City of Phoenix Employees' Retirement System

ACTUARIAL VALUATION REPORT AS OF

June 30, 2025

October 16, 2025

Mr. Scott Steventon
Retirement Program Administrator
City of Phoenix Employees' Retirement System
200 W. Washington Street, 10th Floor
Phoenix, Arizona 85003

Re: Actuarial Valuation of the City of Phoenix Employees' Retirement System as of June 30, 2025

Dear Scott:

The results of the June 30, 2025 Annual Actuarial Valuation of the City of Phoenix Employees' Retirement System ("COPERS") are presented in this report.

This report was prepared at the request of the Board and is intended for use by COPERS and those designated or approved by the Board. This report may be provided to parties other than COPERS only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The purposes of the valuation are to measure the funding progress of COPERS, to determine the employer contribution rate, and analyze changes in this rate. In addition, the report provides various summaries of the data. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different. Accounting information for purposes of complying with Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68 is provided in a separate report.

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section G of this report. This report includes risk metrics in Section H, but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

This report was prepared using assumptions adopted by the Board. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. All actuarial assumptions and methods used in this valuation follow the guidance in the applicable Actuarial Standards of Practice and are expected to have no significant bias.

This report was prepared using our proprietary valuation model which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

We certify that the information contained in this report is accurate and fairly presents the actuarial position of COPERS as of the valuation date.

Financing Objectives

The Actuarially Determined Contribution (ADC) is determined by taking the sum of the normal cost, a component to amortize the unfunded liability and a component to cover administrative expenses. The Board's current funding policy is to contribute an amount each year based on the most recently calculated Actuarially Determined Contribution.

The unfunded accrued liability is comprised of experience gains and losses, assumption changes and benefit changes. A base is established in each year for changes in the unfunded accrued liability arising from these sources. In September 2013, the Board adopted amortization payment methods that amortize the pre-assumption changes of July 1, 2013 over a closed 25-year period as a level percentage of payroll; amortizes the assumption change liability as of July 1, 2013 over a closed 25-year period as a level percentage of payroll with a four-year phase in, and amortizes future gains and losses over a closed 20-year period. Future gains cannot be amortized over a period shorter than the period remaining on the 25-year amortization schedule. The actuarially determined contribution has decreased from 33.02% of pay to 31.64% of pay. The decrease is primarily due to an increase in the contributory payroll and the assumption changes. If the contributions made are equal to the ADC, and if all actuarial assumptions are met, there will not be an unfunded accrued liability at the end of the 20-year period. Accordingly, the Actuarially Determined Contribution under the Board funding policy can be considered a "Reasonable Actuarially Determined Contribution" as required by the Actuarial Standards of Practice.

Assuming all actuarial assumptions are met, this method of payment of the unfunded liability will result in full funding in 20 years. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. A schedule of each year's initial base and remaining outstanding balance is illustrated in Exhibit B.6.

Progress Toward Realization of Financing Objectives

The unfunded actuarial accrued liability and the funded ratio (ratio of the actuarial value of assets to the actuarial accrued liability) illustrate the progress toward the realization of certain financing objectives. Based on the actuarial valuation as of June 30, 2025, COPERS has an unfunded liability of $1.32 billion and a funded ratio of 74.65%.

The funded ratio increased from 72.62% to 74.65% on an actuarial value of assets basis and increased from 70.25% to 75.12% on a market value of assets basis. These increases are primarily attributable to anticipated funding progress based on the funding policy and the contribution experience. A funded ratio less than 100% indicates an actuarially determined contribution that will require a normal cost and an amortization payment. If the contributions equal the ADC, and if all assumptions are met, the funded ratio should improve over time.

Benefit Provisions

All of the benefit provisions reflected in this valuation are those which were in effect on June 30, 2025. The benefit provisions are summarized in Section E of this Report.

Assumptions and Methods

The Board accepted GRS's recommendations on the economic and demographic assumptions based on the most recent experience study that analyzed data through the period ending June 30, 2024. These new assumptions were adopted in July 2025. The assumptions and methods are detailed in Section G of this Report. The Board has sole authority to determine the actuarial assumptions used for COPERS. In our opinion, the actuarial assumptions used are reasonable.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on COPERS's funded status); and changes in plan provisions or applicable law. The actuarial calculations presented in this report are intended to provide information for rational decision making.

Data

The findings in this report are based on data and other information through June 30, 2025. The valuation was based upon information furnished by the City of Phoenix Employees' Retirement System staff, concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by City of Phoenix Employees' Retirement System staff.

Certification

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the City of Phoenix Employees' Retirement System as of the valuation date.

All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Paul Wood and Krysti Kiesel are members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

Gabriel, Roeder, Smith & Company will be pleased to review this valuation and Report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,

Gabriel, Roeder, Smith & Company

Paul Wood, ASA, FCA, MAAA
Senior Consultant

Krysti Kiesel, ASA, EA, MAAA
Consultant

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Section A

Executive Summary

Actuarial Valuation

Valuations are prepared annually, as of June 30 of each year. The primary purposes of the valuation report are to measure the plan's liabilities, to determine the contribution rate and to analyze changes in the City of Phoenix Employees' Retirement System actuarial position.

In addition, the report provides summaries of the member data, financial data, plan provisions, and actuarial assumptions and methods.

Financing Objectives

The employer contributions are intended to be sufficient to pay the normal cost and administrative expenses and to amortize the Unfunded Actuarial Accrued Liability (UAAL) as described on page B-6 of this report.

The contribution rate shown on pages B-4 and B-5 may be considered as a minimum contribution rate that complies with the Board's funding policy. Users of this report should be aware that contributions made at that rate do not guarantee benefit security. Given the importance of benefit security to any retirement system, we suggest that contributions to COPERS in excess of those presented in this report be considered.

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section G of this report. This report does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Assessment of risks was outside the scope of this assignment. We encourage a review and assessment of investment and other significant risks that may have a material effect on the plan's financial condition.

Assumption Changes

The assumptions have been selected by the Board based upon the actuary's analysis and recommendations. New assumptions were adopted by the Board in July 2025 to first be effective as of June 30, 2025. The assumptions were adopted based on the most recent experience study that analyzed data through the period ending June 30, 2024.

Below is a summary of the changes in assumptions from the prior valuation:

- The inflation rate was increased from 2.30% to 2.40%.
- The COLA assumption for the Pension Equalization Reserve was reduced to 0.75% through 2030, 1.00% from 2031-2035 and then 1.25%, thereafter.
- Wage inflation was increased from 2.80% to 3.00% and individual merit/promotion increase were changed to be service based rates ranging from 5.00% to 0.00%.
- Post-retirement, active life and disabled life mortality was updated to be based on the Pub-2016 tables with multipliers for healthy annuitant mortality and projected with the ultimate rates from the most recently published MP projection scales.

- Rates of disability, retirement, and termination were updated to reflect recent experience.

These assumption changes decreased the accrued liability by $133 million and decreased the actuarially determined contribution by 0.95% of compensation.

The assumptions are summarized in Section G of the report.

Experience During the Year

The plan experienced a contribution gain of $39.3 million and a liability loss of $26.2 million during fiscal year 2025. Details on the liability loss can be found on page B-8.

The plan experienced an asset loss of $97.6 million during fiscal year 2025. As of June 30, 2025, the amount of outstanding asset gains not yet recognized in the actuarial value of assets was $24.1 million.

Benefit Provision Changes

There were no changes to benefit provisions since the prior valuation. The benefit provisions are summarized in Section E of the report.

Financial Position and Summary of Results

The funded ratio increased on both an actuarial value of assets basis and on a market value of assets basis from June 30, 2024 to June 30, 2025.

The funded ratio may not be appropriate for assessing the need for future contributions. The funded ratio is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.

