County of Riverside
Pension Advisory Review Committee (PARC)

Wednesday, November 13, 2024
9:00 a.m.

County Executive Office
4080 Lemon Street, 4th Floor, Riverside, CA, 92501
Raincross Conference Room C

A G E N D A

1. Call to Order and Self-Introductions……………………………………...……. Executive Office

2. Approval of the Meeting Minutes from December 13, 2023……………………Executive Office

3. CalPERS Miscellaneous and Safety Plans - Independent Actuarial Report-6/30/23 Valuation Receive and File……………………………………………………………..…Foster & Foster

4. Actuarial Valuation Report - Postretirement Benefits Plan as of June 30, 2024 Action Item…………………………………………………………………………………..Aon

5. Actuarial Valuation Report – Part-time and Temporary Employees' Retirement Plan as of July 1, 2024 – Action Item………………………………………………………………….Aon

6. Asset Liability Study - Part-time and Temporary Employees' Retirement Plan Action Item………………………………………………………………………………….Aon

7. Other Business

8. Public Comment

9. Next Meeting Date – December 4, 2024

10. Adjourn

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact Trina Head at tmhead@rivco.org or (951) 955-1157. Notification 48 hours prior to the meeting will enable us to make reasonable arrangements to ensure accessibility to the meeting [28 CFR 35 .102.35.104 ADA Title II].

County of Riverside
Pension Advisory Review Committee

MINUTES OF MEETING

December 13, 2023
10:00 a.m.

Members Present:

Don Kent	Chairman, County Executive Office
Shondi Miller	Human Resources
Matt Jennings	Treasurer-Tax Collector
Ben Benoit	Auditor-Controller
Undersheriff Don Sharp	Sheriff’s Office

Members Absent:

Staff and Guests Present:

Bradley Au	Aon
Brad Bachman	CalPERS
Colleen Cain-Herrback	CalPERS
Mike Williams	Columbia Capital
Jim Prichard	Columbia Capital
Keith Stribling	HighMark
Scott Grimm	US Bank
Terra Murphy	US Bank
Doug Pryor	Foster & Foster
Minh Tran	County Counsel
Jarvyk Punzalan	Executive Office
Jonathan Gutierrez	Executive Office
Katie Ponce	Executive Office
Paul McDonnell	Fieldman Rolapp
Darrylenn Brockington	Flood Control
Mitch Barker	PARS
Angela Tang	PARS
Amy Onopas	Human Resources
Jennifer Moquin	Human Resources
Sonia Moreno	Human Resources
Aileen Yan	Riverside Courts
Giovane Pizano	Treasurer-Tax Collector
Michael Alferez	Parks

1. **Call to Order and Self-introductions:**
   Chairman Don Kent, with the Executive Office, called the meeting to order at 10:00 a.m. Self-introductions were given by Committee members.

2. **Approval of the Minutes for November 15, 2023:**

   MOTION: Matt Jennings moved to approve the PARC Meeting Minutes from November 15, 2023.

   Seconded by Ben Benoit. **The motion passed unanimously.**

3. **Section 115 Pension Trust Investment Report for the period ended 6/30/23 Receive and File – Presented by PARS**

   Chairman Kent introduced Mitch Barker, with PARS, to speak on the next agenda item, the Section 115 Pension Trust Investment Report for period ending 6/30/23. Mr. Barker gave a brief overview of the team. It is made up of three entities, PARS, US Bank and HighMark. PARS monitors the plan, the trustee and fiduciary is US Bank, and the heavy lifting by making sense of the marketplace, is HighMark. He then introduced Angela Tang, with PARS, to go over specific plan details.

   Ms. Tang explained that the county has two separate accounts, one is the general account and one for the POB Series 2020. Both accounts are invested in the Moderate Index PLUS Strategy. The first contribution received was in November of 2016 and the amount was close to $2.1 million. Since June 30 of 2023 there has been total contributions of $91.4 million with total investment earnings of $8.2 million. The total account balance of both accounts combined, as of close of fiscal year ending June 30, 2023, is $98.8 million. The general account was at $57.8 million and the POB Series 2020 was at $41 million. Ms. Tang then introduced Keith Stribling, with HighMark, to speak on investments.

   Mr. Stribling shared that the investment return is part of the equation but having a funding strategy is the most important element, as compounding the return is how we get to these numbers. The county is at the Moderate Index PLUS Passive Strategy, which is a strategic asset allocation of approximately 50/50 mix of stocks and bonds. At the end of June, the accounts were moderately underweight stocks at 47.5%. The accounts are less underweight at this time. In one year, it is up 7.5% and has been compounding over 5.5% since inception.

   Mr. Stribling stated that inflation has been a problem in the past year and a half. Ultra-low interest rates and deficit spending on the fiscal policy side is a recipe for inflation. There are two competing macroeconomic forces. Fiscal policy is at a very high level and government spending is at a very high level and that is supporting Gross Domestic Product (GDP). GDP was at 4.9% in the last report which was probably higher than expected. It is supporting employment but also inflation. On the other hand, the Fed took rates to zero with its monetary policy coming out of Covid which was the right thing to do at the time, but when things started normalizing, they continued about a year more than needed and that is when inflation started rising. The banking industry felt it as there were some bankruptcies. There is now a tightening cycle of the Fed which is typical when rates are raised. The yield curve has been inverted for over a year and typically implies a recession is in the offing. There was some good news in the last six month reading as inflation was 3.9% annualized. At three months it was 2.7% annualized, so there was a gradual decline in inflation even with the economy remaining relatively strong. The Fed will most likely hold steady and cut rates by next June. Mr. Stribling mentioned some risk factors; the two current wars, inflation if Fed makes further policy mistakes, and China's growth.

4. Section 115 OPEB Trust Investment Report for the period ended 6/30/23
Receive and File presented by CalPERS

Chairman Kent introduced Colleen Herrback-Cain, with CalPERS, to speak on item number four, the Section 115 OPEB Trust Investment Report for the period ending 6/30/23. Ms. Herrback-Cain shared an overview of the trust. The California Employers' Retiree Benefit Trust (CERBT) was established by CalPERS in 2007, is a government entity, and as of June 30, 2023, it has 605 employer participants and the assets under management are approximately $17.6 billion. The CERBT fund has three investment portfolios/strategies. For FY 22/23, the net contributions were at $1.6 billion.

In November of 2007, when the County of Riverside joined this trust, the initial contribution was $10.4 million, since then, there has been additional contributions of approximately $66 million. In 2015, 2016 and 2017, the county did seek reimbursements from the trust, total expenses are close to $550,000 and investment earnings were a little over $26 million. As of June 30, 2023, the total assets were at $96.2 million. This provides a money weighted annualized net rate of return of about 5.1%. Ms. Herrback-Cain gave an overview of the year over year numbers and showed the volatile times for the annualized net rate of returns. However, the inception to date for the net rate of return over time does show a normalized long-term rate of return. Ms. Herrback-Cain then introduced Brad Bachman, with CalPERS, to go over investments.

Mr. Bachman reported on investment performance for CERBT strategies. The report had a timetable that looked across time periods representing one month to ten years for strategies one, two and three. Each strategy performed very closely to the benchmark with a slight amount of excess for each time-period. He pointed out that the CERBT Strategy 1 had positive performance of 5.3% and 6.34% for the ten-year. Strategy 2 had 4.4% and a little over 5% for ten-year returns. The most conservative strategy, Strategy 3, shows 3% positive performance for the five-year and 4% for the ten-year. This is the gross as of June 30, 2023.

Mr. Bachman then shared a graph that showed over the long term, of five and ten years, an overall positive performance. For each CERBT Strategy as for projected compound returns, he showed that the forecasted return for CERBT Strategy 1, is 6%, for CERBT Strategy 2, 5.5% and for CERBT Strategy 3, 5%. The projected volatility with CERBT Strategy 1, which has the highest allocation to equities at 12.1% and Strategy 3 has the lowest at 8.4%. Each CERBT Strategy and these forecasted returns are driven by our asset liability management study which is conducted every four years. The midpoint check-in will be in the summer of 2024. Chairman Kent stated that for the committee and guests, this process is the same as what is done for the public employee retirement fund for CalPERS. Mr. Bachman closed with the breakdown of the asset allocation and benchmark for each of the three CERBT strategies. CERBT Strategy 1 has the most aggressive of the three and the highest allocation equities at 49% and 23% income. Strategy 2 is at 34% with 41% income and the most conservative allocation, Strategy 3, has 23% equities and 51% income.

5. County of Riverside Part-Time and Temporary Employees' Retirement Plan Investment Report for the period ended 6/30/23
Receive and File – presented by US Bank

Scott Grimm, with US Bank, stated that since the capital market information has been covered, he would highlight the power of inflation and the importance of inflation as the economy continues this path toward the Fed's target of 2% inflation. Inflation was high in 2022 and as shown in this report, the asset allocation in this asset pool is more aggressive than the other pools that were discussed earlier. Equities are at 67%, which is about 10% to 15% more than the other asset pools. With this more aggressive portfolio, there will be higher highs as shown for this year and lower lows like experienced last year, and there should be a higher return over time. The ability to meet a targeted return of 6% or 7% is much easier today than it was three years ago when the yield on the ten year was 60 basis points. As of June 30, 2023, the pool was around $58.7 million.

The equities summary shows a total value of $39.4 million. It's made up of large cap, mid cap, developed markets, emerging markets and small cap. In the U.S., the equities global distribution is at 70%. The bank fundamentally believes that the U.S. structure will outperform the rest of the world over the long term. The country is aging but is still younger than Europe, China and Japan, although, the portfolio still remains diversified with the magnificent seven stocks, such as Facebook, Netflix, Microsoft and Googles of the world. To highlight this, through June, the S&P 500 was up around 20%. NVIDIA is up 190%, Tesla is up 112%. Therefore, if the S&P was up without those seven stocks the S&P was probably up 6% or 7%. That shows how significant those seven were to the performance through June 30. This illustrates the strength of the market and the driver of the market was inflation. The first six months of this year, consistently, month after month, was a nice steady pattern of inflation coming down.

6. Draft 2024 PARC Report
Receive and File – presented by Chairman Kent

Chairman Kent shared a few highlights from the DRAFT 2024 Annual PARC Report.
He went over percentages, investments, net gains, accrued liability increases and decreases and the CalPERS market value of assets from the previous year. The FY 24/25 year-over-year increase is 0.40% for the Miscellaneous Plan and 2.50% for the Safety Plan. Over the next five years, the Miscellaneous and Safety pension plan contribution rates are projected to increase by a total of 4.5%, and 10.6%, respectively.

Regarding FY 21/22 investment losses, the $1 billion decrease in MVA, $1.79 billion increase in UAAL, and, corresponding 11.3% decrease in funded status to 75.3% with CalPERS was primarily due to CalPERS' -6.1% investment return . Both plans combined went from 86.6% in 2021 to 75.3% in 2022. Foster and Foster mentioned net gains on the 2020 POBs of $84 million and that remains. There is also a $33 million increase in the combined POB proceeds. Chairman Kent went on to share a chart which showed the CalPERS investment returns. Although there is recent investment underperformance causing a reduction in the combined funded status, the return should be at 80% within the next decade while projecting a steady position until that point.

Chairman Kent also went over the employee contribution rate outlook, the miscellaneous short-term and long-term rates. The annualized rate of return since inception is at 5.38% for the 2016 Section 115 Pension Trust. For the 2020 Section 115 Pension Trust it is at 3.14%. Within ten years, there will be more than $200 million in contributions made to both Trust accounts combined. Total assets as of June 30, 2023 were $98.8 million. The funded status of OPEB in 2023 is at 66.40%. For Part-Time and Temporary Employees' Retirement plans, the funded status is at 82.9% in 2023. In November 2023, the PARC approved to maintain the current rates of approximately 1.1% of payroll for OPEB to achieve a projected funded status of 80% by June 30, 2026. In November 2023, the PARC approved to maintain the current rates of approximately 5.58% (for those departments that utilize TAP) for the Part-Time and Temporary Employees' Retirement Plan to maintain a funded status of 80% or greater.

7. Other Business

None

8. Public Comment:

No public comment.

9. Next Meeting Date:

TBD

10. Adjourn:

With no further business, Chairman Kent adjourned the Pension Advisory Review Committee Meeting at 11:27 a.m.

County of Riverside
CalPERS Miscellaneous & Safety Plans

FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

Independent Actuarial Report – 6/30/23 Valuation

Doug Pryor, ASA, EA, MAAA
Pat McDonald, FSA, EA, MAAA
Matthew Childs
Foster & Foster, Inc.

November 1, 2024

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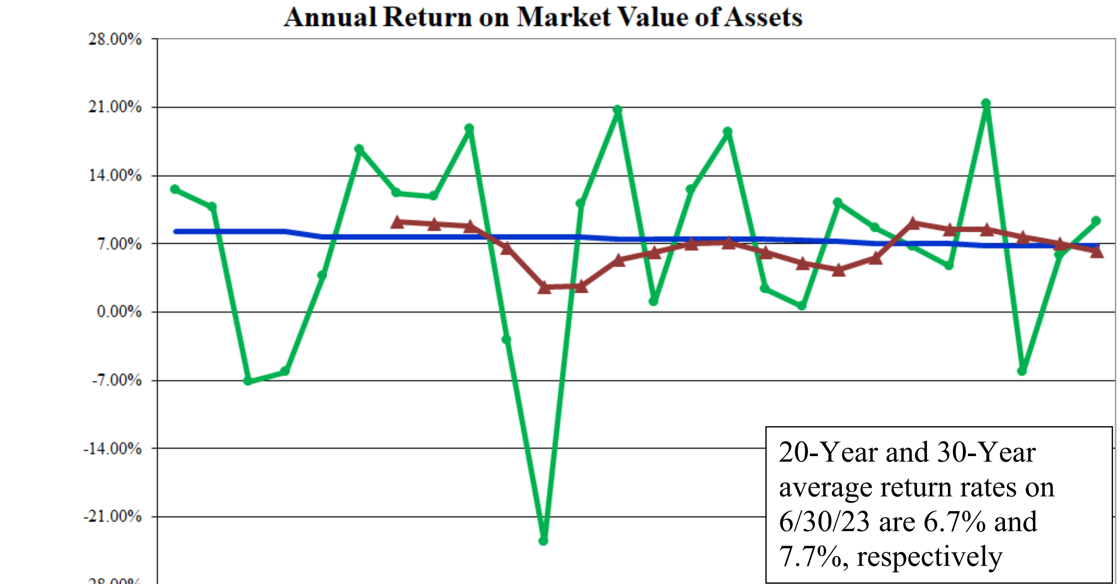
Investment Return



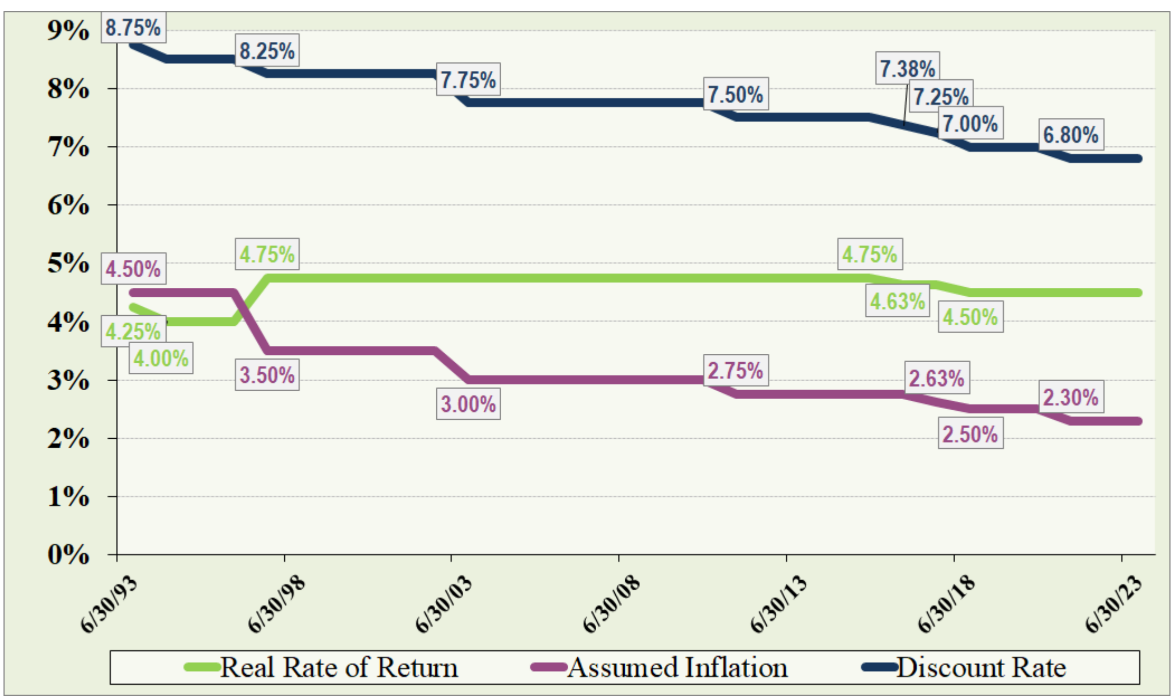
	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11
Rate of Return	12.5%	10.7%	-7.1%	-6.1%	3.7%	16.6%	12.2%	11.9%	18.8%	-2.9%	-23.6%	11.1%	20.7%
Discount Rate	8.25%	8.25%	8.25%	8.25%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%	7.50%
10-Year Rolling Average							9.3%	9.0%	8.9%	6.6%	2.6%	2.6%	5.4%

	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'24
Rate of Return	1.0%	12.5%	18.4%	2.4%	0.6%	11.2%	8.6%	6.70%	4.70%	21.30%	-6.10%	5.80%	9.30%
Discount Rate	7.50%	7.50%	7.50%	7.50%	7.375%	7.25%	7.00%	7.00%	7.00%	6.80%	6.80%	6.80%	6.80%
10-Year Rolling Average	6.1%	7.0%	7.2%	6.2%	5.1%	4.4%	5.5%	9.1%	8.5%	8.5%	7.7%	7.1%	6.2%

Discount rates are expected returns net of administrative expenses.
2013/14 through 2022/23 "money-weighted" returns reported in CalPERS AFCR (without lags on private equity and real estate) are 18.3%, 2.2%, 0.5%, 11.2%, 8.4%, 6.5%, 5.0%, 22.4%, -7.5%, and 6.1% respectively.

Investment Return

Historical Discount Rates



DEMOGRAPHICS

- Around the State
  - Large retiree liability compared to actives
    - State average: 61% for Miscellaneous, 63% for Safety
  - Declining active population and increasing number of retirees
  - Higher percentage of retiree liability increases contribution volatility

- County of Riverside percentage of liability belonging to retirees:
  - Miscellaneous 52%
  - Safety 59%

COUNTY BENEFITS

- At CalPERS, Enhanced Benefits implemented using all (future & prior) service
- Typically not negotiated with cost sharing
- County of Riverside

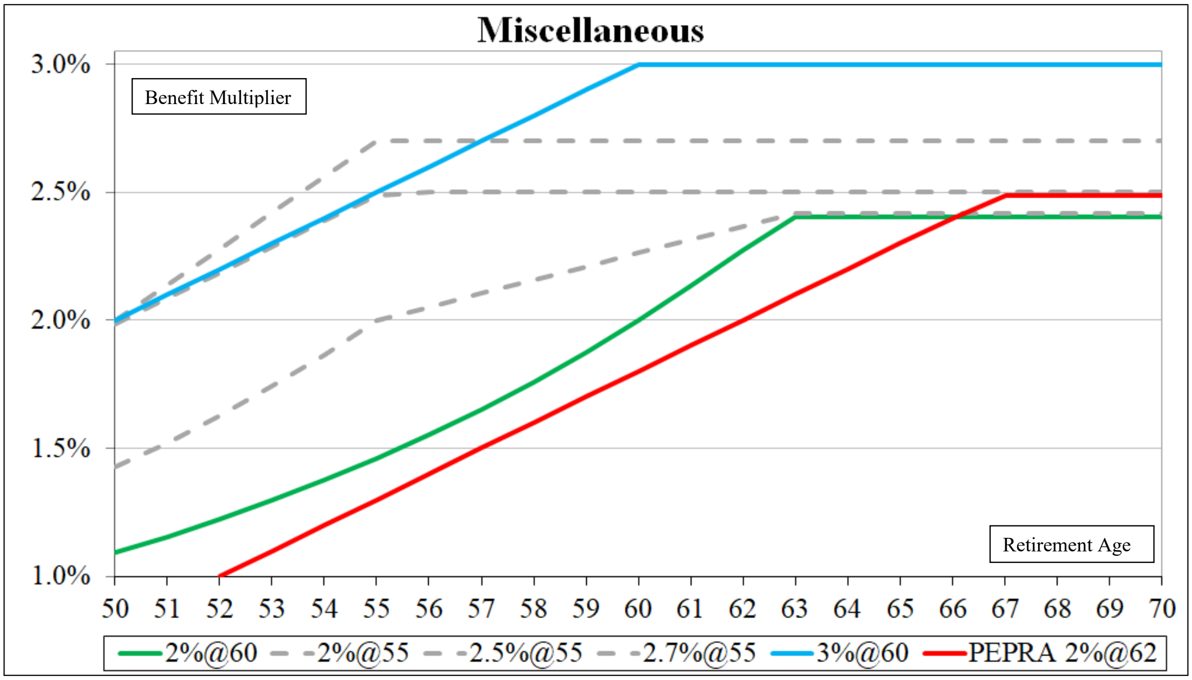
	Tier 1	Tier 2	PEPRA
Miscellaneous	3%@60 FAE1	2%@60 FAE3	2%@62 FAE3
Safety[1]	3%@50 FAE1	2%@50 FAE3	2.7%@57 FAE3

  - Benefit = (Years of County Service) x Percentage x FAE
    - Percentage varies by retirement age (see following charts)
    - FAE1 is highest one year (typically final) average earnings
    - FAE3 is highest three years (typically final three) average earnings

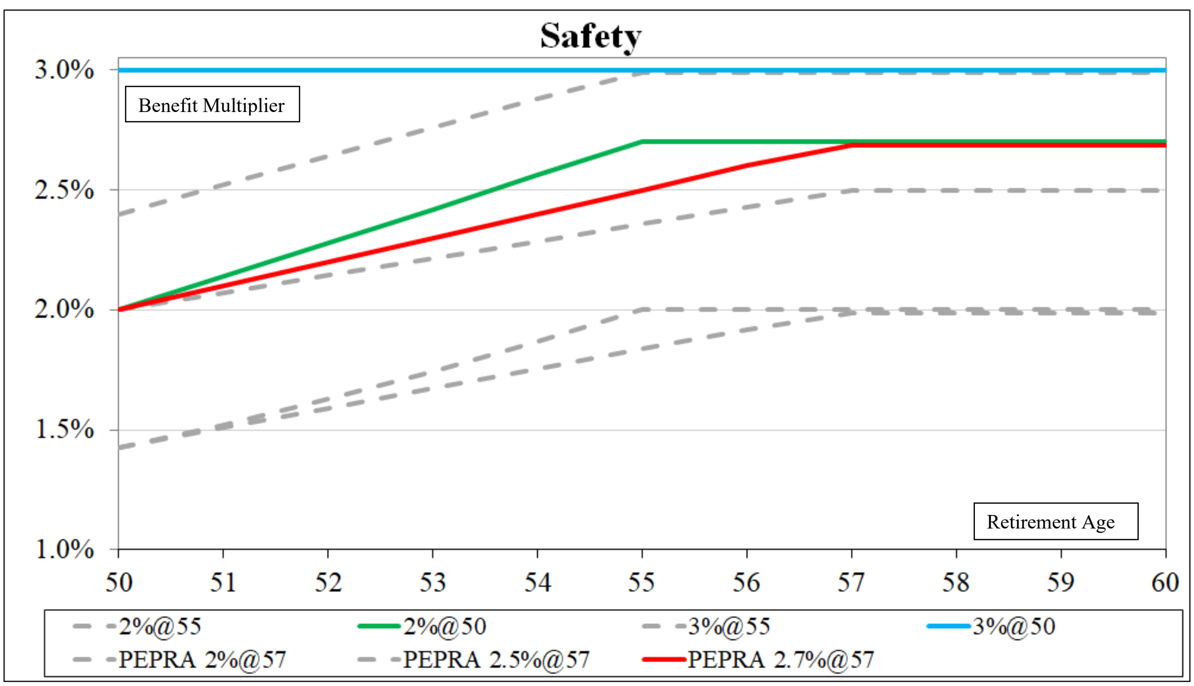
- PEPRA tier implemented for new employees hired after 1/1/13
  - Employee pays half of total normal cost
  - 2024 Compensation limit
    - Social Security participants: $151,446
    - Non-Social Security participants: $181,734

[1] Fire and Peace Officer members are combined in this group.

