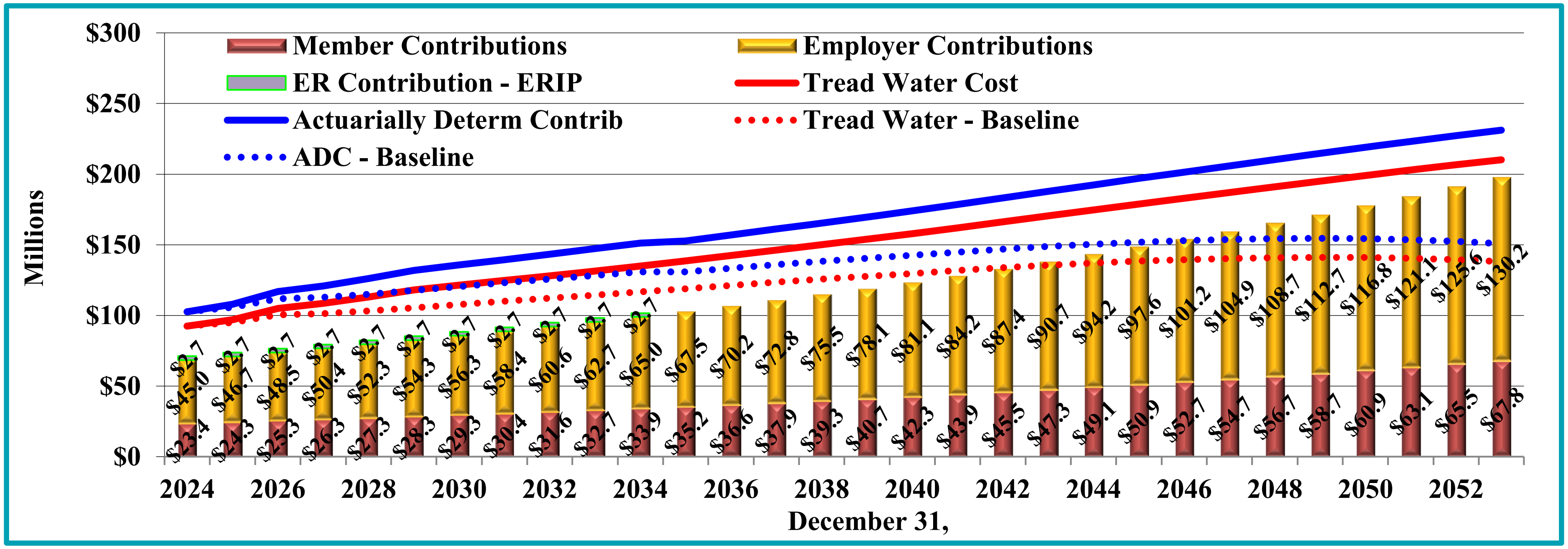
The graphs on the following pages show the projections under each of these theoretical scenarios. The asset/liability graphs include a gold dotted line representing the baseline market value of assets and the contribution graphs include a blue dotted line representing the baseline ADC projections to facilitate the comparison between the particular scenario and the projections assuming all assumptions are met. The baseline projections are shown in the Board Summary.

Investment Return of 0% for 2025 followed by 7.5% per year thereafter



As illustrated above, one year of a flat return (0%) for the Plan year ending December 31, 2025 followed by a 7.5% return per year thereafter has a significant impact on the solvency projection of the System. Under this projection, the System is projected to reach 100% funded in 2074 compared to 2061 if the System's return was 7.5% for 2025 and all years thereafter.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK



Under this scenario, the City's Actuarially Determined Contribution and Tread Water Cost are expected to increase over the next 30 years. The contributions (bars) are the same as the baseline since the City's contributions are currently made based on a fixed rate regardless of its funded status.

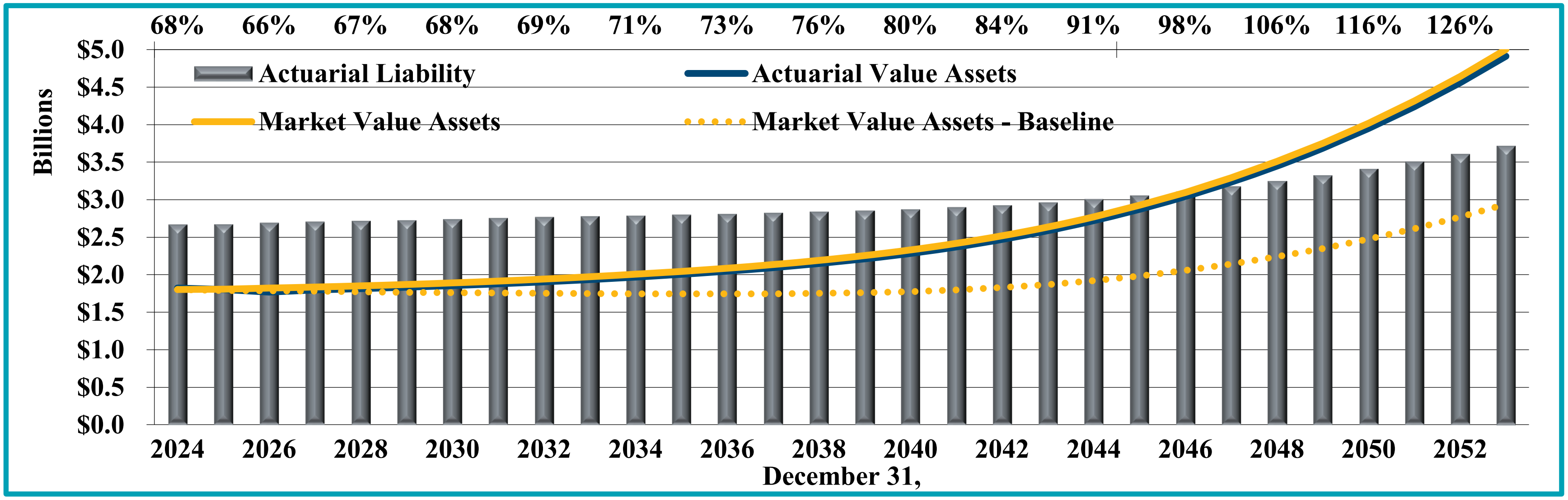
SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

The table below further illustrates the impact that various investment returns for the year ending December 31, 2025 would have on the projected insolvency of the System's assets assuming no changes to benefits or contribution rates and all assumptions are realized. All future years beyond 2025 were assumed to have an investment return of 7.5%.

Assumed 2025 Investment Return	Projected Insolvency Year	Projected to be 100% Funded
15.0%	None	2052
7.5%	None	2061
0.0%	None	2074
(7.5%)	None	Beyond 2100
(15.0%)	2052	None

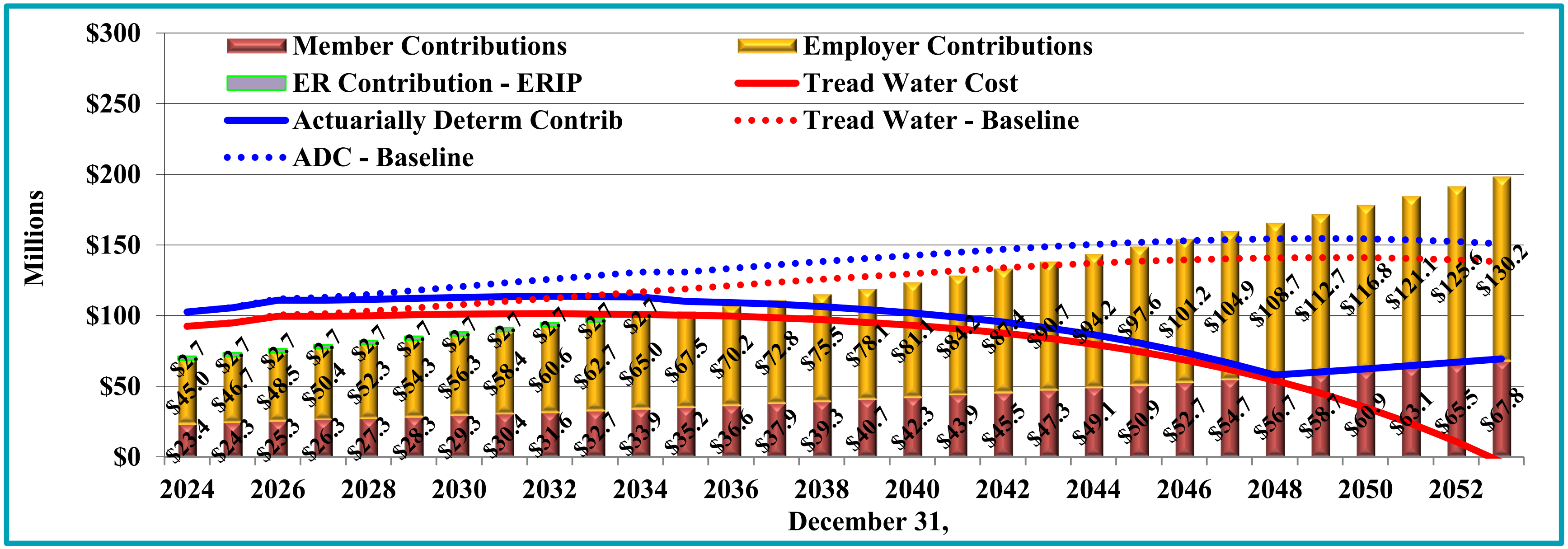
SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

Investment Return of 8.5% per year



Conversely, the chart above shows the impact on the System's projected assets if all future years' investment returns are 8.5% per year. As shown above, the funded percentage has increased from 77% to 126% by December 31, 2052.

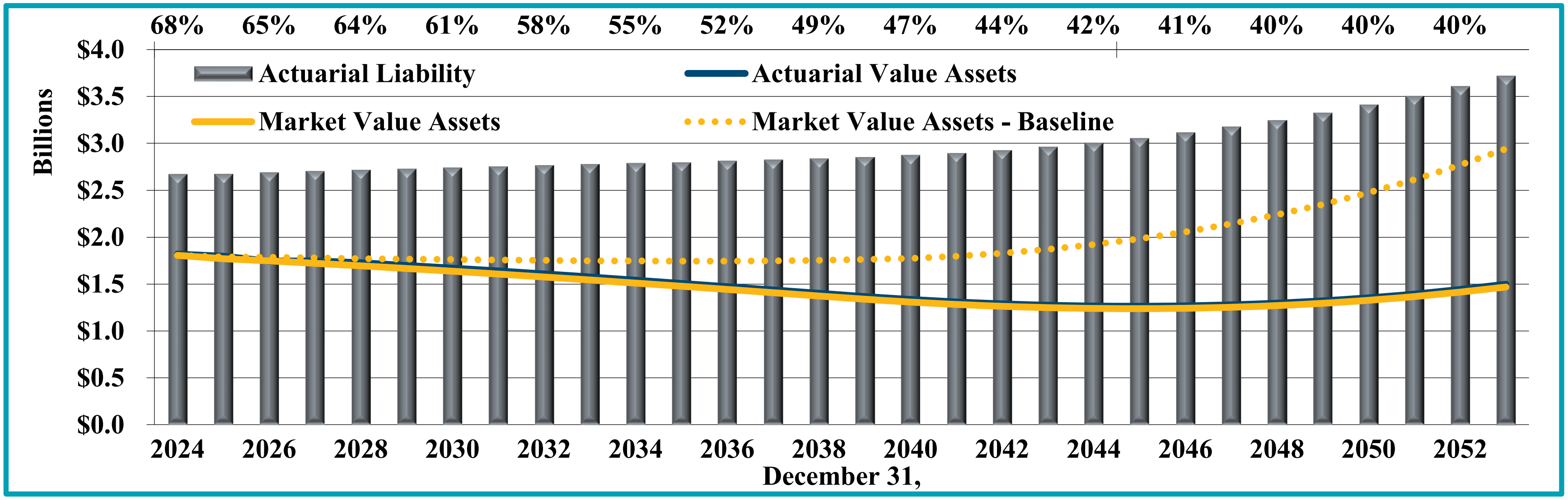
SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK



As anticipated, both the City's Actuarially Determined Contribution and Tread Water Cost are materially lower than if the assets were to return the assumed 7.5% per year.

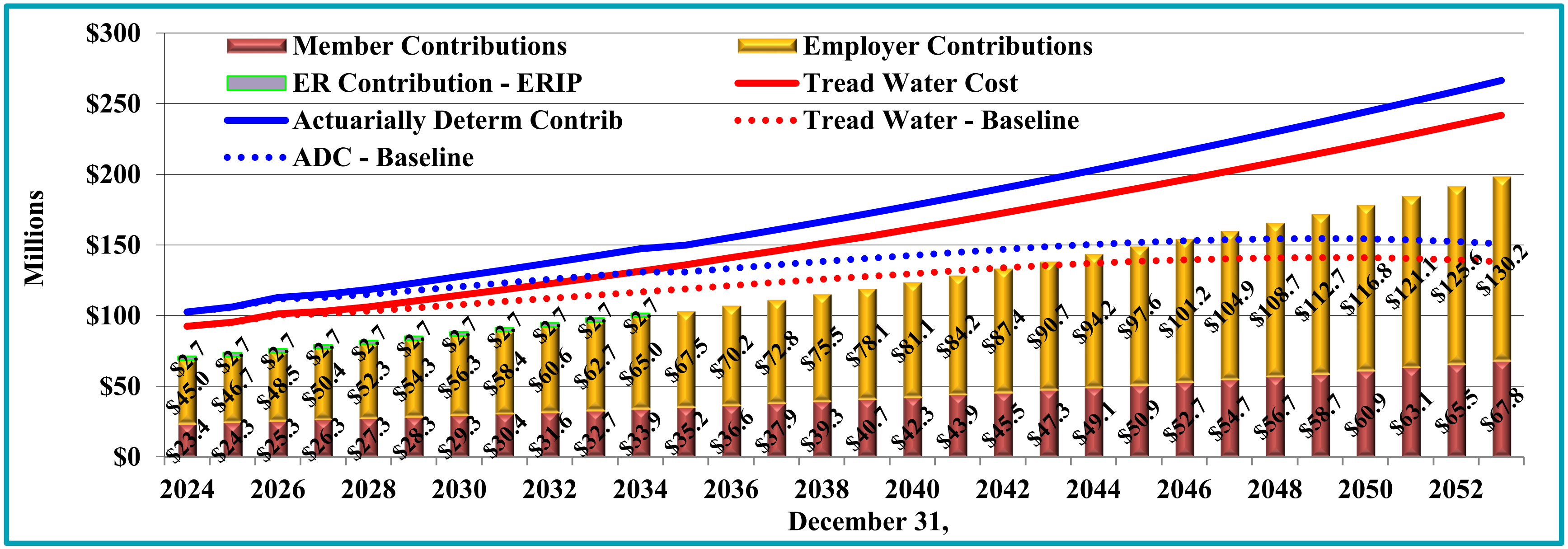
SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

Investment Return of 6.5% per year



If the assets were to return 6.5% per year (1% less than the assumed 7.5%), the funded percentage would decline to 40% by December 31, 2052.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK



As anticipated, both the City's Actuarially Determined Contribution and Tread Water Cost are higher than if the assets were to return the assumed 7.5% per year.

The scenarios shown above represent deterministic projections. These types of projections show the financial impact on the System under a set of fixed returns. Alternatively, stochastic projections graph the probability of the key metrics such as funded status based on a large number of scenarios (e.g., 1,000) based on the expected long-term return and risk characteristics of the portfolio. Whereas we have not included a stochastic analysis in this report, we would be happy to share this analysis if requested.

More Detailed Assessment

A more detailed assessment is always valuable to enhance the understanding of the risks identified above. While more detail would provide some additional value, we do not believe it is necessary to perform an in-depth analysis every year. We recommend the Board review the analysis provided above annually and consider a more detailed analysis periodically and when there is a substantial change in the financial position or maturity of the System.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISK

Low-Default-Risk Obligation Measure (LDROM)

The System invests in a diversified portfolio to achieve the best possible return at an acceptable level of risk. The lowest investment risk portfolio for a pension plan would be composed entirely of low-default-risk fixed income securities whose cash flows approximately match the cash flow needs of the System. However, such a portfolio would have a lower expected rate of return (5.49% as of December 31, 2024) than the diversified portfolio (7.50%). Low-Default-Risk Obligation Measure (LDROM) represents what the Actuarial Liability would be if the System's assets were invested in such a portfolio. As of December 31, 2024 the LDROM is \$3.265 billion[1] compared to the Actuarial Liability of \$2.668 billion for the System. The \$0.597 billion difference can be viewed as the expected savings from taking on the investment risk of the diversified portfolio. Alternatively, it can be viewed as the potential cost of eliminating the investment risk of the non-fixed income allocations of the diversified portfolio.

If the System were to invest in the LDROM portfolio, the funded ratios would decrease. The security of the System's pension benefits relies on the current assets, future investment earnings, and the ability and willingness of the City to make future contributions. If the City were to invest in the LDROM portfolio, it would not change the current assets, but it would reduce future investment earnings and reduce the funded ratio. However, the range of future investment earnings would narrow significantly.

[1] Assumes a 5.49% discount rate which is based on the December 31, 2024 FTSE Pension Liability Yield Curve , and all other assumptions and methods as used to calculate the Actuarial Liability.

SECTION III – ASSETS

The System uses and discloses two different asset measurements which are presented in this section of the report: market value and actuarial value of assets. The market value represents the value of the assets if they were liquidated on the valuation date. The actuarial value of assets is a value that smooths annual investment returns to reduce annual investment volatility and is used in determining the actuarial determined contribution.

In this section, we present detailed information on the System's assets including:

- Statement of the cash flow during the year,
- Disclosure of investment performance for the year, and
- Development of the actuarial value of assets.