Exhibit A.1
City of Phoenix Employees' Retirement System
Executive Summary

		June 30, 2025	June 30, 2024
1. **Total Actuarially Determined Contribution**			
a.	Dollar Amount	$ 263,980,478	$ 253,860,541
b.	As a % of Payroll	31.64%	33.02%
2. **Funded Status**			
a.	Actuarial Accrued Liability	$ 5,209,416,156	$ 5,147,293,773
b.	Actuarial Value of Assets (AVA)	3,889,052,726	3,738,075,318
c.	Unfunded Liability (AVA-basis)	1,320,363,430	1,409,218,455
d.	Funded Ratio (AVA-basis)	74.65%	72.62%
e.	Market Value of Assets (MVA)	$ 3,913,123,278	$ 3,615,814,139
f.	Unfunded Liability (MVA-basis)	1,296,292,878	1,531,479,634
g.	Funded Ratio (MVA-basis)	75.12%	70.25%
3. **Summary of Census Data**			
a.	Actives		
	i.(a) Tier 1 Count	3,272	3,545
	i.(b) Tier 2 Count	482	509
	i.(c) Tier 3 Count	5,283	4,712
	i.(d) Total Active Count	9,037	8,766
	ii. Total Annual Compensation	$ 815,607,338	$ 751,455,022
	iii. Average Projected Compensation	90,252	85,724
	iv. Average Age	45.9	46.0
	v. Average Service	10.6	10.9
b.	Deferred Vested Member Counts	1,143	1,144
c.	Retiree Counts	6,780	6,620
d.	Beneficiary and Alternate Payee Counts	1,248	1,222
e.	Disability Counts	219	223
f.	Refunds Due Counts	3,185	3,013
g.	Total Members Included in Valuation	21,612	20,988

SECTION B

VALUATION RESULTS

Exhibit B.1
City of Phoenix Employees' Retirement System
Actuarial Valuation Results
Actuarial Accrued Liability

	June 30, 2025				June 30, 2024
	Tier 1	**Tier 2**	**Tier 3**	**Total**	**Total**
1. **Active Members**					
a. Retirement Benefits	$ 1,627,146,647	$ 84,219,100	$ 210,028,355	$ 1,921,394,102	$ 1,803,558,170
b. Withdrawal Benefits	(10,049,597)	(431,714)	5,223,172	(5,258,139)	16,638,831
c. Disability Benefits	2,018,898	256,911	600,508	2,876,317	6,777,381
d. Death Benefits	15,508,432	1,832,676	4,241,508	21,582,616	16,433,371
e. Total	$ 1,634,624,380	$ 85,876,973	$ 220,093,543	$ 1,940,594,896	$ 1,843,407,753
2. **Members with Deferred Benefits**				$ 120,778,109	$ 122,237,153
3. **Members Receiving Benefits**				$ 3,148,043,151	$ 3,181,648,867
4. **Total**				$ 5,209,416,156	$ 5,147,293,773
5. **Actuarial Value of Assets**				$ 3,889,052,726	$ 3,738,075,318
6. **Unfunded Actuarial Accrued Liability**				$ 1,320,363,430	$ 1,409,218,455

Tier 1: Hired before July 1, 2013

Tier 2: Hired between July 1, 2013 and December 31, 2015

Tier 3: Hired on or after January 1, 2016

Exhibit B.2
City of Phoenix Employees' Retirement System
Actuarial Valuation Results
Normal Cost for Fiscal Year Ending June 30, 2027

	Tier 1	Tier 2	Tier 3	Total	Prior Year
1. **Dollar Normal Cost**					
a. Retirement Benefits	$ 43,928,553	$ 6,201,208	$ 45,626,151	$ 95,755,912	$ 83,575,831
b. Withdrawal Benefits	5,821,193	1,236,322	10,043,484	17,100,999	15,346,751
c. Disability Benefits	137,959	23,062	152,914	313,935	889,745
d. Death Benefits	726,133	131,314	897,902	1,755,349	1,654,447
e. Total	$ 50,613,838	$ 7,591,906	$ 56,720,451	$ 114,926,195	$ 101,466,774
2. **Normal Cost as a Percentage of Pay**	14.74%	16.45%	13.37%	14.12%	13.53%
3. **Projected Payroll for FYE June 30, 2027**	$ 352,049,789	$ 47,302,149	$ 434,945,812	$ 834,297,750	$ 768,925,707
4. **Dollar Normal Cost for FYE June 30, 2027**	$ 51,879,184	$ 7,781,704	$ 58,138,462	$ 117,799,350	$ 104,003,443

Tier 1: Hired before July 1, 2013

Tier 2: Hired between July 1, 2013 and December 31, 2015

Tier 3: Hired on or after January 1, 2016

Exhibit B.3 City of Phoenix Employees' Retirement System Actuarial Valuation Results Present Value of Projected Benefits					
	June 30, 2025				June 30, 2024
	Tier 1	Tier 2	Tier 3	Total	Total
1. **Active Members**					
a. Retirement Benefits	$ 1,865,598,835	$ 143,108,832	$ 685,100,168	$ 2,693,807,835	$ 2,425,530,066
b. Withdrawal Benefits	20,980,132	11,769,679	117,646,325	150,396,136	150,809,385
c. Disability Benefits	2,771,213	499,080	2,394,122	5,664,415	13,936,278
d. Death Benefits	19,379,290	3,128,526	14,062,422	36,570,238	29,263,574
e. Total	$ 1,908,729,470	$ 158,506,117	$ 819,203,037	$ 2,886,438,624	$ 2,619,539,303
2. **Members with Deferred Benefits**				$ 120,778,109	$ 122,237,153
3. **Members Receiving Benefits**					
a. Healthy Retirees				$ 2,853,414,879	$ 2,881,727,765
b. Disabled Retirees				45,062,112	45,479,396
c. Beneficiaries				249,566,160	254,441,706
d. Total				$ 3,148,043,151	$ 3,181,648,867
4. **Total**				$ 6,155,259,884	$ 5,923,425,323

Tier 1: Hired before July 1, 2013

Tier 2: Hired between July 1, 2013 and December 31, 2015

Tier 3: Hired on or after January 1, 2016

Exhibit B.4
City of Phoenix Employees' Retirement System
Development of the Actuarially Determined Contribution

	June 30, 2025	June 30, 2024
1. Present Value of Projected Benefits		
a. Retirees and Beneficiaries	$3,148,043,151	$3,181,648,867
b. Deferred vested members	120,778,109	122,237,153
c. Active members	2,886,438,624	2,619,539,303
d. Total [(a) + (b) + (c)]	$6,155,259,884	$5,923,425,323
2. Present Value of Future Normal Costs	$ 945,843,728	$ 776,131,550
3. Entry Age Normal Accrued Liability [(1) - (2)]	$5,209,416,156	$5,147,293,773
4. Actuarial Value of Assets	3,889,052,726	3,738,075,318
5. Unfunded Actuarial Accrued Liability [(3) - (4)]	$1,320,363,430	$1,409,218,455

Development of the Actuarially Determined Contribution

Fiscal Year Ending	June 30, 2027	June 30, 2026
6. Entry Age Normal Cost	$ 117,799,350	$ 104,003,443
7. Administrative Expenses	1,840,516	5,116,581
8. Amortization of UAAL	144,340,612	144,740,517
9. Actuarially Determined Contribution [(6) + (7) + (8)]	$ 263,980,478	$ 253,860,541
10. Projected Payroll	$ 834,297,750	$ 768,925,707
11. Actuarially Determined Contribution as a Percent of Compensation	31.641%	33.015%

Exhibit B.5
City of Phoenix Employees' Retirement System
Actuarial Valuation Results
Summary of Contribution Rates and Estimated Amounts

Fiscal Year Ending	June 30, 2027	June 30, 2026
1. **Total Contribution Rate**		
a. Total Normal Cost Rate	14.12%	13.53%
b. Administrative Expense Rate	0.22%	0.67%
c. Total UAL Contribution Rate	17.30%	18.82%
d. Total Projected Rate	**31.64%**	**33.02%**
2. **Member Contribution Rates**		
a. Tier 1	5.00%	5.00%
b. Tier 2	11.00%	11.00%
c. Tier 3	11.00%	11.00%
3. **City Contribution Rates**		
a. Tier 1	26.64%	28.02%
b. Tier 2	20.64%	22.02%
c. Tier 3	20.64%	22.02%
4. **Projected Payroll**		
a. Tier 1	$ 352,049,789	$ 357,608,037
b. Tier 2	47,302,149	46,843,050
c. Tier 3	434,945,812	364,474,620
d. Total	**$ 834,297,750**	**$ 768,925,707**
5. **Estimated Contribution Amounts**		
a. Members	$ 70,649,765	$ 63,125,346
b. City	193,330,713	190,773,923
c. Total	**$ 263,980,478**	**$ 253,899,269**

The Actuarially Determined Contribution (ADC) is calculated in accordance with the Funding Policy adopted by the Board. The unfunded accrued liability is amortized according to the following schedule. Please see Section G of this report for a full description of the funding policy.