COUNTY BENEFITS



COUNTY BENEFITS



RISK MITIGATION

Overview

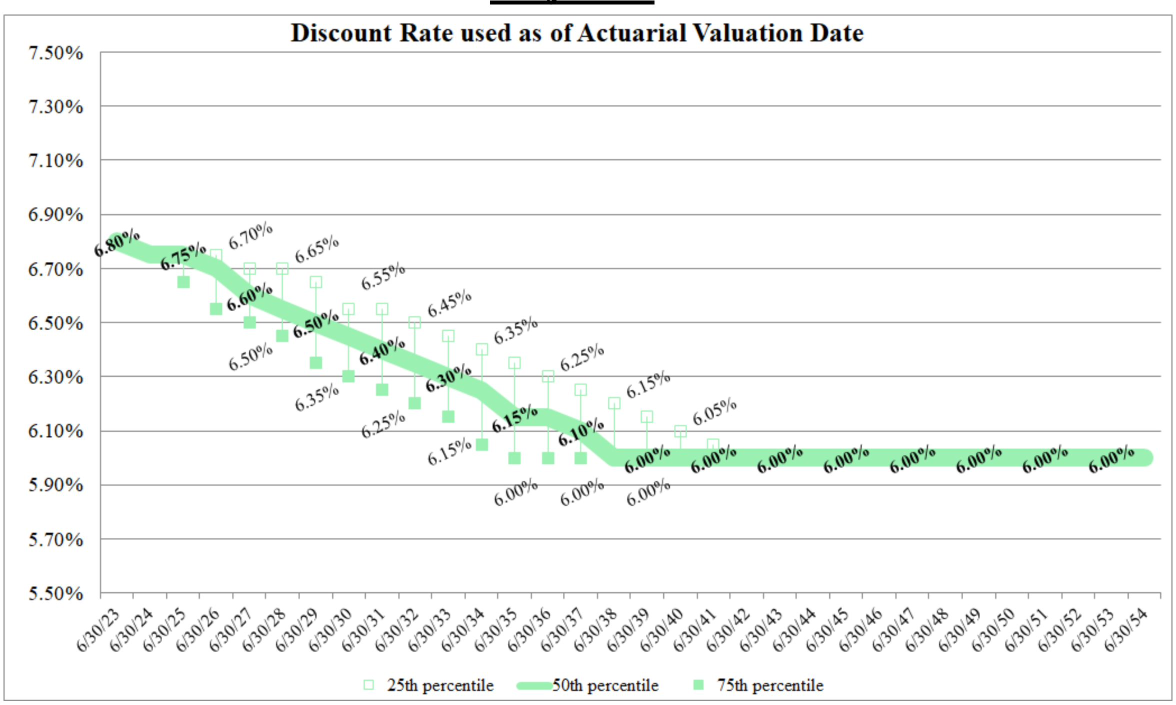
- Move to more conservative investments over time to reduce volatility/risk
  - Only when investment return is better than expected
  - Lower discount rate in concert

Excess Investment Return	Reduction in Discount Rate
If the actual investment returns exceed the discount rate by:	*Then the discount rate will be reduced by:*
2%	0.05%
7%	0.10%
10%	0.15%
13%	0.20%
17%	0.25%

  - Essentially use ≈50% of investment gains to pay for cost increases
  - Ultimate goal of 8% standard deviation on portfolio
- Likely get to 6.0% discount rate over 20+ years
  - Risk mitigation suspended from 6/30/16 to 6/30/18 valuation
  - Not triggererd for 6/30/19 or 6/30/20 valuations
- First triggered for 6/30/21 valuation – 6.8% discount rate
- Not triggered for 6/30/22 or 6/30/23 valuations
- April 16, 2024 CalPERS Board removed automatic trigger

RISK MITIGATION

Projection



RISK MITIGATION

Portfolio Target Allocations

	Prior Portfolio	11/17/21 Portfolio
Asset Classification		
Liquidity	1%	-
Real Assets	13%	15%
Private Debt	-	5%
EM Sov Bonds	1%	5%
High Yield	4%	5%
Investment Grade Corp.	6%	10%
Mtge-backed Securities	7%	5%
Treasury	10%	5%
Private Equity	8%	13%
Global Equity[2]	50%	42%
Leverage	-	(5)%
Total	100%	100%
Standard Deviation	11.2%	12.1%

[2] Cap and non-cap weighted combined for this table; actual portfolios have specific allocations for each classification.

RISK MITIGATION

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Miscellaneous

	2003	2013	2022	2023
Actives				
■ Counts	12,671	15,530	18,082	19,428
■ Average				
• Age	43	44	44	43
• County Service	8	10	9	9
• PERSable Wages	$42,800	$55,200	$68,900	$72,800
■ Total PERSable Wages	542,100,000	856,600,000	1,245,600,000	1,414,800,000
Inactive Members				
■ Counts				
• Transferred	2,513	3,635	4,249	4,664
• Separated	2,976	7,414	12,803	13,813
• Retired				
➢ Service	3,665	7,480	11,842	12,225
➢ Disability	553	578	706	725
➢ Beneficiaries	597	822	1,174	1,258
➢ Total	4,815	8,880	13,722	14,208
■ Average Annual County Provided Pension for Service Retirees[3]	$12,200	$23,200	$33,200	$34,200

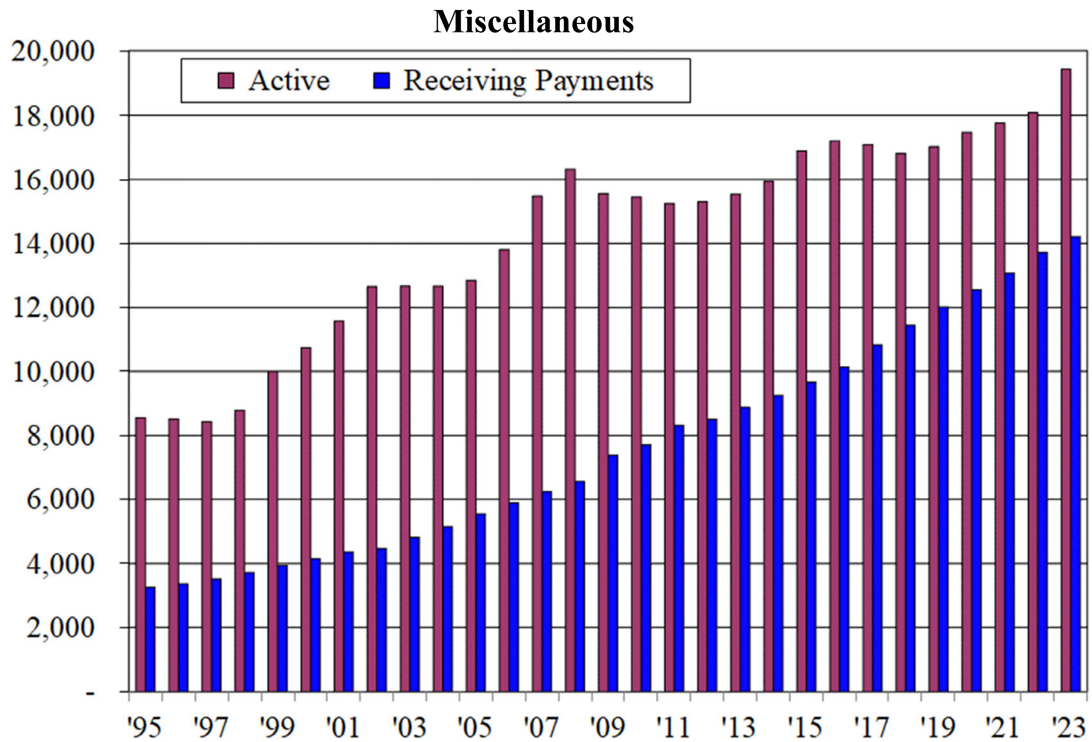
[3] Average pension based on County service & County benefit formula; not representative of long-service employees.

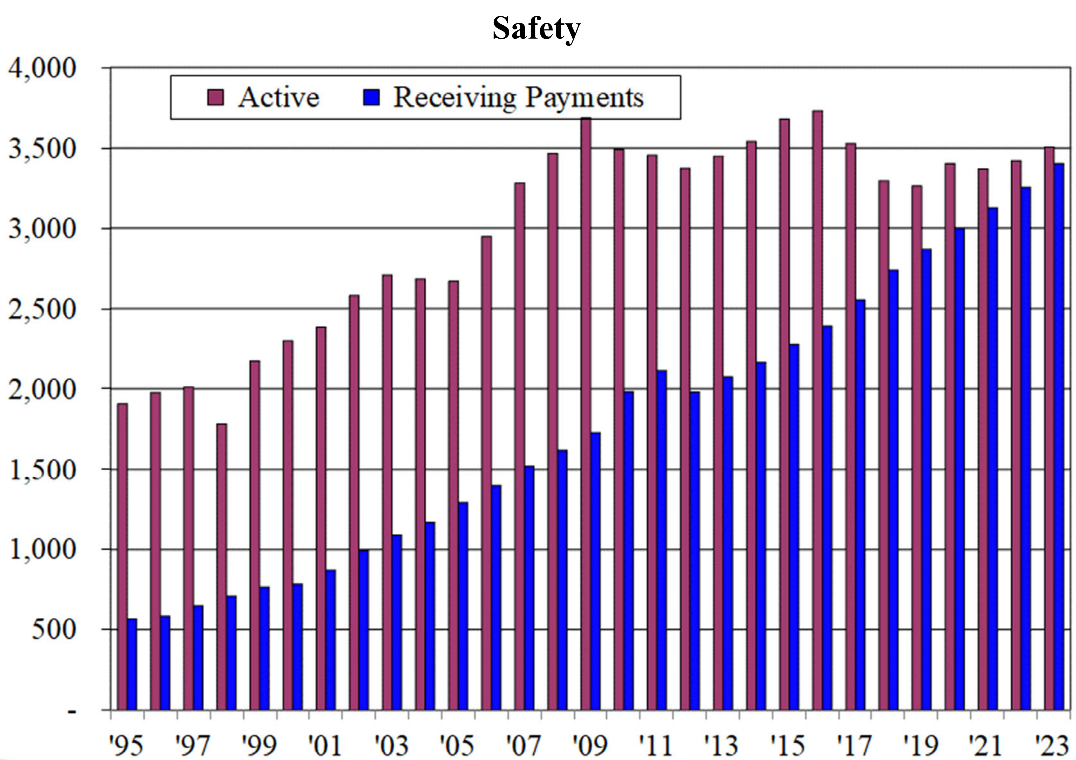
SUMMARY OF DEMOGRAPHIC INFORMATION

Safety

	2003	2013	2022	2023
Actives				
■ Counts	2,708	3,448	3,421	3,506
■ Average				
• Age	39	39	40	39
• County Service	9	10	12	11
• PERSable Wages	$54,500	$78,700	$97,600	$99,400
■ Total PERSable Wages	147,500,000	271,400,000	333,900,000	348,400,000
Inactive Members				
■ Counts				
• Transferred	470	524	705	749
• Separated	306	530	891	952
• Retired				
➢ Service	540	1,346	2,258	2,373
➢ Disability	442	545	676	693
➢ Beneficiaries	108	182	322	338
➢ Total	1,090	2,073	3,256	3,404
■ Average Annual County Provided Pension for Service Retirees[4]	$28,100	$50,600	$66,100	$68,000

[4] Average pension based on County service & County benefit formula; not representative of long-service employees.


Miscellaneous
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
-
Active
Receiving Payments
'95
'97
'99
'01
'03
'05
'07
'09
'11
'13
'15
'17
'19
'21
'23


Safety
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
-
Active
Receiving Payments
'95
'97
'99
'01
'03
'05
'07
'09
'11
'13
'15
'17
'19
'21
'23

PLAN FUNDED STATUS

Miscellaneous

	June 30, 2022	June 30, 2023
■ **Actuarial Accrued Liability**		
● Active	$4,237,600,000	$4,482,900,000
● Retiree	5,358,400,000	5,664,300,000
● Inactive	599,500,000	665,500,000
● Total	10,195,500,000	10,812,700,000
■ **Assets**	7,608,800,000	8,036,500,000
■ **Unfunded Liability**	2,586,700,000	2,776,200,000
■ **Funded Ratio**	74.6%	74.3%
■ **Average funded ratio for CalPERS Miscellaneous:**		
● **Public Agency Plans**	73.5%	73.3%
● **City & County Plans**	72.5%	72.2%
● **County Plans**	69.7%	69.6%

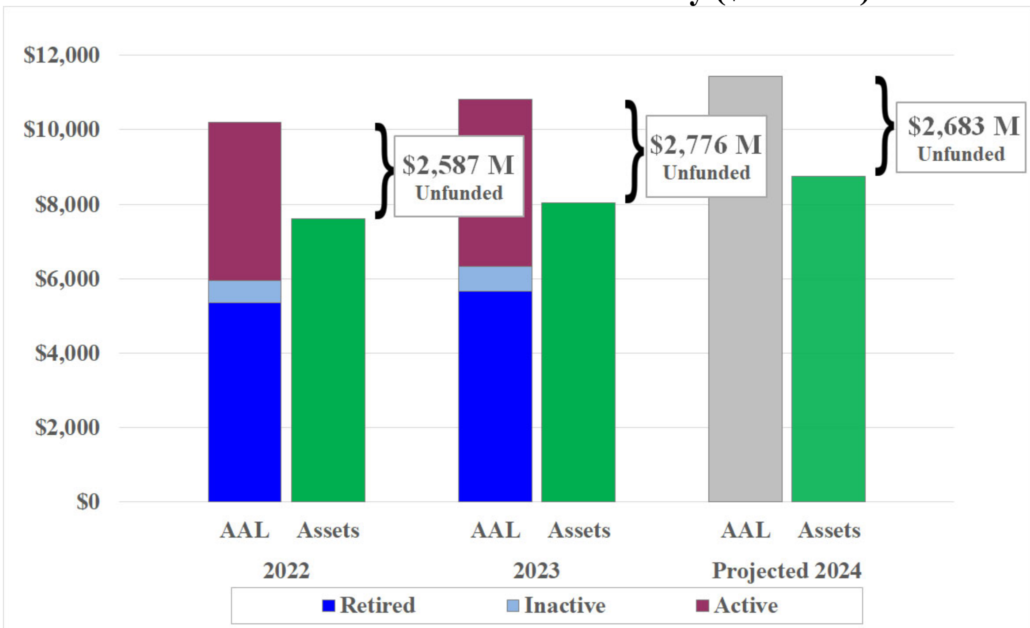
PLAN FUNDED STATUS

Safety

	June 30, 2022	June 30, 2023
■ **Actuarial Accrued Liability**		
● Active	$1,842,800,000	$1,880,300,000
● Retiree	2,698,500,000	2,903,100,000
● Inactive	149,700,000	170,100,000
● Total	4,691,000,000	4,953,500,000
■ **Assets**	3,603,400,000	3,786,700,000
■ **Unfunded Liability**	1,087,600,000	1,166,800,000
■ **Funded Ratio**	76.8%	76.4%
■ **Average funded ratio for CalPERS Safety:**		
● **Public Agency Plans**	71.3%	70.9%
● **City & County Plans**	71.3%	70.8%
● **County Plans**	70.9%	70.7%

Plan Funded Status

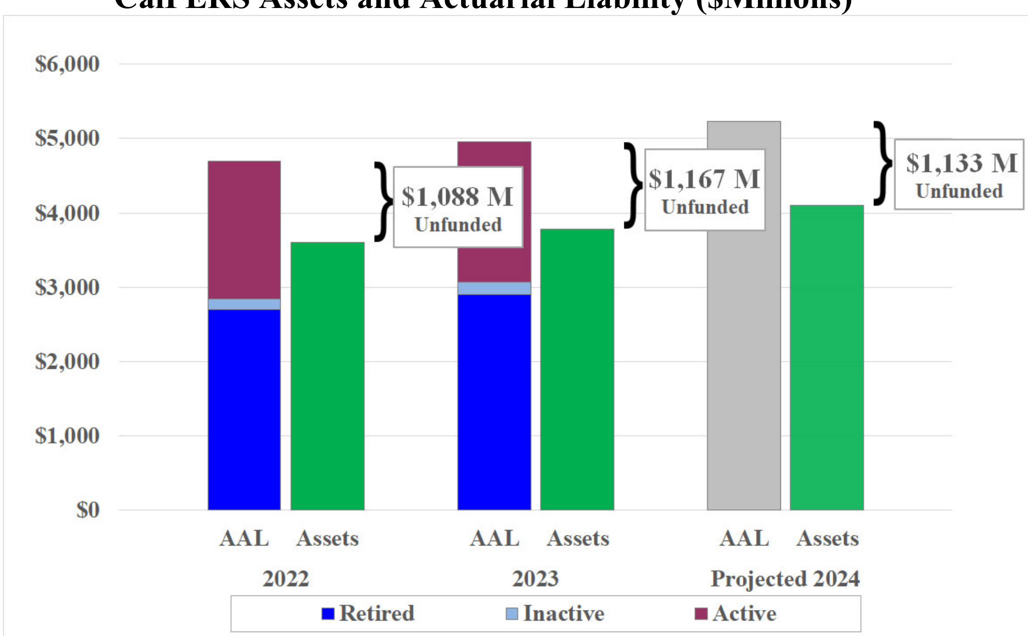
Miscellaneous
CalPERS Assets and Actuarial Liability ($Millions)[5]



5 Projected 2024 assets reflects 9.3% CalPERS investment return for 2023/24.

Plan Funded Status

Safety
CalPERS Assets and Actuarial Liability ($Millions)[6]



6 Projected 2024 assets reflects 9.3% CalPERS investment return for 2023/24.

Miscellaneous

Discount Rate Sensitivity

June 30, 2023

	Discount Rate		
	6.80%	**6.30%**[7]	**5.80%**
AAL	$10,812,700,000	$11,595,300,000	$12,377,800,000
Assets	8,036,500,000	8,036,500,000	8,036,500,000
Unfunded Liability	2,776,200,000	3,558,800,000	4,341,300,000
Funded Ratio	74.3%	69.3%	64.9%

7 Estimated by Foster & Foster.

Safety

Discount Rate Sensitivity

June 30, 2023

	Discount Rate		
	6.80%	**6.30%**[8]	**5.80%**
AAL	$4,953,500,000	$5,325,800,000	$5,698,100,000
Assets	3,786,700,000	3,786,700,000	3,786,700,000
Unfunded Liability	1,166,800,000	1,539,100,000	1,911,400,000
Funded Ratio	76.4%	71.1%	66.5%

8 Estimated by Foster & Foster.

Miscellaneous

Unfunded Accrued Liability Changes

■ **Unfunded Accrued Liability on 6/30/22**		$2,586,700,000
■ **Expected 6/30/23 Unfunded Accrued Liability**		2,619,500,000
■ **Changes**		
• Asset Loss (Gain) (6.1% return for FY 2023)	52,200,000	
• Contribution & Experience Loss (Gain)	104,500,000	
• Total		156,700,000
■ **Unfunded Accrued Liability on 6/30/23**		2,776,200,000
■ **Projected Unfunded Accrued Liability on 6/30/24**[9]		2,682,500,000

9 Projected 2024 assets reflects 9.3% CalPERS investment return for 2023/24.

Safety

Unfunded Accrued Liability Changes

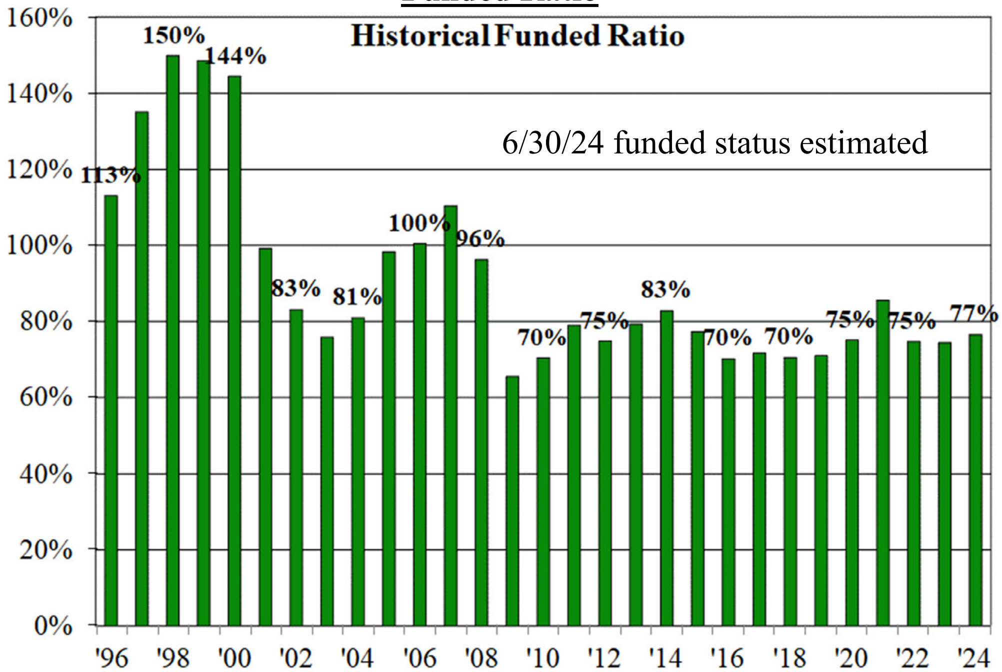
■ **Unfunded Accrued Liability on 6/30/22**		$1,087,600,000
■ **Expected 6/30/23 Unfunded Accrued Liability**		1,111,900,000
■ **Changes**		
• Asset Loss (Gain) (6.1% return for FY 2023)	27,000,000	
• Contribution & Experience Loss (Gain)	27,900,000	
• Total		54,900,000
■ **Unfunded Accrued Liability on 6/30/23**		1,166,800,000
■ **Projected Unfunded Accrued Liability on 6/30/24**[10]		1,132,900,000

10 Projected 2024 assets reflects 9.3% CalPERS investment return for 2023/24.

FUNDED RATIO

Miscellaneous

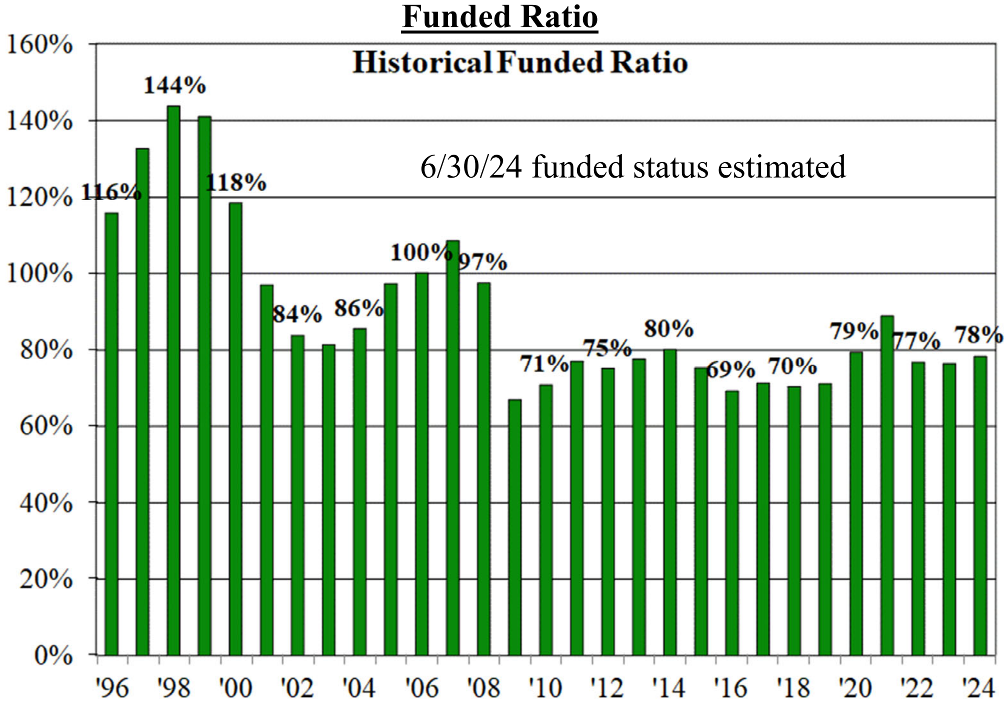
Funded Ratio



FUNDED RATIO

Safety

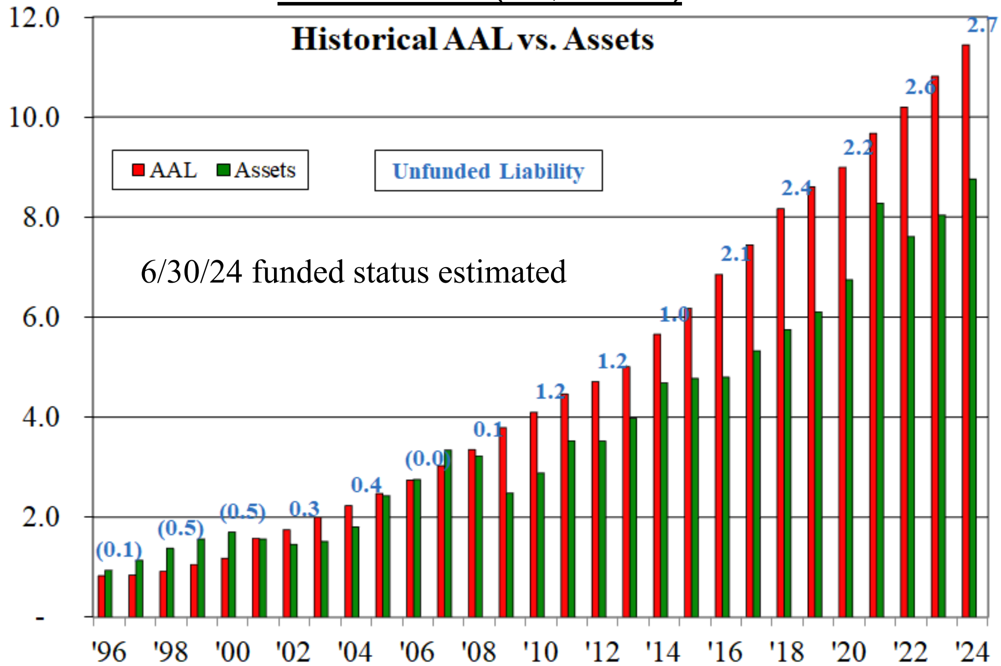
Funded Ratio



Funded Status

Miscellaneous

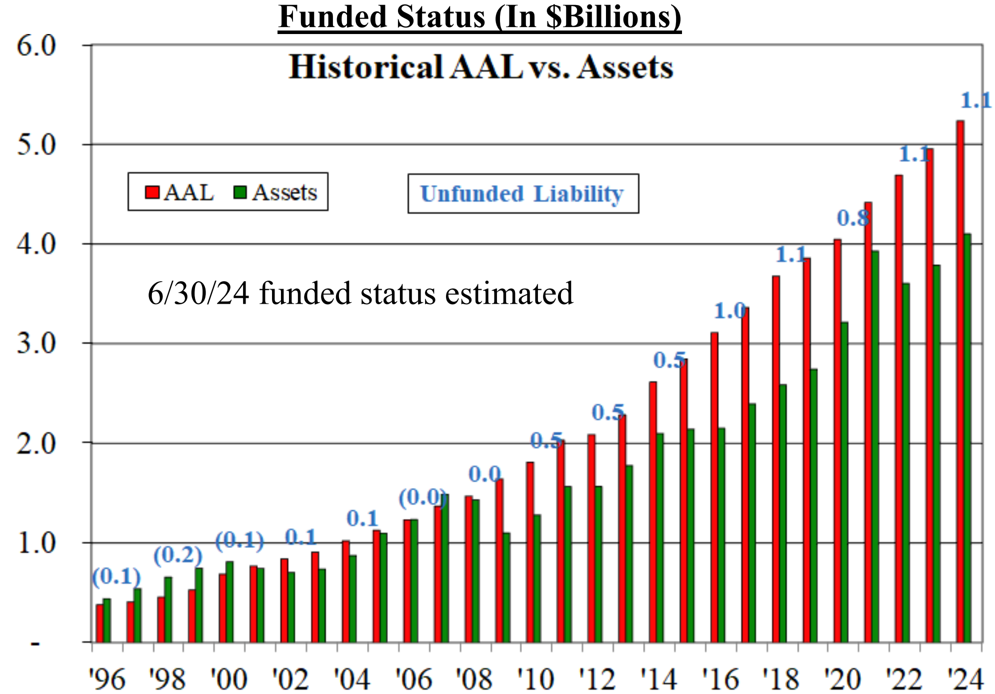
Funded Status (In $Billions)



Funded Status

Safety

Funded Status (In $Billions)



CONTRIBUTION RATES

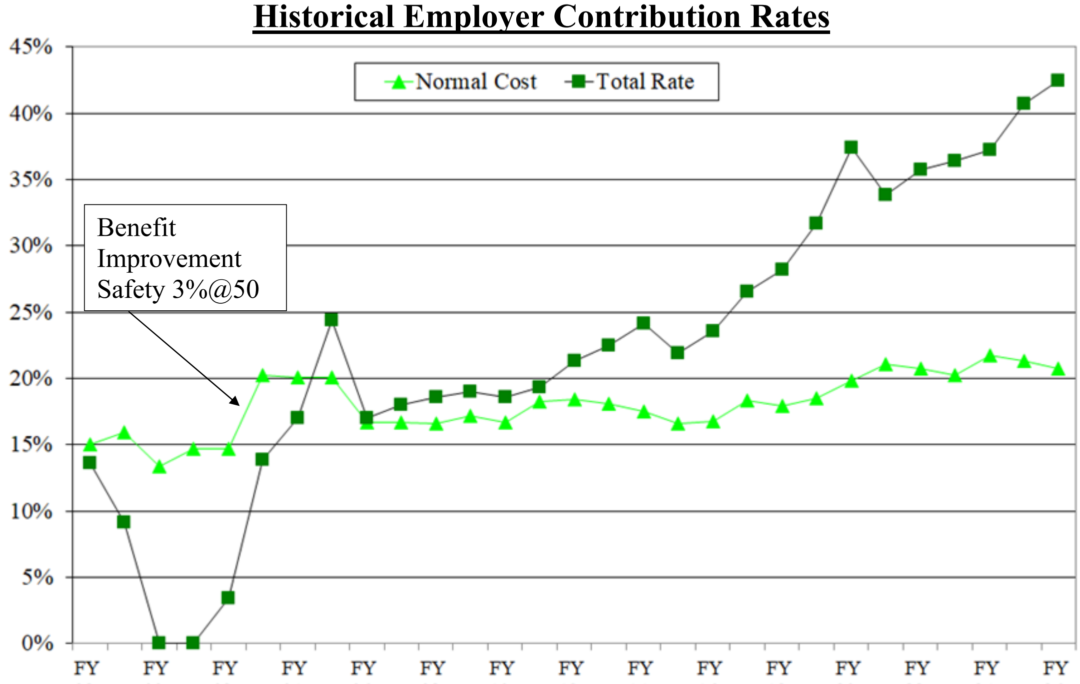
Miscellaneous

Historical Employer Contribution Rates

CONTRIBUTION RATES

Safety

Historical Employer Contribution Rates



CONTRIBUTION RATES

Miscellaneous

	6/30/22 2024/2025	6/30/23 2025/2026
■ Total Normal Cost	19.1%	18.7%
■ Employee Normal Cost	7.8%	7.8%
■ Employer Normal Cost	11.3%	10.9%
■ Amortization Payments	13.2%	13.7%[11]
■ Total Employer Contribution Rate	24.5%	24.6%

■ 2024/25 Employer Contribution Rate	24.5%
● 6/30/23 investment (gain)/loss (6.1% vs. 6.8%)	0.1%
● Progression of amortization bases	1.3%
● Other/non-investment (Gains)/Losses	(1.3%)
■ 2025/26 Employer Contribution Rate	24.6%

[11] Equivalent to 7.6% of UAL. One year, 6.8% interest on the UAL is 12.3% of projected payroll. 2025/26 amortization payment exceeds interest on the UAL, so there is no "negative amortization."