Changes in Market Value

The components of asset change from one year to the next include contributions (both City and Member), benefit payments, expenses, and investment income (realized and unrealized.)

The specific changes during 2024 are presented on the next page.

SECTION III – ASSETS

Table III-1
Reconciliation of the Market Value of Assets

Market Value of Assets - December 31, 2023	$	1,763,884,000
Additions		
Contributions		
Employer	$	46,597,950
Early Retirement Incentive Program Contribution		2,760,050
General Fund		6,000,000
Member		25,327,000
Total Contributions	$	80,685,000
Gross Investment Income		172,304,000
Investment Expenses		(6,679,000)
Total Additions	$	246,310,000
Deductions		
Benefits Paid	$	202,083,000
Net Transfers		255,000
Administrative Expenses		2,268,000
Total Deductions	$	204,606,000
Net Increase(Decrease)	$	41,704,000
Market Value of Assets - December 31, 2024	$	1,805,588,000

Investment Performance

The following table calculates the investment gain/loss and the return for the plan year on a Market Value basis. The return is an appropriate measure for comparing the actual asset performance to the long-term 7.50% assumption.

Table III-2
Market Value Investment Gains/(Losses)

Market Value of Assets - December 31, 2023	$	1,763,884,000
Contributions	$	80,685,000
Benefits Paid		(202,083,000)
Net Transfers		(255,000)
Administrative Expenses		(2,268,000)
Expected Investment Earnings (7.50%)		127,623,284
Expected Market Value of Assets - December 31, 2024	$	1,767,586,284
Investment Gain / (Loss)	$	38,001,716
Market Value of Assets - December 31, 2024	$	1,805,588,000
Return		9.73%

Actuarial Value of Assets

To determine on-going funding requirements, most pension systems utilize an actuarial value of assets that differs from the market value of assets. The actuarial value of assets represents an asset value based on averaging or smoothing year-to-year market value returns for purposes of reducing contribution volatility. For this System, the actuarial value of assets recognizes a portion of the difference between the actual market value of assets and the expected market value of assets. The amount recognized each year is 20% of the difference between actual market value and expected market value. The expected market value is determined using the System's actual cash flows and assumed actuarial rate of return. The actuarial value of assets is constrained so that it cannot exceed 120% of the market value and cannot be less than 80% of the market value. The asset valuation method is described more fully in Appendix B.

The following table illustrates the calculation of the actuarial value of assets for the December 31, 2024 valuation.

Table III-3
Development of December 31, 2024 Actuarial Value of Assets

a)	Market Value of Assets - December 31, 2024				$ 1,805,588,000
b)	Deferred Gains or (Losses)				
	Plan Year	Market Value Gain or (Loss)	Percent Recognized	Percent Deferred	Amount Deferred
	2024	$ 38,001,716	20%	80%	$ 30,401,373
	2023	70,737,859	40%	60%	42,442,715
	2022	(313,114,757)	60%	40%	(125,245,903)
	2021	185,065,851	80%	20%	37,013,170
	2020	9,138,110	100%	0%	0
				Total Deferred:	$ (15,388,645)
c)	Preliminary Actuarial Value of Assets - December 31, 2024 [(a) - (b)]				$ 1,820,976,645
d)	Corridor for Actuarial Value of Assets				
	80% of Market Value of Assets				$ 1,444,470,400
	120% of Market Value of Assets				$ 2,166,705,600
e)	Actuarial Value of Assets - December 31, 2024				$ 1,820,976,645
f)	Actuarial Value of Assets as a % of Market Value of Assets [(e) ÷ (a)]				101%

Asset Gains / (Losses) on Actuarial Value Basis

The following table calculates the actuarial investment gain/loss and the return for the plan year on an Actuarial Value basis. This actuarial gain/loss is one component of the System's overall actuarial experience gain/loss.

The Actuarial Value of Assets returned 7.15% resulting in a $6.2 million actuarial investment loss when compared to the 7.50% expected return as shown below. Since the Market Value of Assets currently lags the Actuarial Value of Assets by $15.4 million, this represents a net deferred investment loss that will continue to be recognized over the next four years and mitigate the impact of any favorable returns in the future.

Table III-4
Actuarial Value Investment Gains/(Losses)

Actuarial Value of Assets - December 31, 2023	$	1,819,308,605
Contributions	$	80,685,000
Benefits Paid		(202,083,000)
Net Transfers		(255,000)
Administrative Expenses		(2,268,000)
Expected Investment Earnings (7.50%)		131,780,129
Expected Actuarial Value of Assets - December 31, 2024	$	1,827,167,734
Investment Gain / (Loss)	$	(6,191,089)
Actuarial Value of Assets - December 31, 2024	$	1,820,976,645
Return		7.15%

Investment Performance

The market value of assets (MVA) returned 9.73% during 2024, which is more than the assumed 7.50% return. A return of 7.15% on the actuarial value of assets (AVA) is primarily the result of the asset smoothing method being utilized for the calculation of the actuarial value of assets. Since only 20% of this year's gain from the performance of the System is recognized in a given year, in periods of very favorable performance, the AVA will not increase as rapidly as the MVA. In a period of unfavorable returns, the AVA will not decrease as fast as the MVA.

Table III-5
Annual Rates of Return

Plan Year	Investment Return Assumption	Market Value	Actuarial Value
2015	7.50%	(0.11%)	7.51%
2016	7.50%	9.24%	8.50%
2017	7.50%	14.51%	9.19%
2018	7.50%	(3.93%)	5.66%
2019	7.50%	16.40%	6.69%
2020	7.50%	8.03%	8.78%
2021	7.50%	18.06%	10.55%
2022	7.50%	(8.67%)	6.18%
2023	7.50%	11.81%	8.12%
2024	7.50%	9.73%	7.15%
10-Year Compound Average		**7.16%**	**7.82%**
5-Year Compound Average		**7.40%**	**8.14%**

SECTION IV – LIABILITIES

In this section, we present detailed information on System liabilities including:

- **Disclosure** of System liabilities at December 31, 2023 and December 31, 2024, and
- Statement of **changes** in these liabilities during the year.

Disclosure

Two types of liabilities are calculated and presented in this report. Each type is distinguished by the people ultimately using the figures and the purpose for which they are using them.

- **Present Value of Benefits:** Used for analyzing the financial outlook of the System. This represents the amount of money needed today to fund all future benefits and expenses of the System, assuming members continue to accrue benefits and all assumptions are met.
- **Actuarial Liability:** Used for funding calculations. This liability is calculated taking the present value of benefits above and subtracting the present value of future member contributions and future employer normal costs under an acceptable actuarial funding method. This method is referred to as the **Entry Age Normal** funding method.

None of the liability figures disclosed in this report is meant to be a measure of the System's settlement liability.

The following table discloses each of these liabilities for the current and prior valuations. With respect to the Actuarial Liability, a subtraction of the Actuarial Value of Assets yields a **net surplus** or an **unfunded liability**.

SECTION IV – LIABILITIES

Table IV-1
Liabilities/Net (Surplus)/Unfunded

	December 31, 2023	December 31, 2024
Present Value of Benefits		
Active Participants (Full Time)	$ 764,949,003	$ 805,155,737
Active Participants (Part Time)	5,871,183	6,488,057
Deferred Vesteds	26,487,632	27,881,066
Retirees	2,087,365,478	2,086,383,906
Present Value of Benefits (PVB)	**$ 2,884,673,296**	**$ 2,925,908,766**
City's Normal Cost*	$ 9,011,610	$ 9,356,749
Actuarial Liability		
Active Participants (Full Time)	$ 523,658,170	$ 547,070,024
Active Participants (Part Time)	5,871,183	6,488,057
Deferred Vesteds	26,487,632	27,881,066
Retirees	2,087,365,478	2,086,383,906
Actuarial Liability (AL)	**$ 2,643,382,463**	**$ 2,667,823,053**
Actuarial Value of Assets (AVA)	1,819,308,605	1,820,976,645
Net (Surplus)/Unfunded (AL – AVA)	**$ 824,073,858**	**$ 846,846,408**
Funded Status (AVA basis)	**68.8%**	**68.3%**

* *Includes administrative expense and net of Employee Contributions*

SECTION IV – LIABILITIES

Changes in Liabilities

Each of the liabilities disclosed in the prior table is expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New hires since the last valuation
- Benefits accrued since the last valuation
- Plan amendments changing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Members retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

Unfunded liabilities will change because of all of the above and due to changes in the System's assets resulting from the following:

- Employer contributions less than the full actuarial contribution
- Investment earnings different than expected
- A change in the method used to measure system assets

In each valuation, we report on those elements of change that are of particular significance, potentially affecting the long-term financial outlook of the System. Below we present key changes in liabilities since the last valuation.

Table IV-2
Change in Liabilities

	Present Value of Benefits	Actuarial Liability
Liabilities as of 12/31/2023	$ 2,884,673,296	$ 2,643,382,463
Liabilities as of 12/31/2024	$ 2,925,908,766	$ 2,667,823,053
Liability Increase (Decrease)	$ 41,235,470	$ 24,440,590
Change Due to:		
Assumption Change	$ 0	$ 0
Plan Changes	0	0
Actuarial (Gain)/Loss	NC	8,089,450
Benefits Accumulated and Other Sources	41,235,470	16,351,140

NC = not calculated

SECTION IV – LIABILITIES

Table IV-3 shows the components of the actuarial liability experience (gain)/loss. In total, the System had a small liability loss equating to just 0.3% of liabilities.

Table IV-3
Sources of Actuarial Liability (Gain)/Loss
($ in Thousands)

	Source	(Gain) / Loss Amount	% of Liability
1.	Salary	$ 3,358.0	0.1%
2.	Active experience (retirements, termination, etc.)	338.2	0.0%
3.	New entrants	5,507.2	0.2%
4.	Inactive mortality	(5,766.2)	(0.2%)
5.	Inactive experience	(1,707.6)	(0.1%)
6.	Rehired inactives	123.9	0.0%
7.	Benefit payments different than expected	9,291.1	0.4%
8.	DROP experience	(2,697.2)	(0.1%)
9.	Miscellaneous / Change in Account Balances	(357.9)	0.0%
10.	Total Liability (Gain) / Loss	$ 8,089.5	0.3%

SECTION V – CONTRIBUTIONS

In the process of evaluating the financial condition of any pension system, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions is needed to properly maintain the funding status of the system. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that is both stable and predictable.

For this system, the funding method employed is the **Entry Age Actuarial Cost Method**. Under this method, there are three key components to calculating the City's Actuarially Determined Contribution (ADC): the **normal cost rate**, the **unfunded actuarial liability rate** (UAL rate), and the **administrative expense rate**. The normal cost rate represents the value of benefits being earned by the active members, as a percent of pay, for the upcoming year. The City's normal cost rate is calculated by taking the total normal cost rate for full-time actives less the member contribution rate of 9%. Based on the Board's funding benchmark, the unfunded actuarial liability rate represents the amount necessary, as a level dollar amount, to pay off the unfunded liability over an open 30-year period. The final piece of the ADC is the administrative expense rate of 0.80% of pay.

However, the City does not contribute based on the City's Actuarially Determined Contribution rate, nor should the ADC rate be construed as a recommended contribution rate. If the City were to contribute based on the City's ADC, the unfunded liability would not be expected to be fully paid off based on the open 30-year amortization period. The City currently contributes 17.75% of pay for full-time active and DROP members. A contribution totaling 3.00% of pay is made on behalf of part-time actives.

Lastly, we have assumed that the City will contribute $2.7 million by July 31 of each year, with the last payment made by July 31, 2035, to pay for the increase in liabilities due to the Early Retirement Incentive Program (ERIP).

SECTION V – CONTRIBUTIONS

Table V-1
Development of Actuarially Determined Contribution Rate

	December 31, 2023 (for Fiscal Year ending June 30, 2025)	December 31, 2024 (for Fiscal Year ending June 30, 2026)
1. Actuarial Liability		
a. Active Employees (Full Time)	$ 523,658,170	$ 547,070,024
b. Active Employees (Part Time)	5,871,183	6,488,057
c. Vested Terminated Members	26,487,632	27,881,066
d. Retired Members and Inactive Members	2,087,365,478	2,086,383,906
e. Total Present Value	$ 2,643,382,463	$ 2,667,823,053
2. Actuarial Value of Assets	$ 1,819,308,605	$ 1,820,976,645
3. Unfunded Actuarial Liability (UAL) (1) - (2)	$ 824,073,858	$ 846,846,408
4. Gross Normal Cost Rate	12.24%	12.10%
5. Amortization of Prior Plan Changes		
a. Present Value of Remaining Amortization Payments for ERIP	$ 21,619,091	$ 20,445,653
b. Years of Amortization Payments Remaining	12	11
c. ERIP Amortization Payment[1]	2,711,907	2,711,907
d. Total Active Payroll[2]	240,111,029	254,934,004
e. Total Amortization Payment (as % of Payroll) [5c. ÷ 5d.]	1.13%	1.06%
6. UAL Amortization Payment		
a. UAL not due to Plan Changes	$ 802,454,767	$ 826,400,755
b. 30-Year UAL Amortization Payment[3]	65,531,819	67,487,350
c. Total Active Payroll[2]	240,111,029	254,934,004
d. Total Amortization Payment (as % of Payroll) [6b. ÷ 6c.]	27.29%	26.47%
7. Administrative Expenses	0.80%	0.80%
8. Expected Employee Contributions	(9.00%)	(9.00%)
9. City's Actuarial Determined Contribution Rate [4. + 5e. + 6d. + 7. + 8.]	32.46%	31.43%
10. City's Estimated ADC in Dollars [5d. x 9.]	$ 77,940,000	$ 80,126,000

[1] Adjusted with interest to July 31.

[2] Adjusted with interest to mid-year based on General Wage Inflation of 3.75%.

[3] Adjusted with interest to mid-year.

SECTION VI – ACCOUNTING STATEMENT INFORMATION

Table VI-1 shows the history of gains and losses and Table VI-2 shows the Schedule of Funding Progress.

Table VI - 1
Gain or (Loss) for Year Ending December 31,
($ in Thousands)

Type of Activity	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Investment Income	$ 413	$ 16,400	$ 28,361	$ (31,660)	$ (13,917)	$ 21,573	$ 52,277	$ (23,354)	$ 10,691	$ (6,191)
Combined Liability Experience	(777)	(1,424)	(23,609)	31,318	(14,043)	(10,191)	(12,922)	3,553	(11,020)	(8,089)
Total Gain (Loss)	$ (364)	$ 14,976	$ 4,752	$ (342)	$ (27,960)	$ 11,382	$ 39,355	$ (19,801)	$ (329)	$ (14,280)
Non-Recurring Items	345,573	(27,754)	(48,308)	(39,236)	0	(24,671)	0	(39,821)	0	0
Composite Gain (Loss) during Year	$ 345,209	$ (12,778)	$ (43,556)	$ (39,578)	$ (27,960)	$ (13,289)	$ 39,355	$ (59,622)	$ (329)	$ (14,280)

Table VI - 2
Schedule of Funding Progress
($ in Thousands)

Actuarial Valuation Date	(a) Actuarial Value of Assets	(b) Entry Age Actuarial Liability	(b) - (a) Unfunded Actuarial Liability	(a) ÷ (b) Funded Ratio	(c) Covered Payroll	[(b) - (a)] ÷ (c) UAL as a % of Covered Payroll
12/31/2015	$ 1,703,002	$ 2,207,484	$ 504,482	77.1%	$ 174,963	288.3%
12/31/2016	1,732,053	2,252,875	520,822	76.9%	179,463	290.2%
12/31/2017	1,772,494	2,346,906	574,412	75.5%	191,806	299.5%
12/31/2018	1,755,861	2,417,515	661,654	72.6%	206,122	321.0%
12/31/2019	1,756,533	2,466,349	709,816	71.2%	215,460	329.4%
12/31/2020	1,786,650	2,533,247	746,597	70.5%	205,439	363.4%
12/31/2021	1,831,955	2,560,259	728,304	71.6%	204,223	356.6%
12/31/2022	1,811,291	2,614,702	803,411	69.3%	218,835	367.1%
12/31/2023	1,819,309	2,643,383	824,074	68.8%	235,732	349.6%
12/31/2024	1,820,977	2,667,823	846,846	68.3%	250,284	338.4%

SECTION VI – ACCOUNTING STATEMENT INFORMATION

Additional information as of December 31, 2024:

Valuation Date	December 31, 2024
Actuarial Cost Method	Entry Age
Amortization Method	Level Dollar Open
Amortization Period	30 Years
Asset Valuation Method	Five Year Smoothed Market Value
Actuarial Assumptions	
Investment Return (includes inflation)	7.50%
Projected Salary Increases (includes inflation)	3.75% - 8.75%
Inflation	2.75%
Cost-of-Living Adjustments	3.00%

APPENDIX A – MEMBERSHIP INFORMATION

The data for this valuation was provided electronically by the Cincinnati Retirement System staff. Cheiron did not perform a formal audit of the data. However, we did perform checks of the data for reasonableness and consistency in accordance with Actuarial Standards of Practice No. 23, *Data Quality*.

Data reported in this Appendix is as of December 31, 2024.