Exhibit B.6
City of Phoenix Employees' Retirement System
Amortization of Unfunded Actuarial Liability as of June 30, 2025

Base Year	Remaining Base as of June 30, 2025	Years Remaining as of June 30, 2025	Remaining Base as of June 30, 2026	Years Remaining as of June 30, 2026	Amortization Payment For FYE June 30, 2027
2013 UAL	$ 998,653,718	13	$ 963,552,724	12	$ 104,051,706
2013 Assumption Changes	425,830,588	13	410,863,362	12	44,368,131
2014 Experience Gain	(52,690,786)	13	(50,838,794)	12	(5,489,957)
2015 Experience Gain	(2,692,916)	13	(2,598,265)	12	(280,580)
2015 Assumption Changes	241,701,681	10	227,479,911	9	30,857,658
2016 Experience Gain	(29,836,980)	13	(28,788,261)	12	(3,108,774)
2016 Plan Changes	(3,081,580)	13	(2,973,268)	12	(321,076)
2016 Assumption Changes	(66,248,174)	13	(63,919,662)	12	(6,902,528)
2017 Experience Loss	8,946,933	12	8,573,818	11	990,311
2017 Assumption Changes	2,244,856	12	2,151,238	11	248,477
2018 Experience Gain	(67,812,577)	13	(65,429,079)	12	(7,065,527)
2019 Experience Loss	68,763,613	14	66,731,500	13	6,783,304
2020 Assumption Changes	(62,736,166)	15	(61,185,148)	14	(5,888,501)
2020 Experience Gain	(50,314,787)	15	(49,070,862)	14	(4,722,614)
2021 Additional City Contributions	(184,076,693)	16	(180,300,072)	15	(16,510,447)
2021 Experience Gain	(60,378,964)	16	(59,140,196)	15	(5,415,589)
2022 Additional City Contributions	(10,940,007)	17	(10,755,962)	16	(941,208)
2022 Experience Loss	92,848,580	17	91,286,570	16	7,988,092
2023 Additional City Contributions	(14,312,103)	18	(14,118,071)	17	(1,185,003)
2023 Experience Loss	49,052,766	18	48,387,748	17	4,061,433
2024 Additional City Contributions	(19,434,063)	19	(19,227,072)	18	(1,553,120)
2024 Experience Loss	105,043,892	19	103,925,074	18	8,394,838
2025 Additional City Contributions	(8,375,573)	20	(8,961,863)	19	(698,741)
2025 Assumption Changes	(132,720,373)	20	(142,010,799)	19	(11,072,330)
2025 Experience Loss	92,928,546	20	99,433,545	19	7,752,657
Total	**$ 1,320,363,430**		**$ 1,263,068,115**		**$ 144,340,612**

The payment of the 2015 assumption changes was phased-in over four years. The first year payment was one-fourth of the regularly calculated amortization payment, increasing each year until the end of the phase-in period. The outstanding balance at the end of the phase-in period is then amortized such that the full amount is paid off by the end of the remaining period.

Exhibit B.7
City of Phoenix Employees' Retirement System
Plan Experience for Fiscal Year 2025

	Liabilities	
1.	Actuarial Accrued Liability at June 30, 2024	$ 5,147,293,773
2.	Normal Cost during Fiscal Year 2025	101,466,774
3.	Benefit Payments during Fiscal Year 2025	286,765,103
4.	Interest on Items 1-3 to End of Year	353,934,811
5.	Change in Actuarial Accrued Liability Due to Assumption Changes	(132,720,373)
6.	Change in Actuarial Accrued Liability Due to Provision Changes	0
7.	Expected Actuarial Accrued Liability at June 30, 2025	5,183,209,882
8.	Actual Actuarial Accrued Liability at June 30, 2025	5,209,416,156
9.	Liability (Gain)/Loss	26,206,274
	Assets	
10.	Actuarial Value of Assets at June 30, 2024	$ 3,738,075,318
11.	Benefit Payments and Administrative Expenses during Fiscal Year 2025	288,516,933
12.	Expected Contributions during Fiscal Year 2025	237,916,819
13.	Interest on Items 10-12 to End of Year	259,924,221
14.	Expected Actuarial Value of Assets at June 30, 2025	3,947,399,425
15.	Actual Actuarial Value of Assets at June 30, 2025	3,889,052,726
16.	Total Asset and Contribution (Gain)/Loss	58,346,699
	16.(a) Asset (Gain)/Loss	97,601,413
	16.(b) Contribution (Gain)/Loss	(39,254,714)
	Total	
17.	Total (Gain)/Loss [(9) + (16)]	**$ 84,552,973**

Exhibit B.8
City of Phoenix Employees' Retirement System
Plan Experience for Fiscal Year 2025
(Gain)/Loss by Source

1. Liability (Gain)/Loss		
a. Salary (Gain)/Loss		53,519,369
b. New Members and Rehire (Gain)/Loss		3,588,991
c. Withdrawal (Gain)/Loss		2,315,290
d. Retirement (Gain)/Loss		(10,917,382)
e. Annuitant Mortality (Gain)/Loss		997,799
f. Difference Between Expected and Actual COLA		(25,895,000)
h. Other Demographic (Gain)/Loss		2,597,207
i. Total		26,206,274
2. Asset (Gain)/Loss	$	97,601,413
3. Contribution (Gain)/Loss	$	(39,254,714)
4. Total (Gain)/Loss	**$**	**84,552,973**

Exhibit B.9
City of Phoenix Employees' Retirement System
Schedule of Funding Progress

Actuarial Valuation Date (1)	Actuarial Value of Assets (2)	Actuarial Accrued Liability (AAL) (3)	Unfunded AAL (UAAL) (4)=(3)-(2)	Funded Ratio (5)=(2)/(3)	Covered Payroll (6)	UAAL as a Percentage of Covered Payroll (7)=(4)/(6)
6/30/2008	$ 1,908,414	$ 2,413,365	$ 504,951	79.1%	$ 566,512	89.1%
6/30/2009	1,895,148	2,518,094	622,946	75.3%	539,468	115.5%
6/30/2010	1,868,093	2,697,288	829,195	69.3%	550,175	150.7%
6/30/2011	1,834,620	2,752,909	918,289	66.7%	513,322	178.9%
6/30/2012	1,827,528	2,939,374	1,111,845	62.2%	506,017	219.7%
6/30/2013	1,961,939	3,055,606	1,093,668	64.2%	508,032	215.3%
6/30/2014	2,120,700	3,614,784	1,494,084	58.7%	509,267	293.4%
6/30/2015	2,202,923	3,975,908	1,772,985	55.4%	484,853	365.7%
6/30/2016	2,283,216	3,984,137	1,700,921	57.3%	496,333	342.7%
6/30/2017	2,402,707	4,129,452	1,726,745	58.2%	521,709	331.0%
6/30/2018	2,562,847	4,226,046	1,663,199	60.6%	527,161	315.5%
6/30/2019	2,677,353	4,401,825	1,724,473	60.8%	562,989	306.3%
6/30/2020	2,811,163	4,414,114	1,602,951	63.7%	568,646	281.9%
6/30/2021	3,211,142	4,541,799	1,330,656	70.7%	580,866	229.1%
6/30/2022	3,361,409	4,723,291	1,361,882	71.2%	595,761	228.6%
6/30/2023	3,517,451	4,884,162	1,366,711	72.0%	653,606	209.1%
6/30/2024	3,738,075	5,147,294	1,409,218	72.6%	751,455	187.5%
6/30/2025	3,889,053	5,209,416	1,320,363	74.7%	815,607	161.9%

Amounts in thousands

Exhibit B.10
City of Phoenix Employees' Retirement System
Solvency Test

Valuation Date	Aggregated Accrued Liabilities for: Active Members Contributions	Retirees Beneficiaries and Vested Terminations	Members (Employer Financed Portion)	Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Reported Assets: (5)/(2) Max 100%	[(5)-(2)]/(3) Max 100%	[(5)-(2)-(3)]/(4)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
June 30, 2008	$ 433,742	$ 1,066,886	$ 912,737	$ 1,908,414	100.0%	100.0%	44.7%
June 30, 2009	446,039	1,193,391	878,664	1,895,148	100.0%	100.0%	29.1%
June 30, 2010	445,141	1,311,929	940,217	1,868,093	100.0%	100.0%	11.8%
June 30, 2011	446,456	1,431,877	874,576	1,834,620	100.0%	96.9%	0.0%
June 30, 2012	443,964	1,525,152	970,258	1,827,528	100.0%	90.7%	0.0%
June 30, 2013	396,583	1,881,123	1,201,741	1,962,533	100.0%	83.2%	0.0%
June 30, 2014	393,754	2,099,274	1,121,756	2,120,700	100.0%	82.3%	0.0%
June 30, 2015	383,029	2,465,862	1,127,017	2,202,923	100.0%	73.8%	0.0%
June 30, 2016	393,626	2,522,989	1,067,522	2,283,216	100.0%	74.9%	0.0%
June 30, 2017	406,651	2,638,084	1,084,717	2,402,707	100.0%	75.7%	0.0%
June 30, 2018	417,314	2,704,971	1,103,761	2,562,847	100.0%	79.3%	0.0%
June 30, 2019	420,431	2,804,775	1,176,619	2,677,353	100.0%	80.5%	0.0%
June 30, 2020	437,719	2,857,254	1,119,141	2,811,163	100.0%	83.1%	0.0%
June 30, 2021	453,509	2,945,664	1,142,626	3,211,142	100.0%	93.6%	0.0%
June 30, 2022	456,197	3,124,986	1,142,108	3,361,409	100.0%	93.0%	0.0%
June 30, 2023	472,120	3,233,320	1,178,722	3,517,451	100.0%	94.2%	0.0%
June 30, 2024	512,345	3,303,886	1,331,063	3,738,075	100.0%	97.6%	0.0%
June 30, 2025	551,866	3,268,821	1,388,729	3,889,053	100.0%	100.0%	4.9%

Amounts in thousands

Exhibit B.11
City of Phoenix Employees' Retirement System
Analysis of Financial Experience
Dollar Amounts in Thousands