CONTRIBUTION RATES

Safety

	6/30/22 2024/2025	6/30/23 2025/2026
■ Total Normal Cost	31.7%	31.3%
■ Employee Normal Cost	10.3%	10.6%
■ Employer Normal Cost	21.4%	20.8%
■ Amortization Payments	19.3%	21.7%[12]
■ Total Employer Contribution Rate	40.7%	42.5%

■ 2024/25 Employer Contribution Rate	40.7%
● 6/30/23 investment (gain)/loss (6.1% vs. 6.8%)	0.2%
● Progression of amortization bases	2.3%
● Other/non-investment (Gains)/Losses	(0.7%)
■ 2025/26 Employer Contribution Rate	42.5%

[12] Equivalent to 7.0% of UAL. One year, 6.8% interest on the UAL is 21.0% of projected payroll. 2025/26 amortization payment exceeds interest on the UAL, so there is no "negative amortization."

Contribution Rates

Miscellaneous
2025/26 Amortization Payment

- Amortization payment for 2025/26 is $209,884,500
- Equivalent to 7.7% of UAL
  (one year interest on UAL is 6.8%)
  - Payment exceeds interest on the UAL
  - No "negative amortization."
- Amortization period:
  - 32.7 years on level dollar amortization schedule (all payments are the same amount)
  - 19.2 years on level percent of payroll schedule (payments increase 2.8% annually)

Contribution Rates

Safety
2025/26 Amortization Payment

- Amortization payment for 2025/26 is $82,253,900
- Equivalent to 7.1% of UAL
  (one year interest on UAL is 6.8%)
  - Payment exceeds interest on the UAL
  - No "negative amortization."
- Amortization period:
  - 46.2 years on level dollar amortization schedule (all payments are the same amount)
  - 22.5 years on level percent of payroll schedule (payments increase 2.8% annually)

CONTRIBUTION PROJECTIONS

Investment returns:

- June 30, 2024 9.3%[13]
- Future returns based on stochastic analysis using 1,000 trials
- Single year returns[14] with current investment mix, no risk mitigation:

	Percentile		
	25th	50th	75th
First 7 years	**-2.1%**	**5.8%**	**14.6%**
After 7 years	**-0.7%**	**7.4%**	**16.3%**

- Assumes investment returns will generally be lower over the next 7 years and higher beyond that

■ Discount Rate decreases due to Risk Mitigation policy – Ultimate rate 6.0%
■ No Other: Gains/Losses, Method/Assumption Changes, Benefit Improvements
■ Different from CalPERS projection
■ Risk Mitigation:
- Assumed to be approved by CalPERS board in each year returns meet threshhold
- Net impact of investment gain and discount rate change amortized over 20 years with 5 year ramp up
- Same amortization method for all future years

[13] Gross return based on June 30, 2024 CalPERS News Release issued in July 2024.
[14] Nth percentile means N percentage of our trials result in returns lower than the indicated rates.

■ New hire assumptions:
- All new hires assumed PEPRA members and none are Classic members

■ Miscellaneous 6/30/23 employee distribution:

Benefit Tier	Count	% of Total	22/23 Payroll	% of Total
3%@60 FAE1	6,707	34.5%	$592,295,100	41.9%
2%@60 FAE3	725	3.7%	59,377,400	4.2%
2%@62 FAE3 (PEPRA)	11,996	61.8%	763,143,100	53.9%
Total	19,428	100.0%	1,414,815,600	100.0%

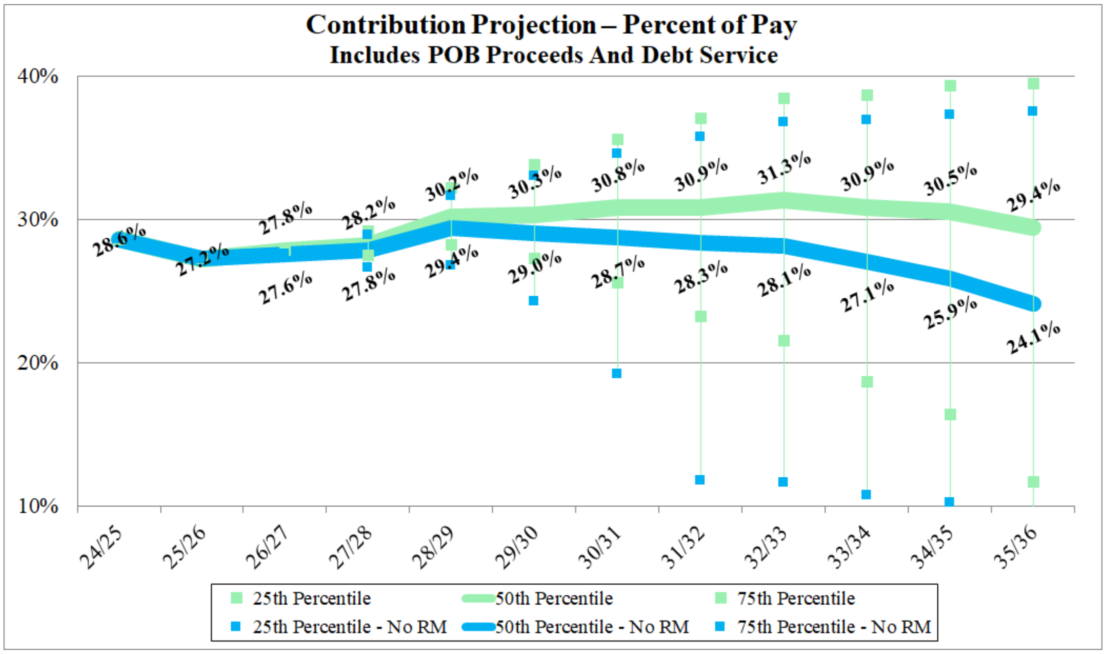
■ Safety 6/30/23 employee distribution:

Benefit Tier	Count	% of Total	22/23 Payroll	% of Total
3%@50 FAE1	1,739	49.6%	$212,964,800	61.1%
2%@50 FAE3	173	4.9%	18,754,900	5.4%
2.7%@57 FAE3 (PEPRA)	1,594	45.5%	116,723,700	33.5%
Total	3,506	100.0%	348,443,400	100.0%

CONTRIBUTION PROJECTIONS

Miscellaneous

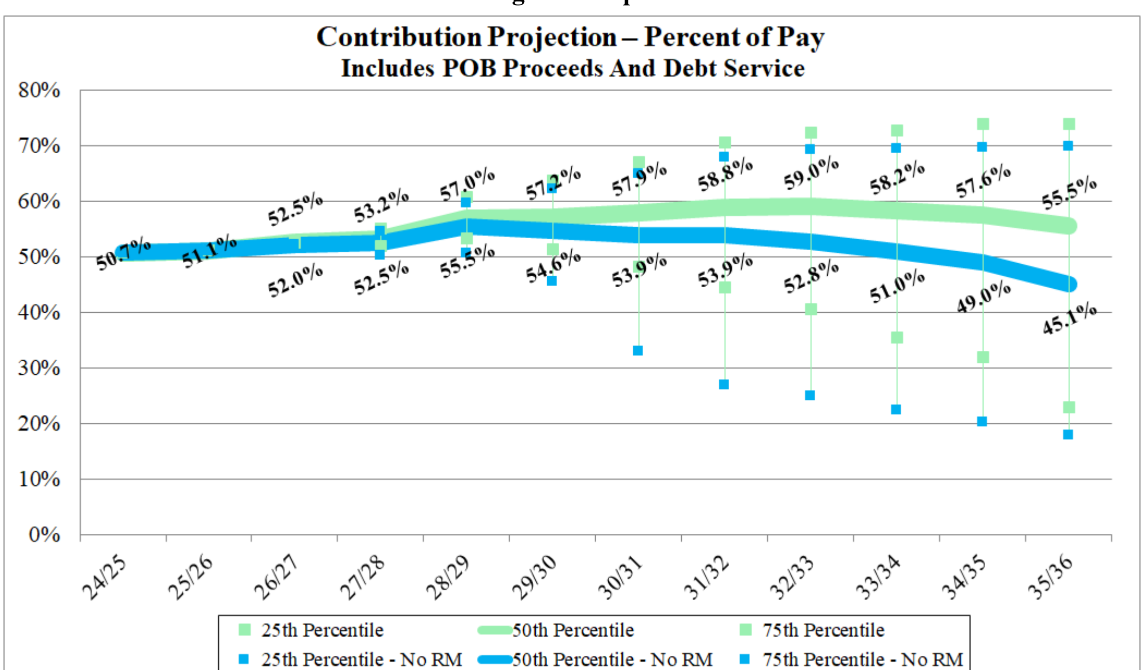
Risk Mitigation Impact



CONTRIBUTION PROJECTIONS

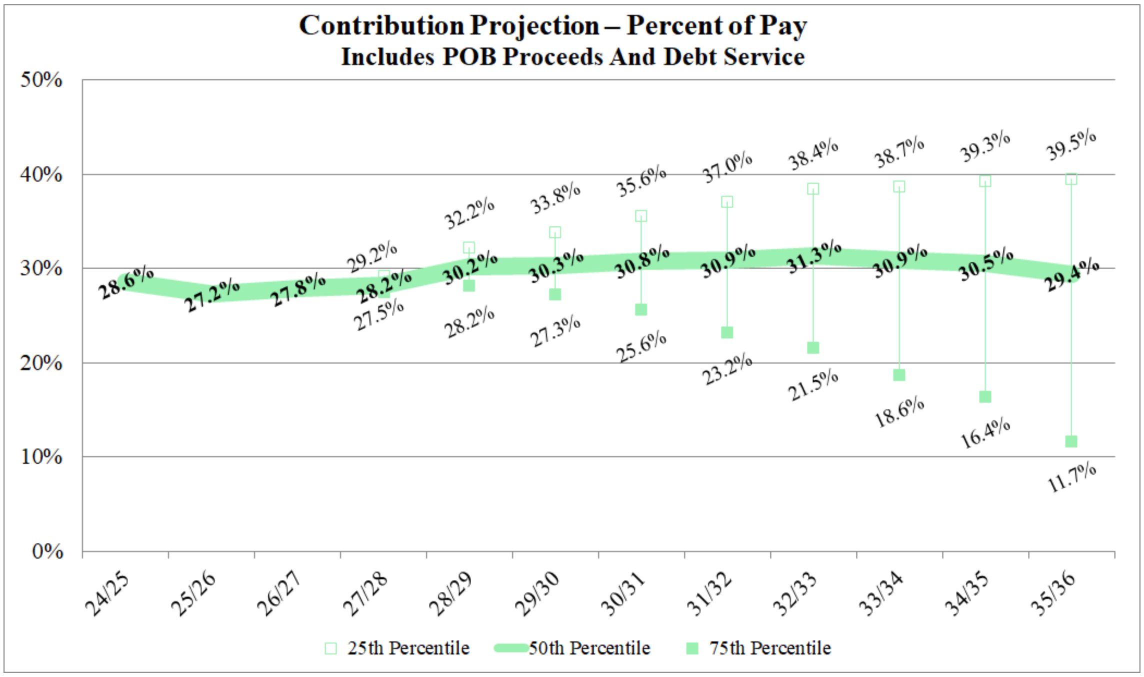
Safety

Risk Mitigation Impact



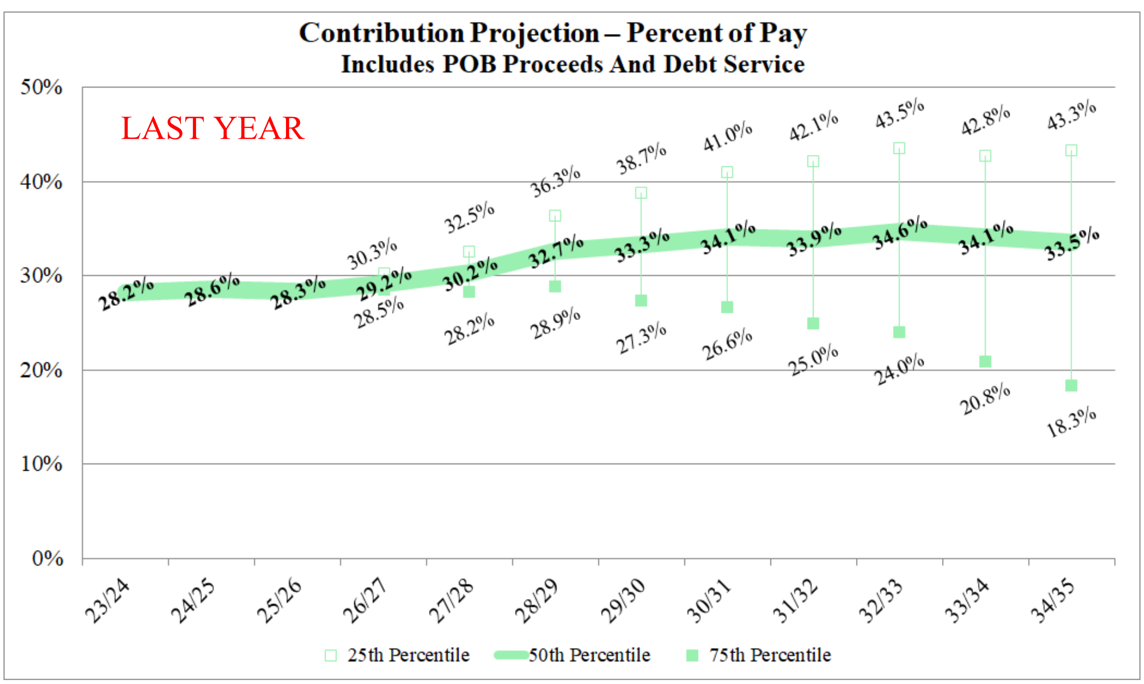
CONTRIBUTION PROJECTIONS

Miscellaneous



CONTRIBUTION PROJECTIONS

Miscellaneous



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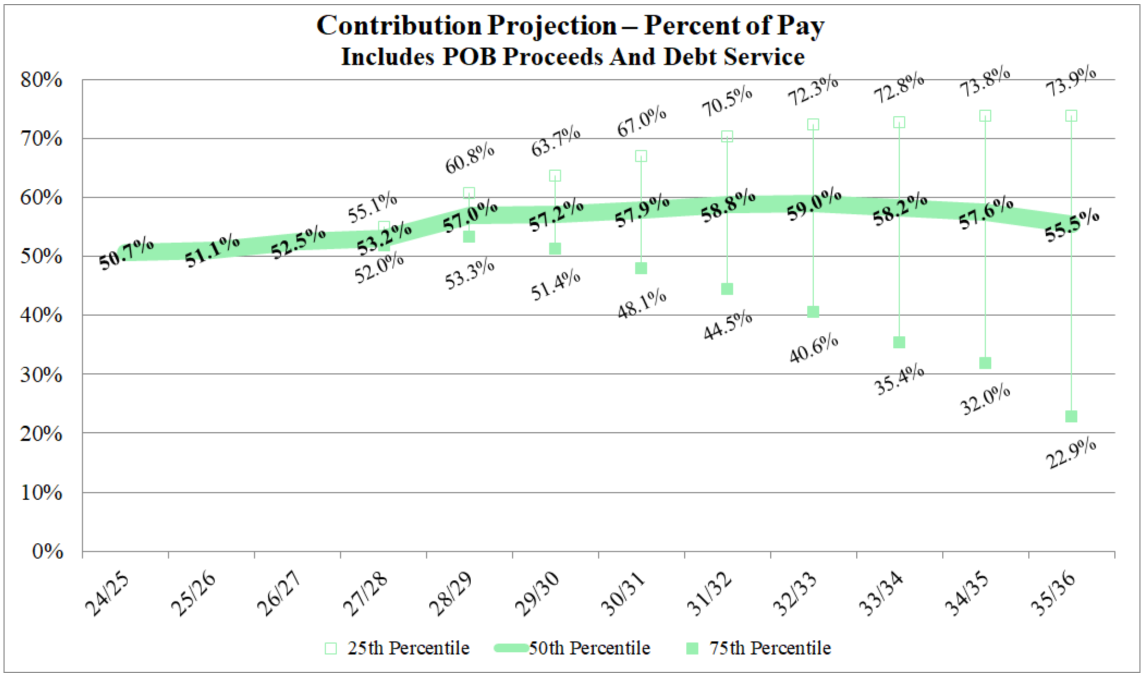
Safety



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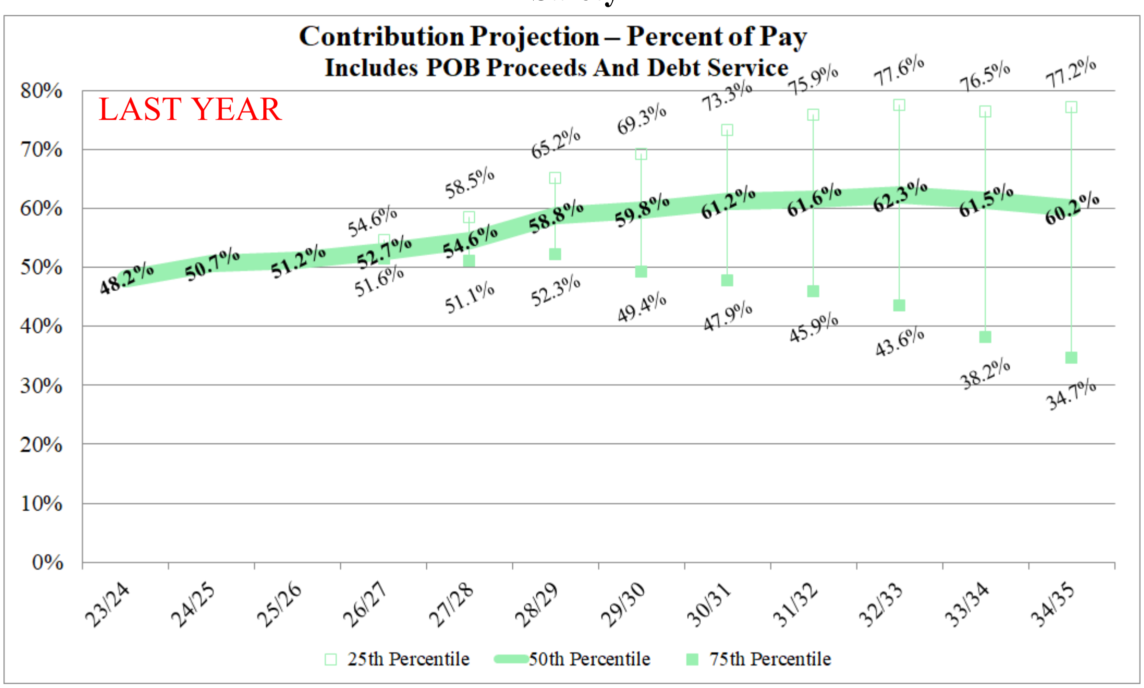
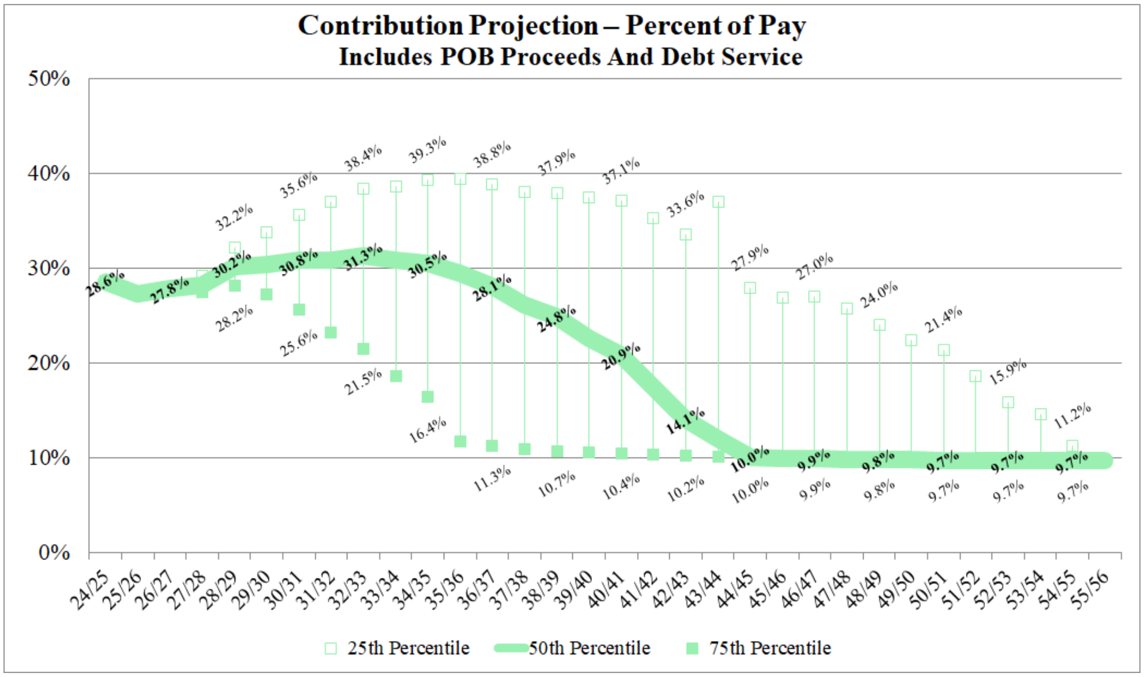