APPENDIX A – MEMBERSHIP INFORMATION

Status Reconciliation of Participating Members

	Active Full-Time	Active Part-Time	Terminated Vested	Retired	Disabled	Beneficiary	Total
As of December 31, 2023	2,823	1,270	282	3,505	116	642	8,638
New Hires	68	700					768
To Active Part-Time	(35)	35					0
To Active Full-Time	211	(211)					0
Terminated Vested	(34)	(11)	45				0
Terminated Non-Vested	(65)	(329)					(394)
Refund of Contributions							0
Retired	(69)		(11)	80			0
Disabled	(1)				1		0
Deceased with Beneficiary				(39)		39	0
Deceased without Beneficiary			(16)	(68)	(6)	(36)	(126)
Return to Active Status	2		(2)				
Miscellaneous Changes	0	(27)	0	0	0		(27)
As of December 31, 2024	2,900	1,427	298	3,478	111	645	8,859

APPENDIX A – MEMBERSHIP INFORMATION

Active Member Count by Age and Service as of December 31, 2024										
	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Total Count
Under 25	60	7	0	0	0	0	0	0	0	67
25-29	165	39	13	0	0	0	0	0	0	217
30-34	163	114	23	7	0	0	0	0	0	307
35-39	143	121	68	32	4	0	0	0	0	368
40-44	129	114	83	68	42	3	0	0	0	439
45-49	86	98	59	56	52	35	4	0	0	390
50-54	77	87	61	70	64	68	4	0	0	431
55-59	43	56	45	44	75	62	7	3	0	335
60-64	29	45	36	30	45	37	9	6	1	238
65-69	15	16	12	12	17	8	4	3	1	88
70 & Over	1	4	3	1	4	3	1	1	2	20
Total Count	911	701	403	320	303	216	29	13	4	2,900

Average Service: 11.2

APPENDIX A – MEMBERSHIP INFORMATION

Average Compensation of Active Members by Age and Service as of December 31, 2024										
	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Avg. Comp.
Under 25	$56,255	$58,500	$0	$0	$0	$0	$0	$0	$0	$56,490
25-29	69,176	66,063	68,806	0	0	0	0	0	0	68,594
30-34	72,724	80,048	73,647	76,847	0	0	0	0	0	75,607
35-39	74,192	83,636	86,544	90,576	90,196	0	0	0	0	81,178
40-44	79,033	90,308	92,283	95,680	81,745	65,199	0	0	0	87,210
45-49	75,022	81,483	81,125	87,174	97,279	94,549	88,393	0	0	84,171
50-54	80,418	85,632	89,650	99,022	95,031	92,064	83,684	0	0	89,836
55-59	75,880	84,275	80,554	89,119	86,883	93,655	97,808	78,175	0	85,882
60-64	86,834	84,942	87,964	92,278	83,712	86,990	73,270	91,438	111,574	86,474
65-69	79,750	89,063	78,525	92,597	81,921	80,863	90,219	96,845	60,764	84,392
70 & Over	38,006	80,626	92,225	77,277	72,480	68,649	111,309	66,920	82,294	77,657
Average	73,663	83,097	85,356	92,606	88,780	90,941	86,365	87,739	84,232	82,730

APPENDIX A – MEMBERSHIP INFORMATION

Summary of Inactive Membership Data as of December 31, 2024			
Group	Count	Total Annual Benefit	Average Annual Benefit
Retirees	3,478	$ 170,790,311	$ 49,106
Disableds	111	$ 2,253,425	$ 20,301
Survivor	645	$ 20,548,409	$ 31,858
Total	4,234	$ 193,592,145	$ 45,723

Annual Benefits by Age as of December 31, 2024			
Attained Age	Number of Members	Total Annual Benefits	Average Annual Benefit
< 40	2	$ 91,823	$ 45,912
40 - 44	2	37,027	18,513
45 - 49	3	79,995	26,665
50 - 54	53	2,728,568	51,482
55 - 59	257	12,281,826	47,789
60 - 64	595	26,459,603	44,470
65 - 69	807	36,408,959	45,116
70 - 74	931	44,772,513	48,091
75 - 79	737	35,769,851	48,534
80 - 84	422	18,971,050	44,955
85 - 89	271	10,977,432	40,507
90 - 94	110	3,605,433	32,777
95 - 99	37	1,281,057	34,623
100+	7	127,008	18,144
Total	**4,234**	**$ 193,592,145**	**$ 45,723**

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

Rationale for Economic and Demographic Assumptions
The actuarial assumptions were adopted by the Board of Trustees on March 23, 2023 based on an experience study performed for the period January 1, 2017 to December 31, 2021. The results of this study were presented to the Board on March 2, 2023 and are incorporated into this report by reference. An investment return assumption of 7.50% was used as prescribed by item 29 of the Collaborative Settlement Agreement (CSA) signed October 5, 2015. In conjunction with the most recent experience study, the investment consultant reported an annual expected return of 7.58% based on the System's portfolio and their most recent capital market assumptions.

1. **Investment Rate of Return**

   7.50% per year, net of investment expenses

2. **Inflation Assumption**

   2.75% per annum

3. **Expenses**

   Estimated budgeted administrative expenses of 0.80% of payroll are added to the normal cost rate

4. **Salary Increases**

   Salary increases are assumed to vary by service. Representative rates are as follows:

Service	Annual Increase
0	8.75%
1	8.25
2	7.75
3	7.25
4	6.75
5	6.25
6	5.75
7	5.25
8-14	4.75
15-20	4.25
21+	3.75

5. **Mortality Rates**

   Active Members: Pub-2010 General Employees Amount-Weighted Mortality Table [*PubG-2010 Employee*] as published by the Society of Actuaries (SOA), and with future improvement from the base year of 2010 on a generational basis using SOA's Scale MP-2021.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Healthy Inactive Members: Pub-2010 General Healthy Retirees Amount-Weighted Mortality Table [*PubG-2010 Healthy Retiree*] as published by the SOA with a 110% adjustment for males and 115% adjustment for females, and with future improvement from the base year of 2010 on a generational basis using SOA's Scale MP-2021.

Disabled Inactive Members: Pub-2010 Non-Safety Disabled Retirees Amount-Weighted Mortality Table [*PubNS-2010 Disabled Retiree*] as published by the SOA, and with future improvement from the base year of 2010 on a generational basis using SOA's Scale MP-2021.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

6. Retirement Rates

Annual Rates of Retirement Groups C, E, and F				
Age	5 Years of Service	6 – 24 Years of Service	25 – 28 Years of Service	29+ Years of Service
50-54				60.0%
55-56			6.0%	60.0
57			6.0	70.0
58			6.0	80.0
59			10.0	80.0
60	12.5%	12.5%	12.5	60.0
61	12.5	12.5	12.5	40.0
62-63	12.5	12.5	12.5	50.0
64	12.5	12.5	12.5	60.0
65	12.5	20.0	20.0	80.0
66	12.5	12.5	12.5	80.0
67	12.5	35.0	35.0	80.0
68-69	12.5	20.0	20.0	80.0
70	100.0	100.0	100.0	100.0

Annual Rates of Retirement Group G					
Age	5 Years of Service	6 – 14 Years of Service	15 – 28 Years of Service	29-30 Years of Service	31+ Years of Service
57			6.0%	6.0%	6.0%
58			6.0	6.0	6.0
59			10.0	10.0	10.0
60			10.0	10.0	10.0
61			10.0	10.0	10.0
62			10.0	60.0	50.0
63			10.0	60.0	50.0
64			10.0	70.0	60.0
65			10.0	80.0	80.0
66			10.0	80.0	80.0
67	12.5%	35.0%	35.0	60.0	80.0
68	12.5	20.0	20.0	80.0	80.0
69	12.5	20.0	20.0	80.0	80.0
70	100.0	100.0	100.0	100.0	100.0

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

7. Termination Rates

Sample termination rates are as follows:

Annual Rates of Termination	
Years of Service	Rate of Withdrawal
< 1	15.00%
1	10.00
2	8.00
3	7.00
4	6.50
5	6.00
6	5.00
7	4.00
8	3.00
9-14	2.50
15+	2.00

60% of vested members who terminate elect to leave their contributions in the Plan in order to be eligible for a benefit at their normal retirement; 40% of members elect to withdraw their contributions

8. Disability Rates

Sample disability rates are as follows:

Age	Annual Rates of Disability[1]
20	0.0025%
25	0.0050%
30	0.0075%
35	0.0125%
40	0.0225%
45	0.0375%
50	0.0675%
55	0.1050%
60	0.1250%
64	0.1250%

[1] Rates are 0% when member is eligible for normal retirement

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

9. Part-time Active Members

All part-time active members are assumed to receive a refund of their employee contributions with interest upon leaving the System.

10. DROP Participation

30% of eligible CSA Employee members eligible for DROP benefits are assumed to decline participation and 70% are assumed to elect participation. Those electing to participate are assumed to remain in DROP for three years.

11. DROP Crediting Rate

3.25% per annum

12. Percent Married

60% of members are assumed to be married for the purpose of valuing pre-retirement survivor benefits.

13. Spouse Age Difference

Unless otherwise reported in the data, the male spouse is assumed to be three years older than the female spouse.

14. Changes Since Last Valuation

None

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

B. Methods

1. Actuarial Funding Method

The funding method for the valuation of liabilities used for this valuation is the Entry Age Normal (EAN) method. Under this funding method, a normal cost rate is determined as a level percentage of pay for each active member. The normal cost rate multiplied by payroll equals the total normal cost for each member. The normal cost contributions (Employer and Member) will pay for projected benefits at retirement for each active member.

The actuarial liability is the difference between the present value of future benefits and the present value of future normal costs. The difference between this actuarial liability and the actuarial value of assets is the unfunded actuarial liability (UAL).

The portion of the actuarial liability in excess of plan assets, the UAL, is amortized to develop an additional cost that is added to each year's employer's normal cost. Under this funding method, actuarial gains and losses are directly reflected in the size of the unfunded actuarial liability. The amortization method is described below.

2. Amortization Method

The City's actuarially determined contribution (ADC) is determined as the sum of (a) the employer's normal cost rate, (b) the administrative expense rate, and (c) the UAL rate. Based on the Board's Funding Benchmark, the UAL rate represents the amount necessary to amortize the UAL (excluding liabilities due to the ERIP) over a 30-year open period as a level dollar amount. If the City were to contribute based on this ADC, the unfunded liability would not be expected to be fully paid off based on the open 30-year amortization period.

In addition, the City is paying for the Early Retirement Incentive Program in 15 level annual amounts. The first contribution for the ERIP was made in December 2021. The City will make the remaining contributions by July 31 of each future year, with the last contribution to be paid July 2035.

3. Actuarial Value of Assets

The actuarial value of assets recognizes a portion of the difference between the actual market value of assets and the expected market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between actual market value and expected market value. In addition, the actuarial value of assets cannot be less than 80%, or more than 120%, of the market value of assets.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

4. ASOP No. 4 Disclosure

ASOP No. 4 requires the disclosure of a reasonable actuarially determined contribution (ADC), which includes the use of an amortization method that produces amortization payments that fully amortize the unfunded actuarial liability within a reasonable time period or reduces the outstanding balance by a reasonable amount each year. The Board's current Funding Benchmark (or City's ADC) described in item 2 above does not meet these criteria. For purposes of this disclosure requirement only, we have calculated a reasonable ADC based on amortizing the unfunded actuarial liability (excluding the ERIP) over a closed 20-year level dollar layered amortization method first effective December 31, 2023. This results in a reasonable ADC of 36.32% as a percent of payroll, compared to the Board's Funding Benchmark (City's ADC) of 31.43% as shown in Table I-1.

The actuarial methods used to determine the reasonable ADC described above have been selected to balance benefit security, intergenerational equity, and stability of contributions. The selection of the actuarial methods has taken into account the demographics of plan members, the funding goals and objectives of the City, and the need to accumulate assets to make benefit payments when due. The methods used are not the only methods that would result in a reasonable ADC. There are a range of methods that would result in reasonable ADCs.

5. Valuation Software

Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate the liabilities, normal costs, and projected benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

6. Projection Model

This report includes deterministic projections of future contributions, assets, and funded status for the purpose of assisting the Board and CRS staff with the management of the System. We have used Cheiron's *P-Scan* model to develop these projections. The model is also used to stress test the impact of volatile asset returns over the projection period.

The *P-Scan* projection uses standard roll-forward techniques that implicitly assume a stable active population. Changes in the demographic characteristics of the active population will lead to different results.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

1. Membership

All employees of the City of Cincinnati shall be members of the System except for the following:

- Members of the Police and Fireman's Disability and Pension Fund of Ohio,
- Elected City officials,
- Employees for whom the City contributes to the Ohio Public Employees Retirement System,
- Members of the faculties, teaching staffs, research staffs, and administrative staff of the University of Cincinnati appointed to positions covered by the Teachers Insurance and Annuity Association Social Security Plan,
- Persons becoming employees after June 1, 1961, who are employed in any of the following employment classifications: bricklayer, carpenter, carpenter foreman, cement finisher, electrician, electrician foreman, painter, painter foreman, plasterer, plumber, sign painter, steamfitter and pipefitter, tinsmith, or composition roofer,
- Persons hired as police recruits who are not currently enrolled as a member of the System prior to their date of hire, and
- Current contributing members of the Ohio School Employees Retirement System (SERS) or the Ohio State Teachers Retirement System (STRS) are hired by the City on a seasonal, temporary, or part-time basis.

Members of the System are divided into the following groups:

Group	Criteria
A, B	Any member who has retired prior to 7/1/2011
C	Any member who, as of June 30, 2011, was an active or deferred vested member and had either: a) Completed at least 30 years of service, or b) Reached age 60 and completed at least 5 years of service
D	Any active member who, between July 1, 2011 and December 31, 2013: 1) Either a) Completed at least 30 years of service, or b) Reached age 60 and completed at least 5 years of service; and 2) Retired prior to January 1, 2014
E	Any active member who: 1) Between July 1, 2011 and December 31, 2013 either: a) Completed at least 30 years of service, or b) Reached age 60 and completed at least 5 years of service; and 2) Retires on or after January 1, 2014
F	Any active member whose most recent membership enrollment date was prior to January 1, 2010 and who is not in groups A through E Any deferred vested member whose most recent membership enrollment date was prior to January 1, 2010, is not in groups A through E, and has at least five years of service prior to the date separated from employment

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Group	Criteria
G	Any member whose most recent membership enrollment date is on or after January 1, 2010, or Any member rehired on or after January 1, 2010, who has fewer than five years of service as of June 30, 2011, or Any retiree of the System who is receiving service retirement allowance and is re-employed on or after April 1, 2013

Members in the System are further classified as follows:

Class	Criteria
CSA Retiree (CSA participants corresponding to Retirees Class)	Group A and B members and their designated optionees
CSA Employee (CSA participants corresponding to Current Employees Class)	Group C, D, E and F members (and their designated optionees) that were vested and employed on July 1, 2011
CMC Employee (Non-CSA participants)	Group E and F members (and their designated optionees) that were either vested or employed on July 1, 2011 and no break in employment service since January 1, 2010 and prior to becoming vested
Non-CSA	Group G members and their designated optionees

APPENDIX C – SUMMARY OF PLAN PROVISIONS

2. Service Retirement Benefit

Groups A, B, C and D

Normal Retirement Eligibility	Age 60 with 5 years of service or 30 years of service
Early Retirement Eligibility	Age 55 with 25 years of service
Benefit Formula Multiplier	Members hired prior to July 12, 1998 were given a one-time irrevocable option to choose either the benefit formula using a 2.22% multiplier or the benefit formula using a 2.50% multiplier. For members hired on or after July 12, 1998, benefits are calculated using a 2.50% multiplier
Average Highest Compensation	Average of the highest three consecutive years of compensation
Years of Service	Years or fractional years of full-time service rendered to the plan sponsor
Benefit	a) An annuity which is actuarially equivalent to the accumulated contributions of the member at the time of retirement b) A pension which together with the annuity produces a total annual retirement allowance equal to the product of the applicable benefit formula multiplier, the member's average highest compensation and the number of years of service Early Retirement Benefit is actuarially reduced from normal retirement age

Group E

Normal Retirement Eligibility	Age 60 with 5 years of service or 30 years of service
Early Retirement Eligibility	Age 55 with 25 years of service

Retirement benefit is composed of as many as three components:

Part A Benefit
For service earned through December 31, 2013

Part B Benefit
For service earned on and after January 1, 2014 up to a combined (Part A and Part B) 20 years of service

APPENDIX C – SUMMARY OF PLAN PROVISIONS

	Part C Benefit For service earned on and after January 1, 2014 in excess of a combined (Part A and Part B) 20 years of service
Benefit Formula Multiplier	*Part A Benefit* Members hired prior to July 12, 1998 were given a one-time irrevocable option to choose either the benefit formula using a 2.22% multiplier or the benefit formula using a 2.50% multiplier. For members hired on or after July 12, 1998, benefits are calculated using a 2.50% multiplier *Part B Benefit* Members hired prior to July 12, 1998 were given a one-time irrevocable option to choose either the benefit formula using a 2.22% multiplier or the benefit formula using a 2.50% multiplier. For members hired on or after July 12, 1998, benefits are calculated using a 2.50% multiplier *Part C Benefit* 2.20% multiplier
Average Highest Compensation	*Part A Benefit* Average of the highest three consecutive years of compensation *Part B Benefit* Average of the highest five consecutive years of compensation *Part C Benefit* Average of the highest five consecutive years of compensation
Years of Service	Years or fractional years of full-time service rendered to the plan sponsor

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Benefit	a) An annuity which is actuarially equivalent to the accumulated contributions of the member at the time of retirement b) A pension which together with the annuity produces a total annual retirement allowance equal to the sum of Part A, Part B, and Part C benefits each of which is the product of the applicable benefit formula multiplier, the applicable average highest compensation, and the applicable number of years of service Early Retirement Benefit is actuarially reduced from normal retirement age

Group F

Normal Retirement Eligibility	Age 60 with 5 years of service or 30 years of service
Early Retirement Eligibility	Age 55 with 25 years of service

Retirement benefit is composed of as many as three components:

	Part A Benefit For service earned through June 30, 2011 *Part B Benefit* For service earned on and after July 1, 2011 up to a combined (Part A and Part B) 20 years of service *Part C Benefit* For service earned on and after July 1, 2011 in excess of a combined (Part A and Part B) 20 years of service
Benefit Formula Multiplier	*Part A Benefit* Members hired prior to July 12, 1998 were given a one-time irrevocable option to choose either the benefit formula using a 2.22% multiplier or the benefit formula using a 2.50% multiplier. For members hired on or after July 12, 1998, benefits are calculated using a 2.50% multiplier

APPENDIX C – SUMMARY OF PLAN PROVISIONS

	Part B Benefit Members hired prior to July 12, 1998 were given a one-time irrevocable option to choose either the benefit formula using a 2.22% multiplier or the benefit formula using a 2.50% multiplier. For members hired on or after July 12, 1998, benefits are calculated using a 2.50% multiplier
	Part C Benefit 2.20% multiplier
Average Highest Compensation	*Part A Benefit* Average of the highest three consecutive years of compensation
	Part B Benefit Average of the highest five consecutive years of compensation
	Part C Benefit Average of the highest five consecutive years of compensation
Years of Service	Years or fractional years of full-time service rendered to the plan sponsor
Benefit	a) An annuity which is actuarially equivalent to the accumulated contributions of the member at the time of retirement b) A pension which together with the annuity produces a total annual retirement allowance equal to the sum of Part A, Part B, and Part C benefits each of which is the product of the applicable benefit formula multiplier, the applicable average highest compensation, and the applicable number of years of service
	Early Retirement Benefit is actuarially reduced from normal retirement age

Group G

Normal Retirement Eligibility	Age 67 with 5 years of service or age 62 with 30 years of service
Early Retirement Eligibility	Age 57 with 15 years of service

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Benefit Formula Multiplier	Benefit is calculated using a 2.20% multiplier for all years of service up to 30 years and a 2.00% multiplier for all service in excess of 30 years
Average Highest Compensation	Average of the highest five consecutive years of compensation
Years of Service	Years or fractional years of full-time service rendered to the plan sponsor
Benefit	a) An annuity which is actuarially equivalent to the accumulated contributions of the member at the time of retirement b) A pension which together with the annuity produces a total annual retirement allowance equal to the product of the applicable benefit formula multiplier, the member's average highest compensation and the number of years of service Early Retirement Benefit is actuarially reduced from normal retirement age

All Groups

In no event shall the retirement allowance be greater than 90% of a member's average highest compensation.