Fiscal Year	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
1. UAAL at Start of Year	$ 1,409,218	$ 1,366,711	$ 1,361,882	$ 1,330,656	$1,602,951	1,724,473	1,663,199	1,726,745	1,700,921	1,772,985
2. Normal Cost for Year*	103,219	93,886	82,934	82,433	80,573	83,628	74,048	73,449	73,256	80,757
3. Expected Contributions	(237,917)	(222,628)	(202,152)	(218,122)	(222,103)	(213,142)	(198,860)	(187,324)	(183,023)	(178,288)
4. Assumed Investment Income Accrual on (1), (2) and (3)	94,011	91,240	91,230	88,477	107,337	120,412	116,137	121,133	123,527	129,383
5. Expected UAAL Before Changes	$ 1,368,531	$ 1,329,209	$ 1,333,894	$ 1,283,444	$1,568,758	1,715,371	1,654,524	1,734,003	1,714,681	1,804,836
6. Effect of Assumption/Method Changes	(132,720)	0	0	0	0	(62,386)	0	0	2,420	(69,420)
7. Effect of Benefit Changes	0	0	0	0	0	0	0	0	0	(3,229)
8. Expected UAAL After Changes	$ 1,235,811	$ 1,329,209	$ 1,333,894	$ 1,283,444	$1,568,758	1,652,985	1,654,524	1,734,003	1,717,101	1,732,187
9. Actual UAAL	1,320,363	1,409,218	1,366,711	1,361,882	1,330,656	1,602,951	1,724,473	1,663,199	1,726,745	1,700,921
10. Gain / (Loss) [8. - 9.]	$ (84,552)	$ (80,009)	$ (32,817)	$ (78,438)	$238,102	50,034	(69,949)	70,804	(9,644)	31,266
11. As % of AAL at Start of Year	-1.64%	-1.64%	-0.69%	-1.73%	5.39%	1.14%	-1.66%	1.71%	-0.24%	0.80%

* Includes administrative expenses beginning in 2017

SECTION C

PLAN ASSETS

Exhibit C.1
City of Phoenix Employees' Retirement System
Statement of Plan Net Assets

		June 30, 2025
Assets		
Cash and Cash Equivalents	$	140,141,684
Investments, at fair value:		
Fixed income	$	683,714,721
Equity securities		1,912,051,963
Hedge funds		78,418,640
Real estate investments		474,249,663
International equities		634,174,937
Total investments	$	3,782,609,924
Receivables:		
Employer contributions	$	12,817,399
Employee contributions		1,458,213
Dividends and Interest		4,143,160
Unsettled transactions		4,975,207
Other		547,752
Total receivables	$	23,941,731
Total assets	$	3,946,693,339
Accounts Payable		
Accrued investment expenses	$	2,052,288
Unsettled transactions		7,244,522
Other		24,273,251
Total payables	$	33,570,061
Net assets held in trust for pension benefits	$	3,913,123,278

Exhibit C.2
City of Phoenix Employees' Retirement System
Statement of Changes in Plan Net Assets

	Year Ended June 30, 2025	Year Ended June 30, 2024
Additions to Net Assets Attributed to:		
Contributions		
Employer contributions	$ 209,931,292	$ 210,701,140
Plan members contributions	65,934,491	57,066,835
Retirement office administration	2,322,179	2,081,165
Other	0	0
Total	$ 278,187,962	$ 269,849,140
Net Investment Income		
Net appreciation in fair value of investments	$ 273,179,787	$ 204,943,808
Interest and dividends	38,591,932	46,329,486
Net income from security lending activities	145,105	200,915
Other	18,591,201	4,936,538
	$ 330,508,025	$ 256,410,747
Less Investment expense	(20,547,736)	(7,236,902)
Net investment income	$ 309,960,289	$ 249,173,845
Total additions	$ 588,148,251	$ 519,022,985
Deductions to Net Assets Attributed to:		
Benefit payments	$ 282,471,309	$ 276,224,209
Refunds	4,287,727	4,000,485
Retirement office administration	2,322,179	2,081,165
Inter-system transfers	6,067	127,507
Administrative expenses	1,751,830	4,870,035
Total deductions	$ 290,839,112	$ 287,303,401
Change in net assets	$ 297,309,139	$ 231,719,584
Net assets held in trust for benefits:		
Beginning of year	$ 3,615,814,139	$ 3,384,094,555
End of year	$ 3,913,123,278	$ 3,615,814,139

Exhibit C.3
City of Phoenix Employees' Retirement System
Development of the Actuarial Value of Assets

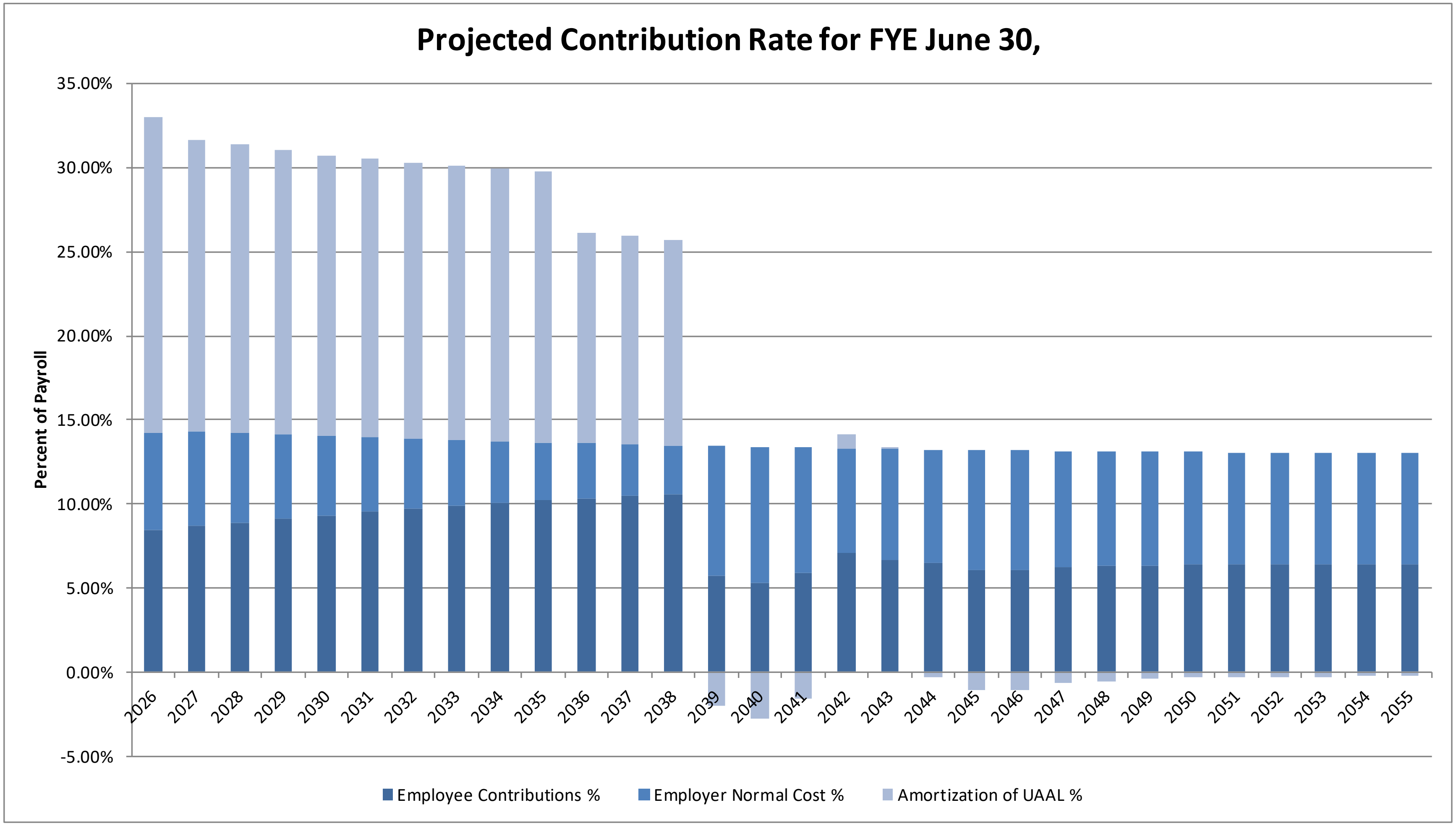
	Item		Year Ending June 30, 2025
1.	Actuarial Value of Assets, Beginning of Year	$	3,738,075,318
2.	Net Cash Flow	$	(12,651,150)
3.	Expected return	$	261,229,971
4.	Actual Return	$	309,960,289
5.	Excess return [(4) - (3)]	$	48,730,318
6.	Gains/(Losses)		
	a. Current Year	$	48,730,318
	b. Prior Year		4,177,798
	c. 2nd Prior Year		(58,264,342)
	d. 3rd Prior Year		(385,049,426)
	e. Total	$	(390,405,652)
7.	Phase-In Amount [25% of 6.e.]	$	(97,601,413)
8.	Actuarial Value of Assets, End of Year [(1) + (2) + (3) + (7)]	$	3,889,052,726
9.	Estimated Rate of Return		4.38%
10.	Ratio of Actuarial to Market Value of Assets		99.4%