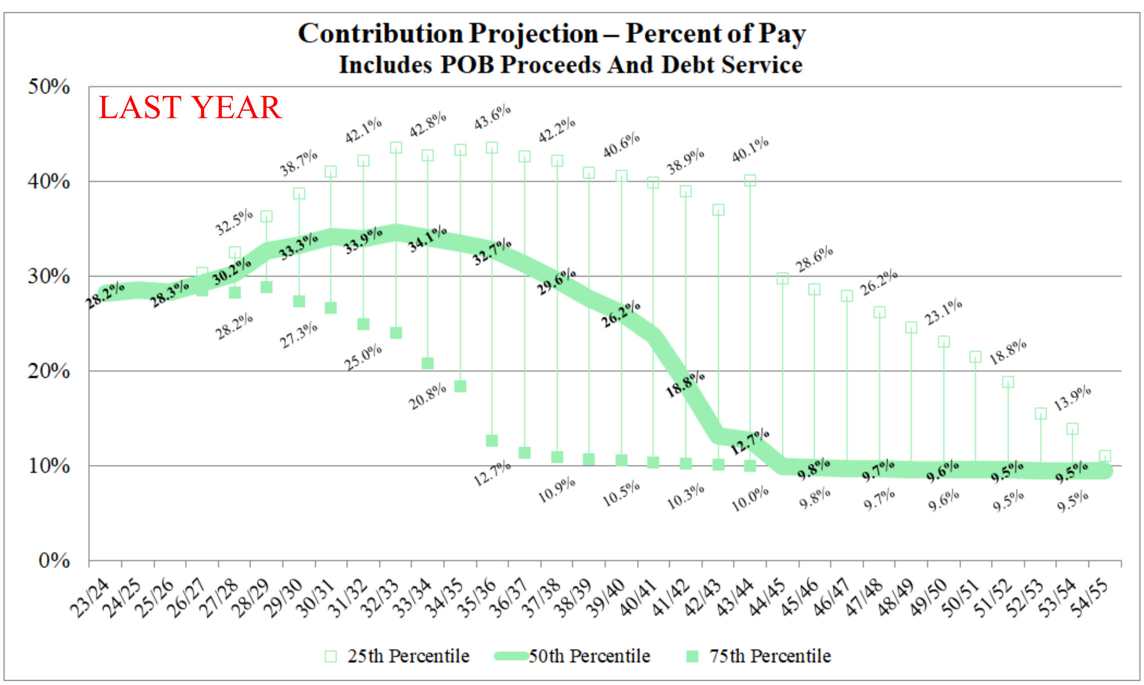
Contribution Projections

Miscellaneous



Contribution Projections

Miscellaneous



Contribution Projections

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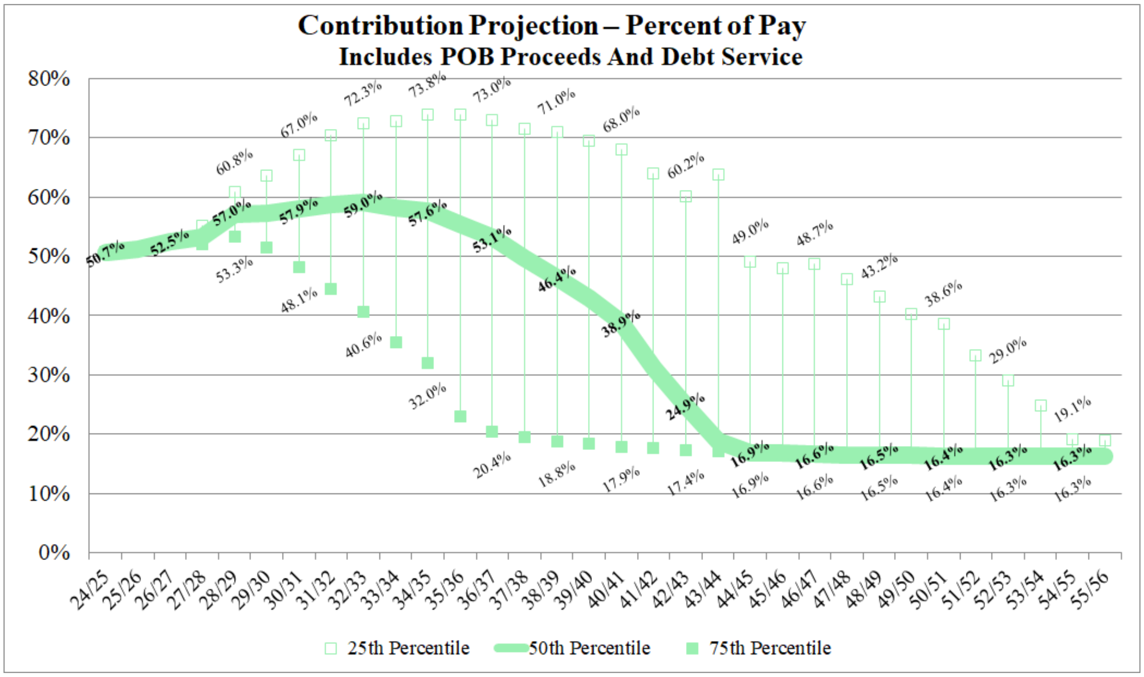
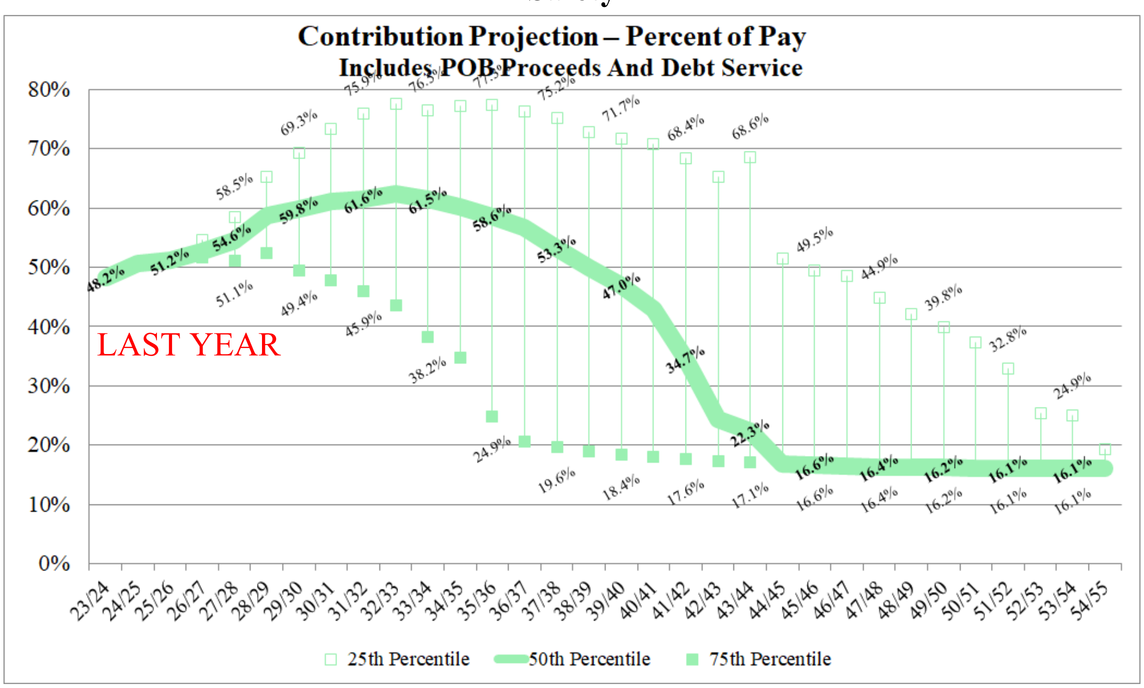


Contribution Projections

Safety



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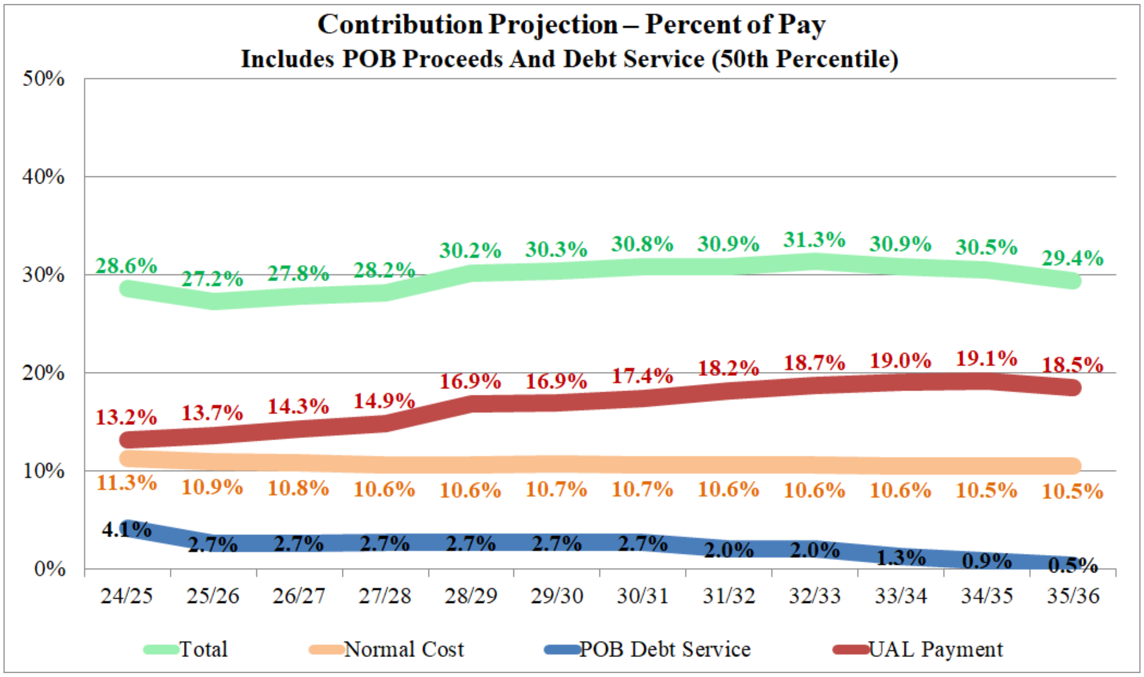
Miscellaneous



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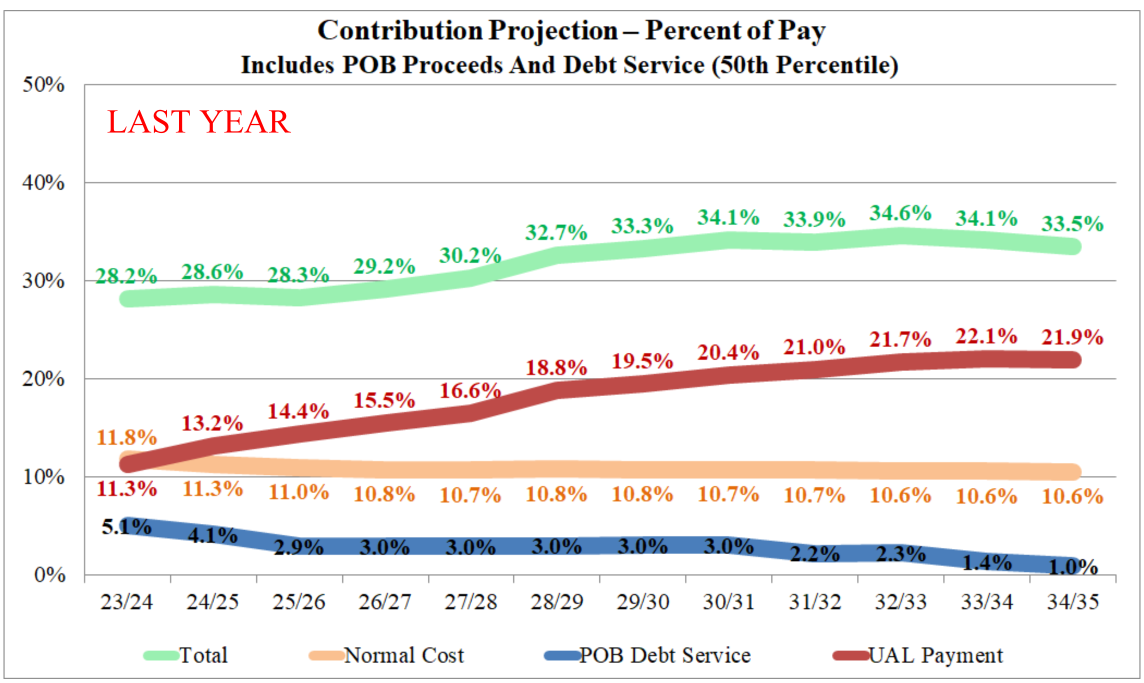
Miscellaneous



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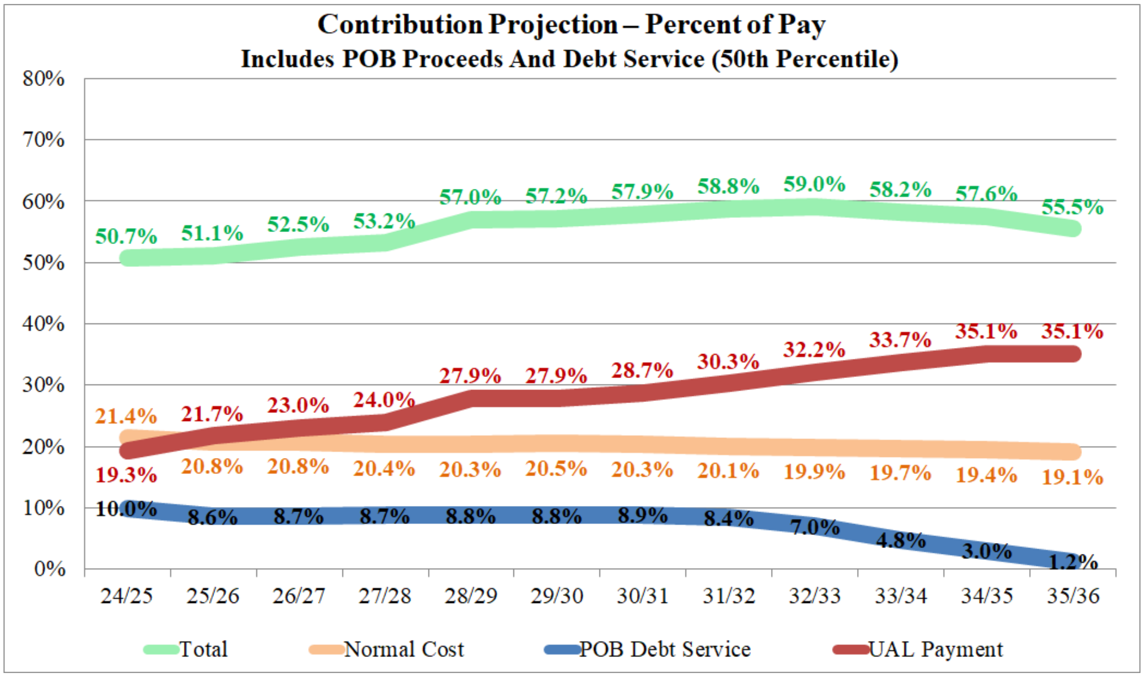

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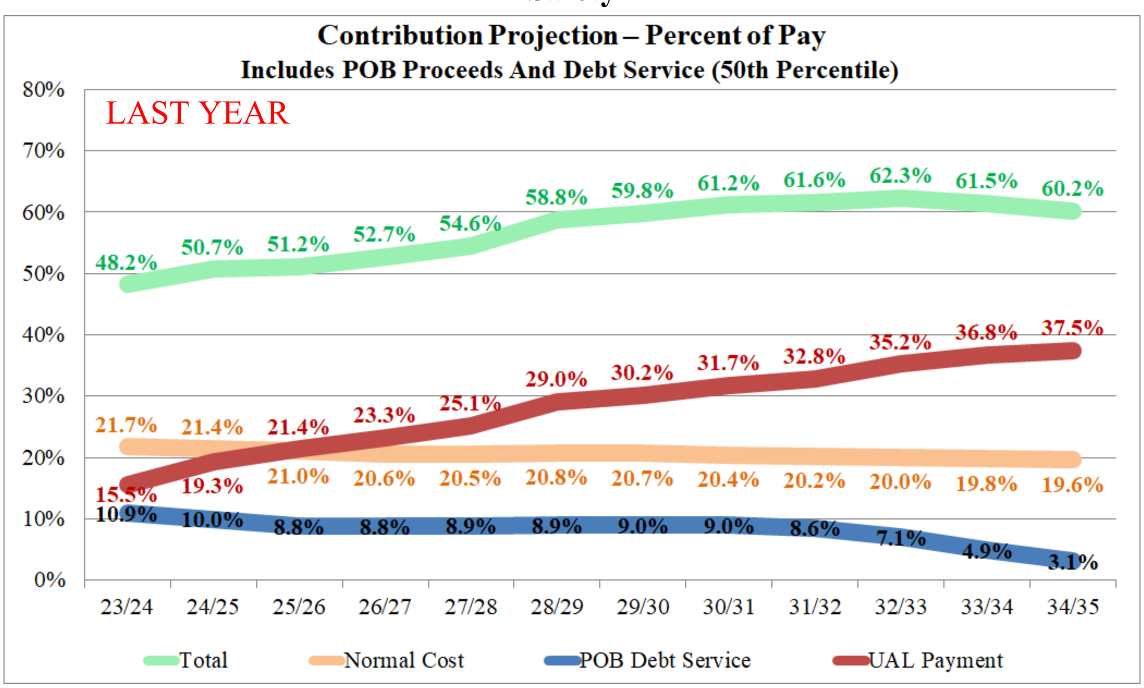

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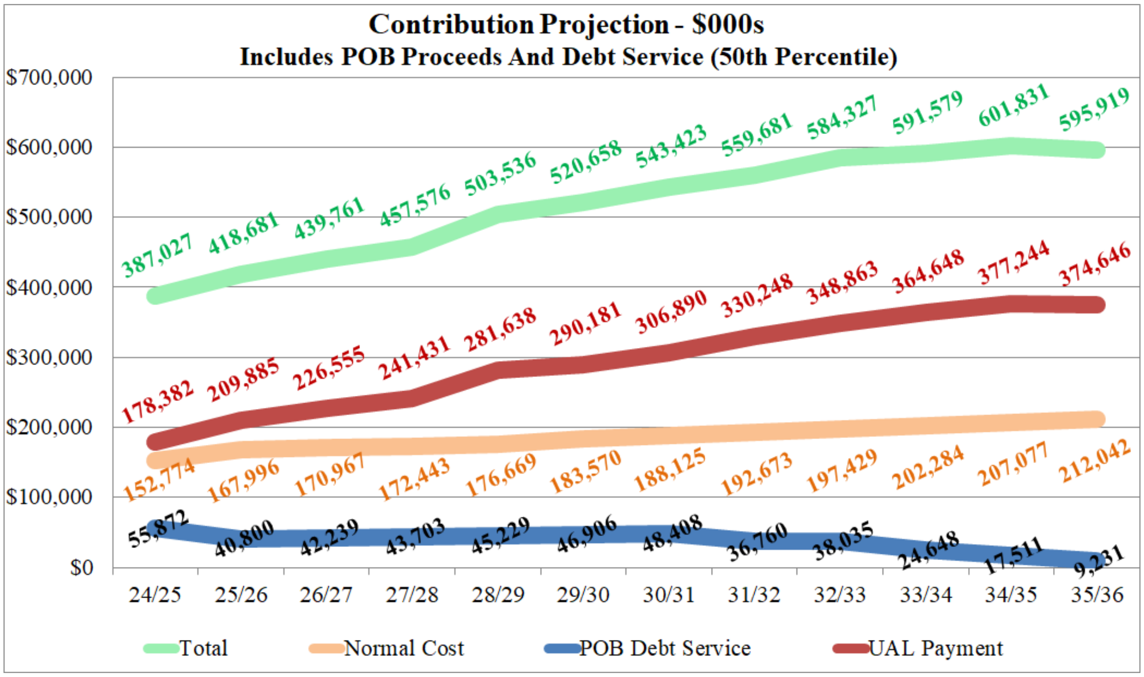
Miscellaneous



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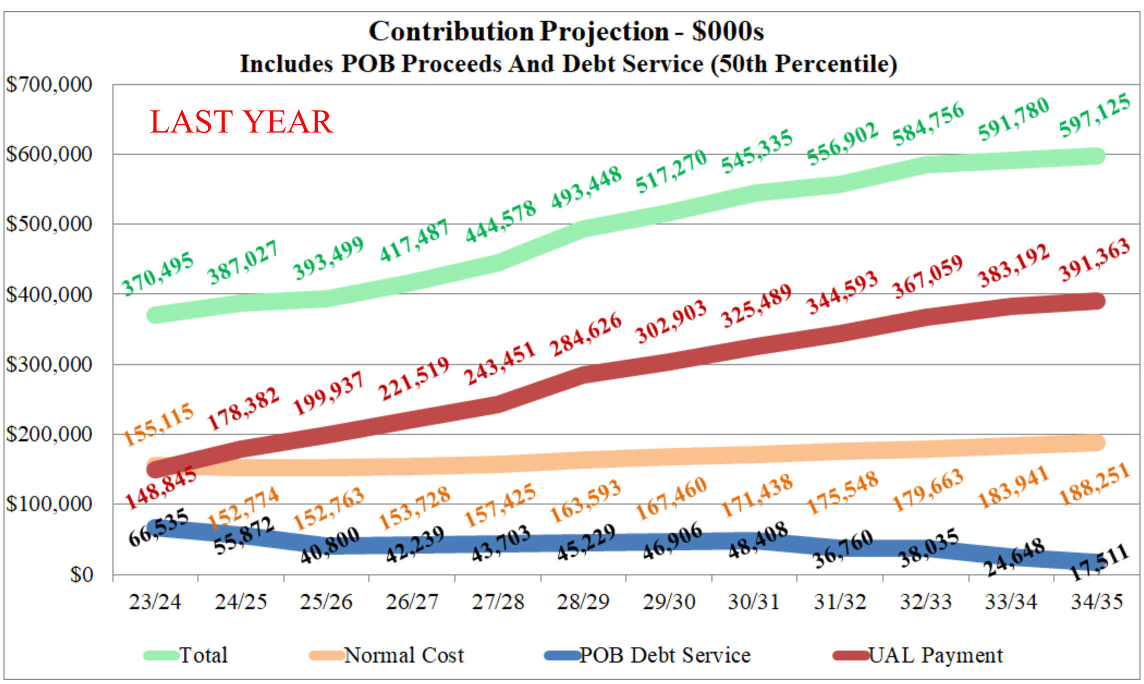
Miscellaneous



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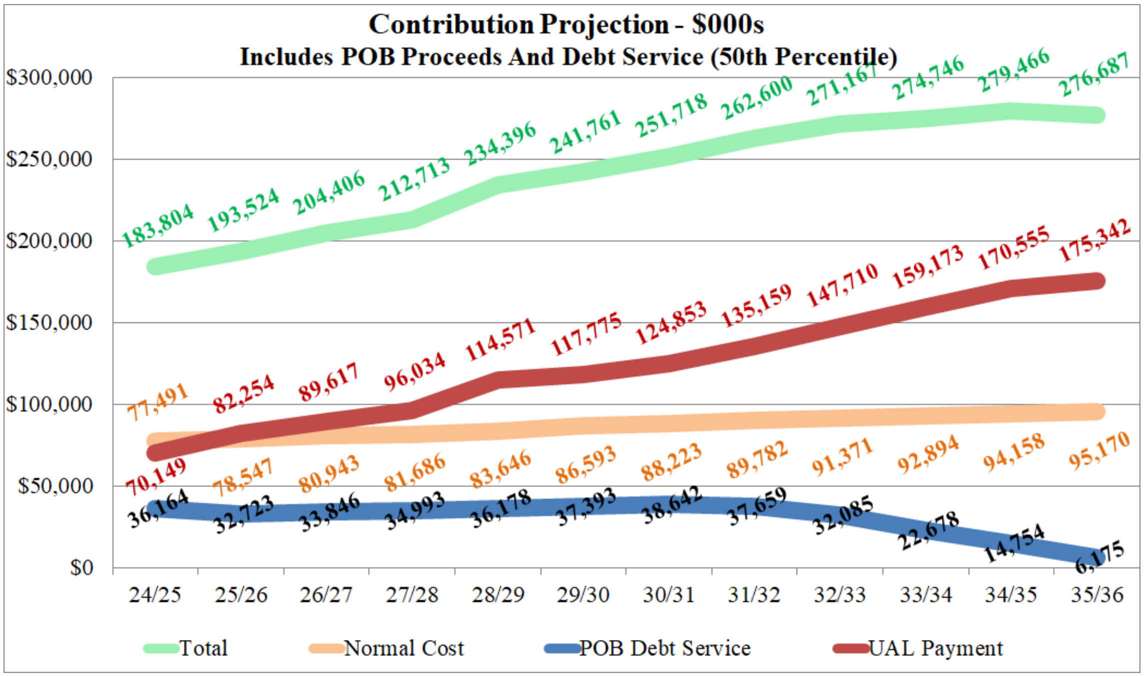

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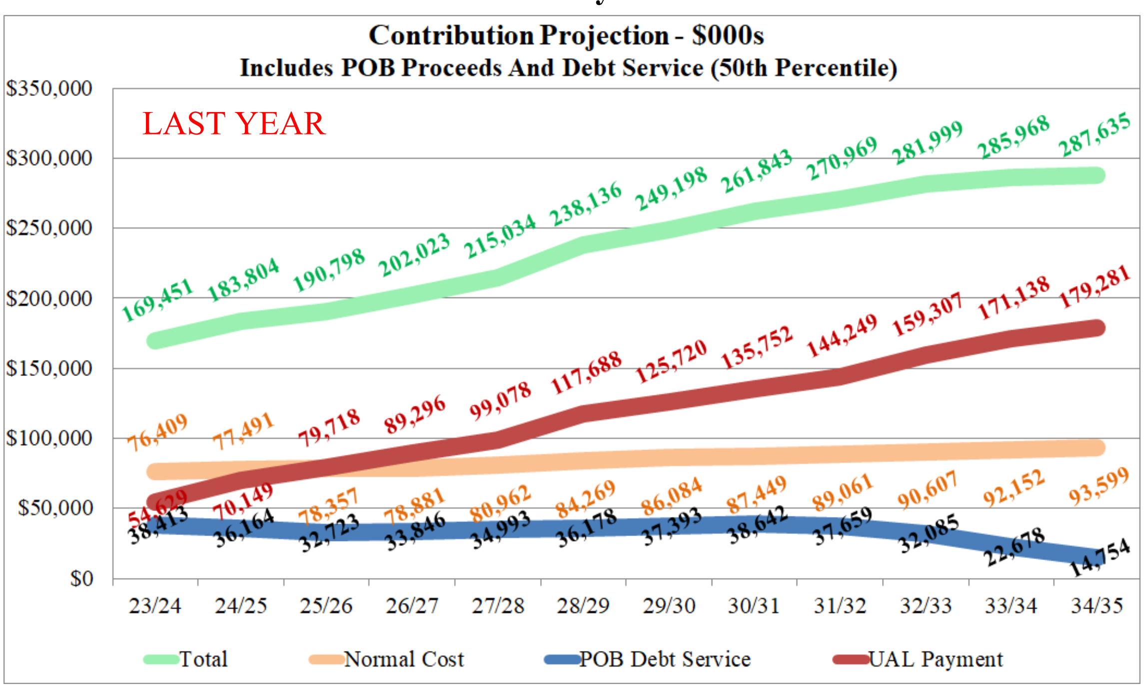
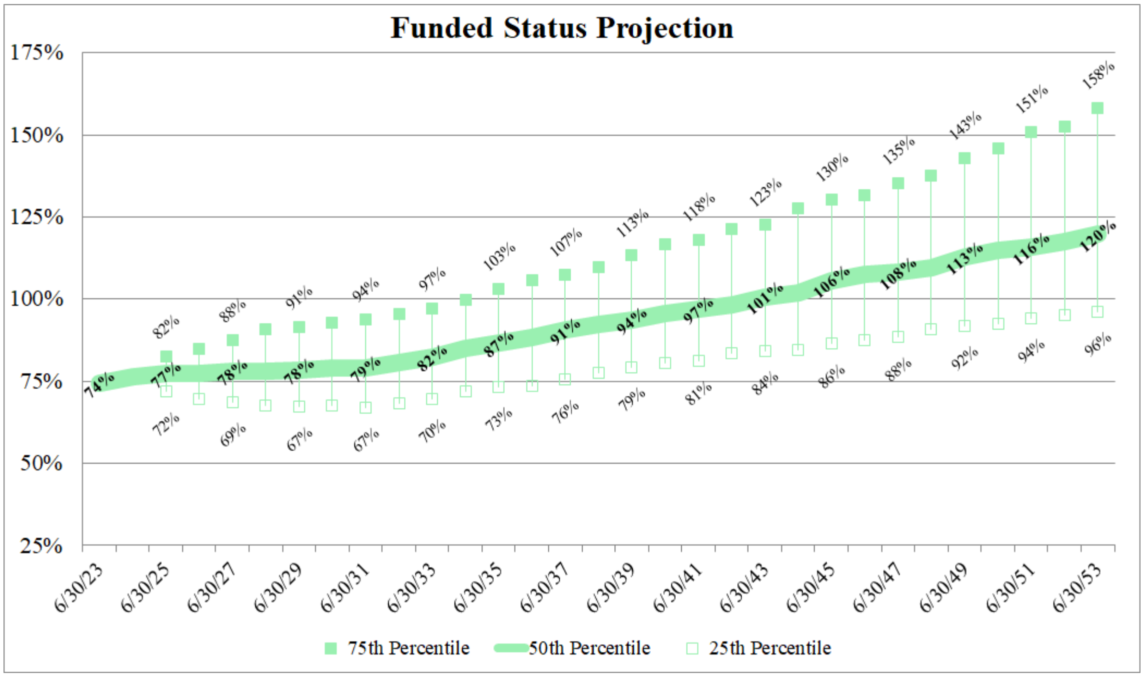
Safety