In no event shall the retirement allowance be greater than that permitted by Section 415 of the Internal Revenue Code.

The average highest compensation used in the calculation of benefits depends on which benefit formula applies to the member. The formula that uses the 2.22% multiplier includes overtime compensation and the lump sum payment for unused vacation and sick pay. The formulas that use all other multipliers do not include overtime or the lump sum payment.

3. Disability Retirement Benefit

Eligibility	5 years of service
Benefit	90% of normal retirement benefit at disability date but not less than the smaller of: a) 25% of the average highest compensation b) 90% of the retirement benefit the member would have become entitled to had he continued in service to normal retirement age without further change in average highest compensation

APPENDIX C – SUMMARY OF PLAN PROVISIONS

4. Deferred Vested Retirement Benefit

Eligibility	5 years of service
Benefit	Normal retirement benefit beginning at normal retirement age

5. Pre-retirement Death Benefit

1) Contributions with interest

2) Survivor Benefits according to the type of survivors if the member has at least 18 months of service

6. Post-retirement Death Benefit

1) $5,000 lump sum for Groups A and B

2) If no Joint and Survivor Option is selected, the balance of member contributions not received back in retirement benefit payments prior to death

7. Optional Forms of Benefit

1) Joint and 100% Survivor Payment
2) Joint and 50% Survivor Payment
3) 66 2/3% Joint and Survivor Payment
4) 80% Joint and Survivor Payment

8. Cost-of-Living Adjustments (COLA)

Groups A and B	3% simple COLA based on the member's benefit on January 1, 2016 including all previously granted COLAs. Effective January 1, 2016, the COLA will be suspended for a 3-year period In the 3rd year of the COLA suspension (calendar year 2018), members will receive a one-time payment that is the lesser of 3% of their base pension benefit or $1,000. This payment will be made on January 1, or the anniversary date of the member's retirement according to when the member normally receives a COLA
Groups C, D, E, F and G	3% simple COLA based on the initial gross monthly benefit with a 3-year delay following each member's date of retirement
Poverty Exception	Any member of the Retirees Class or Current Employees

	Class who retired or retires with at least 5 years of service and whose household income is below 150% of federal poverty guidelines will receive a 3% compounding COLA until such time income exceeds 150% of federal poverty guidelines, at which time the member will receive a 3% simple COLA

9. Contributions

Members	Each member, commencing January 1, 1978, contributes at a rate of 7.0% of the salary used to compute retirement benefits until retirement. Beginning January 1, 2010, the employee contribution rate was increased 0.5% per year over 4 years to reach 9.0% of pay. The CSA establishes that the contribution rate for members shall not exceed 9.0% of pay for the term of the agreement
Employers	The sponsoring employer makes annual contributions based on members' salaries so that, when members become eligible for benefits, reserves will have been accumulated to provide the pension and other benefits payable by the plan on account of creditable service

10. Deferred Retirement Option Plan (DROP)

Eligibility	Current Employees Class members with at least 30 years of service
Maximum Participation Period	5 years
Minimum Participation Period	Participation in DROP for less than 2 years results in forfeiture of all interest earnings credited to the member's DROP account
Benefit	Monthly pension benefit calculated as if the eligible member actually retired on their DROP effective date, including any adjustments for an assigned optionee. The monthly pension benefit will be contributed to the member's DROP account in the CRS Pension Trust and paid out as a lump sum upon termination from the DROP
Employee Contributions	Members continue to contribute 9.0% of pay while participating in DROP. 75% of the contribution is credited to the member's DROP account and the remaining 25% of the contribution is paid to the CRS Pension Trust to offset the costs of administering the DROP

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Employer Contributions	Employer contributions to the CRS Pension Trust continue to apply in the same manner as for other actively employed members who are not participating in the DROP. Employer contributions are not credited to the member's DROP account
Interest	DROP account balances are credited each month at a rate equal to the 10-year U.S. Treasury Note Business Day Series adjusted quarterly with a cap of 5% but not less than 0%

11. Changes Since Last Valuation

None

APPENDIX D – GLOSSARY OF TERMS

1. **Actuarial Assumptions**

   Assumptions as to the occurrence of future events affecting pension costs, such as mortality, withdrawal, disability, and retirement; changes in compensation; inflation; rates of investment earnings, and asset appreciation or depreciation; and other relevant items.

2. **Actuarial Cost Method**

   A procedure for determining the Actuarial Present Value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a Normal Cost and an Actuarial Liability.

3. **Actuarial Gain/(Loss)**

   A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

4. **Actuarial Liability**

   The portion of the Actuarial Present Value of Projected Benefits will not be paid by future Normal Costs. It represents the value of the past Normal Costs with interest to the valuation date.

5. **Actuarial Present Value (Present Value)**

   The value as of a given date of a future amount or series of payments. The Actuarial Present Value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made. As a simple example: assume you owe $100 to a friend one year from now. Also, assume there is a 1% probability of your friend dying over the next year, in which case you will not be obligated to pay him. If the assumed investment return is 10%, the actuarial present value is:

Amount		Probability of Payment		1/(1+Investment Return)		
$100	x	(1 - .01)	x	1/(1+.1)	=	$90

6. **Actuarial Valuation**

   The determination, as of a specified date, of the Normal Cost, Actuarial Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

APPENDIX D – GLOSSARY OF TERMS

7. **Actuarial Value of Assets**

   The value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an Actuarial Valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values. This way long-term costs are not distorted by short-term fluctuations in the market.

8. **Actuarially Equivalent**

   Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.

9. **Amortization Payment**

   The portion of the pension plan contribution which is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

10. **Entry Age Normal Cost Method**

    A method under which the Actuarial Liability is calculated as the Actuarial Present Value of the Projected Benefits allocated to periods prior to the valuation year.

11. **Funded Ratio**

    The ratio of the Actuarial Value of Assets to the Actuarial Liabilities.

12. **Investment Return Assumption**

    The assumed interest rate used for projecting dollar related values in the future.

13. **Mortality Table**

    A set of percentages which estimate the probability of death at a particular point in time. Typically, the rates are annual and based on age and sex.

14. **Normal Cost**

    That portion of the Actuarial Present Value of pension plan benefits and expenses, which is allocated to a valuation year by the Actuarial Cost Method.

APPENDIX D – GLOSSARY OF TERMS

15. Projected Benefits

Those pension plan benefit amounts which are expected to be paid in the future under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and increases in future compensation and service credits.

16. Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets.

Classic Values, Innovative Advice

Classic Values, Innovative Advice

City of Cincinnati

Other Postemployment Benefits Actuarial Valuation Report as of December 31, 2024

Produced by Cheiron

April 2025

TABLE OF CONTENTS

April 23, 2025

Board of Trustees
Cincinnati Retirement System
801 Plum Street, Suite 328
Cincinnati, Ohio 45202

Dear Members of the Board:

As requested, we have performed an actuarial valuation of the post-employment benefits provided by the Retirement System for Employees of the City of Cincinnati (CRS) as of December 31, 2024. Valuation results shown for valuations prior to 2018 were derived from the prior actuary's report.

The purpose of this report is to present the annual actuarial valuation of the City of Cincinnati Postemployment Benefit Plan. This report is for the use of the City and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. Any other user of this report is not an intended user and is considered a third party.

The results of this valuation rely on future plan experience conforming to the underlying assumptions and methods outlined in this report. Future results may differ significantly from the current results presented in this report due to such factors as the following: Plan experience differing from that anticipated by the assumptions, changes in assumptions, and changes in plan provisions or applicable law. Actuarial computations are calculated based on our understanding of GASB 74/75 and are for purposes of fulfilling employer funding requirements. Determinations for purposes other than meeting employer funding requirements may be significantly different from the results in this report. Additional accounting disclosures for the fiscal year ending June 30, 2025 related to GASB Statements 74 and 75 will be provided in a separate report.

Appendix A describes the Participant Data. Appendix B outlines Assumptions and Methods used in calculating the figures throughout the report. Appendix C contains our understanding of the substantive plan provisions based on the information provided by the City.

In preparing our report, we relied without audit, on information (some oral and some written) supplied by Plan Administrators. This information includes, but is not limited to, the plan provisions, employee data, and financial information. The demographic assumptions used in this report were based on the City's actuary's experience study adopted March 23, 2023. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

This actuarial valuation reflects a partial roll-forward valuation in which contributions, trend assumptions, and census data were updated. Claims and expenses were trended from the December 2023 valuation, using the updated trends that reflect the updates to the implementation rules of the Inflation Reduction Act and its emerging impact on claims. The retiree health care plan contribution rates for the Model plan were updated to reflect new point grid effective July 1, 2024.

The claim costs and trend assumptions reflect the Inflation Reduction Act of 2022 (the Act) including associated regulations and market responses to date. As the regulations and market responses evolve, the impact on future costs could vary significantly from those assumed in this valuation. This report does not reflect any additional modifications to the Part D program communicated by the Centers for Medicare & Medicaid Services (CMS) in their Ratebook Announcement published on April 7, 2025.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we collectively meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This actuarial valuation report was prepared for the City of Cincinnati for the purposes described herein and for the use by the Plan Auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

Sincerely,
Cheiron

Elisabeth Mercer

Gaelle Gravot, FSA, MAAA	Elisabeth Mercer, FSA, EA, MAAA
Principal Consulting Actuary	Principal Consulting Actuary

SECTION I – VALUATION SUMMARY

The City of Cincinnati has engaged Cheiron to provide an analysis of its post-employment benefit liabilities as of December 31, 2024. The primary purposes of performing this actuarial valuation are to:

- Estimate the Actuarially Determined Contribution (ADC) and the Actuarial Liability (AL) of the retiree health benefits following the Actuarial Standards of Practice,
- Provide disclosures for financial statements, and
- Provide projections for the ADC, Net OPEB Liability (NOL), and Actuarial Liabilities.

We have determined costs, liabilities, and trends for the substantive plan using actuarial assumptions and methods that we consider reasonable.

GASB's OPEB Requirements

GASB's Statement 74 refers to the financial reporting for post-employment benefit plans other than pension plans, and Statement 75 refers to the employer accounting for these plans. Statement 74 is generally applicable where an entity has a separate trust or fund for OPEB benefits. We understand that the City of Cincinnati has a trust used to fund future OPEB obligations.

Statement 75 requires the employer to book the actuarial cost (net of employee, retiree, and their dependents' contributions) of the Plan as an expense on its financial statements. Additional disclosures required by GASB 74 and 75 include a description of the substantive plan, summary of significant accounting policies (which we have not included in this report), contributions, and a statement of funding progress, along with the methods and assumptions used for these disclosures.

The GASB 74 and 75 valuation sections are provided in a separate report.

Funding Policy

For the purpose of this valuation, the ADC is calculated as the normal cost determined under the Entry Age Normal actuarial cost method, plus an open 30-year, level dollar amortization of the Unfunded Actuarial Liability, plus 0.25% of total payroll for administrative expenses. This report determines the ADC for the FYE June 30, 2026.

SECTION I – VALUATION SUMMARY

Table I-1 below summarizes the December 31, 2024 and December 31, 2023 actuarial valuation results.

Table I-1 Summary of Valuation Results				
Valuation Date		**December 31, 2023**		**December 31, 2024**
Discount Rate		7.50%		7.50%
Actuarial Liability (AL)	$	393,177,787	$	364,355,955
Actuarial Value of Assets		549,871,265		564,669,589
Unfunded actuarial liability (UAL)	**$**	**(156,693,478)**	**$**	**(200,313,634)**
Funded Ratio (AVA/AL)		139.85%		154.98%
Market Value of Assets	$	533,879,000	$	560,885,000
Funded Ratio (MVA/AL)		135.79%		153.94%
Fiscal Year Ending		**June 30, 2025**		**June 30, 2026**
Actuarially Determined Contribution	$	0	$	0
Calendar Year		**2024**		**2025**
Actual/Expected Net Benefit Payments		23,096,000		28,632,831

The Actuarial Liability decreased from $393.2 million to $364.4 million this year. In addition to the expected increase in liability of $4.1 million due to normal cost, benefit payments, and interest, the Plan experienced other changes in liability attributable to a $7.0 million decrease due to the population changes. The Plan experienced liability gains, decreasing the liability by $31.4 million due to changes in healthcare trends. In addition, the contributions rate change for the Model Plan effective July 1, 2024 and premiums in effect for calendar year 2025 increased the liability by $5.5 million. The combination of these changes resulted in a $32.9 million decrease in liability. There were no changes in benefit plans since the prior valuation.

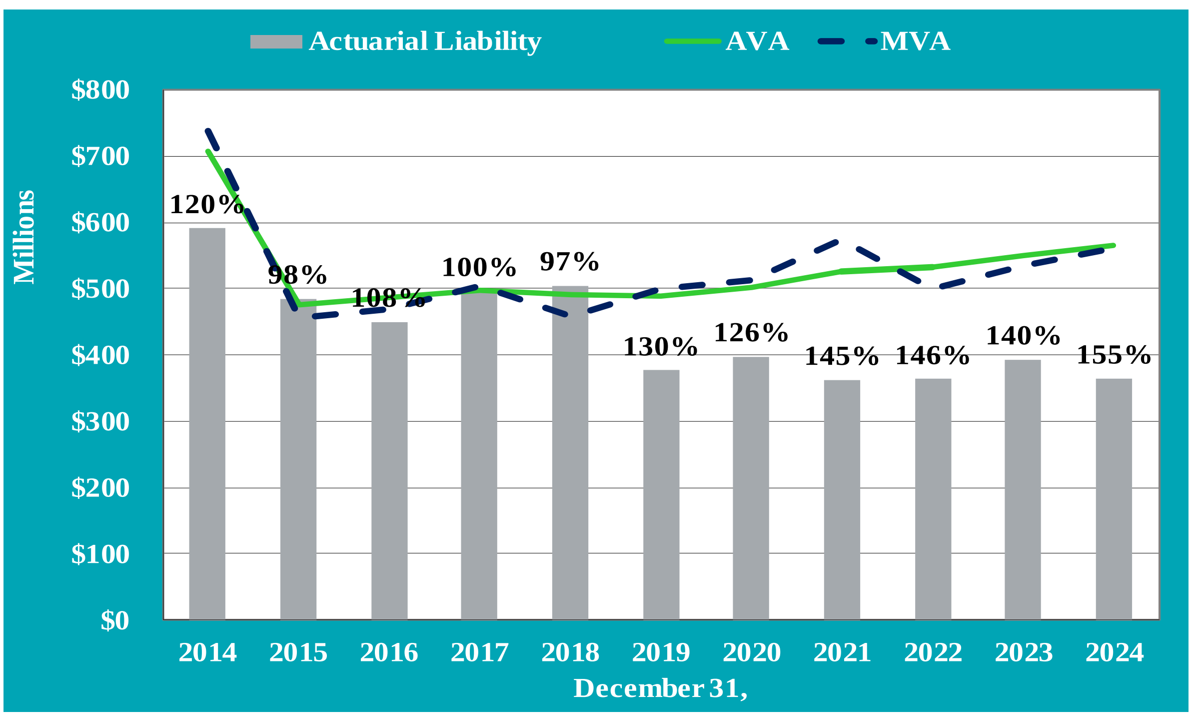
During the year ending December 31, 2024, the Plan's assets gained $11.6 million on a market value basis. The return on market asset value was 9.73%, compared to the assumed return of 7.50%. The Plan's asset smoothing technique recognizes only a portion of the gains and losses for each year, and the return on the actuarial asset value was 7.17%. This return was below the assumed rate of return of 7.50% and resulted in an actuarial loss on investments for the Plan.

Historical Trends

This chart shows the historical trend of assets and the Actuarial Liability for the City's OPEB Plan. The historical Actuarial Liabilities shown below are based on the funding valuation report for the Plan and not the Actuarial Liabilities developed under GASB 74/75. Cheiron performed valuations starting with 2018.