SECTION D

PROJECTIONS

City of Phoenix Employees Retirement System
Projection Results Based on June 30, 2025 Actuarial Valuation

Valuation as of June 30,	Contribution for Fiscal Year End June 30,	Market Return for FY Beginning on Valuation Date	Payroll (in Millions)	Employee Contribution (% of Payroll)	Employer Normal Cost (% of Payroll)	Employer Amortization Payment (% of Payroll)	Total Employer Contribution (6)+(7) (% of Payroll)	Total Contribution (5)+(8) (% of Payroll)	Employee Contribution (4)*(5) (in Millions)	Employer Contribution (4)*(8) (in Millions)	Total Contribution (10)+(11) (in Millions)	Actuarial Accrued Liability (AAL, in Millions)	Actuarial Value of Assets (AVA, in Millions)	Unfunded Actuarial Accrued Liability (UAAL, in Millions)	Funded Ratio	Projected Benefit Payments in FY Following Val Date (in Millions)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
2025	2026	7.00%	$814	8.43%	5.77%	18.82%	24.59%	33.02%	$69	$200	$269	$5,209	$3,889	$1,320	74.7%	$302
2026	2027	7.00%	834	8.66%	5.68%	17.30%	22.98%	31.64%	72	192	264	5,378	4,124	1,254	76.7%	318
2027	2028	7.00%	858	8.89%	5.32%	17.14%	22.46%	31.35%	76	193	269	5,544	4,369	1,175	78.8%	333
2028	2029	7.00%	884	9.11%	5.01%	16.92%	21.93%	31.04%	81	194	274	5,709	4,620	1,089	80.9%	349
2029	2030	7.00%	910	9.33%	4.70%	16.69%	21.40%	30.72%	85	195	280	5,872	4,866	1,006	82.9%	364
2030	2031	7.00%	938	9.53%	4.42%	16.58%	21.00%	30.52%	89	197	286	6,034	5,119	916	84.8%	380
2031	2032	7.00%	967	9.71%	4.15%	16.46%	20.61%	30.32%	94	199	293	6,195	5,378	816	86.8%	396
2032	2033	7.00%	996	9.89%	3.90%	16.35%	20.25%	30.14%	98	202	300	6,352	5,646	706	88.9%	411
2033	2034	7.00%	1,026	10.05%	3.67%	16.24%	19.91%	29.96%	103	204	307	6,509	5,924	584	91.0%	427
2034	2035	7.00%	1,058	10.20%	3.46%	16.13%	19.59%	29.79%	108	207	315	6,663	6,213	450	93.2%	441
2035	2036	7.00%	1,090	10.33%	3.26%	12.50%	15.75%	26.09%	113	172	284	6,817	6,515	302	95.6%	456
2036	2037	7.00%	1,123	10.45%	3.08%	12.41%	15.50%	25.95%	117	174	291	6,971	6,791	180	97.4%	470
2037	2038	7.00%	1,157	10.56%	2.93%	12.19%	15.11%	25.67%	122	175	297	7,126	7,080	46	99.4%	483
2038	2039	7.00%	1,193	5.71%	7.73%	-2.02%	5.71%	11.42%	68	68	136	7,282	7,381	(99)	101.4%	494
2039	2040	7.00%	1,230	5.30%	8.09%	-2.78%	5.30%	10.61%	65	65	131	7,441	7,525	(84)	101.1%	504
2040	2041	7.00%	1,269	5.88%	7.48%	-1.60%	5.88%	11.75%	75	75	149	7,607	7,663	(56)	100.7%	514
2041	2042	7.00%	1,309	7.07%	6.24%	0.82%	7.07%	14.14%	93	93	185	7,778	7,819	(41)	100.5%	522
2042	2043	7.00%	1,350	6.65%	6.62%	0.03%	6.65%	13.31%	90	90	180	7,958	8,016	(57)	100.7%	529
2043	2044	7.00%	1,393	6.47%	6.77%	-0.30%	6.47%	12.95%	90	90	180	8,148	8,212	(64)	100.8%	537
2044	2045	7.00%	1,437	6.08%	7.13%	-1.05%	6.08%	12.16%	87	87	175	8,349	8,415	(66)	100.8%	544
2045	2046	7.00%	1,482	6.06%	7.12%	-1.05%	6.06%	12.13%	90	90	180	8,562	8,620	(57)	100.7%	552
2046	2047	7.00%	1,527	6.26%	6.89%	-0.64%	6.26%	12.51%	96	96	191	8,787	8,834	(48)	100.5%	561
2047	2048	7.00%	1,573	6.29%	6.83%	-0.54%	6.29%	12.59%	99	99	198	9,024	9,067	(43)	100.5%	571
2048	2049	7.00%	1,620	6.34%	6.77%	-0.43%	6.34%	12.67%	103	103	205	9,272	9,312	(40)	100.4%	582
2049	2050	7.00%	1,668	6.39%	6.70%	-0.31%	6.38%	12.77%	106	106	213	9,533	9,571	(38)	100.4%	593
2050	2051	7.00%	1,716	6.39%	6.68%	-0.29%	6.39%	12.77%	110	110	219	9,806	9,844	(39)	100.4%	605
2051	2052	7.00%	1,766	6.38%	6.67%	-0.29%	6.38%	12.77%	113	113	225	10,092	10,131	(39)	100.4%	619
2052	2053	7.00%	1,817	6.38%	6.66%	-0.28%	6.38%	12.77%	116	116	232	10,390	10,429	(39)	100.4%	633
2053	2054	7.00%	1,869	6.38%	6.65%	-0.27%	6.38%	12.77%	119	119	239	10,701	10,741	(40)	100.4%	650
2054	2055	7.00%	1,922	6.38%	6.65%	-0.26%	6.38%	12.77%	123	123	245	11,023	11,064	(41)	100.4%	669
2055	2056	7.00%	1,977	6.39%	6.65%	-0.26%	6.39%	12.77%	126	126	253	11,355	11,397	(42)	100.4%	689


Projected Contribution Rate for FYE June 30,
Percent of Payroll
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
-5.00%
2026
2027
2028
2029
2030
2031
2032
2033
2034
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2052
2053
2054
2055
Employee Contributions %
Employer Normal Cost %
Amortization of UAAL %

SECTION E

SUMMARY OF BENEFIT PROVISIONS

Summary of Benefit Provisions

Membership

Full-time employees of the City of Phoenix other than police officers, firefighters, or elected officials who are covered by another retirement system to which the City contributes.

Members who were hired before July 1, 2013, as well as members who join the City after July 1, 2013 who were members of ASRS prior to July 1, 2011 and did not withdraw their contributions are Tier 1 members.

Members hired into employment with the City between July 1, 2013 and December 31, 2015 who are not Tier 1 members are Tier 2 members.

Members hired into employment with the City on or after January 1, 2016 who are not Tier 1 members or Tier 2 members are Tier 3 members.

Final Average Compensation (FAC)

Tier 1/Tier 2

The average of annual compensation for the period of 3 consecutive years producing the highest average contained within the last 10 years immediately preceding retirement.

Tier 3

The average of annual compensation for the period of 5 consecutive years producing the highest average contained within the last 10 years immediately preceding retirement. Annual compensation will be limited to the first $125,000 of compensation, indexed to inflation (CPI-U as of preceding September 30th) each January 1, commencing on January 1, 2017.

Credited Service

Credited service is determined based on Section 14 of Chapter XXIV of the Phoenix City Charter as well as COPERS administrative policy number 43. In no case is more than a year of service credited to any member for all service rendered in any calendar year. The amount of service credited to members varies by Tier, as detailed below.

Tier 1

A member is credited with a month of service for each calendar month in which the member performs at least 10 days of City service. A member is credited with a year of service for any calendar year in which the member has at least 10 months of credited service. If a member has less than 10 months of credited service for any calendar year, they are credited for the actual number of months.

Tier 2/Tier 3

A member is credited with a month of service for each calendar month in which the member performs at least 20 days of City service. A member is credited with a year of service for any calendar year in which the member has at least 12 months of credited service. If a member has less than 12 months of credited service for any calendar year, they are credited for the actual number of months.

Voluntary Retirement (no reduction for age)

Tier 1

Eligibility:

Sum of age and credited service equals 80 or more, age 60 with 10 or more years of credited service or age 62 with 5 or more years of credited service.

Annual Benefit:

Unused sick leave service multiplied by 2% of FAC plus 2% of FAC times credited service up to 32.5 years plus 1% of FAC times service in excess of 32.5 years plus 0.5% of FAC times service in excess of 35.5 years. Minimum monthly pension is $250 ($500 if member has 15 or more years of service).

Tier 2/Tier3

Eligibility:

Sum of age and credited service equals 87 or more, age 60 with 10 or more years of credited service or age 62 with 5 or more years of credited service.