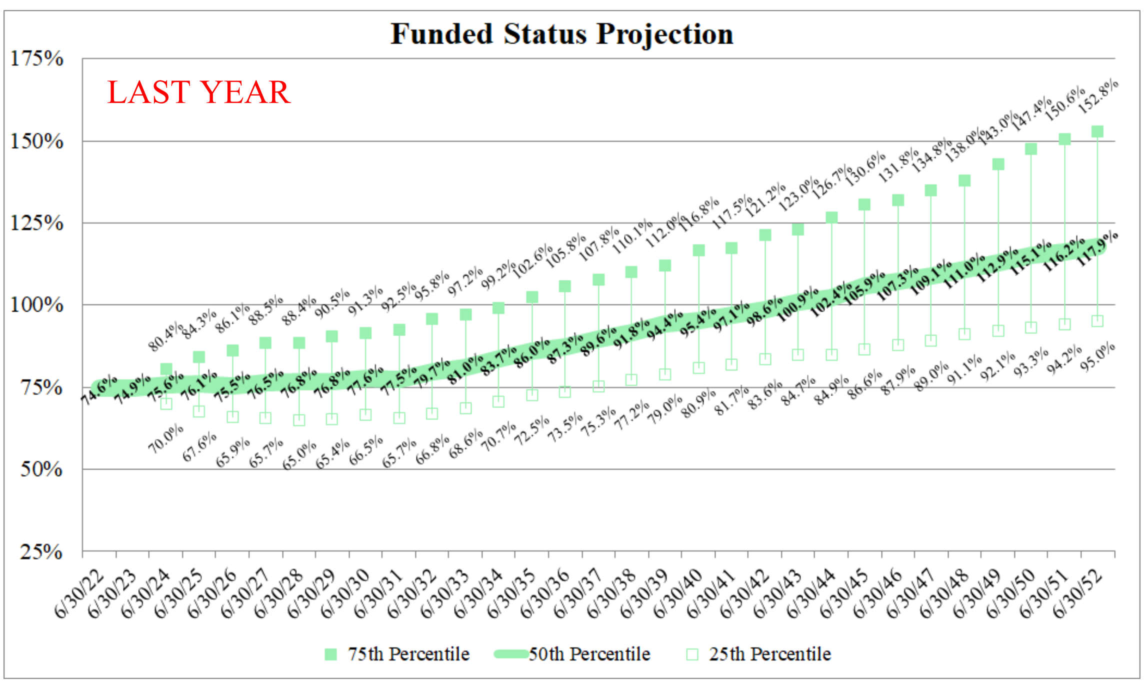
FUNDED STATUS

Miscellaneous



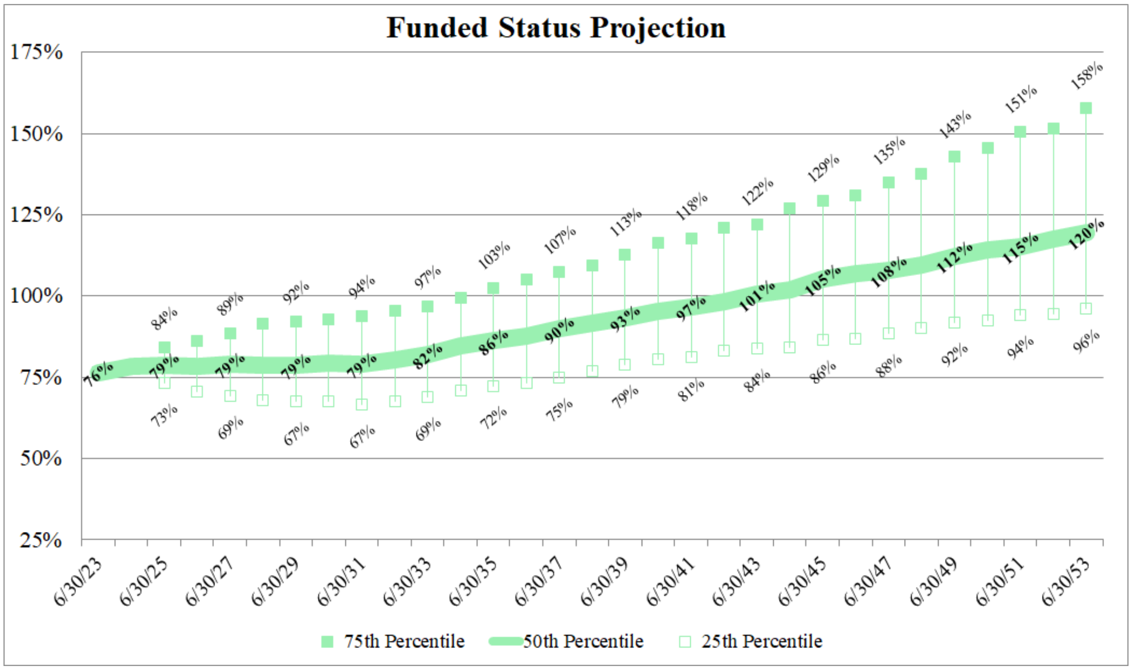
FUNDED STATUS

Miscellaneous



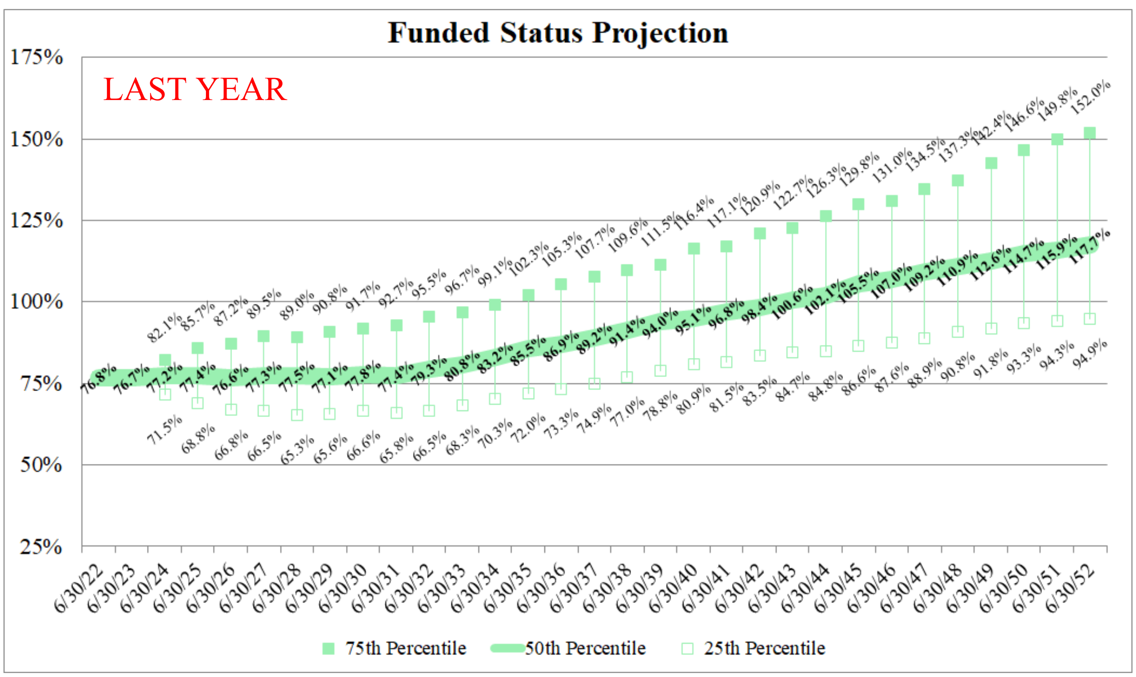
Funded Status

Safety



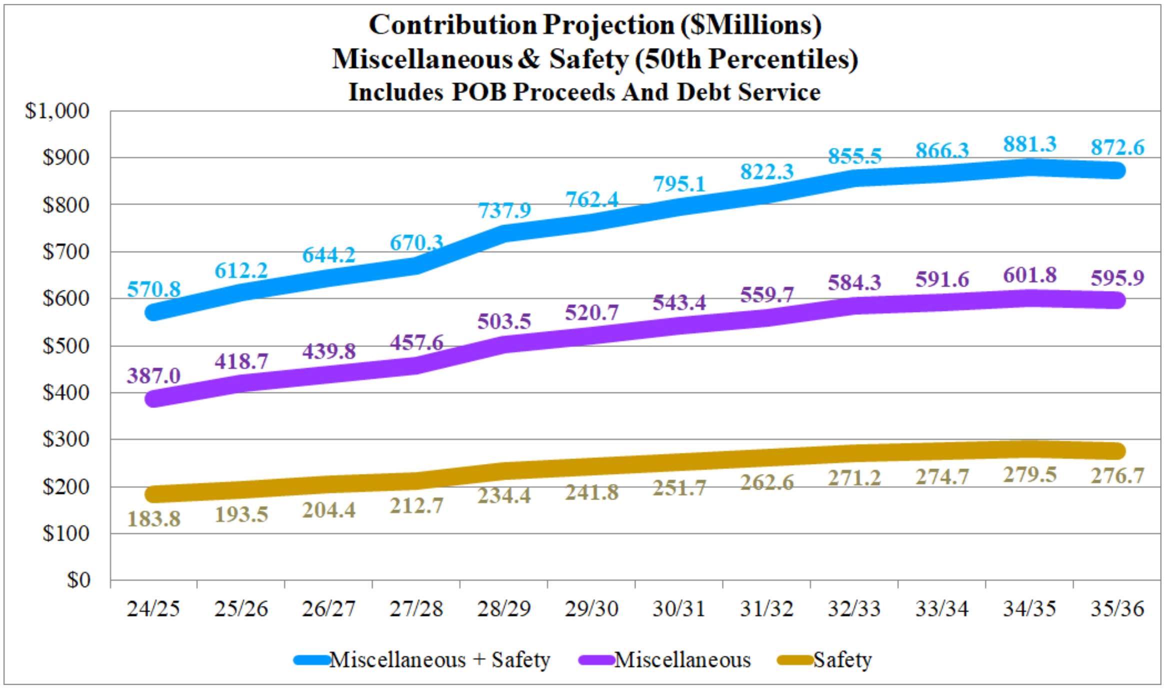
Funded Status

Safety



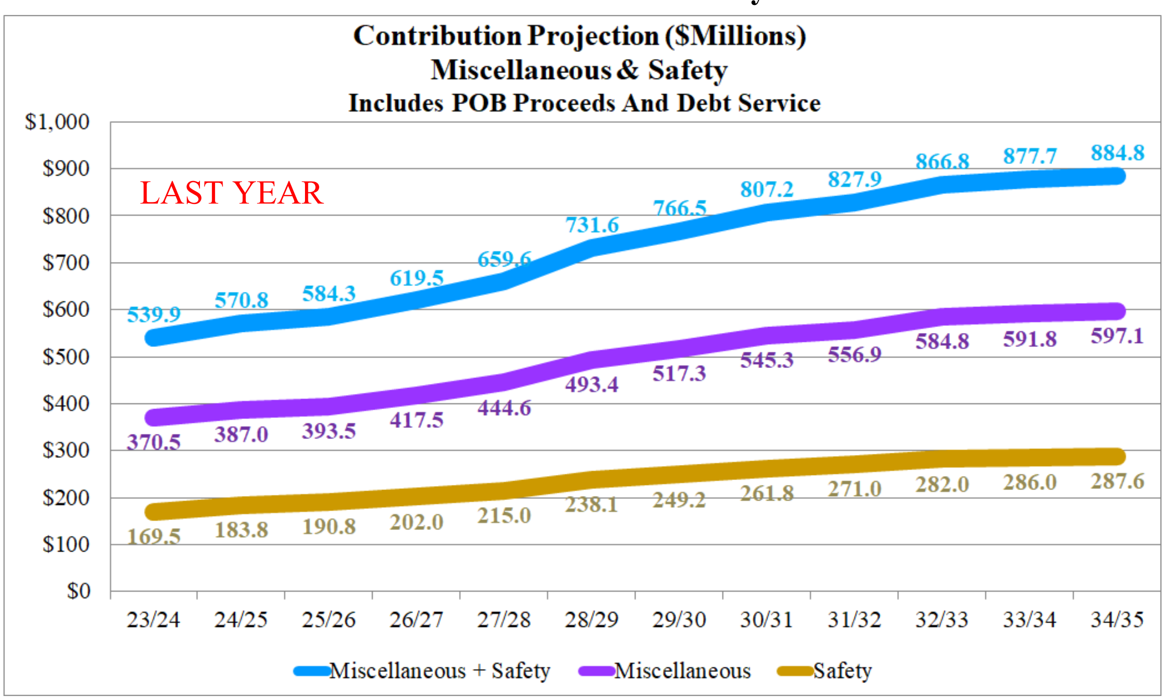
COMBINED MISCELLANEOUS AND SAFETY

Miscellaneous and Safety



COMBINED MISCELLANEOUS AND SAFETY

Miscellaneous and Safety



Miscellaneous and Safety

Funded Status Summary on June 30, 2023

(Amounts in $Millions)

	Miscellaneous	Safety	Total
■ AAL	$10,812.7	$4,953.5	$15,766.2
■ Assets	8,036.5	3,786.7	11,823.2
■ Unfunded AAL	2,776.2	1,166.8	3,943.0
■ Funded Ratio	74.3%	76.4%	75.0%

Projected Funded Status Summary on June 30, 2024[15]

(Amounts in $Millions)

	Miscellaneous	Safety	Total
■ AAL	$11,438.8	$5,234.4	$16,673.2
■ Assets	8,756.3	4,101.5	12,857.8
■ Unfunded AAL	2,682.5	1,132.9	3,815.4
■ Funded Ratio	76.5%	78.4%	77.1%

[15] Projected 2024 assets reflects 9.3% CalPERS investment return for 2023/24.

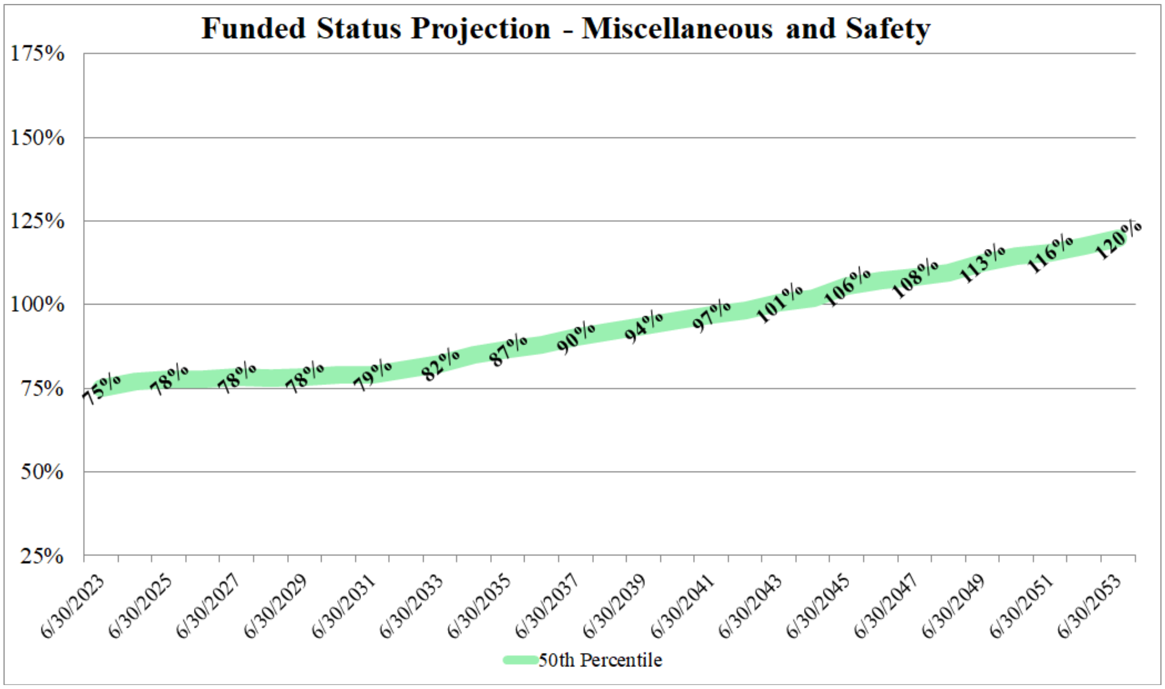
Payroll Projections

($000s)

FY	24/25	25/26	26/27	27/28	28/29
Miscellaneous	$1,353,178	$1,537,019	$1,580,055	$1,624,297	$1,669,777
Safety	362,786	378,540	389,139	400,035	411,236
Total	1,715,964	1,915,559	1,969,194	2,024,332	2,081,013

FY	29/30	30/31	31/32	32/33	33/34
Miscellaneous	$1,716,531	$1,764,594	$1,814,002	$1,864,795	$1,917,009
Safety	422,750	434,587	446,756	459,265	472,124
Total	2,139,281	2,199,181	2,260,758	2,324,060	2,389,133

FY	34/35	35/36
Miscellaneous	$1,970,685	$2,025,864
Safety	485,344	498,934
Total	2,456,029	2,524,798



COMBINED MISCELLANEOUS AND SAFETY

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LEAVING CALPERS

- Participation in CalPERS is governed by State law and CalPERS rules
- The following are considered "withdrawing" from CalPERS:
  - Exclude new hires from CalPERS & giving them a different pension
  - Stop accruing benefits for current employees
- "Withdrawal" from CalPERS:
  - Treated as plan termination
  - Liability increased for conservative investments
  - Liability increased for future demographic fluctuations
  - Liability must be funded immediately by withdrawing agency
  - Otherwise, retiree benefits are cut

LEAVING CALPERS

CalPERS Termination Estimates on June 30, 2023 (Amounts in Millions)

Discount Rate	Ongoing Plan 6.80%	Termination Basis 3.06%	5.06%
Miscellaneous			
Actuarial Accrued Liability	$10,812.7	$17,416.6	$12,674.7
Assets	8,036.5	8,036.5	8,036.5
Unfunded AAL (UAAL)	2,776.2	9,380.1	4,638.2
Safety			
Actuarial Accrued Liability	$4,953.5	$8,349.1	$5,928.3
Assets	3,786.7	3,786.7	3,786.7
Unfunded AAL (UAAL)	1,166.8	4,562.4	2,141.6
Total			
Unfunded AAL (UAAL)	3,943.0	13,942.5	6,779.8
Funded Ratio	75.0%	45.9%	63.6%

2005 POB PROCEEDS BALANCE (MILLIONS)

	Safety	Misc.	Total
■ POB @ **2/16/05**	**$ 85.7**	**$ 311.2**	**$ 396.9**
■ Accumulated earnings through 6/30/24	110.8	402.1	512.8
■ Accumulated amortization payments through 6/30/24	(106.4)	(386.3)	(492.7)
■ **Balance @ 6/30/24**	**90.1**	**327.0**	**417.0**
■ Earnings 7/1/24 - 2/15/25[16]	3.8	13.7	17.5
■ Amortization payment through 2/15/25[17]	(4.2)	(15.3)	(19.6)
■ **Balance @ 2/15/25**	**89.6**	**325.4**	**415.0**

[16] Based on assumed return from 7/1/24 to 2/15/25.
[17] Based on a 19 year closed amortization.

2005 POB OUTSTANDING BALANCE (MILLIONS)

	Payments			
	Principal	Interest	Total	Balance
■ 2/17/05	n/a	n/a	n/a	$400.0
■ 8/15/05	n/a	$9.4	$9.4	400.0
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■ 2/15/24	$37.0	3.2	40.1	89.9
■ 8/15/24	0.0	2.3	2.3	89.9
■ 2/15/25	23.7	2.3	26.0	66.1

2005 POB Net Estimated Gains (Millions)

■ Estimated Gains through February 15, 2025:		
A.	CalPERS Estimated Balance of Bond Proceeds (slide 75)	$415.0
B.	Outstanding Bond Balance (slide 84)	(66.1)
C.	Cash Flow Savings/(Deficit) [Payments that would have been paid to CalPERS less POB debt service]	(111.0)
D.	**Net [(A) + (B) + (C)]**	**237.9**
■ Estimated Gains through February 15, 2025:		
E.	CalPERS Investment Earnings[18]	$ 530.3
F.	POB Interest Payments	(289.4)
G.	Cost of Issuance	(3.1)
H.	**Net [(E) + (F) + (G)]**	**237.9**

■ Above estimates based on market rate of return.

[18] Accumulated earnings since issuance based on actual CalPERS investment return for each year

2020 POB Proceeds Balance (Millions)

	Safety	Misc.	Total
■ **Total issued**	**$ 346.3**	**$ 373.7**	**$ 720.0**
■ Cost of issuance	2.0	2.1	4.1
■ **POB Deposited with CalPERS@ 5/6/20**	**344.3**	**371.6**	**715.9**
■ Accumulated earnings through 6/30/24	97.7	105.4	203.1
■ Accumulated amortization payments through 6/30/24	(133.1)	(143.6)	(276.7)
■ **Balance @ 6/30/24**	**308.9**	**333.4**	**642.3**
■ Earnings 7/1/24 - 2/15/25[19]	13.0	14.0	27.0
■ Amortization payment through 2/15/25[20]	(19.5)	(21.1)	(40.6)
■ **Balance @ 2/15/25**	**302.4**	**326.3**	**628.7**

[19] Based on assumed return from 7/1/24 to 2/15/25.
[20] Based on a 16 year closed level dollar amortization.

2020 POB OUTSTANDING BALANCE (MILLIONS)

		Payments			
		Principal	Interest	Total	Balance
■	5/06/2020	n/a	n/a	n/a	$720.0
■	8/15/2020	n/a	$6.4	$6.4	720.0
■	2/15/2021	$29.5	11.6	41.1	690.5
■	8/15/2021	0.0	11.2	11.2	690.5
■	2/15/2022	30.9	11.2	42.2	659.5
■	8/15/2022	0.0	10.9	10.9	659.5
■	2/15/2023	37.8	10.9	48.7	621.7
■	8/15/2023	0.0	10.4	10.4	621.7
■	2/15/2024	40.8	10.4	51.2	580.9
■	8/15/2024	0.0	9.9	9.9	580.9
■	2/15/2025	44.0	9.9	53.9	536.9

2020 POB NET ESTIMATED GAINS (MILLIONS)

■ Estimated Gains through February 15, 2025:

A.	CalPERS Estimated Balance (slide 78)	$628.7
B.	Bond Proceeds Balance (slide 79)	(536.9)
C.	Cash Flow Savings/(Deficit) [Payments that would have been paid to CalPERS less POB debt service]	31.3
D.	**Net [(A) + (B) + (C)]**	**123.1**

■ Estimated Gains through February 15, 2025:

E.	CalPERS Investment Earnings	$230.1
F.	POB Interest Payments	(102.8)
G.	Cost of Issuance	(4.1)
H.	**Net [(E) + (F) + (G)]**	**123.1**

■ Above estimates based on market rate of return.

Net Funded Ratio (Millions)

	Safety			
	6/30/22	6/30/23	Proj. 6/30/24	Proj. 6/30/25[21]
(1) AAL	$4,691	$4,953	$5,234	$5,491
(2) MVA	3,603	3,787	4,101	4,355
(3) UAAL [(1) - (2)]	1,088	1,167	1,133	1,136
(4) Funding Ratio [(2)/(1)]	76.8%	76.4%	78.4%	79.3%
(5) POB Balance	$352	$326	$299	$273
(6) Net MVA [(2) - (5)]	3,252	3,460	3,803	4,083
(7) Net Funding Ratio [(6)/(1)]	69.3%	69.9%	72.6%	74.4%

[21] Projected 6/30/25 MVA based on assumed returns for 2024/25.

Net Funded Ratio (Millions)

	Miscellaneous			
	6/30/22	6/30/23	Proj. 6/30/24	Proj. 6/30/25[22]
(1) AAL	$10,196	$10,813	$11,439	$12,014
(2) MVA	7,609	8,036	8,756	9,345
(3) UAAL [(1) - (2)]	2,587	2,776	2,683	2,669
(4) Funding Ratio [(2)/(1)]	74.6%	74.3%	76.5%	77.8%
(5) POB Balance	$468	$422	$372	$331
(6) Net MVA [(2) - (5)]	7,141	7,614	8,384	9,014
(7) Net Funding Ratio [(6)/(1)]	70.0%	70.4%	73.3%	75.0%

[22] Projected 6/30/25 MVA based on assumed returns for 2024/25.

NET FUNDED RATIO (MILLIONS)

		Total			
		6/30/22	6/30/23	Proj. 6/30/24	Proj. 6/30/25[23]
(1)	AAL	$14,887	$15,766	$16,673	$17,505
(2)	MVA	11,212	11,823	12,858	13,700
(3)	UAAL [(1) - (2)]	3,674	3,943	3,815	3,805
(4)	Funding Ratio [(2)/(1)]	75.3%	75.0%	77.1%	78.3%
(5)	POB Balance	$820	$749	$671	$603
(6)	Net MVA [(2) - (5)]	10,392	11,075	12,187	13,097
(7)	Net Funding Ratio [(6)/(1)]	69.8%	70.2%	73.1%	74.8%

Amounts above exclude Section 115 Trust balances of $98.9M at 6/30/23 and $201.8M at 6/30/24. If included, the net funding ratio on (7) would be 70.9% and 74.3% at 6/30/23 and 6/30/24, respectively.