The grey bars represent the Actuarial Liability used to determine the Actuarially Determined Contribution (ADC). The liabilities prior to 2018 were based on actuarial reports produced by the prior actuary. In 2016, the Plan was closed to members hired after December 31, 2015. In 2019, the Plan adopted a fully insured Medicare Advantage Plan as of January 1, 2020, dropping the liability by $127 million. In 2021, the liability decreased again due to favorable claims experience. In 2023, the liability increased due to the Inflation Reduction Act of 2022 induced regulatory changes impacting the Part D (pharmacy) coverage provided to Medicare Eligible Retirees. In 2024 the liability decreased due to reflecting updates to the implementation rules of the Inflation Reduction Act and their emerging impact on claims.

The Market Value of Assets is represented by the dark blue dotted line and the Actuarial Value of Assets is represented by the green solid line. The Actuarial Value of Assets (AVA) is developed by smoothing five years of investment returns, as seen on page 5. The percentages above the bars represent the funded ratio based on the AVA. The funded percentage increased to 155% as of December 31, 2024.



SECTION II – ASSETS

Assets

The Plan's last valuation of liabilities was performed as of December 31, 2023. Table II-1 below shows the reconciliation of assets for the current and prior fiscal years. This section reconciles the assets of December 31, 2024 that were used to develop the FYE 2026 ADC.

Table II-1
Changes in Market Value of Assets

	December 31, 2023	December 31, 2024
Market Value of Assets - as of beginning of Fiscal Year	**$500,041,000**	**$533,879,000**
Additions		
Employer Contributions	$ 0	$ 0
Participant Contributions	0	0
Total contributions	$ 0	$ 0
Investment Return		
Net Realized Appreciation and Unrealized Appreciation	59,695,000	52,846,000
Interest and Dividends	N/A	N/A
Partnership Income	N/A	N/A
Other Income	N/A	N/A
Total income from investment activities	$ 59,695,000	$ 52,846,000
Investment Expenses	(1,963,000)	(2,048,000)
Total Investment Return	$ 57,732,000	$ 50,798,000
Deductions		
Benefit Payments Made	$ 23,356,000	$ 23,096,000
Administrative Expenses	538,000	696,000
Total Deductions	$ 23,894,000	$ 23,792,000
Total		
Net Increase (Decrease)	$ 33,838,000	$ 27,006,000
Market Value of Assets - as of end of Fiscal Year	**$533,879,000**	**$560,885,000**
Market Return for Period	11.83%	9.73%

SECTION II – ASSETS

Actuarial Value of Assets

The Actuarial Value of Assets is the current market value, adjusted by a five-year smoothing of gains and losses on a market value basis. Each year's gain or loss is determined as the difference between the actual market return and the expected market return using the assumed rate of investment return. The actuarial value is adjusted to remain within 20% of the market value. Table II-2 below illustrates the calculation of the market value gains and losses.

Table II-2
Development of Unrecognized Gain/(Loss) on Investments
as of December 31, FYE

	Fiscal Year Ending* 12/31/2020	Fiscal Year Ending 12/31/2021	Fiscal Year Ending 12/31/2022	Fiscal Year Ending 12/31/2023	Fiscal Year Ending 12/31/2024
1. Market Value of Assets as of December 31, Beginning of Fiscal Year	**$ 500,122,000**	**$ 511,980,000**	**$ 573,939,000**	**$ 500,041,000**	**$ 533,879,000**
Fiscal Year Cash Flow					
2. Employer Contributions for the Plan Year Ending December 31, FYE	$ 0	$ 0	$ 0	$ 0	$ 0
3. Participant Contributions for the Plan Year Ending December 31, FYE	0	0	0	0	0
4. Benefit Payments through December 31, FYE	($26,731,000)	($27,525,000)	($24,670,000)	(23,356,000)	(23,096,000)
5. Administrative Expenses through December 31, FYE	(478,000)	(466,000)	(581,000)	(538,000)	(696,000)
6. Net Cash Flow	$ (27,209,000)	$ (27,991,000)	$ (25,251,000)	$ (23,894,000)	$ (23,792,000)
Investment Performance					
7. Interest of 7.50% on Market Value of Assets to December 31, FYE	$ 37,509,225	$ 38,398,500	$ 43,045,425	$ 37,503,075	$ 40,040,925
8. Interest on employer contributions assuming received at the end year to December 31, FYE	0	0	0	0	0
9. Interest on participant contributions assuming received uniformly throughout the year to December 31, FYE	0	0	0	0	0
10. Interest on benefit payments assuming payments made uniformly throughout the year to December 31, FYE	(1,002,413)	(1,032,188)	(925,125)	(875,850)	(866,100)
11. Interest on administrative expenses assuming payments made uniformly throughout the year to December 31, FYE	(17,925)	(17,475)	(21,788)	(20,175)	(26,100)
12. Expected Investment Performance (7 + 8 + 9 + 10 + 11)	$ 36,488,887	$ 37,348,837	$ 42,098,512	$ 36,607,050	$ 39,148,725
13. Expected Market Value of Assets as of December 31, FYE (1 + 6 + 12)	$ 509,401,887	$ 521,337,837	$ 590,786,512	$ 512,754,050	$ 549,235,725
14. **Market Value of Assets as of December 31, FYE**	**$ 511,980,000**	**$ 573,939,000**	**$ 500,041,000**	**$ 533,879,000**	**$560,885,000**
15. Market Value of Assets Investment Gain/(Loss) (14 - 13)	$ 2,578,113	$ 52,601,163	$ (90,745,512)	$ 21,124,950	$ 11,649,275

* The January 1, 2020 asset value was adjusted by $1,000 to account for rounding in the pension/OPEB asset allocation.

SECTION II – ASSETS

Table II-3 illustrates the calculation of Actuarial Value of Assets for the December 31, 2024 valuation.

Table II-3
Development of Actuarial Value of Assets
as of December 31, 2024

1. Actuarial Value of Assets as of December 31, 2023			**$**	**549,871,265**
2. Net Cash Flow (Contributions - Benefit Payments - Expenses)			$	(23,792,000)
3. Expected Investment Performance			$	39,148,725
Recognition of gain/(loss)		Initial Unrecognized Gain/(Loss)		Recognition
4. 20% of gain/(loss) as of December 31, 2020	$	2,578,113	$	515,623
5. 20% of gain/(loss) as of December 31, 2021	$	52,601,163	$	10,520,233
6. 20% of gain/(loss) as of December 31, 2022	$	(90,745,512)	$	(18,149,102)
7. 20% of gain/(loss) as of December 31, 2023	$	21,124,950	$	4,224,990
8. 20% of gain/(loss) as of December 31, 2024	$	11,649,275	$	2,329,855
9. Recognized gain/(loss) as of December 31, 2024 (sum of 4 - 8)			$	(558,401)
10. Actuarial Value of Assets as of December 31, 2024 (1 + 2 + 3 + 9)			**$**	**564,669,589**
Market Value of Assets as of December 31, 2024			$	560,885,000
Corridor for Actuarial Value of Assets				
80% of Market Value			$	448,708,000
120% of Market Value			$	673,062,000
Actuarial Value of Assets as of December 31, 2024			$	564,669,589
Actuarial Value as a percent of Market Value				100.7%
Return on Actuarial Value of Asset				7.17%

SECTION III – VALUATION RESULTS

This section of the report calculates the current and expected future contribution requirements under the City's funding policy. This valuation calculates the contribution for the fiscal year 2025-26.

The liabilities presented in this section are based on the assumption of an ongoing plan and would not be appropriate for measuring the settlement value of plan obligations.

Information about the Actuarial Liabilities of the Plan as of December 31, 2024 and December 31, 2023 is shown in Table III-1 below.

Table III-1
Actuarial Liability

Valuation Date	December 31, 2023	December 31, 2024
Discount Rate	7.50%	7.50%
Actuarial Liability		
Current active members	$ 103,947,939	$ 94,792,053
Current retirees, beneficiaries, and dependents	289,229,848	269,563,902
Total Actuarial Liability (AL)	**$ 393,177,787**	**$ 364,355,955**
Actuarial Value of Assets (AVA)	549,871,265	564,669,589
Unfunded Actuarial Liability (UAL)	**$ (156,693,478)**	**$ (200,313,634)**
Funded Ratio (AVA/AL)	139.85%	154.98%
Market Value of Assets (MVA)	$ 533,879,000	$ 560,885,000
Unfunded Actuarial Liability (UAL)	**$ (140,701,213)**	**$ (196,529,045)**
Funded Ratio (MVA/AL)	135.79%	153.94%
Normal Cost	**$ 2,542,224**	**$ 2,442,338**

Starting June 30, 2017, the City's GASB reporting requirements fall under GASB 74 and 75, and the Unfunded Liability is booked on the balance sheet. The above liability is shown for funding purposes only; the GASB 74 and 75 liability will be a roll-forward of this liability to the fiscal year ending June 30, 2025 and will be provided in a separate report.

SECTION III – VALUATION RESULTS

Table III-2 below shows the Actuarial Liability (AL) for actives and retirees, the normal cost, the Actuarial Asset Value, and the resulting Unfunded Actuarial Liability (UAL) as of December 31, 2024 and December 31, 2023 at a 7.5% discount rate. Note: That this development of the AL and UAL are based on the measurement date of December 31, 2024, and will be used in the determination of the Actuarially Determined Contribution for the 2025-26 fiscal year.

Table III-2
Actuarial Liability, Normal Cost & Actuarial Asset Value as of

	December 31, 2023	December 31, 2024
Actuarial Liability		
Active Liability		
-Active Employees	$ 82,136,249	$ 80,076,791
-DROP Participants	21,811,690	14,715,262
Total Active Liability	**$ 103,947,939**	**$ 94,792,053**
Inactive Liability		
-Retired Employees	$ 262,643,530	$ 246,536,345
-Beneficiary	18,153,836	16,291,913
-Disabled	4,369,411	3,510,663
-Deferred Beneficiaries	2,463,935	1,884,657
-Deferred Members	1,599,136	1,340,324
Total Inactive Liability	**$ 289,229,848**	**$ 269,563,902**
Total Liability	**$ 393,177,787**	**$ 364,355,955**
Actuarial Value of Assets	549,871,265	564,669,589
Unfunded Actuarial Liability (UAL)	**$ (156,693,478)**	**$ (200,313,634)**
Normal Cost	**$ 2,542,224**	**$ 2,442,338**

Reconciliation

Table III-3 provides an estimate of the major factors contributing to the change in liability since the last Actuarial Valuation Report (AVR).

Table III-3
Reconciliation of Actuarial Liability

Actuarial Liability at December 31, 2023	**$**	**393,177,787**
Normal Cost		2,542,224
Expected Benefits paid throughout the year		(27,097,862)
Interest		28,662,831
Expected Actuarial Liability at December 31, 2024	$	397,284,980
Actuarial Liability at December 31, 2024		**364,355,955**
(Gain) or Loss	$	(32,929,025)
(Gain) or Loss due to:		
Benefit changes	$	-
Census changes		(6,953,864)
Demographic Assumption changes		-
Trend Changes		(31,443,518)
Contribution Changes		5,468,357
Total changes	$	(32,929,025)

Below is a brief description of each of the above components:

- *Benefits Changes* refers to changes in the Plan or eligibilities. There were no benefit changes since the prior valuation.
- *Census Changes* refers to differences in the valuation census due to members terminating, retiring, dying, and becoming disabled at rates different than expected.
- *Demographic Assumption Changes* refer to the changes in demographic assumptions. There were no demographic assumption changes this year.
- *Trend Changes* refer to the change in projected healthcare costs and retiree contributions to reflect the updates in the implementation rules of the Inflation Reduction Act and their emerging impact on claims.
- *Contribution Changes* refer to the update in the retiree health plan contribution rates for the Model Plan reflecting the new point grid effective July 1, 2024 and the update of calendar year 2025 underlying premium rates from expected to actual.

SECTION III – VALUATION RESULTS

Actuarially Determined Contribution (ADC)

The ADC consists of three parts: (1) the *normal cost*, which represents the annual cost attributable to service earned in a given year, (2) the assumed administrative expense, and (3) the amortization of the UAL. In Table III-4 below, we show the computed FYE 2025 and FYE 2026 ADC based on a 7.5% assumed discount rate (based on a long-term view of returns on the asset allocation). In the table below, covered payroll is for the active and DROP participants who are covered under the closed plan and total compensation is for all the active and DROP participants.

Table III-4
Calculation of Actuarially Determined Contribution (ADC)

For Fiscal Year Ending		**6/30/2025**		**6/30/2026**
Normal Cost	$	2,542,224	$	2,442,338
Administrative Expenses [1]		589,329		625,550
Amortization of UAL		(12,796,246)		(16,358,451)
Total ADC (not less than $0)	**$**	**0**	**$**	**0**
Calendar Year		**2024**		**2025**
Covered Payroll	$	136,226,593	$	131,267,041
ADC as a percentage of pay		0.00%		0.00%
Total Compensation	$	235,731,737	$	250,220,037
ADC as a percentage of compensation		0.00%		0.00%
Actual/Expected Net Benefit Payments	$	23,096,000	$	28,632,831

[1] *Administrative Expense of 0.25% of total compensation.*

Projected Cash Flow

The following table presents a 30-year payout projection of employer payments for the City's OPEB Plan. Market Value of Assets are assumed to earn 7.50% returns.

Table III-5
Projected Cash Flow
Assuming 7.5% Discount Rate

Fiscal Year Ending December 31,	Expected Market Value Assets	Expected Employer Benefit Payments	Expected Actuarial Liability	Fiscal Year Ending June 30,	Expected Actuarial Determined Contribution
2025	$ 573,264,000	$ 28,633,000	$ 364,304,000	2025	$ 0
2026	586,127,000	29,062,000	365,086,000	2026	0
2027	599,730,000	29,279,000	365,482,000	2027	0
2028	612,101,000	31,450,000	363,696,000	2028	0
2029	625,576,000	31,281,000	361,899,000	2029	0
2030	639,951,000	31,388,000	359,803,000	2030	0
2031	655,179,000	31,604,000	357,272,000	2031	0
2032	671,444,000	31,707,000	354,376,000	2032	0
2033	688,901,000	31,733,000	351,152,000	2033	0
2034	707,336,000	32,052,000	347,289,000	2034	0
2035	726,751,000	32,441,000	342,644,000	2035	0
2036	747,588,000	32,474,000	337,518,000	2036	0
2037	769,837,000	32,619,000	331,768,000	2037	0
2038	793,448,000	32,917,000	325,202,000	2038	0
2039	818,654,000	33,086,000	317,869,000	2039	0
2040	845,653,000	33,181,000	309,758,000	2040	0
2041	874,874,000	32,991,000	301,094,000	2041	0
2042	906,611,000	32,679,000	292,010,000	2042	0
2043	941,079,000	32,342,000	282,505,000	2043	0
2044	978,472,000	32,012,000	272,557,000	2044	0
2045	1,019,147,000	31,553,000	262,250,000	2045	0
2046	1,063,371,000	31,072,000	251,577,000	2046	0
2047	1,111,453,000	30,549,000	240,536,000	2047	0
2048	1,164,061,000	29,662,000	229,477,000	2048	0
2049	1,221,556,000	28,755,000	218,429,000	2049	0

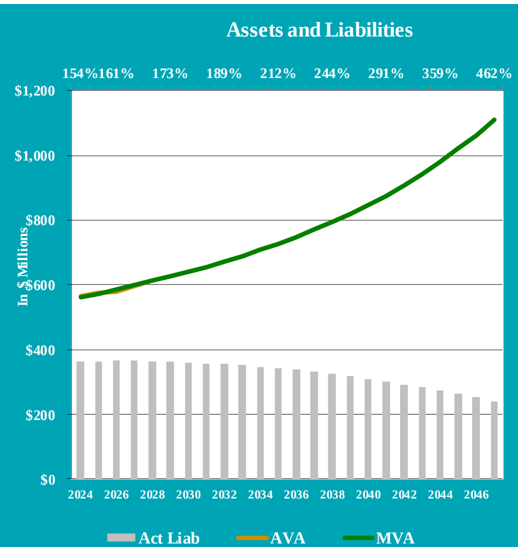
SECTION III – VALUATION RESULTS

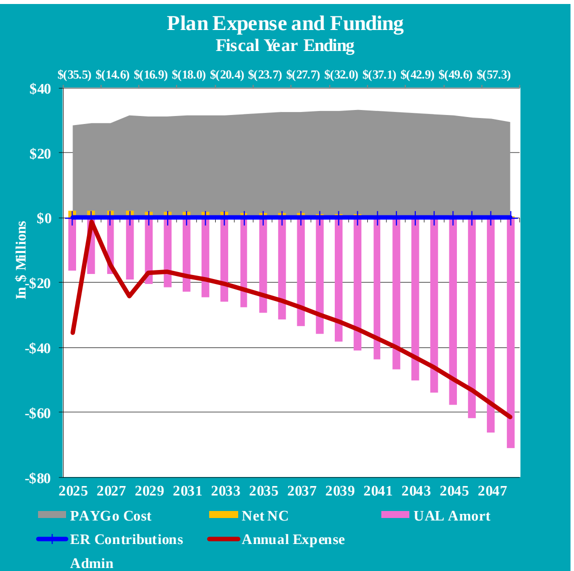
Future Outlook

<u>Baseline Projections</u>

The two graphs on this page show the expected progress of the Plan over the next 15 years assuming the Plan's assets earn 7.50% on their market value and that all other assumptions are met. The graph titled "Assets and Liabilities" shows the projected funded status over the next 15 years. The Plan is projected to be in a surplus position. The graph titled "Plan Expense and Funding" shows the expected net benefit stream as well as the expected expense for GASB 75, if all assumptions are met. The Plan's expected net benefit payments are relatively stable over the entire period.