Annual Benefit:

Unused sick leave service multiplied by 2% of FAC for Tier 2 members only plus FAC times credited service times the corresponding accrual rate:

Tier 2		**Tier 3**	
Years of Service	**Accrual Rate**	**Years of Service**	**Accrual Rate**
0<Service≤20	2.10%	0<Service≤10	1.85%
20<Service≤25	2.15%	10<Service≤20	1.90%
25<Service≤30	2.20%	20<Service≤30	2.00%
Service>30	2.30%	Service>30	2.10%

Note that for Tier 2 and Tier 3, the same accrual rate will apply for each year of service based on the total years of service.

Deferred Vested Retirement

Eligibility:

Termination of City employment prior to age 62 with 5 or more years of credited service.

Annual Benefit:

Accrued regular retirement amount based on credited service, unused sick leave service, and FAC at time of termination, payable beginning at age 62.

Duty Disability Retirement

Eligibility:

Total and permanent disability incurred in line of duty with the City.

Annual Benefit:

Computed in the same manner as the regular retirement amount base on FAC and credited service at time of disability retirement. Minimum is 15% of FAC for Tier 1 members and 15.75% for Tier 2 and Tier 3 members. Maximum during worker's compensation period is difference between final compensation and annualized workers compensation. At expiration of worker's compensation period, amount is recomputed to include years during which worker's compensation was paid.

Non-Duty Disability Retirement

Eligibility:

Total and permanent disability after 10 or more years of credited service.

Annual Benefit:

Computed in the same manner as the regular retirement amount base on FAC and credited service at time of disability retirement.

Pre-Retirement Duty Death Benefit

Eligibility:

Death in line of duty with the City and compensable under worker's compensation.

Annual Benefit:

To the spouse: Joint and 100% survivor actuarial equivalent of accrued regular retirement amount based on FAC and credited service and unused sick leave service at time of death. Minimum of 10 years of service is credited. To the children of a deceased member with 10 or more years of credited service: each child shall receive a monthly pension of $200 until adoption, marriage, death or attainment of age 18.

Pre-Retirement Non-Duty Death Benefit

Eligibility:

10 or more years of credited service.

Annual Benefit:

Same as Pre-Retirement Duty Death Benefit.

Refund of Contributions

Eligibility:

Termination of covered service employment prior to eligibility for any other benefits.

Annual Benefit:

Accumulated member contribution with interest at no more than 3.75% annually after July 1, 2016.

Pension Equalization Reserve (PER)

The PER is credited with Excess Earnings, if any, each calendar year. Excess Earnings are defined as the excess over 8.0% of the annual average of the time-weighted rates of return for the immediately preceding five calendar years. The amounts credited to the PER are either used to fund percentage increases to pension amounts or one-time post retirement distribution benefits (13th checks).

On July 1 of each year, persons in receipt of a pension for at least 36 months as of January 1 of that year receive a percentage increase based on the lesser of:

i. Phoenix area Consumer Price Index (CPI) and
ii. The amount the balance in the PER can fully fund

The increase, subject to the availability of funds in the PER, is payable beginning with the April 1 payment each year, retroactive to January 1 of the same year.

Also, after each plan year's return is known, all pensioners (excluding minors) as of the end of the plan year are eligible to receive a one-time post retirement distribution (13th check). The 13th check is a percentage of the pensioner's annual benefits based on the lesser of:

i. One half of the Phoenix area Consumer Price Index (CPI) and
ii. The excess of the rate of return over the assumed interest rate

The percentage cannot be more than three percent, but must be at least one percent and is subject to the availability of funds in the PER. The 13th check is payable on December 1.

The PER is only applicable for Tiers 1 and 2.

Projected Percentage

Actuarially determined normal cost rate plus an amortization rate on the unfunded actuarial liability and a rate for administrative expenses, stated as a percentage of projected member compensation.

Member Contribution Rates

Tier 1: 5% of pay

Tier 2/Tier 3: 50% of the Projected Percentage not to exceed 11% of pay on or after January 1, 2016

City Contribution Rates

Total Projected Percentage less Member Contribution Rates for each Tier.

Note: The summary of plan provisions is designed to outline principal plan benefits. If COPERS should find the plan summary not in accordance with the actual plan provisions, the actuary should immediately be alerted so the proper provisions are valued.

SECTION F

SUMMARY OF PARTICIPANT DATA

Exhibit F.1
City of Phoenix Employees' Retirement System
Summary of Census Data

	June 30, 2025	June 30, 2024
1. Active Members		
a. Counts	9,037	8,766
b. Annual Compensation	$ 815,607,338	$ 751,455,022
c. Average Annual Compensation	$ 90,252	$ 85,724
d. Average Age	45.9	46.0
e. Average Service	10.6	10.9
2. Deferred Vested Members		
a. Counts	1,143	1,144
b. Annual Deferred Benefits	$ 16,310,415	$ 15,703,638
c. Average Benefit	$ 14,270	$ 13,727
3. Retired Members		
a. Counts	6,780	6,620
b. Annual Benefits	$ 253,776,534	$ 246,754,366
c. Average Benefit	$ 37,430	$ 37,274
4. Disability		
a. Counts	219	223
b. Annual Deferred Benefits	$ 3,875,754	$ 3,891,688
c. Average Benefit	$ 17,698	$ 17,452
5. Beneficiaries and QDROs		
a. Counts	1,248	1,222
b. Annual Benefits	$ 28,203,577	$ 27,507,711
c. Average Benefit	$ 22,599	$ 22,510
6. Terminated Members with Refunds Due	3,185	$ 3,013
7. Total Members Included in Valuation	21,612	20,988

Exhibit F.2
Summary of Changes in Participant Status
During Fiscal Year 2025

	Active Participants	With Refunds Due	With Deferred Benefits	Retirees	Disability	QDROs	Beneficiaries	Total
A. Number as of June 30, 2024	8,766	3,013	1,144	6,620	223	198	1,024	20,988
1. Age Retirements	(272)		(50)	322				0
2. Disability			(8)		8			0
3. Deceased	(19)		(4)	(164)	(11)	(4)	(59)	(261)
4. New Beneficiary						14	88	102
5. Terminated - Vested	(99)	(1)	100					0
6. Terminated - Nonvested	(225)	225						0
7. Cashouts	(134)	(71)	(20)					(225)
8. Benefits Expired						(5)	(8)	(13)
9. Rehired as Active	54	(34)	(20)					0
10. New Members	966	53						1,019
11. Data Corrections			1	2	(1)			2
B. Number as of June 30, 2025	**9,037**	**3,185**	**1,143**	**6,780**	**219**	**203**	**1,045**	**21,612**

Exhibit F.3 Active Member Counts by Age and Service as of June 30, 2025								
Age	**Service**							
	0-4	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**Over 30**	**Total**
Under 20	11							11
20-24	331	1						332
25-29	656	60						716
30-34	535	256	27					818
35-39	469	269	106	69	3			916
40-44	395	308	116	195	96	5		1,115
45-49	364	255	121	208	241	101	5	1,295
50-54	339	220	125	197	245	235	37	1,398
55-59	288	190	84	187	229	147	65	1,190
60-64	190	159	78	115	132	99	90	863
Over 65	71	66	32	53	65	36	60	383
Total	**3,649**	**1,784**	**689**	**1,024**	**1,011**	**623**	**257**	**9,037**

Exhibit F.4
Active Member Average Salary by Age and Service
as of June 30, 2025

Age	Service							
	0-4	5-9	10-14	15-19	20-24	25-29	Over 30	Total
Under 20	$61,473							$61,473
20-24	$58,831	*						$58,828
25-29	$68,204	$74,733						$68,751
30-34	$72,558	$80,807	$86,485					$75,599
35-39	$79,794	$88,046	$102,932	$91,307	*			$85,750
40-44	$79,370	$89,798	$105,416	$103,101	$104,608	$96,832		$91,362
45-49	$82,303	$93,166	$109,387	$104,213	$110,183	$109,597	$141,652	$98,038
50-54	$82,392	$92,378	$100,765	$103,142	$111,755	$115,898	$115,995	$100,198
55-59	$86,479	$95,655	$99,273	$98,787	$104,228	$111,579	$102,403	$98,167
60-64	$85,320	$93,631	$103,525	$95,583	$95,850	$97,326	$104,231	$94,824
Over 65	$92,266	$100,068	$97,829	$104,416	$97,869	$98,953	$108,131	$99,821
Over 70								
Total	**$76,196**	**$89,864**	**$102,830**	**$100,976**	**$105,921**	**$109,774**	**$107,101**	**$90,252**

*Average salary not shown for fields with less than four active members.