23 Projected 6/30/25 MVA based on assumed returns for 2024/25.

NET FUNDED RATIO (MILLIONS)

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PEPRA COST SHARING

- Target of 50% of total normal cost paid by all employees
- *PEPRA members* must pay greater of 50% of total normal cost or bargained amount if higher
- Employer cannot pay any part of *PEPRA member* required employee contributions
- Employer may impose current employees pay 50% of total normal cost (limited to 8% of pay for Miscellaneous and 12% for Safety) if not agreed through collective bargaining
- Miscellaneous Plan 2025/26:

	Classic Members		New Members
	Tier 1 **3%@60 FAE1**	**Tier 2** **2%@60 FAE3**	**PEPRA** **2%@62 FAE3**
Employer Normal Cost	14.4%	11.6%	8.11%
Member Normal Cost	8.0%	7.0%	7.75%
Total Normal Cost	22.4%	18.6%	15.86%
50% Target	11.2%	9.3%	7.93%

PEPRA COST SHARING

- Safety Plan 2025/26:

	Classic Members		New Members
	Tier 1 **3%@50 FAE1**	**Tier 2** **2%@50 FAE3**	**PEPRA** **2.7%@57 FAE3**
Employer Normal Cost	24.6%	22.1%	13.87%
Member Normal Cost	9.0%	9.0%	13.50%
Total Normal Cost	33.6%	31.1%	27.37%
50% Target	16.8%	15.6%	13.69%

- PEPRA Member Contributions:

	2024/25		2025/26			
Group	**Total NC (Basis)**	**Member Rate**	**Total Normal Cost**	**Change**	**Member Rate**	**Method**
Miscellaneous	15.70%	7.75%	15.86%	**0.16%**	**7.75%**	PEPRA Members
Safety	27.17%	13.50%	27.37%	**0.20%**	**13.50%**	PEPRA Members

Paying Down the UAL & Rate Stabilization

- Where do you get the money from?
- How do you use the money?

Where Do You Get the Money From?

- POB:
  - Usually thought of as interest arbitrage between expected earnings and rate paid on POB
  - No guaranteed savings
  - PEPRA prevents contributions from dropping below normal cost
    - Savings offset when investment return is good
  - GFOA Advisory
- Borrow from General Fund similar to State
- One time payments
  - Governing body resolution to use a portion of one time money, e.g.
    - 1/3 to one time projects
    - 1/3 to replenish reserves and
    - 1/3 to pay down unfunded liability

ADDITIONAL PAYMENTS TO CALPERS

- Internal Service Fund
  - Typically used for rate stabilization
  - Restricted investments:
    - Likely low (0.5%-1.0%) investment returns
    - Short term/high quality, designed for preservation of principal
  - Assets can be used by governing body for other purposes
  - Does not reduce Unfunded Liability

ADDITIONAL PAYMENTS TO CALPERS

- Make payments directly to CalPERS:
  - Likely best long-term investment return
  - Must be considered an irrevocable decision
    - Extra payments cannot be used as future "credit"
    - PEPRA prevents contributions from dropping below normal cost
  - Option #1: Request shorter amortization period (Fresh Start):
    - Higher short term payments
    - Less interest and lower long term payments
    - Likely cannot revert to old amortization schedule
      - Savings offset when investment return is good (PEPRA)

ADDITIONAL PAYMENTS TO CALPERS

- Make payments directly to CalPERS (continued):
  - Option #2: Target specific amortization bases with an "Additional Discretionary Payment "ADP":
    - Extra contribution's impact muted by reduced future contributions
      - CalPERS can't track the "would have been" contribution
    - No guaranteed savings
      - Larger asset pool means larger loss (or gain) opportunity
    - Paying off shorter amortization bases: larger contribution savings over shorter period:
      - e.g. 10 year base reduces contribution 13.6¢ for $1 (level dollar)
      - Less interest savings vs paying off longer amortization bases
    - Paying off longer amortization bases: smaller contribution savings over longer period:
      - e.g. 25 year base reduces contribution 8.2¢ for $1 (level dollar)
      - More interest savings vs paying off shorter amortization bases
    - Maintaining the current payment schedule – not letting payments reduce due to extra payment – gives the greatest long-term savings

IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- Can only be used to:
  - Reimburse County for CalPERS contributions
  - Make payments directly to CalPERS
- Investments significantly less restricted than County investment funds
  - Fiduciary rules govern Trust investments
  - Usually, designed for long term returns
- Assets don't count for GASB accounting
  - Are considered Employer assets
- Hundreds of trusts established, mostly since 2015
  - Trust providers: PARS, PFM, Keenan
  - California Employers' Pension Prefunding Trust (CEPPT) effective July 2019
    - Strategy 1: 48% stocks / 52% bonds
    - Strategy 2: 22% stocks / 78% bonds

IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- More flexibility than paying CalPERS directly
  - County decides if and when and how much money to put into Trust
  - County decides if and when and how much to withdraw to pay CalPERS or reimburse County
- Funding strategies typically focus on:
  - Reducing the unfunded liability
    - Fund enough to make total CalPERS UAL = 0
    - Make PEPRA required payments from Trust when overfunded
  - Stabilizing contribution rates
    - Mitigate expected contribution rates to better manage budget
  - Combination
    - Use funds for rate stabilization/budget predictability
    - Target increasing fund balance to pay off UAL sooner

IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- Consider:
  - How much can you put into Trust?
    - Initial seed money?
    - Additional amounts in future years?
  - When do you take money out?
    - Target budget rate?
    - Year target budget rate kicks in?
      - Before or after CalPERS rate exceeds budgeted rate?

COMPARISON OF OPTIONS

- **Supplemental Trust**
  - Flexible
  - Likely lower long-term return
  - Investment strategy choice
  - Does not reduce net pension liability for GASB reporting
  - More visible
- **CalPERS**
  - Locked In
  - Likely higher long-term return
  - No investment choice
  - Reduces net pension liability for GASB reporting
  - More restricted

ACTUARIAL CERTIFICATION

This report presents analysis of the County of Riverside's CalPERS pension plans. The purpose of this report is to provide the County:

- Historical perspective on the plan investment returns, assets, funded status and contributions.
- Projections of likely future contributions and the impact of investment volatility.

The calculations and projections in this report are based on information contained in the County's June 30, 2023 and earlier CalPERS actuarial valuation reports. We reviewed this information for reasonableness, but do not make any representation on the accuracy of the CalPERS reports.

Future investment returns and volatility are based on Foster & Foster's Capital Market model which results in long term returns summarized on page 29.

Information provided in this report may be useful to the County for the Plan's financial management. 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 assumptions; changes in assumptions; changes expected as part of the natural progression of the plan; and changes in plan provisions or applicable law. Actuarial models necessarily rely on the use of estimates and are sensitive to changes. Small variations in estimates may lead to significant changes in actuarial measurements. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of such measurements.

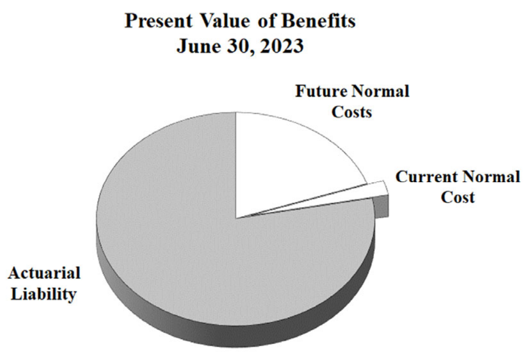
To the best of our knowledge, this report is complete and accurate and has been conducted using generally accepted actuarial principles and practices. As members of the American Academy of Actuaries meeting the Academy Qualification Standards, we certify the actuarial results and opinions herein.

Respectfully submitted,

Doug Pryor, ASA, EA, MAAA
Foster & Foster, Inc.

D. Pat McDonald, FSA, EA, MAAA
Foster & Foster, Inc.

DEFINITIONS

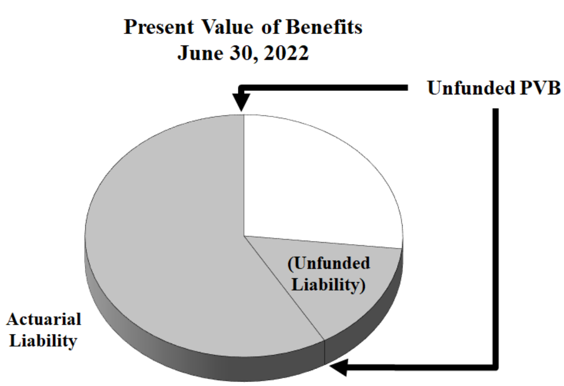


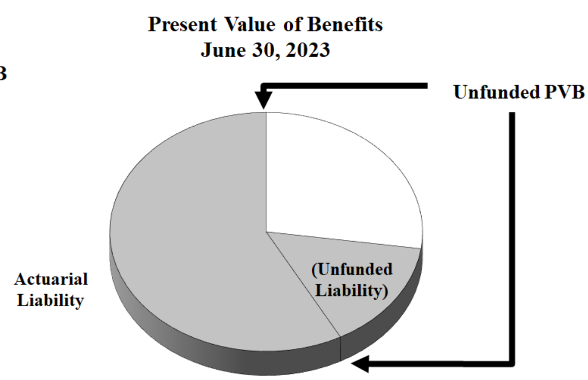
PVB - Present Value of all Projected Benefits:

- The value now of amounts due to be paid in the future
- Discounted value (at valuation date - 6/30/23), of all future expected benefit payments based on various (actuarial) assumptions

- **Current Normal Cost (NC):**
  - Portion of PVB allocated to (or "earned" during) current year
  - Value of employee and employer current service benefit
- **Actuarial Liability (AAL):**
  - Discounted value (at valuation date) of benefits earned through valuation date [value of past service benefit]
  - Portion of PVB "earned" at measurement

DEFINITIONS





- **Target-** Have money in the bank to cover Actuarial Liability (past service)
- **Unfunded Liability (UAAL or UAL) -** Money short of target <u>at valuation date</u>
  - If all actuarial assumptions were always exactly met, then the plan assets would always equal AAL
  - Any difference is the unfunded (or overfunded) AAL
  - Every year, the actuary calculates the difference between the expected UAAL and Actual UAAL. This is a new layer or amortization base
  - Each new layer gets amortized (paid off) over a period of time as part of the contribution [rate]

HOW WE GOT HERE

Significant Factors

- Investment Losses
- CalPERS Contribution Policy
- Enhanced Benefits
- Demographics

HOW WE GOT HERE

Old Contribution Policy

- Effective with 2003 valuations:
  - Slow (15 year) recognition of investment losses into funded status
  - Rolling 30 year amortization of all (primarily investment) losses
- Designed to:
  - First smooth rates and
  - Second pay off UAL
- Mitigated contribution volatility

How We Got Here

CalPERS Changes

- April 2013: CalPERS adopted new contribution policy
  - No asset smoothing or rolling amortization
- February 2018: New amortization policy for 2021/22 contributions
  - Fixed dollar (level) 20-year amortization rather than % pay (escalating)
  - 5-year ramp up (not down) for investment gains and losses
- CalPERS Board changed the discount rate to 7%, still phasing in to rates:

	Rate	Initial Impact	Full Impact
● 6/30/16 valuation	7.375%	18/19	22/23
● 6/30/17 valuation	7.25%	19/20	23/24
● 6/30/18 valuation	7.00%	20/21	24/25

- In the November 2021 meeting, CalPERS Board adopted
  - Discount rate and investment allocation
    - Discount rate: 6.8% for 6/30/2021. UAL impact matches investment gain amortization (5-year ramp-up). Initial impact in 23/24 and full impact in 27/28.
    - Asset allocation has higher investment risk than current portfolio
  - Experience study (Demographic assumptions)

Additional Assumptions & Methods

- Retiree benefit payments increase at 4%
- Tiers 1, 2, and current PEPRA members' payroll increase/decrease according to similar large client projected payroll using same mortality, retirement, withdrawal, and disability assumptions as CalPERS 2000-2019 Experience Study
- PEPRA payroll added to above projected payroll to make aggregate payroll increase at CalPERS' assumption of 2.8%
- All other assumptions same as CalPERS valuation assumptions

Proprietary & Confidential

Actuarial Valuation Report

County of Riverside

County of Riverside Postretirement Benefits Plan

As of June 30, 2024

AON

Executive Summary

Background

The County of Riverside provides retiree medical benefits for eligible retirees enrolled in County sponsored plans. The benefits are provided in the form of:

- Monthly County contributions toward the retiree's premium,
- Access to CalPERS health plan coverage at subsidized premium levels, and
- $25 per month to the RSA Trust for RSA law enforcement retirees.

County Contributions

The County of Riverside makes contributions to eligible retirees for their medical plan premiums when the retiree enrolls in a County sponsored health plan. The current monthly amount paid by the County ranges from $25 – $256, depending on the retiree's bargaining unit at retirement. The County provided amounts are detailed in the Summary of Principal Plan Provisions and outlined as follows:

- **CalPERS Health Benefits program retirees** (includes all bargaining units except RSA) are eligible for the greater of the stated Public Employees' Medical and Hospital Care Act (PEMHCA) amounts and the bargaining unit's negotiated amount. The PEMHCA monthly amounts are $157.00 and $158.00 in 2024 and 2025, respectively, and increase annually thereafter by Medical CPI. The negotiated benefit amounts are not inflation-indexed.
- **RSA Law Enforcement retirees** are eligible for benefits from the RSA Benefit Trust to which the County contributes $25.00 per month (does not increase in future years to account for inflation). The County contribution is included in Plan liabilities.

As described above, the majority of participants are eligible to receive CalPERS health benefits, including PEMHCA benefits that are subject to inflation adjustments. The long-term benefit under PEMHCA could be more than 10 times greater than certain fixed benefit amounts in 15 years, as illustrated in Appendix A.

Implicit Subsidy

Under CalPERS health plans, retirees receive benefits prior to age 65 by paying premiums that are developed by blending active and retiree costs. Since retirees are older and generally cost more than actives, the premium paid by the retiree is less than the "true cost" of coverage for retirees. For example, under the Blue Shield Access Plus, the estimated "true cost" for an age 60 retiree is $1,247.94 per month, while the required premium is only $828.48 per month in 2025. Subsidization can also occur for post 65 benefits due to demographic differences between the County retirees and the CalPERS population used to develop premiums. This implicit subsidy is considered an employer obligation under the Actuarial Standards of Practice (ASOP) No. 6 requirements (see below) and is included in this valuation.

ASOP 6

The Actuarial Standards Board (ASB) amended Actuarial Standards of Practice (ASOP) No. 6 – Measuring Retiree Group Benefit Obligations, effective for measurement dates after March 31, 2015. This amendment requires plans to recognize certain additional healthcare costs (i.e., implicit subsidy) for pooled health plans. Since CalPERS plans are considered pooled health plans, the implicit subsidy is reflected in this actuarial valuation.

GASB 75

In June 2015, GASB released Statement 75, which was initially effective for the FYE June 30, 2018. This July 1, 2024 valuation is based on census data provided as of July 1, 2024 for the purpose of providing GASB 75 financial statement information, including final expense, for FYE June 30, 2025.

The measurement date for results shown in this valuation report is June 30, 2024.

It is important to note that only current active, deferred retirees, and current retired participants are valued in this actuarial study. Future new entrants or any projected growth in the County's employee population are not considered.

Summary of Results

Liabilities

There are a few terms to understand related to the Plan's liabilities. The Present Value of Benefits (PVB) represents the actuarial present value of all future benefits expected to be paid to current employees and retirees. The Actuarial Accrued Liability (AAL) is the portion of the PVB attributable to past service. The Normal Cost is the portion of the PVB that is allocated to the current plan year for active employees.

Each liability is a present value calculated by using a selected discount rate.

Funding results in this report are shown using a 7.00% discount rate and ignore Implicit Subsidy. The table below summarizes the liability results as of July 1, 2024:

	County Contribution
Present Value of Benefits (PVB)	$221,962,311
Actuarial Accrued Liability (AAL)	$162,202,664
Normal Cost	$7,071,974

Accounting results in this report are shown using a 7.30% discount rate and includes Implicit Subsidy. The table below summarizes the liability results as of July 1, 2024:

	County Contribution	**Implicit Subsidy**	**Total Liability**
Present Value of Benefits (PVB)	$211,321,277	$208,011,202	$419,332,479
Actuarial Accrued Liability (AAL)	$156,452,595	$148,069,027	$304,521,622
Normal Cost	$6,634,039	$6,820,356	$13,454,395

Discount Rate

The discount rate can have a considerable impact on the magnitude of the liabilities, with lower discount rates generally resulting in higher liabilities.

While the County's funding policy is based on a discount rate of 7.00%, GASB 75 prescribes the discount rate methodology to be used. Based on the County's current funding policy, projected cash flows, and the assumed asset return, the plan assets are not projected to be depleted, and the discount rate for GASB disclosures can be based entirely on the assumed asset return, as illustrated in the GASB 75 section of the report. For GASB purposes, the discount rate is 7.30%.

Development of Funding Contribution[1]

The funding contribution is developed based on liabilities **excluding the implicit subsidy** and projected using prior year valuation results**.** For example, the funding contribution for Fiscal Year Ending (FYE) 2025 is $7,421,536 and was developed based on the 2023 valuation.

This valuation develops the funding contribution for FYE 2026, which is $3,644,644 and is based on a projection of the normal cost, amortization of the 2017 initial Unfunded Actuarial Accrued Liability (UAAL) over the period ending June 30, 2037, and amortization of the subsequent unanticipated changes in liability (i.e., actuarial gains / losses and changes in assumptions) over 15-year periods and unanticipated changes in assets over 5-year periods.

The table below shows the contributions for Safety and Miscellaneous for FYE 2025, 2026 and an estimate for FYE 2027.

	2024-2025	**2025-2026**	**2026-2027**[2]
Contribution for Safety	$1,965,599	$755,578	$776,734
Contribution for Miscellaneous	5,455,937	2,889,066	2,969,959
Total Funding Contribution	**$7,421,536**	**$3,644,644**	**$3,746,693**

The funding contribution decreases for FYE 2026 due to a stronger funded status, which is mainly driven by strong asset returns, additional contributions (excess prefunding and County direct payment of Pay-Go), and lower healthcare cost increases than expected. The allocation of the contribution was updated based on the liability split as of July 1, 2023. Although the assets performed very well for the measurement period ending June 30, 2024, the impact is muted due to asset smoothing. The projected FYE 2027 contribution has been developed based on the same eligibility basis used for all groups as of June 30, 2024.

The current policy amortizes assets and liabilities experience over different periods, which results in a much smaller amortization amount for the next few years, increasing by approximately $10M after 2028.

An alternative amortization of the UAAL that uses a single 15-year amortization period would address the volatility in the 5-year/15-year amortization amounts under the current policy and address the plan's current funded status. Application of the 15-year amortization period leads to a contribution of approximately $10.8M for 2025-2026 versus $3.6M shown above.

GASB 75 Expense

The OPEB expense for FYE June 30, 2025 is $42,194,683 and is developed using the valuation results in this report, including a Valuation Date of July 1, 2024, Measurement Period of July 1, 2023 to June 30, 2024, and a Measurement Date of June 30, 2024. The final FYE June 30, 2025 expense is slightly lower than estimated in the prior valuation due to premium experience gains and strong asset returns.

[1] Funding contributions are assumed to be in addition to Pay-Go.
[2] Estimated based on funding policy discussed in the report.

Comparison to Prior Valuation

The following table summarizes the prior valuation results using a 7.80% discount rate for accounting and 7.00% for funding and the current valuation using a 7.30% discount rate for accounting and 7.00% for funding:

	July 1, 2023	July 1, 2024
Funding Contribution[1]		
Funding Discount Rate	7.0%	7.0%
Present Value of Benefits (PVB)	$212,367,074	$221,962,311
Actuarial Accrued Liability (AAL)	157,612,523	162,202,664
Normal Cost	6,505,710	7,071,974
Smoothed Value of Assets	104,623,236	127,826,620
Unfunded AAL	52,989,287	34,376,044
Funded Status	66.4%	78.8%
Funding Contribution for FYE 2025 / 2026	7,421,536	3,644,644
% of pay	0.41%	0.19%
Alternative Contribution	0.67%	0.55%
GASB 75 Accounting		
Funding Discount Rate	7.8%	7.3%
Present Value of Benefits (PVB)	$376,919,715	$419,332,479
Actuarial Accrued Liability (AAL)	283,310,961	304,521,622
Normal Cost	11,392,716	13,454,395
Market Value of Assets	96,279,600	135,147,814
Net OPEB Liability	$187,031,361	$169,373,808
Plan Fiduciary Net Position as a percentage of the OPEB Liability	34.0%	44.4%
GASB Annual Expense for FYE 2024 / 2025	$41,556,065	$42,194,683
GASB Annual Expense for FYE 2025 / 2026 (Estimate)	$45,606,000	$42,221,000

[1] Ignoring Implicit Subsidy

Overall, the funded status improved compared to the prior valuation. These net results are primarily due to the following factors:

- Large prefunding contributions reduced the Unfunded AAL.
- Investment return was significantly higher than expected (23.9% compared to 7.8% assumed), resulting in a large asset gain.
- Healthcare cost increases were lower than projected from the prior year, resulting in a liability gain.
- (GASB only) Expected return on assets was changed from 7.80% to 7.30%. As a result, the discount rate similarly decreased, resulting in a liability increase.

Employee groups from Special Districts (Waste, Parks, and Flood) and active Court members were not included in the valuation results presented in this report.

Projected Funding Status

All valuation and projection results on the following pages are based on the assumptions and plan provisions stated in the appendices. Specifically, they only include health plan eligibility (i.e., CalPERS) for bargaining groups as specified as of June 30, 2024. Changes to such associated plan participation assumptions may result in higher liabilities, funding costs, and accounting expense than shown in this report.

Funded Status (excluding implicit subsidy)

The County requested a review of maintaining at least an 80% funded status for the Plan excluding the implicit subsidy liability. The plan is projected to be above 80% funded based on the current County contribution schedule (Actuarially Determined Contribution (ADC) plus Pay-Go), ~$15.0M in FYE 2025.

Further review addresses a 90% funded status excluding the implicit subsidy. It should be noted that maintaining the current County contribution schedule (annual ADC plus Pay-Go amounts), the plan is projected to be above 90% by FYE 2027 and beyond. However, there may be reasons for accelerating funding to target a higher funded ratio (e.g., anticipation of higher future liabilities due to increasing plan costs).

The table below shows the additional County contribution required to achieve 90% funded status either as of June 30, 2025 or as of June 30, 2026.

Projection Date	June 30, 2025	June 30, 2026
Projected Actuarial Accrued Liability (AAL)	$173,298,921	$184,933,214
Projected Smoothed Value of Assets	146,491,643	161,021,467
Projected Shortfall	$26,807,278	$23,911,747
Projected Funded Status	84.5%	87.07%
Shortfall for 90% funding	$9,477,386	$5,418,425
Additional funding in FYE 2025 / 2026 to achieve 90% at the Projection Date[1]	$9,162,134	$5,049,792

[1] Assumes mid-year funding and is in addition to the proposed annual ADCs and expected Pay-Go amounts.

Effectively, the County would need to contribute the following amounts to attain a 90% funded status prior to FYE 2027:

- By FYE 2025
    - FYE 2025: ~$24.1M, based on ADC of $7,421,536 (0.41% of pay) plus Expected Pay-Go, $7,564,656 plus $9,162,134 additional funding.
    - Note, FYE 2026 contribution would be ~$11.9M, based on ADC of $3,644,644 (0.19% of pay) plus Expected Pay-Go, $8,259,232 (90% already reached at FYE 2025).
    - Projected funded status as of FYE 2026 based on the above contributions will be 93%.
- By FYE 2026
    - FYE 2025: ~$15.0M, based on ADC of $7,421,536 (0.41% of pay) plus Expected Pay-Go, $7,564,656, and
    - FYE 2026: ~$17.0M, based on ADC of $3,644,644 (0.19% of pay) plus Expected Pay-Go, $8,259,232 plus $5,049,792 additional funding.
    - Projected funded status as of FYE 2026 based on the above contributions will be 90%.

Funded Status (including implicit subsidy)

For illustrative purposes of comparing a contribution policy utilizing total liability (i.e., including the implicit subsidy), we also performed a review of maintaining an 80% and 90% funded status for the Plan. The valuation shows the plan continues to be below 80% funded as of June 30, 2025, as shown below:

Projected Actuarial Accrued Liability (AAL), 6/30/2025		$335,412,365
Projected Smoothed Value of Assets, 6/30/2025		146,491,643
Projected Shortfall, 6/30/2025		$188,920,722
Projected Funded Status, 6/30/2025		43.7%
Funded Status Target	80%	90%
Shortfall for 80% / 90% funding, 6/30/2025	$121,838,249	$155,379,485

Effect of Asset Allocation Strategy Selection and the Discount Rate Impact

The asset allocation and associated expected asset return, and thus the assumed discount rate, have a considerable impact on valuation results and the magnitude of liabilities.

A recent review of the long-term expected return rate, based on Aon's June 30, 2024 Capital Market Assumptions and the Plan's asset allocation, resulted in a range of reasonable returns between 5.96% and 7.36%. More details of the expected return assumption and asset allocation are included in the 2024 assumption rationale document and Actuarial Assumptions and Methods section of this report.

The expected rate of return is determined based on the asset allocation and expected return on each of the asset classes. The portion of assets allocated to each asset class impacts the long term expected rate of return and volatility of the asset allocation.

The County selected a 7.30% long term expected return assumption for purposes of this valuation, which falls within a reasonable range based on the current Capital Market Assumptions and the Plan's asset allocation. The County should continue to monitor the return versus risk balance and maintain an asset allocation strategy appropriate for the County's funding and overall financial policies.

The below table shows the impact of the expected return on assets on valuation results:

	8.30%	**7.30%**	**6.30%**
Liabilities			
Present Value of Benefits (PVB)	$363,435,987	$419,332,479	$490,496,511
Actuarial Accrued Liability (AAL)	$274,828,874	$304,521,622	$399,775,570
Normal Cost	$11,111,391	$13,454,395	$16,421,973

Under GASB 75, the expected return will be considered along with the municipal bond index to determine a blended discount rate.

* * *

The following report shows the details of results by participant status and benefits provided, based on a 7.30% discount rate.

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Actuarial Valuation Certificate

This report documents the results of the July 1, 2024 actuarial valuation for the County of Riverside Postretirement Benefits Plan. The information provided in this report is intended strictly for documenting:

- Disclosure items under Governmental Accounting Standards Board (GASB) Statement 75 for Fiscal Year Ending June 30, 2025.

- Funding contribution amounts and the Actuarial Determined Contribution (ADC) for Fiscal Year Ending June 30, 2026.

Determinations for purposes other than the financial accounting requirements may be significantly different from the results in this report. Thus, the use of this report for purposes other than those expressed here may not be appropriate.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board. In addition, the valuation results are based on our understanding of the financial accounting and reporting requirements under U.S. Generally Accepted Accounting Principles as set forth in Government Accounting Standards Board Statement 75 (GASB 75) including any guidance or interpretations provided by the Company and/or its audit partners prior to the issuance of this report. The information in this report is not intended to supersede or supplant the advice and interpretations of the County of Riverside's auditors. Additional disclosures may be required under GASB 74.

A valuation model was used to develop the liabilities for the June 30, 2024 valuation. The valuation model relies on ProVal software, which was developed by Winklevoss Technologies, LLC. Experts within Aon selected this software and determined it is appropriate for performing valuations. We coded and reviewed the software for the provisions, assumptions, methods, and data of the Postretirement Health Benefits Plan.

A model was used to develop the appropriate GASB discount rate. The undersigned relied on experts within Aon for the development of the capital market assumptions and the model underlying the expected rate of return.