Calendar Year	
2025	7.50%
2026	7.50%
2027	7.50%
2028	7.50%
2029	7.50%
2030	7.50%
2031	7.50%
2032	7.50%
2033	7.50%
2034	7.50%
2035	7.50%
2036	7.50%
2037	7.50%
2038	7.50%
2039	7.50%
2040	7.50%
2041	7.50%
2042	7.50%
2043	7.50%
2044	7.50%
Avg	7.50%



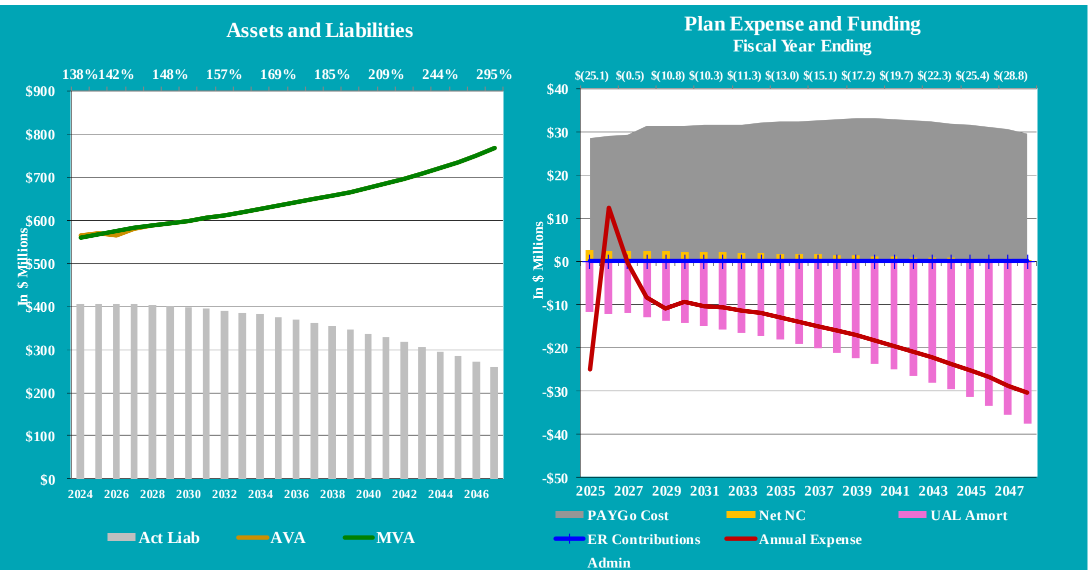


SECTION III – VALUATION RESULTS

<u>6.5% Return Projections</u>

The two graphs on this page show the expected progress of the Plan over the next 15 years assuming the Plan's assets earn 6.50% on their market value and a discount rate of 6.50% assuming all other assumptions are met. The graph titled "Assets and Liabilities" shows the projected funded status over the next 15 years. The Plan is projected to be in a less surplus position than the 7.50% projections. The projection of the Plan's funded status is highly driven by the investment returns. The graph titled "Plan Expense and Funding" shows the expected net benefit stream as well as the expected expense for GASB 75, if all other assumptions are met. The Plan's expected net benefit payments are relatively stable over the entire period.

Calendar Year	
2025	6.50%
2026	6.50%
2027	6.50%
2028	6.50%
2029	6.50%
2030	6.50%
2031	6.50%
2032	6.50%
2033	6.50%
2034	6.50%
2035	6.50%
2036	6.50%
2037	6.50%
2038	6.50%
2039	6.50%
2040	6.50%
2041	6.50%
2042	6.50%
2043	6.50%
2044	6.50%
Avg	6.50%



SECTION IV – SENSITIVITY OF RESULTS

The liabilities produced in this report are sensitive to the assumptions used. Table IV-1 shows liabilities under the actuarial funding scenario using a 1% increase and a decrease in healthcare trend rates to provide some measure of sensitivity. In all cases, we are using the full actuarial funding assumption of 7.50% for the discount rate.

Table IV-1
Health Care Trend Rate Sensitivity

Health Care Trend Rates	**-1%**	**Base**	**+1%**
Actuarial Liability			
Current active members	$ 80,808,577	$ 94,792,053	$ 112,106,680
Current retirees, beneficiaries, and dependents	248,074,768	269,563,902	294,110,044
Total Actuarial Liability (AL)	$ 328,883,345	$ 364,355,955	$ 406,216,724
Actuarial Value of Assets	564,669,589	564,669,589	564,669,589
Unfunded Actuarial Liability (UAL)	$ (235,786,244)	$ (200,313,634)	$ (158,452,865)
Normal Cost	$ 2,010,471	$ 2,442,337	$ 2,997,552

Table IV-2 shows liabilities under the actuarial funding scenario using a 1% increase and a decrease in discount rates to provide some measure of sensitivity.

Table IV-2
Discount Rate Sensitivity

Discount Rate	**6.50%**	**7.50%**	**8.50%**
Actuarial Liability			
Current active members	$ 109,347,328	$ 94,792,053	$ 82,730,113
Current retirees, beneficiaries, and dependents	293,919,796	269,563,902	248,565,545
Total Actuarial Liability (AL)	$ 403,267,124	$ 364,355,955	$ 331,295,658
Actuarial Value of Assets	564,669,589	564,669,589	564,669,589
Unfunded Actuarial Liability (UAL)	$ (161,402,465)	$ (200,313,634)	$ (233,373,931)
Normal Cost	$ 3,167,293	$ 2,442,337	$ 1,892,664

SECTION V – FINANCIAL STATEMENT DISCLOSURES

The Government Finance Officers Association (GFOA) maintains a checklist of items to be included in the Annual Comprehensive Financial Report (ACFR) in order to receive recognition for excellence in financial reporting. In accordance with those statements, we have prepared the following disclosures.

Schedule of Funding Progress

The schedule of funding progress compares the assets used for funding purposes to the comparable liabilities to determine how well the Plan is funded and how this status has changed over the past several years. The Actuarial Liability is compared to the Actuarial Value of Assets to determine the funding ratio. The Actuarial Liability is determined assuming that the Plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions.

Years prior to 2018 were taken from the prior actuary's report.

Table V-1
Schedule of Funding Progress for Fiscal Year Ending December 31,
($ in Thousands)

Valuation Year	Actuarial Asset Value (a)	Actuarial Liability (b)	Unfunded Actuarial Liability (c)=(b-a)	Funded Ratio (d)=(a)/(b)	Covered Payroll* (e)	UAL as a Percentage of Covered Payroll (f) = (c)/(e)
2014	706,959	590,902	(116,057)	119.6%	164,575	(71)%
2015	474,746	484,833	10,087	97.9%	174,963	6%
2016	485,845	450,026	(35,819)	108.0%	168,785	(21)%
2017	497,233	496,188	(1,045)	100.2%	172,156	(1)%
2018	490,887	504,757	13,870	97.3%	168,420	8%
2019	488,000	376,561	(111,439)	129.6%	164,684	(68)%
2020	502,358	397,836	(104,522)	126.3%	140,671	(74)%
2021	525,774	362,353	(163,420)	145.1%	139,124	(117)%
2022	532,169	363,450	(168,719)	146.4%	136,460	(124)%
2023	549,871	393,178	(156,693)	139.9%	136,227	(115)%
2024	564,670	364,356	(200,314)	155.0%	131,267	(153)%

* Covered payroll represents the payroll of those members eligible for postretirement healthcare benefits. The Plan was closed December 31, 2015.

SECTION V – FINANCIAL STATEMENT DISCLOSURES

Historical Asset Information

The historical asset information, Table V-2, shows the dollar-weighted rate of return for each of the Actuarial Value of Assets and the Market Value of Assets.

Years prior to 2018 were taken from the prior actuary's report.

Table V-2
Historical Asset Information
($ in Thousands)

	Actuarial Value of Assets		Market Value of Assets	
Valuation Year	Amount	Dollar-weighted Rate of Return	Amount	Dollar-weighted Rate of Return
2011	$668,392	-1.65%	$616,464	0.87%
2012	634,173	0.15%	652,864	11.95%
2013	674,709	12.02%	726,098	16.81%
2014	706,959	10.01%	737,722	6.38%
2015	474,746	7.39%	456,918	-0.11%
2016	485,845	8.67%	468,973	9.24%
2017	497,233	8.88%	504,394	14.51%
2018	490,887	4.45%	457,249	-3.93%
2019	488,000	5.63%	500,123	16.40%
2020	502,358	8.76%	511,981	8.03%
2021	525,774	10.53%	573,939	18.06%
2022	532,169	6.17%	500,041	-8.67%
2023	549,871	8.00%	533,879	11.83%
2024	564,670	7.17%	560,885	9.73%

APPENDIX A – MEMBERSHIP INFORMATION

The census data used to develop the Actuarial Liability (AL) as of December 31, 2024 and December 31, 2023 was provided by the Cincinnati Retirement System staff.

Group	December 31, 2023	December 31, 2024
Active Participants		
Active Full Time Employees	1,514	1,414
Active Part Time Employees	135	144
Active DROP Employees	141	95
Total Actives and Active DROP Included in Valuation	**1,790**	**1,653**
Covered Payroll	$136,226,593	$131,267,041
Other Actives - Ineligible for Retiree Health Benefits		
Active Full Time Employees - ineligible for retiree health benefits	1,526	1,743
Active Part Time Employees - ineligible for retiree health benefits	630	674
Total Actives - Ineligible for Retiree Health Benefits	2,156	2,417
Total Actives	**3,946**	**4,070**
Total Compensation	$235,731,737	$250,220,037
Inactive Participants		
Number of retirees and surviving spouses currently receiving retiree health benefits	3,330	3,259
Spouses currently receiving retiree health benefits	1,298	1,246
Total - Retirees and Spouses Receiving Benefits	**4,628**	**4,505**
Retired members and surviving spouses not currently receiving retiree health benefits but may elect coverage in the future	328	409
Total - Retirees and Spouses	**4,956**	**4,914**
Terminated vested members eligible for retiree health benefits	19	19
Terminated vested members not eligible for retiree health benefits	261	279
Total Inactives	**5,236**	**5,212**

Note: In addition, there are 7,318 inactive participants hired before December 31, 2015 who are former employees with an employee account balance in the pension plan, but are assumed not to be vested. No retiree health benefit liability is assumed for these individuals.

APPENDIX A – MEMBERSHIP INFORMATION

Active Member Data as of December 31, 2024 Excluding DROP Participants

COUNTS BY AGE/SERVICE

	Service									
Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 25	1	1	0	0	0	0	0	0	0	2
25 to 29	17	15	1	0	0	0	0	0	0	33
30 to 34	13	23	21	0	0	0	0	0	0	57
35 to 39	8	28	79	26	1	0	0	0	0	142
40 to 44	12	32	83	71	39	1	0	0	0	238
45 to 49	2	16	67	55	54	31	1	0	0	226
50 to 54	9	12	61	76	60	69	6	0	0	293
55 to 59	5	20	53	49	71	59	13	3	0	273
60 to 64	6	14	38	31	43	39	10	4	1	186
65 to 69	3	12	17	12	16	8	5	3	1	77
70 & up	10	3	4	3	4	3	1	1	2	31
Total	86	176	424	323	288	210	36	11	4	1,558

AVERAGE SALARY BY AGE/SERVICE

	Service									
Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 25	*	*								24,898
25 to 29	*	*	*							40,100
30 to 34	*	64,572	75,036	*						60,771
35 to 39	*	65,359	82,020	83,778	*					75,592
40 to 44	*	71,165	85,995	91,015	79,945	*				81,643
45 to 49	*	*	74,808	84,413	88,613	98,808				83,650
50 to 54	*	*	84,984	93,930	89,998	89,765	*			86,487
55 to 59	*	67,227	75,167	78,730	82,739	92,436	*	*	*	80,422
60 to 64	*	*	77,591	81,259	79,304	84,916	*	*	*	76,798
65 to 69	*	*	*	*	*	*	*	*		71,270
70 & up	*	*	*	*	*	*	*	*	*	45,218
Total	$ 22,629	$ 63,644	$ 79,856	$ 86,338	$ 84,329	$ 90,465	$ 81,920	$ 84,095	$ 81,187	$ 78,548

APPENDIX A – MEMBERSHIP INFORMATION

Inactive Member Data as of December 31, 2024

Health Care Plan	Under 65	Over 65	Total
Secure Plan	1	41	42
Select Plan	229	3,160	3,389
Model Plan	678	396	1,074
Total	908	3,597	4,505

Attained Age	Number of Retirees/ Survivng Spouses	Number of Covered Spouses
< 40	0	1
40 - 44	0	0
45 - 49	1	6
50 - 54	10	33
55 - 59	141	136
60 - 64	381	200
65 - 69	564	287
70 - 74	717	298
75 - 79	661	191
80 - 84	377	66
85 - 89	260	25
90 - 94	104	3
95 - 99	37	0
100+	6	0
Total	**3,259**	**1,246**

Reconciliation of Members with Medical Coverage								
	Active	DROP	Disabled	Survivors	Beneficiaries	Retired	Term Vested	Total
December 31, 2023	**1,649**	**141**	**83**	**39**	**409**	**2,799**	**19**	**5,139**
Retirement those that Elect Medical Coverage	(31)	(54)		0	0	86	(1)	0
DROP	(15)	15					0	0
Termination, Eligible Medical Coverage	(4)	0					4	0
Termination/Retirement, No Medical Coverage	(78)	(9)						(87)
Deaths / Drop Coverage	0	0	(11)	(7)	(30)	(152)	(3)	(203)
Data Changes	37	2	0	3	24	16	0	82
December 31, 2024	**1,558**	**95**	**72**	**35**	**403**	**2,749**	**19**	**4,931**

Please note that the above data was used to project the figures in this report.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Rationale for Demographic and Economic Assumptions

The assumptions for this valuation were selected based on recent experience and expectations for the future. The current year's assumptions were detailed in the Cheiron's pension experience study adopted March 23, 2023. We have reviewed the reports and letters of our pension colleagues and believe the assumptions to be reasonable. The 7.50% discount rate used for valuation purposes as of December 31, 2024, is prescribed under paragraph 29 of the CSA. In conjunction with the most recent experience study, the investment consultant reported an annual expected return of 8.04% based on the System's portfolio and their most recent capital market assumptions. The actuarial cost method, the asset valuation method, and the amortization method used for funding purposes were selected by CRS during prior periods.

Economic Assumptions

1. **Discount Rate** — 7.50% per year

2. **Expected Return on Assets** — 7.50% per year, net of investment expenses

3. **Administrative Expenses** — 0.25% of total payroll

4. **Inflation Assumption** — CPI: 2.75% per year
   Medical CPI: 3.25% per year

5. **Salary Increase Rate** — Salary increases are assumed to vary by service. Representative rates are shown as follows:

Salary increase

Service	Annual Increase
0	8.75%
5	6.25
10	4.75
15	4.25
21+	3.75

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

6. Per Person Health Care Cost Trends

Annual per capita health care claims costs are expected to increase in future years as a result of medical inflation, utilization, demographic changes, leverage in the plan design, and improvements in technology adjusted for any implicit and/or explicit cost containment features. Initial health care cost trend rates were selected based on an analysis of national average health trend surveys specific to similarly structured plans for both Non-Medicare Eligible and Medicare-Eligible participants. The trend assumption reflects the expected impact of the Inflation Reduction Act. The assumed rates of increases in expected retiree health care claims costs and contributions vary by year, retiree health plan, and payment age, as shown in the table below:

Trends for current actives, Non-Medicare Retirees, and Part A only Medicare Retirees:

Calendar Year	All Plans Payment Age < 65	Non-Model Plans Payment Age 65+	Model Plans Payment Age 65+
2023	8.40%	-1.95%	-1.91%
2024	7.80%	11.22%	11.24%
2025	6.20%	6.89%	6.93%
2026	5.60%	5.60%	5.60%
2027	5.50%	5.50%	5.50%
2028	5.39%	5.39%	5.39%
2029	5.29%	5.29%	5.29%
2030	5.18%	5.18%	5.18%
2031	5.08%	5.08%	5.08%
2032	4.97%	4.97%	4.97%
2033	4.65%	4.65%	4.65%
2034	4.44%	4.44%	4.44%
2035	4.34%	4.34%	4.34%
2036	4.27%	4.27%	4.27%
2037	4.23%	4.23%	4.23%
2038	4.20%	4.20%	4.20%
2039	4.18%	4.18%	4.18%
2040	4.17%	4.17%	4.17%
2041	4.15%	4.15%	4.15%
2042	4.09%	4.09%	4.09%
2043+	4.04%	4.04%	4.04%

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Trends for current Medicare Retirees:

Calendar Year	Non-Model Plans Payment Age 65+	Model Payment Age 65+	Medicare A Only Payment Age 65+
2023	-2.13%	-2.14%	-2.14%
2024	11.13%	11.13%	11.13%
2025	6.70%	6.69%	6.69%
2026	5.60%	5.60%	5.60%
2027	5.50%	5.50%	5.50%
2028	5.39%	5.39%	5.39%
2029	5.29%	5.29%	5.29%
2030	5.18%	5.18%	5.18%
2031	5.08%	5.08%	5.08%
2032	4.97%	4.97%	4.97%
2033	4.65%	4.65%	4.65%
2034	4.44%	4.44%	4.44%
2035	4.34%	4.34%	4.34%
2036	4.27%	4.27%	4.27%
2037	4.23%	4.23%	4.23%
2038	4.20%	4.20%	4.20%
2039	4.18%	4.18%	4.18%
2040	4.17%	4.17%	4.17%
2041	4.15%	4.15%	4.15%
2042	4.09%	4.09%	4.09%
2043+	4.04%	4.04%	4.04%

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Trends for Retiree Contributions:

Calendar Year	All Plans Payment Age < 65	Non-Model Plans Payment Age 65+	Model Plans Payment Age 65+
2024	7.75%	11.27%	11.24%
2025	6.20%	7.00%	6.93%
2026	5.60%	5.60%	5.60%
2027	5.50%	5.50%	5.50%
2028	5.39%	5.39%	5.39%
2029	5.29%	5.29%	5.29%
2030	5.18%	5.18%	5.18%
2031	5.08%	5.08%	5.08%
2032	4.97%	4.97%	4.97%
2033	4.65%	4.65%	4.65%
2034	4.44%	4.44%	4.44%
2035	4.34%	4.34%	4.34%
2036	4.27%	4.27%	4.27%
2037	4.23%	4.23%	4.23%
2038	4.20%	4.20%	4.20%
2039	4.18%	4.18%	4.18%
2040	4.17%	4.17%	4.17%
2041	4.15%	4.15%	4.15%
2042	4.09%	4.09%	4.09%
2043+	4.04%	4.04%	4.04%

7. Changes Since the Last Valuation

Trends were updated to reflect the updated expected impact of the Inflation Reduction Act.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Demographic Assumptions

1. Retirement Rates

Retirement rates for each group vary by age and service with the City. Sample rates are shown in the tables below.