Exhibit F.5 Summary of Inactive Vested Members		
Age	**Number of Members**	**Monthly Benefit**
<30	10	$4,842
30-34	41	$26,708
35-39	96	$82,520
40-44	158	$161,168
45-49	203	$265,866
50-54	242	$325,619
55-59	258	$329,730
60-64	112	$144,087
65& Up	23	$18,662

Exhibit F.6
Summary of Members in Pay Status

	Service Retirees		Disabled Retirees		Beneficiaries/QDROs	
Age	Number of Members	Annual Benefit	Number of Members	Annual Benefit	Number of Members	Annual Benefit
<55	96	$5,750,183	30	$577,198	84	$1,140,165
55-59	420	$22,040,250	29	$610,615	62	$1,457,425
60-64	1102	$44,922,651	45	$813,575	114	$2,512,757
65-69	1581	$58,538,909	39	$639,899	167	$3,929,700
70-74	1510	$54,814,140	36	$651,543	188	$4,173,335
75-79	1158	$40,070,958	25	$366,150	241	$5,948,316
80-84	541	$16,868,123	8	$103,863	170	$4,473,453
85-89	264	$7,872,216	5	$78,760	118	$2,514,748
90 & Up	108	$2,899,104	2	$34,151	104	$2,053,678

Exhibit F.7
Schedule of Retired Members Added to and Removed from Rolls
as of June 30, 2025

Year Ended	Added to Rolls		Removed		Total		Average Annual Pensions	% Increase in Pensions
	Count	Annual Pensions*	Count	Annual Pensions*	Count	Annual Pensions*		
6/30/2010	432	$ 15,259	170	$ 3,206	4,931	$ 138,273	$ 28,042	9.5%
6/30/2011	444	15,251	184	3,574	5,191	149,950	28,887	8.4
6/30/2012	448	14,488	161	4,174	5,478	160,264	29,256	6.9
6/30/2013	426	12,574	201	3,996	5,703	168,843	29,606	5.4
6/30/2014	597	21,948	145	3,232	6,155	187,559	30,473	11.1
6/30/2015	578	22,483	192	4,225	6,541	205,816	31,466	9.7
6/30/2016	375	11,573	182	4,329	6,734	213,061	31,640	3.5
6/30/2017	321	9,317	233	4,395	6,822	218,364	32,009	2.5
6/30/2018	370	11,314	218	4,825	6,974	225,644	32,355	3.3
6/30/2019	417	13,109	196	4,398	7,195	234,341	32,570	3.9
6/30/2020	378	12,025	251	6,530	7,322	239,836	32,756	2.3
6/30/2021	396	14,541	312	7,159	7,406	247,218	33,381	3.1
6/30/2022	477	21,208	287	7,196	7,596	261,231	34,391	5.7
6/30/2023	440	14,761	243	6,085	7,793	269,906	34,634	3.3
6/30/2024	326	11,992	252	6,555	7,867	275,342	35,000	2.0
6/30/2025	419	14,047	242	6,372	8,044	283,017	35,184	2.8

*Amounts shown in thousands

Note: The dollar amounts of the pensions added to and removed from the rolls for years prior to June 30, 2017 were determined by prior actuaries. The amounts added to the rolls includes additions and deletions due to PER increases, in addition to the annual pensions for new retirees.

Exhibit F.8
Schedule of Retired Members by Type
as of June 30, 2025

Monthly Benefit	# of Retirees	Type of Retirement						
		Deferred	Normal or Voluntary	Duty Disability	Non-Duty Disability	Survivor Payment	Death Benefit	Alternate Payee
Deferred	1,143	1,143						
$1 - $300	97		57	0	0	13	14	13
$301 - $400	120		79	4	1	21	0	15
$401 - $500	127		82	4	2	28	0	11
$501 - $600	152		108	5	3	21	2	13
$601 - $700	162		91	3	6	48	3	11
$701 - $800	170		100	0	9	42	4	15
$801 - $900	171		92	2	16	37	6	18
$901 - $1,000	161		106	1	7	31	6	10
$1,001 - $1,100	192		123	3	11	33	6	16
$1,101 - $1,200	204		131	1	12	41	8	11
$1,201 - $1,300	184		123	1	14	34	2	10
$1,301 - $1,400	185		123	0	17	27	8	10
$1,401 - $1,500	190		137	0	15	26	8	4
$1,501 - $2,000	912		672	13	32	134	39	22
$2,001 - $2,500	941		810	1	12	96	14	8
$2,501 - $3,000	938		832	0	12	72	13	9
$3,001 - $4,000	1,420		1,300	0	9	91	18	2
$4,001 - $5,000	898		849	0	3	38	6	2
$5,001 +	1,023		965	0	0	51	4	3
Total	**9,390**	**1,143**	**6,780**	**38**	**181**	**884**	**161**	**203**

SECTION G

ACTUARIAL COST METHODS AND ASSUMPTIONS

SUMMARY OF ACTUARIAL COST METHODS AND ASSUMPTIONS

I. Valuation Date

The valuation date is June 30th of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

II. Actuarial Cost Method

The actuarial valuation uses the Entry Age Normal actuarial cost method. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate including administrative expenses, and (ii) a rate that will amortize the unfunded actuarial liability.

1. The valuation is prepared on the projected benefit basis. The present value of each participant's expected benefit payable at retirement or termination is determined, based on age, service, sex, compensation, and the interest rate assumed to be earned in the future (7.00%). The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his terminating with a service benefit. Future salary increases are also anticipated. The present value of the expected benefits payable on account of the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Plan on account of the present group of participants and beneficiaries.

2. The employer contributions required to support the benefits of the Plan are determined following a level percent of pay funding approach, and consist of a normal cost contribution and an unfunded accrued liability contribution, plus a component to cover administrative expenses.

3. The normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using the individual entry age actuarial cost method having the following characteristics of (i) the annual normal costs for each active member, payable from the date of entry into the system to the date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement, and (ii) each annual normal cost is constant percentage of the member's year-by-year projected covered pay.

4. The unfunded accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability. Amortization bases are established each year and amortized over periods in accordance with the following amortization methods.

    a. The UAL as of June 30, 2013, developed prior to implementing the September 2013 assumption changes, is amortized over a closed 25-year period as a level percentage of payroll.

b. The impact of the September 2013 assumption changes on the UAL is amortized over a closed 25-year period as a level percentage of payroll with a four-year phase-in to the full amortization rate. The phase-in is calculated by multiplying the first year amortization payment by 25 percent. For the second year, the amortization schedule is recalculated reflecting the 25 percent payment in the first year and the remaining 24-year period and the calculated amortization payment is then multiplied by 50 percent. The process is repeated until the full amortization payment is made beginning in the fourth year of the 25-year period.

c. The impact of the August 2015 assumption changes on the UAL is amortized over a closed 20-year period as a level percentage of payroll with a four-year phase-in to the full amortization rate. The phase-in is calculated by multiplying the first year amortization payment by 25 percent. For the second year, the amortization schedule is recalculated reflecting the 25 percent payment in the first year and the remaining 19-year period and the calculated amortization payment is then multiplied by 50 percent. The process is repeated until the full amortization payment is made beginning in the fourth year of the 20-year period.

d. Future gains and losses are amortized over closed 20-year periods as a level percentage of payroll from the valuation date in which they are first recognized. However, gains will not be amortized over a shorter period than the remaining period on the amortization of the 2013 UAL.

III. Actuarial Value of Assets

The actuarial value of assets is determined by recognizing market value gains and losses over a four-year period. Gain and loss bases to be spread over the four-year period are determined by comparing expected returns based on the market value of assets and cash flows during the year to actual investment returns. The actuarial value of assets must be between 80 and 120% of market value.

IV. Actuarial Assumptions

A. Economic Assumptions

1. Investment return: 7.00% per annum, compounded annually. Inflation is assumed to be 2.40%.

2. Salary increase rate: Individual salary increases are composed of a price inflation component, a real wage growth component, and a merit or longevity component that varies by service. The table below combines the various components of salary increases. Growth in the total payroll is assumed to be 2.50%.

Attained Service	Percentage Increase in Salary			
	Price Inflation	Growth	Longevity	Total
1-4	2.40 %	0.60 %	5.00 %	8.00 %
5-7	2.40	0.60	4.50	7.50
8	2.40	0.60	4.00	7.00
9	2.40	0.60	3.00	6.00
10-11	2.40	0.60	2.00	5.00
12-14	2.40	0.60	1.00	4.00
15-20	2.40	0.60	0.50	3.50
21-25	2.40	0.60	0.25	3.25
26+	2.40	0.60	0.00	3.00

3. COLA Due to Pension Equalization Reserve (PER): The PER only applies to Tier 1 and Tier 2 benefits. Future benefits payeble through the PER are valued as an annual compound cost-of-living adjustment (COLA) payable January 1, equal to 0.75% from 2026-2030, 1.00% from 2031-2035 and then 1.25% thereafter.