The valuation model outputs various cost scenarios. The “1% increase” and “1% decrease” interest rate scenarios vary only the discount rate assumption, in order to illustrate the impact of a change in that assumption in isolation. In practice, certain other assumptions, such as the expected or realized asset returns, would also be expected to vary when the discount rate changes. Therefore, the output from these scenarios should be used solely for assessing the impact of the discount rate in isolation and may not represent a realistic set of results for other purposes.

The “1% increase” and “1% decrease” healthcare cost trend scenarios vary only the healthcare cost trend assumption, in order to illustrate the impact of a change in that assumption in isolation. Therefore, the output from these scenarios should be used solely for assessing the impact of the healthcare cost trend in isolation and may not represent a realistic set of results for other purposes.

Future actuarial measurements may differ significantly from the current measurements presented in this report due (but not limited to) to such factors as the following:

- Plan experience differing from that anticipated by the economic or demographic assumptions;
- Changes in actuarial methods or in economic or demographic assumptions;
- Increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and
- Changes in plan provisions or applicable law.

Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements.

Funded status measurements shown in this report are determined based on various measures of plan assets and liabilities. For entity and plan disclosure and reporting purposes, funded status is determined using plan assets measured at market value. Plan liabilities are measured based on the interest rates and other assumptions summarized in the Actuarial Assumptions and Methods section of this report.

These funded status measurements may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations, and funded status measurements for County of Riverside and plan disclosure and reporting purposes may not be appropriate for assessing the need for or the amount of future contributions. In conducting the valuation, we have relied on personnel, plan design, health care claim cost, and asset information supplied by County of Riverside as of the valuation date. While we cannot verify the accuracy of all the information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy or completeness of the information and believe that it has produced appropriate results.

The actuarial assumptions and methods used in this valuation are described in the Actuarial Assumptions and Methods section of this report. County of Riverside selected the economic and demographic assumptions and prescribed them for use for purposes of compliance with GASB 75. Aon provided guidance with respect to these assumptions, and it is our belief that the assumptions represent reasonable expectations of anticipated plan experience.

The undersigned are familiar with the near-term and long-term aspects of OPEB valuations and collectively meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. The information provided in this report is dependent upon various factors as documented throughout this report, which may be subject to change. Each section of this report is considered to be an integral part of the actuarial opinions.

To our knowledge, no colleague of Aon providing services to County of Riverside has any material direct or indirect financial interest in County of Riverside. Thus, we believe there is no relationship existing that might affect our capacity to prepare and certify this actuarial report for County of Riverside.

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November 1, 2024

Plan Liabilities (Accounting)

The liabilities shown in this exhibit were calculated using a 7.30% discount rate.

The **Present Value of Benefits (PVB)** represents the actuarial present value of all benefits ever to be paid to current employees and retirees. The PVB is as follows:

	Safety Employees	Miscellaneous Employees	Total
PVB			
County Contribution			
Retirees	$18,775,716	$64,618,291	$83,394,007
Actives	$10,433,886	$117,493,384	$127,927,270
Subtotal	$29,209,602	$182,111,675	$211,321,277
Implicit Subsidy			
Retirees	$19,841,077	$36,659,706	$56,500,783
Actives	$14,782,244	$136,728,175	$151,510,419
Subtotal	$34,623,321	$173,387,881	$208,011,202
All Benefits			
Retirees	$38,616,793	$101,277,997	$139,894,790
Actives	$25,216,130	$254,221,559	$279,437,689
Total PVB	**$63,832,923**	**$355,499,556**	**$419,332,479**
Number of Retirees as of 7/1/2024 [1]	875	2,463	3,338
Number of Actives as of 7/1/2024	3,657	18,629	22,286
PVB Per Retiree [2]	$22,948	$29,847	$28,039
PVB Per Active	$6,895	$13,647	$12,539

[1] Deferred retirees (former employees who did not elect medical benefits at the time of their retirement and are eligible to elect the benefits at a later date) are not explicitly included in the count, but their future benefits are valued based on the election assumption developed in the experience study carried out in 2024.

[2] Average liability excluding deferred retirees; Average liability for eligible deferred retirees is approximately $11,500.

The **Actuarial Accrued Liability (AAL)** is a portion of the PVB attributable to past service. For retirees and fully eligible active employees, the AAL is equal to the PVB. For other active employees, the AAL is the portion of the PVB deemed to be accrued to date. The **Normal Cost** is the portion of the PVB that is allocated to the current plan year for only active employees.

The AAL in this report is based on the Entry Age Normal cost method and has been developed by spreading costs as a level percentage of payrolls.

	Safety Employees	**Miscellaneous Employees**	**Total**
AAL			
County Contribution			
Retirees	$18,775,716	$64,618,291	$83,394,007
Actives	$7,063,455	$65,995,133	$73,058,588
Subtotal	$25,839,171	$130,613,424	$156,452,595
Implicit Subsidy			
Retirees	$19,841,077	$36,659,706	$56,500,783
Actives	$11,222,197	$80,346,047	$91,568,244
Subtotal	$31,063,274	$117,005,753	$148,069,027
All Benefits			
Retirees	$38,616,793	$101,277,997	$139,894,790
Actives	$18,285,652	$146,341,180	$164,626,832
Total AAL	**$56,902,445**	**$247,619,177**	**$304,521,622**
Number of Retirees as of 7/1/2024 [1]	875	2,463	3,338
Number of Actives as of 7/1/2024	3,657	18,629	22,286
AAL Per Retiree [2]	$22,948	$29,847	$28,039
AAL Per Active	$5,000	$7,856	$7,387
Normal Cost			
County Contribution	$425,160	$6,208,879	$6,634,039
Implicit Subsidy	$449,141	$6,371,215	$6,820,356
Total Normal Cost	**$874,301**	**$12,580,094**	**$13,454,395**
Normal Cost per Active	$239	$675	$604

[1] Deferred retirees (former employees who did not elect medical benefits at the time of their retirement and are eligible to elect the benefits at a later date) are not explicitly included in the count, but their future benefits are valued based on the election assumption developed in the experience study carried out in 2024.

[2] Average liability excluding deferred retirees; Average liability for eligible deferred retirees is approximately $11,500.

Plan Liabilities (Funding)

The liabilities shown in this exhibit were calculated using a 7.00% discount rate and ignoring Implicit Subsidy.

	Safety Employees	Miscellaneous Employees	Total
PVB			
County Contribution			
Retirees	$19,379,938	$66,328,296	$85,708,234
Actives	$11,013,041	$125,241,036	$136,254,077
Total PVB	**$30,392,979**	**$191,569,332**	**$221,962,311**
Number of Retirees as of 7/1/2024 [1]	875	2,463	3,338
Number of Actives as of 7/1/2024	3,657	18,629	22,286
PVB Per Retiree [2]	$12,643	$20,372	$18,346
PVB Per Active	$3,011	$6,723	$6,114

	Safety Employees	Miscellaneous Employees	Total
AAL			
County Contribution			
Retirees	$19,379,938	$66,328,297	$85,708,235
Actives	$7,357,066	$69,137,363	$76,494,429
Total AAL	**$26,737,004**	**$135,465,660**	**$162,202,664**
Number of Retirees as of 7/1/2024[1]	875	2,463	3,338
Number of Actives as of 7/1/2024	3,657	18,629	22,286
AAL Per Retiree[2]	$12,643	$20,372	$18,346
AAL Per Active	$2,012	$3,711	$3,432
Normal Cost			
County Contribution	**$452,648**	**$6,619,326**	**$7,071,974**
Normal Cost per Active	$124	$355	$317

[1] Deferred retirees (former employees who did not elect medical benefits at the time of their retirement and are eligible to elect the benefits at a later date) are not explicitly included in the count, but their future benefits are valued based on the election assumption developed in the experience study carried out in 2024.

[2] Average liability excluding deferred retirees; Average liability for eligible deferred retirees (excluding the implicit subsidy) is approximately $6,100.

Plan Assets

As of June 30, 2024, the County of Riverside participates in the Public Agency Retirement System (PARS) trust program. The following table shows the development of assets since the prior valuation.

Reconciliation of Plan Assets	**July 1, 2023 To June 30, 2024**
Market Value of Assets, Beginning of Year	$96,279,600
Contributions	
Retiree Premiums	$6,444,975
Reimbursement from Trust	$0
Implicit Subsidy	$7,879,007
Pre-Funding	$14,200,000
Total Contributions	$28,523,982
Investment Earnings	$24,726,398
Administrative Expense	($58,184)
Benefit Payments	
Retiree Premiums	($6,444,975)
Implicit Subsidy	($7,879,007)
Total Benefit Payments	($14,323,982)
Market Value of Assets at Valuation Date	$135,147,814
Return on Assets	23.92%
Development of (Gain)/Loss on Market Value of Assets	
Expected Investment Earnings (assumed 7.80%)	$8,050,985
Actual Investment Earnings	$24,726,398
(Gain)/Loss on Market Value of Assets	($16,675,413)
Smoothed Value of Assets at Valuation Date	
Market Value of Assets at Valuation Date	$135,147,814
Unrecognized (Gain)/Loss[1]	($7,321,194)
Preliminary Smoothed Value of Assets at Valuation Date	$127,826,620
Lower Corridor (80% of Market Value)	$108,118,251
Upper Corridor (120% of Market Value)	$162,177,377
Smoothed Value of Assets	$127,826,620

[1] Schedule of the Current and Prior Market Value of Asset (Gains)/Losses as of June 30, 2024

Date Established	Original (Gain)/Loss	Years Remaining As of 6/30/2024	Amount Recognized	Total Amount Unrecognized
6/30/2021	($7,491,819)	1	($5,993,456)	($1,498,363)
6/30/2022	$17,315,587	2	$10,389,351	$6,926,236
6/30/2023	$985,437	3	$394,174	$591,263
6/30/2024	($16,675,413)	4	($3,335,083)	($13,340,330)
Total			$1,454,986	($7,321,194)

Plan Funded Status

The Plan's funded status as of July 1, 2024 is developed based on the Actuarial Accrued Liability and the smoothed value of Plan assets.

The following table shows the development of the Plan's funded status as of July 1, 2024:

Funding Methodology		Entry Age Normal
Discount Rate		7.00%
	Excluding Implicit Subsidy	Including Implicit Subsidy
Actuarial Accrued Liability	$162,202,664	$314,456,103
Smoothed Value of Plan Assets	127,826,620	127,826,620
Unfunded Liability	$34,376,044	$186,629,483
Funded Percentage	78.8%	40.7%

Development of Funding Contribution

Effective July 1, 2020 (contributions developed for FYE June 30, 2022), the funding policy ignores implicit subsidy liabilities and determines the contribution amounts on a level percentage of pay based on the sum of:

a) Normal Cost with interest, plus
b) Amortization of July 1, 2017 Unfunded Actuarial Accrued Liability (UAAL) over the period ending June 30, 2037, plus
c) Amortization of subsequent unanticipated liability changes (i.e., actuarial gains / losses and changes in assumptions) over 15-year period, plus
d) Amortization of subsequent unanticipated asset changes (i.e., unexpected gains / losses on smoothed assets) over 5-year period.

Amortization amounts are calculated based on the discount rate and payroll increase assumption appropriate for the valuation date.

The following table shows the development of the funding contribution as a level percentage of pay, assuming middle of year payment, for FYE June 30, 2026:

	Safety	Miscellaneous	Total
Funding Contribution, FYE June 30, 2026 [1]			
Normal Cost, plus interest	$481,333	$7,038,802	$7,520,135
Amortization of UAAL, plus interest [2]	274,245	(4,149,736)	(3,875,491)
Funding Contribution	$755,578	$2,889,066	$3,644,644
% of Pay			0.19%

The following table shows the development of the liability (gain)/loss as of June 30, 2024

	Safety	Miscellaneous	Total
Liability as of June 30, 2023	$25,486,012	132,126,511	$157,612,523
Normal Cost	417,502	6,088,208	6,505,710
Interest on Liability	1,764,922	9,469,410	11,234,332
Plan Change	0	0	0
Assumption Changes	0	0	0
Expected Benefit Payments	(1,404,434)	(5,975,922)	(7,380,356)
Expected Liability as of June 30, 2024	26,264,002	141,708,207	167,972,209
Actual Liability as of June 30, 2024	26,737,004	135,465,660	162,202,664
Liability (Gain)/Loss	**$473,002**	**($6,242,547)**	**($5,769,545)**

The following table shows the development of the smoothed asset (gain)/loss as of June 30, 2024

	Safety	Miscellaneous	Total
Smoothed Value of Assets as of June 30, 2023	$13,950,426	$90,672,810	$104,623,236
Total Expected Contributions [3]	1,668,831	5,326,173	6,995,004
Expected Benefit Payments	(1,404,434)	(5,975,922)	(7,380,356)
Expected Investment Earnings [4]	1,045,024	6,514,309	7,559,333
Expected Smoothed Value of Assets as of June 30, 2024	15,259,847	96,537,370	111,797,217
Actual Smoothed Value of Assets as of June 30, 2024	22,284,912	105,541,708	127,826,620
Asset Difference for Funding Amortization, due to:	**($7,025,065)**	**($9,004,338)**	**($16,029,403)**
Contributions in Excess of Expected			($13,649,971)
Other Asset Experience			($2,379,432)
Implicit Rate of Return			9.2%

[1] Excludes the implicit subsidy liability/service cost. Prior to July 1, 2020, funding was based on liabilities including the implicit subsidy.
[2] Amortization allocation shown on next page.
[3] County contributions based on normal cost plus expected amortization amount of the UAAL developed in the 2023 valuation.
[4] Based on 7.00%.

Amortization Schedule

The following table shows the amortization of Unfunded Actuarial Accrued Liability excluding the implicit subsidy as of July 1, 2025. Amortization of bases is first recognized in the fiscal year subsequent to the date established.

Date Established	Type of Base	Original Period	Remaining Period as of June 30, 2025	Original Balance	Balance Remaining as of June 30, 2024	Balance Remaining as of June 30, 2025[1]	Total Amortization Recognized in FYE June 30, 2026	Safety Amortization Recognized in FYE June 30, 2026[2]	Miscellaneous Amortization Recognized in FYE June 30, 2026[1]
7/1/2024	Liability (Gain)/Loss	15	15	($5,769,545)	($5,769,545)	($6,173,413)	($536,647)	$43,996	($580,643)
7/1/2024	Assets (Gain)/Loss	5	5	(16,029,403)	(16,029,403)	(17,151,461)	(3,710,363)	(1,291,085)	(2,419,278)
7/1/2023	Liability (Gain)/Loss	15	14	249,075	266,511	260,378	23,816	185,963	(162,147)
7/1/2023	Assets (Gain)/Loss	5	4	(170,064)	(181,968)	(152,585)	(40,467)	3,864	(44,331)
7/1/2022	Liability (Gain)/Loss	15	13	(5,657,250)	(5,913,950)	(5,749,125)	(556,083)	(42,062)	(514,021)
7/1/2022	Assets (Gain)/Loss[3]	5	3	(37,826,509)	(33,938,875)	(26,683,579)	(9,252,975)	692,730	(9,945,705)
7/1/2022	Assumptions	15	13	(878,395)	(918,253)	(892,661)	(86,341)	1,414	(87,755)
7/1/2021	Liability (Gain)/Loss	15	12	1,830,883	1,860,077	1,797,774	184,952	(4,416)	189,368
7/1/2021	Assumptions	15	12	(8,136,380)	(8,266,119)	(7,989,243)	(821,923)	(967,135)	145,212
7/1/2020	Liability (Gain)/Loss	15	11	3,731,444	3,621,879	3,476,712	383,048	(45,766)	428,814
7/1/2020	Assumptions	15	11	74,063,338	71,888,655	69,007,330	7,602,904	347,824	7,255,080
7/1/2019	Liability (Gain)/Loss	15	10	115,351	108,316	103,129	12,268	12,408	(140)
7/1/2019	Assumptions	15	10	10,726,730	10,072,476	9,590,130	1,140,811	153,871	986,940
7/1/2018	Liability (Gain)/Loss	15	9	2,657,510	2,363,940	2,228,524	289,081	177,574	111,507
7/1/2018	Assumptions	15	9	5,348,501	4,757,670	4,485,132	581,805	357,386	224,419
7/1/2017	7/1/2017 UAAL[4]	20	12	11,733,484	10,454,633	10,104,452	1,039,535	638,557	400,978
	Total Charges			$35,988,770	$34,376,044	$36,261,494	($3,746,579)	$265,123	($4,011,702)

[1] Reflecting experience through 6/30/2024.
[2] Amortization allocation by classification is based on proportionate share of AAL prior to 7/1/2018 and estimated safety/miscellaneous gain/loss since 7/1/2018.
[3] Re-established amount includes prior outstanding Asset (Gain)/Loss bases established prior to 6/30/2022 (gain of $6,138,463), FYE 2022 Smoothed Asset (Gain)/Loss plus other adjustments to reflect funded status.
[4] Includes Asset (Gain)/Loss as of 6/30/2017.

Projected Benefit Payments[1]

The following table shows the estimated projected net County benefit payments based on the current plan provisions, current plan participants, and the valuation assumptions used in this report. The County Contributions would be equivalent to funding the liabilities on a pay-as-you-go basis.

Fiscal Year Ending June 30	Safety		Miscellaneous		Total
	County Contribution	Implicit Subsidy	County Contribution	Implicit Subsidy	
2025	$1,281,591	$1,707,438	$6,283,064	$6,510,714	$15,782,807
2026	1,429,198	1,972,492	6,830,034	7,451,530	17,683,254
2027	1,571,449	2,278,609	7,354,628	7,948,251	19,152,937
2028	1,711,958	2,561,693	7,895,924	8,599,706	20,769,280
2029	1,844,870	2,881,423	8,445,406	8,940,054	22,111,753
2030	1,966,142	3,061,510	8,995,875	9,568,296	23,591,823
2031	2,078,159	3,281,230	9,558,418	10,341,927	25,259,734
2032	2,181,523	3,254,890	10,129,307	11,043,327	26,609,047
2033	2,273,863	3,272,081	10,715,258	11,750,395	28,011,597
2034	2,352,870	3,291,359	11,303,864	12,585,741	29,533,834
2035	2,421,994	3,316,017	11,906,353	13,262,402	30,906,767
2036	2,479,088	3,217,511	12,521,925	13,577,722	31,796,246
2037	2,520,546	3,127,580	13,141,780	14,124,455	32,914,361
2038	2,551,756	3,029,099	13,803,856	14,792,183	34,176,895
2039	2,578,479	2,836,487	14,553,878	15,640,497	35,609,340
2040	2,596,983	2,799,307	15,297,843	16,240,679	36,934,812
2041	2,605,849	2,778,248	16,041,301	17,006,881	38,432,279
2042	2,610,799	2,647,292	16,773,615	17,823,036	39,854,741
2043	2,614,415	2,535,442	17,513,571	18,350,323	41,013,752
2044	2,616,302	2,497,982	18,235,583	18,809,281	42,159,148
2045	2,614,174	2,423,547	18,947,241	19,130,593	43,115,555
2046	2,615,466	2,359,411	19,649,471	19,308,191	43,932,539
2047	2,612,147	2,294,196	20,332,773	19,487,831	44,726,947
2048	2,606,271	2,163,400	20,995,664	19,464,488	45,229,823
2049	2,595,380	2,162,363	21,631,716	19,692,292	46,081,751
2050	2,579,901	2,029,193	22,228,314	19,724,632	46,562,040
2051	2,561,628	1,903,220	22,791,672	19,781,421	47,037,942
2052	2,537,849	1,904,288	23,296,308	19,780,913	47,519,358
2053	2,512,448	1,816,869	23,740,927	19,821,221	47,891,466
2054	2,480,951	1,683,456	24,109,311	19,647,948	47,921,666

[1] Include the estimated benefit payments for the deferred retirees.

GASB 75 Reporting and Disclosure Information for Fiscal Year Ending June 30, 2025

Calculation Details

The following table illustrates the Net OPEB Liability under GASB 75.

	Fiscal Year Ending 6/30/2024	Fiscal Year Ending 6/30/2025
(1) OPEB Liability		
(a) Retired Participants and Beneficiaries Receiving Payment	$ 130,890,808	$ 139,894,790
(b) Active Participants	152,420,153	164,626,832
(c) Total	$ 283,310,961	$ 304,521,622
(2) Plan Fiduciary Net Position	(96,279,600)	(135,147,814)
(3) Net OPEB Liability	$ 187,031,361	$ 169,373,808
(4) Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	33.98%	44.38%
(5) Deferred Outflow of Resources for Contributions Made After Measurement Date	$ 28,523,982	TBD

Expense

The following table illustrates the OPEB expense under GASB 75.

	Fiscal Year Ending 6/30/2024	Fiscal Year Ending 6/30/2025
(1) Service Cost	$ 9,123,044	$ 11,392,716
(2) Interest Cost	19,306,030	22,438,740
(3) Expected Investment Return	(6,428,753)	(8,050,985)
(4) Employee Contributions	0	0
(5) Administrative Expense	40,509	58,184
(6) Plan Changes	0	0
(7) Amortization of Unrecognized		
(a) Liability (Gain)/Loss	855,718	(475,343)
(b) Asset (Gain)/Loss	2,313,342	(1,010,583)
(c) Assumption Change (Gain)/Loss	16,346,175	17,841,954
(8) Total Expense	$ 41,556,065	$ 42,194,683

Shown below are details regarding the calculation of Service Cost, Interest Cost and Expected Investment Return components of the Expense.

		Fiscal Year Ending 6/30/2024	Fiscal Year Ending 6/30/2025
(1)	Development of Service Cost:		
	(a) Normal Cost at Beginning of Measurement Period	$ 9,123,044	$ 11,392,716
(2)	Development of Interest Cost:		
	(a) Total OPEB Liability at Beginning of Measurement Period	$ 247,510,972	$ 283,310,961
	(b) Normal Cost at Beginning of Measurement Period	9,123,044	11,392,716
	(c) Actual Benefit Payments	(12,035,889)	(14,323,982)
	(d) Discount Rate	7.70%	7.80%
	(e) Interest Cost	$ 19,306,030	$ 22,438,740
(3)	Development of Expected Investment Return:		
	(a) Plan Fiduciary Net Position at Beginning of Measurement Period	$ 76,411,793	$ 96,279,600
	(b) Actual Contributions—Employer	26,500,889	28,523,982
	(c) Actual Contributions—Employee	0	0
	(d) Actual Benefit Payments	(12,035,889)	(14,323,982)
	(e) Administrative Expenses	(40,509)	(58,184)
	(f) Other	0	0
	(g) Expected Return on Assets	7.70%	7.80%
	(h) Expected Return	$ 6,428,753	$ 8,050,985

Reconciliation of Net OPEB Liability

Shown below are details regarding the Total OPEB Liability, Plan Fiduciary Net Position, and Net OPEB Liability for the Measurement Period from June 30, 2023 to June 30, 2024:

	Increase (Decrease)		
	Total OPEB Liability (a)	**Plan Fiduciary Net Position (b)**	**Net OPEB Liability (c) = (a) – (b)**
Balance Recognized at 6/30/2024 (Based on 6/30/2023 Measurement Date)	$ 283,310,961	$ 96,279,600	$ 187,031,361
Changes Recognized for the Fiscal Year:			
Service Cost	$ 11,392,716	N/A	$ 11,392,716
Interest on the Total OPEB Liability	22,438,740	N/A	22,438,740
Changes of Benefit Terms	0	N/A	0
Differences Between Expected and Actual Experience	(13,763,166)	N/A	(13,763,166)
Changes of Assumptions	15,466,353	N/A	15,466,353
Benefit Payments	(14,323,982)	(14,323,982)	0
Contributions From the Employer	N/A	28,523,982	(28,523,982)
Contributions From the Employee	N/A	0	0
Net Investment Income	N/A	24,726,398	(24,726,398)
Administrative Expense	N/A	(58,184)	58,184
Net Changes	$ 21,210,661	$ 38,868,214	$ (17,657,553)
Balance Recognized at 6/30/2025 (Based on 6/30/2024 Measurement Date)	$ 304,521,622	$ 135,147,814	$ 169,373,808

Liability (Gain)/Loss

The following table illustrates the liability gain/loss under GASB 75.

		Fiscal Year Ending 6/30/2024	Fiscal Year Ending 6/30/2025
(1)	OPEB Liability at Beginning of Measurement Period	$ 247,510,972	$ 283,310,961
(2)	Service Cost	9,123,044	11,392,716
(3)	Interest on the Total OPEB Liability	19,306,030	22,438,740
(4)	Changes of Benefit Terms	0	0
(5)	Changes of Assumptions	11,202,368	15,466,353
(6)	Benefit Payments	(12,035,889)	(14,323,982)
(7)	Expected OPEB Liability at End of Measurement Period	$ 275,106,525	$ 318,284,788
(8)	Actual OPEB Liability at End of Measurement Period	283,310,961	304,521,622
(9)	OPEB Liability (Gain)/Loss	$ 8,204,436	$ (13,763,166)
(10)	Average Future Working Life Expectancy	10.26	10.34
(11)	OPEB Liability (Gain)/Loss Amortization	$ 799,653	$ (1,331,061)

Asset (Gain)/Loss

The following table illustrates the asset gain/loss under GASB 75.

		Fiscal Year Ending 6/30/2024	Fiscal Year Ending 6/30/2025
(1)	OPEB Asset at Beginning of Measurement Period	$ 76,411,793	$ 96,279,600
(2)	Contributions—Employer	26,500,889	28,523,982
(3)	Contributions—Employee	0	0
(4)	Expected Investment Income	6,428,753	8,050,985
(5)	Benefit Payments	(12,035,889)	(14,323,982)
(6)	Administrative Expense	(40,509)	(58,184)
(7)	Other	0	0
(8)	Expected OPEB Asset at End of Measurement Period	$ 97,265,037	$ 118,472,401
(9)	Actual OPEB Asset at End of Measurement Period	96,279,600	135,147,814
(10)	OPEB Asset (Gain)/Loss	$ 985,437	$ (16,675,413)
(11)	Amortization Factor	5.00	5.00
(12)	OPEB Asset (Gain)/Loss Amortization	$ 197,087	$ (3,335,083)

Deferred Outflows/Inflows

The following table illustrates the Deferred Inflows and Outflows as of June 30, 2025 under GASB 75.

		Deferred Outflows	Deferred Inflows
(1)	Difference Between Actual and Expected Experience	$ 12,434,740	$ 23,422,360
(2)	Net Difference Between Expected and Actual Earnings on OPEB Plan Investments	0	7,321,194
(3)	Assumption Changes	111,275,886	15,007,505
(4)	Sub Total	$ 123,710,626	$ 45,751,059
(5)	Contributions Made in Fiscal Year Ending 6/30/2025 After Measurement Date	TBD	N/A
(6)	Total	$ TBD	$ 45,751,059

Amortization of Deferred Inflows/Outflows

The table below lists the amortization bases included in the deferred inflows/outflows as of June 30, 2025.