Annual Rate of Retirement Groups C, D, E, and F				
Age	5 Years of Service	6-24 Years of Service	25-28 Years of Service	29-31+ Years of Service
45-54				60.0%
55-56			6.0%	60.0
57			6.0	70.0
58			6.0	80.0
59			10.0	80.0
60	12.5%	12.5%	12.5	60.0
61	12.5	12.5	12.5	40.0
62-63	12.5	12.5	12.5	50.0
64	12.5	12.5	12.5	60.0
65	12.5	20.0	20.0	80.0
66	12.5	12.5	12.5	80.0
67	12.5	35.0	35.0	80.0
68-69	12.5	20.0	20.0	80.0
70	100.0	100.0	100.0	100.0

Annual Rate of Retirement Group G					
Age	5 Years of Service	6-14 Years of Service	15-28 Years of Service	29-30 Years of Service	31+ Years of Service
57-58			6.0%	6.0%	6.0%
59-61			10.0	10.0	10.0
62-63			10.0	60.0	50.0
64			10.0	70.0	60.0
65-66			10.0	80.0	80.0
67	12.5%	35.0%	35.0	60.0	80.0
68-69	12.5	20.0	20.0	80.0	80.0
70	100.0	100.0	100.0	100.0	100.0

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

2. Rates of Withdrawal

Withdrawal rates for each group vary by service with the City. Sample rates are shown in the tables below.

Annual Rate of Withdrawal	
Years of Service	Rate of Withdrawal
<1	15.00%
1	10.00
2	8.00
3	7.00
4	6.50
5	6.00
6	5.00
7	4.00
8	3.00
9-14	2.50
15+	2.00

3. Rates of Disability

Disability rates for each group vary by age. Sample rates are shown in the table below.

Age	Annual Rate of Disability*
20	0.0025%
25	0.0050
30	0.0075
35	0.0125
40	0.0225
45	0.0375
50	0.0675
55	0.1050
60	0.1250
65	0.1250

* *Rates are 0% when a member is eligible for normal retirement.*

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

4. Rates of Mortality

Preretirement Mortality: PUB-2010 General Employees Amount-weighted Mortality table with fully generational projected mortality improvements using MP-2021.

Postretirement Mortality: PUB-2010 General Retirees Amount-weighted Mortality table with fully generational projected mortality improvements using MP-2021.

Disabled Mortality: PUB-2010 General Disabled Retirees Amount-weighted Mortality table with fully generational projected mortality improvements using MP-2021.

5. DROP Participation

30% of eligible CSA Employee members eligible for DROP benefits are assumed to decline participation, and 70% are assumed to elect participation. Those electing to participate are assumed to remain in the DROP for three years.

6. Vested Withdrawal

60% of vested members who terminate elect to leave their contributions in the Plan in order to be eligible for a benefit at their normal retirement date, while the remaining 40% elect to withdraw their contributions.

7. Spousal Coverage

Actual census data, payment form elections, and current health care plan elections for spouses of current retirees were used. For spouses of eligible future retirees, a 100% spouse coverage election rate is assumed for those members choosing a joint & survivor payment form, and a 15% spouse coverage election rate is assumed for those members selecting a single-life annuity payment form. Under a joint & survivor payment form, retiree health benefits are available until the death of the last annuitant.

8. Dependent Age

For current retirees, the actual spouse date of birth was used when available. For future retirees, husbands are assumed to be three years older than wives.

9. Health Plan Administrative Expenses

Health plan administrative expenses are included in the per capita claims costs.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

10. Percent of Members Electing Coverage

Actual census data and current Plan elections provided by CRS were used for those currently receiving retiree health benefits. Group 1 members who retired prior to September 1, 2007, and currently qualify for the Secure Plan, are assumed to re-qualify in all future years. All current participants not qualifying for the Secure Plan are covered either by the Select Plan or the Model Plan. Current participants are assumed to maintain their current retiree health benefits coverage until they are no longer eligible. The active members of Group C with at least 15 years of creditable service shall be entitled to retiree health benefits under the Select Plan as Group 1 members. All other eligible future retirees electing retiree health benefits are assumed to be covered by the Model Plan. 95% of eligible future retirees in Group 1 are assumed to elect retiree health benefits. Eligible future retirees in Group 2 are required to pay the portion of their cost as determined by the point system, so retiree health benefit election rates are assumed to reduce as the level of cost-sharing increases. The point system is based upon the sum of the member's full years of service and the member's age at separation from service. The assumed contribution rates and rates of participation for Group 1 and Group 2 members are as follows:

	Assumed Rate of Participation		Retiree Contribution as a Percentage of Cost	
Group	Pre-65 Retirement	Post-64 Retirement	Select Plan	Model Plan
Group 1	95%	95%	5%	10%
Group 2 with 90+ Points (Select) with 85+ Points (Model)	90% grading to 70% over 20 years	75%	5%	10%
Group 2 with 80 – 89 Points (Select) with 80 - 84 Points (Model)	90% grading to 70% over 20 years	75%	25%	20%
Group 2 with 70 – 79 Points	50% grading to 25% over 20 years	25%	50%	40%
Group 2 with <70 Points	50% grading to 25% over 20 years	25%	75%	60%

Note: These assumptions are based on our 2022 analysis of election percentage.

It is assumed that 100% of eligible future disabled retirees will elect retiree health benefits.

11. Percent Electing Medical Expense Reimbursement Program (MERP)

Based upon current participation in the MERP, 0% of current and future retiree health benefits participants are assumed to elect the MERP. As credible experience for MERP participation is not yet available, the assumed rate of participation is an estimate and actual results may be materially different. As such, this assumption will need to be reviewed as credible experience evolves.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

12. New Retiree Listing

Members who have newly retired but have not been completely processed for benefits were assumed to elect post-retirement medical. For those in Pension Group C, we have assumed they elect the Select Plan while all others elect the Model Plan.

13. Changes Since the Last Valuation

There were no changes since the prior valuation.

Claim and Expense Assumptions

The claims costs are developed based on claims experience projected to 2024 for the self-insured benefits and actual premiums in effect for 2024 for the fully insured ones. Contractual administrative expenses for 2024 are included. The resulting Per Adult Per Month (PAPM) cost is then adjusted using age curves.

1. Average Annual Claims and Expense Assumptions & Methodology

The Calendar Year (CY) 2024 claims costs were developed using actual CY 2021 through CY 2023 Medical and Rx claim experience. Claims were divided by benefit type (i.e., medical vs. Rx) and population category (i.e., Non-Medicare Eligible (NME) vs Medicare Eligible (ME)) for each plan and standardized to the Select Plan design for the 2023 enrollment. Rx claim costs were defined as Plan paid amounts minus pharmacy rebates. Large claims above $100,000 for Medical were removed from the experience prior to calculating the experience Per Adult Per Month (PAPM) cost.

We calculated the benefit relativity factors of the Select, Model, and Secure Plan using the OptumInsight Comprehensive Pricing Tool for NME and OptumInsight Comprehensive Medicare Coordination Model for ME participants. Using the same model, we calculated the change in demographics between the 2021, 2022 and 2023 enrollments, respectively.

Using the benefit relativity and demographic factors, the experience PAPM costs of each plan and year were adjusted to the Select Plan design for the 2023 population. The adjusted experience PAPM costs were then blended using:

- 30% of CY 2021, 35% of CY 2022 and 35% of CY 2023 experience for Medical NME,
- 30%/35%/35% of CY 2021/2022/2023, respectively, for Rx NME,
- 20%/20%/60% of CY 2021/2022/2023, respectively, for Rx ME, and
- 30%/35%/35% of CY 2021/2022/2023, for Medical ME (Part A only members).

Rates were trended to CY 2024 using an 8% annual trend. Large claims were trended separately assuming a 5% annual trend and added to the projected PAPM costs. To convert paid claims into incurred claims, we applied an extra 2.5 months of trend to medical and ½ month of trend to Rx. The CY 2024 projected Rx cost for ME was further adjusted to reflect the expected receivable payments from CMS (Part D Direct subsidy, Federal

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Reinsurance, Low Income Cost Share subsidy, Low Income Premium subsidy) and PhrMa (Gap Discount). These receivables were projected using CY 2021, 2022, and 2023 experience with payments through March 2024, adjusted for expected reconciliation payments for CY 2023.

Finally, we applied the benefit relativity factors to the Select projected costs PAPM to derive the Model and Secure projected costs PMPM. The PAPM costs for the ME Part A only population are expressed based on the entire ME population and added to the Medicare Advantage (MA) premium rates.

Claims curves were developed using the resulting projected PAPM claims costs, the premium rates for the fully insured MA plans, and our proprietary age curves. The costs of retirees over 65 who are eligible for Medicare Part A and didn't sign up for Part B are spread across the entire ME population.

No child load was added to the NME pre-65 claims since the associated cost is assumed to be implicitly reflected in the Per Adult Per Month costs.

Expenses were projected for NME vs ME, based on actual CY 2023 expenses provided by CRS, trended to CY 2024 using a 4% trend.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Calendar Year 2024 Average Claim and Expense Assumptions (Future Retirees and Current NME Inactives)						
	Select Medicare Eligible		Model Medicare Eligible		Secure Medicare Eligible	
Age	Male	Female	Male	Female	Male	Female
40	$5,187	$8,451	$5,146	$8,375	$0	$0
45	6,811	9,080	6,757	9,002	0	0
50	8,840	10,527	8,768	10,437	0	0
55	11,273	12,731	11,180	12,621	0	0
60	14,110	14,931	13,993	14,801	0	0
64	16,671	15,578	16,532	15,447	0	0
65	$3,709	$3,562	$3,767	$3,615	$2,954	$2,876
70	4,249	3,802	4,320	3,863	3,333	3,017
75	4,416	3,936	4,506	4,012	3,276	2,983
80	4,383	3,982	4,494	4,073	3,006	2,842
85	4,281	3,960	4,410	4,066	2,687	2,653

Calendar Year 2024 Average Claim and Expense Assumptions (Current Inactives Medicare A & B Eligible)						
	Select Non Medicare Eligible		Model Non Medicare Eligible		Secure Non Medicare Eligible	
Age	Male	Female	Male	Female	Male	Female
40	$3,527	$3,343	$3,502	$3,320	$3,828	$3,619
45	5,079	4,814	5,043	4,780	5,512	5,211
50	6,446	6,110	6,400	6,067	6,996	6,614
55	7,065	6,696	7,014	6,649	7,667	7,248
60	6,661	6,313	6,613	6,269	7,228	6,833
64	5,603	5,311	5,563	5,273	6,081	5,748
65	$3,394	$3,274	$3,370	$3,251	$3,684	$3,544
70	3,870	3,475	3,841	3,450	4,212	3,774
75	3,954	3,547	3,922	3,520	4,349	3,886
80	3,835	3,525	3,801	3,495	4,278	3,905
85	3,655	3,442	3,619	3,410	4,140	3,856

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Calendar Year 2024 Average Claim and Expense Assumptions (Current Inactives Medicare B Only Eligible)						
	Select Non Medicare Eligible		Model Non Medicare Eligible		Secure Non Medicare Eligible	
Age	Male	Female	Male	Female	Male	Female
40	$6,793	$6,283	$7,630	$7,036	$6,691	$6,196
45	9,782	9,048	10,987	10,132	9,635	8,922
50	12,415	11,483	13,944	12,859	12,228	11,324
55	13,606	12,584	15,282	14,092	13,401	12,410
60	12,828	11,865	14,408	13,286	12,634	11,700
64	10,791	9,981	12,120	11,177	10,629	9,843
65	$6,537	$6,153	$7,343	$6,890	$6,439	$6,068
70	7,659	6,738	8,631	7,574	7,534	6,635
75	8,573	7,439	9,761	8,439	8,398	7,298
80	9,317	8,102	10,730	9,281	9,084	7,917
85	9,917	8,626	11,533	9,962	9,629	8,400

2. **Retiree Health Care Plan Contributions**

Assumed adult per capita health care contribution rates were developed for those participants in the Select and Model Plans who are required to contribute a portion of retiree health benefit costs as defined in Schedule C. Contributions were determined to fully fund retiree health benefit costs in calendar year 2025 based upon Medicare Eligibility status. Rates are based on retiree cost experience, enrollment, and trended based on the assumptions. The following chart details the full (100%) adult per capita contribution assumptions. These amounts include medical, drug, and third-party administrative costs.

	Retiree		Spouse	
Health Plan	Payment Age < 65	Payment Age 65+	Payment Age < 65	Payment Age 65+
Secure Plan	$0	$0	$0	$0
Select Plan	$17,185	$3,951	$17,185	$3,951
Model Plan	$17,013	$3,795	$17,013	$3,795

As members hired after December 31, 2015 are ineligible to receive retiree health benefits, the contributions assumed for years beyond 2025 are based upon the projected retiree health care costs associated with each projection year's closed group of participants, reflecting the impact of aging and health care inflation.

3. **Medicare Part D Subsidy**

The City offers an EGWP Part D plan to its Medicare retirees; it, therefore, does not participate in the Retiree Drug Subsidy program.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

4. Medicare Part B Premium Subsidy

Assumed that Medicare Eligible Retirees pay the Medicare Part B premiums.

5. Medicare Coverage and Eligibility

Retiree health benefit participants age 65 and older who are eligible for premium-free Medicare Part A benefits are assumed to be enrolled in Medicare Part A. For those retiree health benefit participants who are not eligible for premium-free Medicare Part A coverage, CRS is assumed to remain the primary payer. For a portion of the Medicare-Eligible group, the premium-free Medicare Part A eligibility status is provided by CRS. As the premium-free Medicare Part A eligibility status is determined from a wide range of sources with varying and, at times, limited content, the premium-free Medicare Part A eligibility status data is incomplete. Adjustments have been made to account for this incompleteness. As the true status of those who are, or will be eligible for premium-free Medicare Part A is uncertain, actual results may be materially different. For all unidentified current retirees, hired prior to April 1, 1986, and not assumed eligible for premium-free Medicare Part A coverage through their spouse, as well as those active employees hired prior to April 1, 1986, 10% are assumed to not qualify for premium-free Medicare Part A coverage. The assumption of 10% is based upon estimates from the current retiree population. 100% of deferred vested members are assumed to obtain the 40 or more quarters of Medicare-covered employment required for premium-free Medicare Part A coverage as a result of their subsequent employment. Retiree health benefit participants age 65 and older are assumed to be enrolled in Medicare Part B.

6. Marital and Spouse Assumptions

For participants who are not receiving benefits, 100% of participants are assumed to be married to a spouse of the opposite gender. Husbands are assumed to be three years older than their wives. For participants who are receiving benefits, the actual spouse age is used where available. If relevant spouse information is not available, husbands are assumed to be three years older than their wives.

7. Part-Time Employees

On July 1, 1991, the Plan was amended to include part-time employees. Part-time employees hired on or before December 31, 2015, have been included in the valuation.

8. Geography

Implicitly assumed to remain the same as current retirees.

9. Disclosures Regarding Models Used

a. Valuation Software

Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate the liabilities, normal costs and projected benefit

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

b. Getzen Trend Model

Medical Trend assumptions were developed using the Society of Actuaries (SOA) Long-Run Medical Cost Trend Model version 2024_1b. The following assumptions were used as input variables into this model:

Trend Assumption Inputs	
Variable	**Rate**
Rate of Inflation	2.60%
Rate of Growth in Real Income/GDP per capita 2033+	1.40%
Extra Trend due to Taste/Technology 2033+	0.90%
Expected Health Share of GDP 2033	19.80%
Health Share of GDP Resistance Point	17.70%
Year for Limiting Cost Growth to GDP Growth	2044

The SOA Long-Run Medical Cost Trend Model and its baseline projection are based on an econometric analysis of historical U.S. medical expenditures and the judgments of experts in the field. The long-run baseline projection and input variables have been developed under the guidance of the SOA Project Oversight Group.

The trends selected from 2023 to 2026 were based on market analysis and reflect the expected impact of the Inflation Reduction Act. The expected health share of GDP in 2033 is set to 19.8% of GDP. This assumption is consistent with the trends through 2033 and also with the 2023 Medicare Trustees report projection for 2031. The share of GDP above which cost growth is assumed to meet resistance was set to 17.70% to reflect that the share of GDP for four years pre-pandemic remained at 17.70%. We have reviewed the other baseline assumptions for the model and found them to be reasonable and consistent with the other economic assumptions used in the valuation.

We have relied on the Society of Actuaries as the developer of the Model. We have reviewed the Model and have a basic understanding of the Model and have used the Model in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of the Model that would affect this report.

c. OptumInsight Comprehensive Pricing Model

Cheiron utilized the Optum Comprehensive Benefit Pricing Model [2023, Version 1.03], and the Optum Comprehensive Medicare Coordination Model [CMCM 2023, Version 1.1] which are softwares leased from OptumInsight, to provide manual rates, benefit pricing, and benchmark calculations. For this report, the Models were used to adjust the plan experience for differences in benefits between the Secure, Select and Model Plans.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

We have relied on Optum as the developer of the Models. We have reviewed the Models and have a basic understanding of the Models and have used the Models in accordance with their original intended purpose. We have not identified any material inconsistencies in assumptions or output of the Models that would affect the results of this report.