4. Administrative expenses are assumed to be equal to the prior year's amount, increased by 2.50%.

B. <u>Demographic Assumptions</u>

1. Rates of Mortality for Healthy and Disabled Lives: Mortality rates are based on the sex-distinct employee and annuitant mortality tables described below, including adjustment factors applied to the published tables for each group. Half of active member deaths are assumed to be duty related. Future mortality improvements are reflected by applying the MP-2020 Ultimate projection scale on a generational basis to the adjusted base tables from the base year shown below.

i) Non-Annuitant – Pub-2016, Amount-Weighted, General, Employee mortality table

Gender	Adjustment Factor	Base Year
Male	1.000	2016
Female	1.000	2016

(i) Healthy Annuitant – Pub-2016, Amount-Weighted, General, Healthy Retiree mortality table

Gender	Adjustment Factor	Base Year
Male	1.090	2016
Female	1.040	2016

(ii) Disabled Annuitant – Pub-2016, Amount-Weighted, General, Disabled Retiree mortality tables

Gender	Adjustment Factor	Base Year
Male	1.000	2016
Female	1.000	2016

Sample rates, including projections to 2025, are shown below (not including adjustment factors).

Sample Attained Ages	Probability of Death Pre-Retirement		Sample Attained Ages	Probability of Death Post-Retirement		Sample Attained Ages	Probability of Death Post-Disability	
	Men	Women		Men	Women		Men	Women
20	0.025 %	0.009 %	20	0.027 %	0.009 %	20	0.192 %	0.070 %
25	0.037	0.012	25	0.041	0.012	25	0.296	0.082
30	0.043	0.017	30	0.046	0.018	30	0.259	0.127
35	0.046	0.025	35	0.050	0.026	35	0.263	0.193
40	0.061	0.036	40	0.067	0.038	40	0.339	0.283
45	0.088	0.054	45	0.096	0.056	45	0.505	0.421
50	0.130	0.081	50	0.273	0.236	50	0.765	0.649
55	0.200	0.121	55	0.407	0.279	55	1.169	0.987
60	0.302	0.183	60	0.603	0.353	60	1.784	1.503
65	0.438	0.278	65	0.858	0.507	65	2.137	1.664
70	0.652	0.425	70	1.344	0.882	70	2.530	2.016
75	1.035	0.651	75	2.393	1.651	75	3.674	3.084
80	1.681	0.997	80	4.456	3.148	80	5.835	5.198
85	7.646	5.954	85	8.334	6.192	85	9.049	8.049
90	14.196	11.004	90	15.474	11.444	90	15.521	12.467

2. Disability rates. The disability incidence rates are 12% of the Arizona State Retirement System disability table. Half of disabilities are assumed to be duty related. Sample disability rates of active members are provided in the table below. There rates apply to both male and female COPERS member.

Sample Attained Ages	Probability of Disablement
25	0.0022 %
30	0.0031
35	0.0049
40	0.0073
45	0.0103
50	0.0191
55	0.0270
60	0.0384

3. Termination rates (for causes other than death, disability or retirement): Termination rates are based on service. Termination rates are not applied after a member becomes eligible for a retirement benefit. Rates at selected ages are shown:

Service	Probability of Termination	Service	Probability of Termination
1	17.00 %	13	2.80 %
2	11.00	14	2.50
3	9.00	15	2.20
4	7.00	16	2.00
5	6.00	17-18	1.80
6	5.50	19-20	1.20
7	5.00	21-22	1.00
8	4.50	23-24	0.80
9	4.00	25-26	0.60
10	3.50	27-28	0.40
11	3.20	29+	0.20
12	3.00		

4. Retirement rates.

Probability of Retirement				
Age	Years of Service			
	<15	15-24	25-31	>31
50-51	0.00 %	0.00 %	37.50 %	42.50 %
52	0.00	0.00	37.50	30.00
53	0.00	0.00	35.00	25.00
54	0.00	0.00	30.00	20.00
55	0.00	0.00	25.00	20.00
56	0.00	30.00	20.00	20.00
57	0.00	30.00	20.00	20.00
58	0.00	20.00	20.00	20.00
59	0.00	20.00	18.00	20.00
60	8.00	17.50	18.00	20.00
61	8.00	17.50	18.00	20.00
62	11.00	17.50	20.00	20.00
63	13.00	17.50	15.00	20.00
64	13.00	17.50	15.00	18.00
65	18.00	20.00	20.00	20.00
66	19.00	22.50	22.50	25.00
67	20.00	25.00	25.00	25.00
68	20.00	25.00	25.00	30.00
69	20.00	25.00	25.00	40.00
70	100.00	100.00	100.00	100.00

C. <u>Other Assumptions</u>

1. Percent married: 90% of employees are assumed to be married.

2. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.

3. Unused Vacation and Compensatory Time: For Tier 1 and Tier 2 members, compensatory service credits and lump sum payments for unused vacation and compensatory time are explicitly valued. Vacation leave hours and sick leave hours are limited to the minimum of current hours as of the valuation date and snapshot hours for the purposes of lump sum conversions. Compensatory hours are not limited. Compensatory hours, vacation hours and eligible sick leave hours are converted to a lump sum payout which will be considered in the final salary used for the FAC. Eligible sick leave hours not converted to lump sum payout are assumed to be converted to service at retirement.

4. Member Contribution Crediting Rate: Member contributions are credited with interest at 3.75% per annum.

5. Non-Vested Terminated Members Due Refuds: Current non-vested terminated members with refunds of the member account balances due are assumed to take the refund at age 65.

6. Decrement Timing : Middle of the Year.

SECTION H

RISKS ASSOCIATED WITH MEASURING THE ACCRUED LIABILITY

Risks Associated With Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. Investment risk – actual investment returns may differ from the expected returns;
2. Asset/Liability mismatch – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. Contribution risk – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
4. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
6. Other demographic risks – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The computed contribution rate shown on Exhibit B.5 may be considered as a minimum contribution rate that complies with the Board's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

Plan Maturity Measures

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	June 30, 2025	June 30, 2024	June 30, 2023	June 30, 2022
Ratio of the market value of assets to total payroll	4.7	4.7	5.1	5.3
Ratio of actuarial accrued liability to payroll	6.2	6.7	7.3	7.7
Ratio of actives to retirees and beneficiaries	1.1	1.1	1.1	1.0
Ratio of net cash flows to market value of assets	0%	0%	-1%	-1%
Duration of the actuarial accrued liability	11.8	12.0	12.0	12.2

Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 4.0 times the payroll, a return on assets 5% different than assumed would equal 20% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 5.5 times the payroll, a change in liability 2% other than assumed would equal 11% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

Ratio of Actives to Retirees and Beneficiaries

A young plan with many active members and few retirees will have a high ratio of active to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

Duration of Actuarial Accrued Liability

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

Risks Measures – Low Default Risk Obligation Measure

Introduction

In December 2021, the Actuarial Standards Board (ASB) adopted a revision to Actuarial Standard of Practice (ASOP) No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions. The revised ASOP No. 4 requires the calculation and disclosure of a liability referred to by the ASOP as the "Low-Default-Risk Obligation Measure" (LDROM). The rationale that the ASB cited for the calculation and disclosure of the LDROM was included in the Transmittal Memorandum of ASOP No. 4 and is presented below (emphasis added):

> "The ASB believes that the calculation and disclosure of this measure provides **appropriate, useful information for the intended user regarding the funded status of a pension plan**. The calculation and disclosure of this additional measure is **not intended to suggest that this is the "right" liability measure** for a pension plan. However, the ASB does believe that **this additional disclosure provides a more complete assessment of a plan's funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date**."

Comparing the Accrued Liabilities and the LDROM

One of the fundamental financial objectives of the City of Phoenix Employees' Retirement System (COPERS) is to finance each member's retirement benefits over the period from the member's date of hire until the member's projected date of retirement (entry age actuarial cost method) as a level percentage of payroll. To fulfill this objective, the discount rate that is used to value the accrued liabilities of COPERS is set equal to the expected return on the Fund's diversified portfolio of assets (referred to sometimes as the investment return assumption). For COPERS, the investment return assumption is 7.00%.

The LDROM is meant to approximately represent the lump sum cost to a plan to purchase low-default-risk fixed income securities whose resulting cash flows essentially replicate in timing and amount the benefits earned (or the costs accrued) as of the measurement date. The LDROM is very dependent upon market interest rates at the time of the LDROM measurement. The lower the market interest rates, the higher the LDROM, and vice versa. The LDROM results presented in this report are based on the entry age actuarial cost method and discount rates based upon the intermediate rate from the FTSE Pension Discount Curve and Liability Index published by the Society of Actuaries. This rate is 5.46% as of June 30, 2025. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligation.

The difference between the two measures (Valuation and LDROM) is one illustration of the savings the sponsor anticipates by taking on risk in a diversified portfolio.

Valaution Accrued Liabilities	LDROM
$5,209,416,156	$5,660,055,762

Note that the COPERS benefit structure has risk sharing provisions that are contingent on the investment returns of the portfolio and thus if the portfolio was changed to expect lower returns, the expected liabilities that are contingent on those returns would also decrease. If these provisions were not contingent on the investment performance, it would have increased the LDROM by another $545 million, meaning these provisions reduced the impact of lowering the discount rate from 7.00% to 5.46% by about a half, which is an illustration that over one half of the investment risk is currently being borne by the Members and not the City.