As part of the review process for this actuarial valuation, we have performed a number of tests to verify that the results of the models are reasonable and appropriate. We have reviewed each model, have a basic understanding of them, and have used them in accordance with their original intended purposes. We are not aware of any material inconsistencies, unreasonable output resulting from the aggregation of assumptions, material limitations, or known weaknesses that would affect this report.

10. Changes Since the Last Valuation

The retiree health care plan contribution rates for the Model Plan were updated to reflect the new point grid effective July 1, 2024.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Methodology

The Entry Age Normal actuarial cost method is used to determine costs. Under this funding method, a normal cost rate is determined as a level percent of pay for each active plan member and then summed to produce the total normal cost for the City.

The Actuarial Accrued Liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. It represents the value of the past normal costs with interest to the valuation date. The difference between this liability and funds accumulated as of the same date is referred to as the Unfunded Actuarial Liability.

The portion of the Actuarial Liability in excess of OPEB Trust's assets is amortized to develop additional costs or savings which is added to each year's employer normal cost to produce the Actuarially Defined Contribution (ADC). Under this cost method, actuarial gains and losses are directly reflected in the size of the ADC.

The Unfunded Actuarial Liability is amortized over an open 30-year period. The amortization is a level dollar amortization. CY 2024 claims and expenses were developed as described in Appendix B, Claims and Expenses Assumptions section above.

Actuarial Value of Assets

For purposes of determining the contribution rate to the Plan, we use an Actuarial Value of Assets. The asset adjustment method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

The Actuarial Value of Assets is the current market value, adjusted by a five-year smoothing of gains and losses on a market value basis. Each year's gain or loss is determined as the difference between the actual market return and the expected market return using the assumed rate of investment return. The actuarial value is adjusted to remain within 20% of the market value.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Summary of Key Substantive Plan Provisions

Pension Benefit Eligibility

All active employees of the City except for the following:

- Members of the Police and Firemen's Disability and Pension Fund of Ohio.
- Elected City officials.
- Employees for whom the City contributes to PERS.
- Persons hired as police recruits who are not currently enrolled as a member of the System prior to their date of hire.
- Current contributing members of the School Employees Retirement System (SERS) or the State Teachers Retirement System (STRS) who are hired by the City on a seasonal, temporary, or part-time basis.

Members of the System are divided into the following groups:

Group	Criteria
A, B	Any member who has retired prior to 7/1/2011
C	Any member who, as of June 30, 2011, was an active or deferred vested member and had either: a) Completed at least 30 years of service, or b) Reached age 60 and completed at least 5 years of service.
D	Any active member who, between July 1, 2011 and December 31, 2013: 1) Either a) Completed at least 30 years of service, or b) Reached age 60 and completed at least 5 years of service; and 2) Retired prior to January 1, 2014.
E	Any active member who: 1) Between July 1, 2011 and December 31, 2013, either: a) Completed at least 30 years of service, or b) Reached age 60 and completed at least 5 years of service; and 2) Retires on or after January 1, 2014.
F	Any active member whose most recent membership enrollment date was prior to January 1, 2010 and who is not in groups A through E. Any deferred vested member whose most recent membership enrollment date was prior to January 1, 2010, is not in groups A through E, and has at least five years of service prior to the date they separate from employment.
G	Any member whose most recent membership enrollment date is on or after January 1, 2010, or Any member rehired on or after January 1, 2010, who has fewer than 5 years of service as of June 30, 2011, or Any retiree of the System who is receiving a service retirement allowance and is re-employed on or after April 1, 2013.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Members of the System are further classified as:

Class	Criteria
CSA Retiree (CSA participants corresponding to Retirees Class)	Group A and B members and their designated optionees.
CSA Employee (CSA participants corresponding to Current Employees Class)	Group C, D, E, and F members (and their designated optionees) that were vested and employed on 7/1/2011.
CMC Employee (Non-CSA participants)	Group E and F members (and their designated optionees) that were either vested or employed on 7/1/2011 and no break in employment service since 1/1/2010 and prior to becoming vested.
Non-CSA	Group G members and their designated optionees.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Years of Service: Years or fractional years of full-time service rendered to the Plan Sponsor.

Normal Retirement:

Groups A, B, C, D, E, and F:
Age 60 with 5 years of service or 30 years of service.

Group G:
Age 67 with 5 years of service or age 62 with 30 years of service.

Early Retirement:

Groups A, B, C, D, E, and F:
Age 55 with 25 years of service.

Group G:
Age 57 with 15 years of service.

Deferred Retirement Option Plan (DROP):

Current Employees Class members with at least 30 years of service may participate in the DROP.

Disability Retirement Eligibility:

5 years of service.

Deferred Vested Retirement Eligibility:

5 years of service.

Retiree Health Benefits Eligibility:

Per Ordinance 336-2016 adopted by the City Council on October 26, 2016, employees hired after December 31, 2015, are not eligible to receive retiree health benefits.

Group 1: Those members of Group C or those members hired before January 9, 1997. For those members of Group C or those members who retire under the System prior to January 1, 2016 (including their survivors receiving pension benefits), a minimum of 15 years of service is required. For those members who retire under the System after December 31, 2015 (including their survivors receiving pension benefits), a minimum attained age of 60 with 20 years of service or 30 years of service regardless of age is required.

Group 2: Those participants hired on or after January 9, 1997. For those members who retire under the System prior to January 1, 2016 (including their survivors receiving pension benefits), a minimum of 15 years of service is required. For those members who retire under the System after December 31, 2015 (including their survivors receiving pension benefits), a minimum attained age of 60 with 20 years of service or 30 years of service regardless of age is required. Group 2 participants entitled to a deferred retirement allowance are eligible for health benefits upon attainment of the Medicare Eligibility age.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Deferred Retirement Option Plan (DROP): Eligible Current Employees Class members may effectively retire and freeze their accrual of years of service with the System and defer receipt of retirement benefits, including retiree health benefits, for a period not to exceed five years while continuing City employment. For valuation purposes, current DROP participants are assumed to be active members, receiving health care benefits as an active employee. Service does not accrue while participating in the DROP and retiree health benefits are assumed to begin upon exit from active employment.

Members and Beneficiaries Assumed to be Eligible for Deferred Retiree Health Benefits as of December 31, 2016: Per Ordinance 336-2016 adopted by the City Council on October 26, 2016, members of Group C and their associated beneficiaries are eligible for retiree health benefits under the Select Plan based upon a minimum of 15 years of service. All other eligible members and their associated beneficiaries are eligible for retiree health benefits under the Model Plan based upon a minimum attained age of 60 with 20 years of service or 30 years of service regardless of age.

Dependents: A retiree may elect to cover an eligible spouse and/or eligible dependent children by paying the applicable retiree contribution rate for the specified enrollment tier.

Retiree Health Benefits

The System offers health care benefits (medical, prescription drugs, dental, and vision coverage) to eligible retirees, beneficiaries, and their dependents before and during Medicare Eligibility.

Under the provisions of Ordinance 85-2011, beginning January 1, 2012, members who retired prior to September 1, 2007, and who establish their annual household income to be less than $30,000, are eligible to receive medical and prescription drug coverage under the Secure Plan. Those members who retired prior to September 1, 2007, who do not qualify for coverage under the Secure Plan may elect medical and prescription drug coverage through either the Select Plan or Model Plan based upon eligibility.

Those members of Group C or those members who retired on or after September 1, 2007 (including those employees who retired under a special incentive plan in 2007) but prior to January 1, 2016, may elect medical and prescription drug coverage through the Select Plan. Those members not eligible for the Secure Plan or the Select Plan may elect coverage under the Model Plan.

Active Service Death Benefits

A surviving spouse, eligible dependent child, and orphan receiving survivor pension benefits as a result of death during employment of an eligible active member is eligible to receive retiree health benefits based upon the eligibility and terms applicable to the associated member.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Medicare Part B Premium Reimbursement

Under the provisions of Ordinance 85-2011, beginning January 1, 2012, CRS no longer reimburses the Medicare Part B premiums for retirees and spouses.

Retiree Contributions

Participants covered by the Secure Plan do not contribute towards the cost of medical and prescription drug coverage. Group 1 participants covered by the Select Plan contribute an amount equal to five percent of the full cost of medical and prescription drug benefits of the retiree group with costs adjusted based upon the Medicare Eligibility age (age 65). Group 1 participants covered by the Model Plan contribute an amount equal to ten percent of the full cost of medical and prescription drug benefits of the retiree group with costs adjusted based upon the Medicare Eligibility age (age 65). Group 2 participants will pay the portion of the full cost of medical and prescription drug benefits of the coverage option for which they are eligible as determined by the point system.

Retiree Contribution as a Percentage of Cost			
Points	Select Plan	Points	Model Plan
90+	5%	85+	10%
80-89	25%	80-84	20%
70-79	50%	70-79	40%
60-69	75%	60-69	60%

Dental Benefits

Under the provisions of Ordinance 85-2011, beginning January 1, 2012, all members electing to participate in the dental plan will be required to pay the full cost of dental coverage. As such, it is assumed CRS has no liability under GASB 74 and 75 for dental benefits.

Vision Benefits

Under the provisions of Ordinance 85-2011, beginning January 1, 2012, all members electing to participate in the vision plan will be required to pay the full cost of vision coverage. As such, it is assumed CRS has no liability under GASB 74 and 75 for vision benefits.

Changes Since Prior Valuation

The Point Grid for Retiree Contributions to the Model Plan was updated effective July 1, 2024.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Summary of 2024 Benefit Plans

Currently, the City of Cincinnati Postretirement Health Fund offers three plans for retired employees. Benefits are payable under the Plan for medical care obtained from the City's health care vendors. Medicare Part A eligible retirees who didn't buy into Part B get the same medical benefits as the Non-Medicare Retirees.

City of Cincinnati Non-Medicare Retirees

Provider Network:	Anthem BCBS	Anthem BCBS	Anthem BCBS
In-Network (INN) Benefits	**Select Plan**	**Model Plan**	**Secure Plan**
Deductible (Individual / Family)	$300 / 600	$500 / 1,000	$0 / 0
Coinsurance	20%	20%	20%
Copays			
Office Visit (OV)-Primary Care (PCP)	DC	DC	DC
OV - Specialist Care Provider (SCP)	DC	DC	DC
Urgent Care (UC)	DC	DC	DC
Hospital Emergency Room (ER)	DC	DC	DC
Outpatient Surgery	DC	DC	DC
Hospital Inpatient	DC	DC	DC
Out-of-Pocket Max (Individual / Family)	$1,500 / 3,000	$2,000 / 4,000	$500 / 1,000
Out-of-Network (OON) Benefits			
Deductible (Individual / Family)	$600 / 1,200	$1,000 / 2,000	$0 / 0
Coinsurance	50%	50%	50%
Hospital Emergency Room (ER)	INN DC	INN DC	INN DC
Out-of-Pocket (OOP) Max (Individ / Family)	$3,000 / 6,000	$4,000 / 8,000	$1,000 / 2,000
Lifetime Maximum	Unlimited	Unlimited	Unlimited
Annual Maximum	Unlimited	Unlimited	Unlimited
Prescription Drugs	Non Medicare Coverage Only	Non Medicare Coverage Only	Non Medicare Coverage Only
Retail (30 Days) - Generic/Formulary /Non-Form. Copay	$10 / 20 / 30	$10 / 20 / 30	$5 / 15 / 30
Mail Order (90 Days) - Generic/Formulary /Non-Form. Copay	$20 / 40 / 60	$20 / 40 / 60	$10 / 30 / 60
Out-of-Pocket Max (Individual / Family)	None	None	$500
Detail Benefits			
Mental Health (MH) / Substance Abuse (SA):			
- SA Lifetime Visit Limit (Inpatient / Outpatient)	Unlimited	Unlimited	Unlimited
- SA Lifetime OOP Maximum	Unlimited	Unlimited	Unlimited
- MH Per Year Visit Limit (Inpatient / Outpatient)	Unlimited	Unlimited	Unlimited
Home Health (INN / OON):	DC / DC up to 30 visits	DC / DC up to 30 visits	DC / DC up to 30 visits
Allergy Care:	DC	DC	DC
Rehabilitation (i.e., speech, occup. physical):	DC up to 60 visits	DC up to 60 visits	DC up to 60 visits
Chiropractors:	DC	DC	DC
Medical Supplies and Equipment:	DC	DC	DC
Maternity Care:	DC	DC	DC
Skilled Nursing Facility	DC	DC	DC
Hearing Aids:	DC	DC	DC
Preventive Care:	DC	DC	DC
Medicare Integration:	Exclusion[2]	Exclusion[2]	Exclusion[2]

[1] *DC=Deductible and coinsurance applies.*

[2] *Medicare Pays first then the Plan applies the Plan's rules for non-Medicare covered benefits.Only Medicare Eligibles who have not bought into Medicare Part B are covered under the NME plan*

Vendors

Medical Claims Administrator:	Anthem BCBS
Medical Network:	Anthem BCBS
Pharmacy Benefit Manager:	CVS / CareMark
Stop-Loss Insurer:	N/A

APPENDIX C – SUMMARY OF PLAN PROVISIONS

City of Cincinnati Medicare Advantage Plans - For Medicare Part A&B and Part B only eligibles

Provider Network:	Anthem BCBS	Anthem BCBS	Anthem BCBS
In-Network (INN) Benefits	**Select Plan**	**Model Plan**	**Secure Plan**
Deductible (Individual)	$300	$500	$0
Coinsurance	4%	4%	4%
Copays			
Office Visit (OV)-Primary Care (PCP)	DC	DC	DC
OV - Specialist Care Provider (SCP)	DC	DC	DC
Preventive Care:	$0 / C	$0 / C	$0 / C
Urgent Care (UC)	DC	DC	DC
Hospital Emergency Room (ER)	$50	$50	$50
Skilled Nursing Facility (SNF)	$5/day for days 1-20, DC for days 21-100	$5/day for days 1-20, DC for days 21-100	$5/day for days 1-20, DC for days 21-100
Outpatient Surgery	DC	DC	DC
Hospital Inpatient	DC	DC	DC
Home Health (INN / OON):	$0 / DC	$0 / DC	$0 / DC
Mental Health (MH) / Substance Abuse (SA):	DC	DC	DC
Out-of-Pocket Max (Individual / Family)	$1,500	$2,000	$500
Out-of-Network (OON) Benefits			
Deductible (Individual)	Combined with INN	Combined with INN	Combined with INN
Coinsurance	10%	10%	10%
Hospital Emergency Room (ER)	INN DC	INN DC	INN DC
Out-of-Pocket (OOP) Max (Individual)	$3,000	$4,000	$1,000
Lifetime Maximum	Unlimited	Unlimited	Unlimited
Annual Maximum	Unlimited	Unlimited	Unlimited
Prescription Drugs	Medicare Coverage Only	Medicare Coverage Only	Medicare Coverage Only
Retail (30 Days) - Generic/Formulary /Non-Form. Copay	$10 / 20 / 30	$10 / 20 / 30	$5 / 15 / 30
Mail Order (90 Days) - Generic/Formulary /Non-Form. Copay	$20 / 40 / 60	$20 / 40 / 60	$10 / 30 / 60
Out-of-Pocket Max (Individual)	None	None	$500

[1] *DC=Deductible and coinsurance applies.*

[2] *C=Coinsurance applies.*

APPENDIX D – GLOSSARY OF TERMS

1. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting OPEB costs, such as mortality, withdrawal, and retirement; changes in compensation; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; and other relevant items.

2. Actuarial Cost Method

A procedure for determining the Actuarial Present Value of OPEB plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a normal cost and an Actuarial Liability.

3. Actuarially Determined Contribution

A target or recommended contribution for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

4. Actuarial Gain (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

5. Actuarial Liability

The portion of the Actuarial Present Value of projected benefits will not be paid by future normal costs. It represents the value of the past normal costs with interest to the valuation date.

6. Actuarial Present Value (Present Value)

The value as of a given date of a future amount or series of payments, the Actuarial Present Value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made. As a simple example: assume you owe $100 to a friend one year from now. Also, assume there is a 1% probability of your friend dying over the next year, in which case you will not be obligated to pay him. If the assumed investment return is 10%, the Actuarial Present Value is:

Amount		Probability of Payment		1/ (1+Discount Rate)		Present Value
$100	x	(1 - .01)	x	1/(1+.1)	=	$90

APPENDIX D – GLOSSARY OF TERMS

7. Actuarial Valuation Date

The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

8. Actuarial Value of Assets

The value of cash, investments, and other property belonging to an OPEB plan as used by the actuary for the purpose of an actuarial valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values. This way long-term costs are not distorted by short-term fluctuations in the market.

9. Amortization Payment

The portion of the OPEB plan contribution which is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

10. Discount Rate

The assumed interest rate used for converting projected dollar-related values to a present value as of the valuation date.

11. Entry Age Actuarial Cost Method

The actuarial cost method required for GASB 74 and 75 calculations. Under this method, the Actuarial Present Value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this Actuarial Present Value allocated to a valuation year is called the Service Cost. The portion of this Actuarial Present Value not provided for at a valuation date by the actuarial present value of future Service Costs is called the Total OPEB Liability.

12. Funded Percentage

The ratio of the Actuarial Value of Assets to the Actuarial Liabilities.

13. Medical Trend

The assumed increase in dollar-related values in the future due to the increase in the cost of health care.

APPENDIX D – GLOSSARY OF TERMS

14. Mortality Table

A set of percentages which estimate the probability of death at a particular point in time. Typically, the rates are annual and based on age and sex.

15. Normal Cost

That portion of the Actuarial Present Value of OPEB plan benefits and expenses which is allocated to a valuation year by the actuarial cost method.

16. Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets.

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