Date		Period		Balance		Annual
Established	Type of Base	Original	Remaining	Original	Remaining	Payment
6/30/2024	Liability (Gain)/Loss	10.34	9.34	($13,763,166)	($12,432,105)	(1,331,061)
6/30/2024	Asset (Gain)/Loss	5.00	4.00	(16,675,413)	(13,340,330)	(3,335,083)
6/30/2024	Assumptions	10.34	9.34	15,466,353	13,970,574	1,495,779
6/30/2023	Liability (Gain)/Loss	10.26	8.26	8,204,436	6,605,130	799,653
6/30/2023	Asset (Gain)/Loss	5.00	3.00	985,437	591,263	197,087
6/30/2023	Assumptions	10.26	8.26	11,202,368	9,018,670	1,091,849
6/30/2022	Liability (Gain)/Loss	10.43	7.43	(9,917,949)	(7,065,231)	(950,906)
6/30/2022	Asset (Gain)/Loss	5.00	2.00	17,315,587	6,926,236	3,463,117
6/30/2022	Assumptions	10.43	7.43	(21,067,061)	(15,007,505)	(2,019,852)
6/30/2021	Liability (Gain)/Loss	10.48	6.48	4,517,303	2,793,143	431,040
6/30/2021	Asset (Gain)/Loss	5.00	1.00	(7,491,819)	(1,498,363)	(1,498,364)
6/30/2021	Assumptions	10.48	6.48	2,506,034	1,549,534	239,125
6/30/2020	Liability (Gain)/Loss	10.54	5.54	(7,467,464)	(3,925,024)	(708,488)
6/30/2020	Asset (Gain)/Loss	5.00	0.00	813,300	0	162,660
6/30/2020	Assumptions	10.54	5.54	133,909,170	70,384,895	12,704,855
6/30/2019	Liability (Gain)/Loss	10.63	4.63	2,528,861	1,101,473	237,898
6/30/2019	Assumptions	10.63	4.63	29,685,609	12,929,859	2,792,625
6/30/2018	Liability (Gain)/Loss	9.45	2.45	4,062,300	1,053,189	429,873
6/30/2018	Assumptions	9.45	2.45	11,336,502	2,939,092	1,199,630
6/30/2017	Liability (Gain)/Loss	9.43	1.43	5,814,989	881,805	616,648
6/30/2017	Assumptions	9.43	1.43	3,186,806	483,262	337,943
	Total Charges				77,959,567	16,356,028

Amounts Recognized in the deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in the OPEB expense as follows:

Year End June 30:

2026	$ 16,193,369
2027	$ 17,147,619
2028	$ 12,377,798
2029	$ 11,447,436
2030	$ 13,661,234
Total Thereafter	$ 7,132,111
Total	$ 77,959,567

Plan Fiduciary Net Position Projection

The following table illustrates the projection of the fiduciary net position for use in the calculation of the discount rate as of June 30, 2025.

($ in thousands)

Year Ending June 30[2]	Beginning Fiduciary Net Position (a)	Total Contributions (b)	Benefit Payments (c)	Administrative Expenses (d)	Investment Earnings (e)	Ending Fiduciary Net Position[1] (f)
2025	$135,148	$23,204	$15,783	$59	$10,145	$152,655
2026	152,655	21,457	17,683	61	11,291	167,658
2027	167,658	23,032	19,153	64	12,391	183,864
2028	183,864	24,757	20,769	67	13,579	201,364
2029	201,364	36,263	22,112	70	15,228	230,674
2030	230,674	38,185	23,592	73	17,384	262,579
2031	262,579	44,521	25,260	77	19,885	301,648
2032	301,648	46,410	26,609	80	22,757	344,126
2033	344,126	48,367	28,012	84	25,879	390,276
2034	390,276	50,459	29,534	89	29,270	440,382
2035	440,382	51,301	30,907	93	32,909	493,593
2036	493,593	51,242	31,796	97	36,759	549,700
2037	549,700	42,084	32,914	102	40,480	599,248
2038	599,248	43,042	34,177	107	44,087	652,094
2039	652,094	45,643	35,609	111	47,988	710,004
2040	710,004	47,214	36,935	116	52,225	772,392
2041	772,392	49,812	38,432	121	56,820	840,471
2042	840,471	51,553	39,855	126	61,802	913,846
2043	913,846	53,039	41,014	130	67,171	992,913
2044	992,913	54,522	42,159	135	72,956	1,078,096
2045	1,078,096	55,824	43,116	140	79,188	1,169,853
2046	1,169,853	56,997	43,933	144	85,899	1,268,672
2047	1,268,672	58,157	44,727	149	93,127	1,375,079
2048	1,375,079	59,036	45,230	155	100,908	1,489,639
2049	1,489,639	60,275	46,082	160	109,286	1,612,957
2050	1,612,957	61,152	46,562	166	118,302	1,745,684
2051	1,745,684	62,037	47,038	172	128,007	1,888,518
2052	1,888,518	62,938	47,519	178	138,449	2,042,208
2053	2,042,208	63,742	47,891	185	149,684	2,207,557
2054	2,207,557	64,216	47,922	192	161,770	2,385,430

[1] (f)=(a) + (b) – (c) – (d) + (e)
[2] Years later than 2054 were omitted from this table.

Plan Fiduciary Net Position

The last year in which projected benefit payments are due from the Plan is 2122.

The Plan's projected fiduciary net position is not projected to reach $0.

As such, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "depletion date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.80% per annum was applied to all periods of projected benefit payments to determine the total OPEB liability as of June 30, 2024 shown earlier in this report, pursuant to paragraph 48 of GASB Statement No. 74 and paragraph 36 of GASB Statement No. 75.

In projecting the Plan's fiduciary net position the following assumptions were made:

1. Interest rate for discounting was 7.30% per annum.

2. Projected total contributions are Actuarially Determined Contribution (ADC) and Pay-Go (including implicit subsidy). Contributions are assumed to be paid mid-year.

3. Assumed contributions are based on the County of Riverside continuing to follow the current funding policy of normal cost plus 20-year closed period amortization of the 2017 unfunded liability and amortization of subsequent unanticipated changes in actuarial accrued liability over the 15-year period from date established and 5-years for any unexpected asset gains/losses. For funding purposes, implicit subsidy liability and normal cost are not considered.

4. Projected benefit payments have been determined in accordance with Paragraphs 30-35 of GASB Statement No. 75, and are based on the closed group of active, retired members and beneficiaries as of June 30, 2024. Benefit payments are assumed to be paid beginning of year.

5. Administrative expenses are $59,000 for 2025 and are projected with 2.30% inflation. Expenses are assumed to be paid mid-year.

6. Projected investment earnings are based on the assumed investment rate of return of 7.30% per annum.

Discount Rate Sensitivity

The following table illustrates the impact of interest rate sensitivity on the Net OPEB Liability for fiscal year ending June 30, 2024:

	1% Decrease (6.80%)	Current Rate (7.80%)	1% Increase (8.80%)
(1) Total OPEB Liability	$ 315,115,152	$ 283,310,961	$ 256,414,224
(2) Plan Fiduciary Net Position	(96,279,600)	(96,279,600)	(96,279,600)
(3) Net OPEB Liability (Asset)	$ 218,835,552	$ 187,031,361	$ 160,134,624

The following table illustrates the impact of interest rate sensitivity on the Net OPEB Liability for fiscal year ending June 30, 2025:

	1% Decrease (6.30%)	Current Rate (7.30%)	1% Increase (8.30%)
(1) Total OPEB Liability	$ 339,775,570	$ 304,521,622	$ 274,828,874
(2) Plan Fiduciary Net Position	(135,147,814)	(135,147,814)	(135,147,814)
(3) Net OPEB Liability (Asset)	$ 204,627,756	$ 169,373,808	$ 139,681,060

Healthcare Cost Trend Sensitivity

The following table illustrates the impact of healthcare cost trend sensitivity on the Net OPEB Liability for fiscal year ending June 30, 2024:

	1% Decrease	Trend Rate	1% Increase
(1) Total OPEB Liability	$ 252,792,300	$ 283,310,961	$ 320,182,939
(2) Plan Fiduciary Net Position	(96,279,600)	(96,279,600)	(96,279,600)
(3) Net OPEB Liability (Asset)	$ 156,512,700	$ 187,031,361	$ 223,903,339

The following table illustrates the impact of healthcare cost trend sensitivity on the Net OPEB Liability for fiscal year ending June 30, 2025:

	1% Decrease	Trend Rate	1% Increase
(1) Total OPEB Liability	$ 270,547,153	$ 304,521,622	$ 345,820,661
(2) Plan Fiduciary Net Position	(135,147,814)	(135,147,814)	(135,147,814)
(3) Net OPEB Liability (Asset)	$ 135,399,339	$ 169,373,808	$ 210,672,847

Disclosure—Changes in the Net OPEB Liability and Related Ratios

Changes in the Net OPEB Liability and Related Ratios[1]

	Fiscal Year Ending						
	2019	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Total OPEB Liability							
Service Cost	$ 882,148	$ 1,433,883	$ 2,966,332	$ 10,521,825	$ 10,290,320	$ 9,123,044	$ 11,392,716
Interest Cost	3,446,096	4,583,381	7,282,813	14,891,381	18,571,115	19,306,030	22,438,740
Changes of Benefit Terms	0	0	0	0	0	0	0
Differences Between Expected and Actual Experiences	4,062,300	2,528,861	(7,467,464)	4,517,303	(9,917,949)	8,204,436	(13,763,166)
Changes of Assumptions	11,336,502	29,685,609	133,909,170	2,506,034	(21,067,061)	11,202,368	15,466,353
Benefit Payments	(3,263,258)	(3,500,687)	(4,470,321)	(7,570,569)	(10,574,698)	(12,035,889)	(14,323,982)
Net Change in Total OPEB Liability	$ 16,463,788	$ 34,731,047	$ 132,220,530	$ 24,865,974	$ (12,698,273)	$ 35,799,989	$ 21,210,661
Total OPEB Liability (Beginning)	51,927,906	68,391,694	103,122,741	235,343,271	260,209,245	247,510,972	283,310,961
Total OPEB Liability (Ending)	$ 68,391,694	$ 103,122,741	$ 235,343,271	$ 260,209,245	$ 247,510,972	$ 283,310,961	$ 304,521,622
Plan Fiduciary Net Position							
Contributions—Employer	$ 4,263,258	$ 5,500,687	$ 10,070,321	$ 17,170,569	$ 25,064,698	$ 26,500,889	$ 28,523,982
Contributions—Member	0	0	0	0	0	0	0
Net Investment Income	2,342,895	2,820,756	2,526,296	11,041,124	(11,664,593)	5,443,316	24,726,398
Benefit Payments	(3,263,258)	(3,500,687)	(4,470,321)	(7,570,569)	(10,574,698)	(12,035,889)	(14,323,982)
Administrative Expense	(18,325)	(19,822)	(23,282)	(30,288)	(38,622)	(40,509)	(58,184)
Other	0	0	0	0	0	0	0
Net Change in Plan Fiduciary Net Position	$ 3,324,570	$ 4,800,934	$ 8,103,014	$ 20,610,836	$ 2,786,785	$ 19,867,807	$ 38,868,214
Plan Fiduciary Net Position (Beginning)	36,785,654	40,110,224	44,911,158	53,014,172	73,625,008	76,411,793	96,279,600
Plan Fiduciary Net Position (Ending)	$ 40,110,224	$ 44,911,158	$ 53,014,172	$ 73,625,008	$ 76,411,793	$ 96,279,600	$ 135,147,814
Net OPEB Liability (Ending)	$ 28,281,470	$ 58,211,583	$ 182,329,099	$ 186,584,237	$ 171,099,179	$ 187,031,361	$ 169,373,808
Net Position as a Percentage of OPEB Liability	58.65%	43.55%	22.53%	28.29%	30.87%	33.98%	44.38%
Covered-Employee Payroll	$ 1,374,752,875	$ 1,399,892,784	$ 1,445,184,896	$ 1,487,790,582	$ 1,561,286,528	$ 1,750,070,558	$ 1,915,098,637
Net OPEB Liability as a Percentage of Payroll	2.06%	4.16%	12.62%	12.54%	10.96%	10.69%	8.84%

[1] GASB 75 was effective first for employer fiscal years beginning after June 15, 2017.

Disclosure—Contribution Schedule

Contributions

	Fiscal Year Ending						
	2019	2020	2021	2022	2023	2024	2025
Actuarially Determined Contribution	$ 2,141,196	$ 4,254,133	$ 9,061,596	$ 16,339,607	$ 14,108,781	$ 6,437,221	$ 7,421,536
Contributions Made in Relation to the Actuarially Determined Contribution	5,500,687	10,070,321	17,170,569	25,064,698	26,500,889	28,523,982	TBD
Contribution Deficiency (Excess)	(3,246,554)	(5,816,188)	(8,108,973)	(8,725,091)	(12,392,108)	(22,086,761)	TBD
Covered-Employee Payroll	$ 1,399,892,784	$ 1,445,184,896	$ 1,487,790,582	$ 1,561,286,528	$ 1,750,070,558	$ 1,915,098,637	TBD
Contributions as a Percentage of Payroll	0.39%	0.70%	1.15%	1.61%	1.51%	1.49%	TBD

Notes to Schedule:

Valuation Date: Actuarially Determined Contribution rates are calculated as of June 30, one year prior to the beginning of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Actuarial Cost Method	Entry Age Normal with Amortization of 7/1/2017 unfunded liability over a period ending 6/30/2037 and amortization of subsequent unanticipated changes in liability over 15-year periods and any asset gain/loss over 5-year periods.
Asset Valuation Method	Smoothed Market Value
Salary Increases	2.80%
Discount Rate	7.00%
Investment Rate of Return	7.80% as of July 1, 2023, net of OPEB plan investment expense, including inflation.
Retirement Age	Retirement rates developed in the 2021 CalPERS Experience Study
Mortality	Pub-2010 Public Retirement Plans Mortality Tables using Scale MP-2021

Participant Information

These exhibit summaries contain participant demographic information.

Active Employee Age/Service Distribution

	Years of Service								
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**>35**	**Total**
<25	677	13	0	0	0	0	0	0	690
25-29	2,058	170	2	0	0	0	0	0	2,230
30-34	2,159	740	217	13	0	0	0	0	3,129
35-39	1,651	761	616	371	7	0	0	0	3,406
40-44	1,238	620	526	916	205	5	0	0	3,510
45-49	923	513	396	779	563	142	2	0	3,318
50-54	668	408	317	583	461	261	56	3	2,757
55-59	417	263	233	360	293	156	60	26	1,808
60-64	233	203	168	219	143	65	21	19	1,071
>65	63	80	59	74	46	20	8	17	367
Total	10,087	3,771	2,534	3,315	1,718	649	147	65	22,286

Participant Statistics [1]

	Safety Employees	Miscellaneous Employees	Total
Retirees			
Number of retirees	875	2,463	3,338
Average age	65.6	69.3	68.3
Number of retiree spouses	475	581	1,056
Actives			
Number of actives	3,657	18,629	22,286
Average age	39.1	43.6	42.8
Average past service (years)	11.0	8.6	9.0

[1] As of July 1, 2024, there are approximately 4,000 deferred retirees are eligible to elect benefits, although are not explicitly included in the participant counts.

Development of GASB 75 Amortization Period for Changes in Liability

	July 1, 2023		July 1, 2024	
Status	**2023 Count**	**Average Future Working Life**	**2024 Count**	**Average Future Working Life[1]**
Actives	21,667	11.88	22,286	11.96
Retirees[2]	3,228	0.00	3,338	0.00
Total/Weighted Average	24,895	10.34	25,624	10.40

Active Participant Benefit Summary

The table below summarizes the number of participants by bargaining units and the benefits valued. As described in the plan summary and actuarial assumptions sections, certain groups are eligible for PEMHCA benefits not shown in this summary.

Union Code	Description	Bargaining Unit (used to determine contribution)	# Records	2024 Monthly County Contribution*	Health Plan	CalPERS Retirement Program
CNF	Confidential	Confidential	243	$ 256.00	CalPERS	Misc
LEM	Law Enforcement Management	LEMU	509	$ 157.00	CalPERS	Safety
MGT	Management (General)	Management	1,236	$ 256.00	CalPERS	Misc
MLX	Law Enforcement Exec Staff	LE Exec Staff	15	$ 256.00	CalPERS	Safety
PD7	Public Defender, Prosecution (District Attorney's)	DDAA	411	$ 256.00	CalPERS	Misc
RSA	RSA Law Enforcement	RSA	2,601	$ 25.00	RSA	Safety
RSP	RSA Public Safety	RSA Public Safety	533	$ 157.00	CalPERS	Safety
SE2	SEIU Professional	SEIU	4,071	$ 157.00	CalPERS	Misc
SE8	SEIU Registered Nurses	SEIU	1,454	$ 157.00	CalPERS	Misc
SE9	SEIU Para Professional	SEIU	1,378	$ 157.00	CalPERS	Misc
SES	SEIU Supervisory	SEIU	1,764	$ 157.00	CalPERS	Misc
SPD	SEIU Temporary Assistant	SEIU	1	$ 157.00	CalPERS	Misc
UNC	Unrepresented Confidential	Confidential	160	$ 256.00	CalPERS	Misc
UNR	Unrepresented Management	Management	18	$ 256.00	CalPERS	Misc
UP4	LIUNA Inspection and Technical	LIUNA	1,596	$ 157.00	CalPERS	Misc
UP5	LIUNA Trades, Crafts and Labor	LIUNA	944	$ 157.00	CalPERS	Misc
UP6	LIUNA Supporting Services	LIUNA	5,352	$ 157.00	CalPERS	Misc
		County Total	22,286			

* Other than RSA Law Enforcement, all Bargaining Units are eligible to receive the greater of the PEMHCA amount or the bargained amount. Currently, Confidential, DDAA, Management (General), Law Enforcement Executive Staff, Unrepresented Confidential, and Unrepresented management are above the PEMHCA amount, LEMU, RSA Public Safety, SEIU, and LIUNA are at the PEMHCA amount.

Special District (Waste, Parks, and Flood) employees are not included in this valuation.

[1] Based on demographic assumptions set out in the Actuarial Assumption and Methods section of this report.
[2] Excludes deferred retirees. Including this group would decrease the Average Future Working Life by 0.5.

Retired Participant Benefit Summary

The table below summarizes the number of current retirees receiving various monthly County contribution amounts:

Age	$25.00	$157.00	$256.00	Total
<40	1	0	0	1
40-44	3	1	2	6
45-49	6	2	1	9
50-54	56	80	25	161
55-59	67	224	68	359
60-64	78	526	161	765
65-69	66	484	168	718
70-74	44	312	212	568
75-79	19	271	126	416
80-84	11	151	51	213
85-89	3	53	14	70
90-95	1	30	12	43
>95	0	5	4	9
Total	355	2,139	844	3,338

Plan Election Summary

The table below summarizes the number of participants by medical plan.

Plan	HMO/PPO	Actives	Retirees
Basic			
Anthem Select	HMO	800	41
Anthem Traditional	HMO	179	12
Blue Shield Access +	HMO	2,741	180
Blue Shield Trio	HMO	1,154	67
Health Net Salud y Más	HMO	309	15
Kaiser	HMO	7,764	447
PERS Gold	PPO	1,190	49
PERS Platinum	PPO	252	151
PORAC	PPO	13	15
United Healthcare Alliance	HMO	713	82
United Healthcare Harmony	HMO	271	26
RSA		2,601	355
Waiver/Unspecified		4,299	6
Total		22,286	1,446
Supplemental/Managed Medicare			
Anthem	HMO		40
Blue Shield	HMO		56
Kaiser	HMO		1,084
PERS Gold	PPO		39
PERS Platinum	PPO		218
PORAC	PPO		24
United Healthcare	PPO		431
Total			1,892

Summary of Principal Plan Provisions

The following plan provisions are the basis for the calculations in this actuarial valuation.

1. **Benefit Eligibility**
All employees who retire from active employment within 120 days of separation are eligible for participation. Participants are eligible for service retirement at or after age 50, or disability retirement at an age younger than 50, with at least 5 years of service. Former employees who become eligible for CalPERS pension benefits more than 120 days after separation are not eligible for retiree health benefits.

2. **Benefits / Plans Covered**
The County contributes a portion of an eligible retiree's medical plan premium under a County sponsored health plan (either at retirement or during a subsequent annual enrollment) for the retiree's lifetime. Contributions are based on the employee's bargaining unit at the time of retirement; as follows:

Bargaining Unit at Retirement	***Monthly Contribution***					
	2020	**2021**	**2022**	**2023**	**2024**	**2025**
Confidential**	$256.00	$256.00	$256.00	$256.00	$256.00	$256.00
LEMU (Management)*	$139.00	$143.00	$149.00	$151.00	$157.00	$158.00
MLX (Executive Staff)**	$256.00	$256.00	$256.00	$256.00	$256.00	$256.00
LIUNA	$25.00	$25.00	$149.00	$151.00	$157.00	$158.00
Management**	$256.00	$256.00	$256.00	$256.00	$256.00	$256.00
District Attorneys (DDAA)*	$256.00	$256.00	$256.00	$256.00	$256.00	$256.00
RSA Law Enforcement	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00
RSA Public Safety*	$139.00	$143.00	$149.00	$151.00	$157.00	$158.00
SEIU	$139.00	$143.00	$149.00	$151.00	$157.00	$158.00
Unrepresented**	$256.00	$256.00	$256.00	$256.00	$256.00	$256.00

* Other than RSA Law Enforcement, all Bargaining units are eligible to receive the greater of the PEMHCA amount or the bargained amount. Currently, Confidential, MLX (Executive Staff), Management, Prosecution (Deputy DAs), and Unrepresented are above the PEMHCA amount, LEMU, RSA Public Safety, SEIU, and LIUNA are at the PEMHCA amount.

** Confidential, MLX (Executive Staff), Management and Unrepresented retired before 11/1/2005 receive a monthly contribution of $128 and after 11/1/2005 receive a monthly contribution of $256.

Future PEMHCA amounts increase at the same rate as Medical CPI. See Appendix A for a projection of the monthly PEMHCA contribution amounts.

RSA – The County contributes $25.00 per month to the RSA Benefit Trust for RSA Law Enforcement retirees. Although the Trust is responsible for providing a benefit with a much larger premium, the County is responsible for the $25.00 monthly contribution and this benefit is included in Plan liabilities.

Implicit Subsidy – Under CalPERS plans, retirees can receive coverage at premium rates that are subsidized due to demographic differences between those receiving benefits and the population used to develop premiums (e.g., blended active and retiree premiums.)

3. **Survivor Coverage Benefits**
Upon the death of the retiree, the eligible surviving spouse receives the same monthly benefit amount for their lifetime.

Actuarial Assumptions and Methods

1. Actuarial Cost Method

The costs shown in the report were developed using the Entry Age Normal cost method.

The Entry Age Normal (EAN) cost method spreads plan costs for each participant from entry date (assuming the plan existed on the employee's hire date) to the expected retirement date. Under the EAN cost method, the plan's normal cost is developed as a level percentage of pay spread over the participants' working lifetime. For this purpose, pay is assumed to increase 2.80% per annum. The AAL is the cumulative value, on the valuation date, of prior service costs. For retirees, the AAL is the present value of all projected benefits.

The Plan costs are derived by making certain specific assumptions as to the rates of interest, mortality, turnover and other demographic events, which are assumed to hold for many years into the future. Actual experience may differ somewhat from the assumptions and the effect of such differences is spread over all periods. Due to these differences, the costs determined by the valuation must be regarded as estimates of the true Plan costs.

2. Funding Policy and Actuarially Determined Contribution (ADC)

The County's funding policy is to contribute the normal cost plus the amortization of unfunded liability based on the following:

- Amortization of the 2017 unfunded liability over the period ending June 30, 2037, plus
- 15-year amortization of subsequent unanticipated changes in liability (i.e., actuarial gains/losses and assumption changes), plus
- 5-year amortization of subsequent unanticipated changes in assets (i.e., asset gains/losses).

The amortization is calculated based on a level percentage of future payroll amounts

Effective July 1, 2020 (ADC for Fiscal Year Ending June 30, 2022), the County elected to exclude the implicit subsidy liability in the funding contribution development.

3. GASB Discount Rate

7.30% - as of 7/1/2024
7.80% - as of 7/1/2023

Under GASB 75, the discount rate is based on a single equivalent rate that reflects a blend of:

- Expected return on assets during the period such that assets are projected to be sufficient to pay benefits of current participants; and
- 20-year, municipal bond yields / index for periods beyond the depletion of the assets.

Based on the current funding policy, projected cash flows, and the assumed asset return, the plan assets are not projected to be depleted, and the discount rate can be based on the expected asset return.

4. Municipal Bond Rate

3.63% - as of 7/1/2024
3.65% - as of 7/1/2023

Municipal Bond Rate is based on the Bond Buyer General Obligation 20-Bond Municipal Bond Index.

5. Funding Discount Rate

7.00% - Funding policy selected by the County

6. Expected Return on Assets

7.30% - Selected by the County

The long-term expected rate of return on plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the asset allocation percentage with allowance for volatility in returns and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the plan's asset allocation as of June 30, 2024 are summarized in the following table:

Asset Class	Expected Nominal Rate of Return	Expected Real Rate of Return	Allocation
Large Cap U.S. Equity	6.70%	4.30%	29.16%
Small Cap U.S. Equity	7.20%	4.79%	9.02%
International (Non-U.S.) Equity (Developed)	6.60%	4.20%	5.69%
Emerging Markets Equity	6.90%	4.50%	3.18%
Cash (Gov't)	4.10%	1.76%	4.25%
Long Duration Bonds – Gov't / Credit	5.40%	3.03%	35.85%
High Yield Bonds	6.20%	3.81%	2.33%
Intermediate Duration Bonds - Credit	5.10%	2.74%	8.11%
Private Real Estate (Core)	5.80%	3.42%	1.69%
Infrastructure (Open-End)	7.40%	4.99%	0.74%
Total Portfolio			100.00%

The analysis of Aon's June 30, 2024 Capital Market Assumptions and the Plan's asset allocation, resulted in a range of reasonable returns between 5.96% and 7.36%.

7. Payroll Increases

2.80% - This is the annual rate at which total payroll is expected to increase and is used in the funding method to calculate the funding contribution as a level percent of payroll.

8. Inflation

2.30% - This is the assumed annual rate of inflation for future years.

For demographic assumptions:

Public Agency Police consists of Law Enforcement Management and Law Enforcement Executive Staff;

Public Agency County Peace Officer consists of RSA Law Enforcement and RSA Public Safety, and;

Miscellaneous consists of all other bargaining units.

9. Mortality

Mortality rates are based on the Pub-2010 headcount-weighted tables for general employees of all income levels, with generational future improvement scale MP-2021. Sample rates for the 2010 base year mortality are as follows:

Age	Male	Female
30	0.05%	0.02%
40	0.08%	0.04%
50	0.18%	0.10%
60	0.38%	0.21%
70	0.82%	0.53%
80	2.03%	1.41%
90	15.78%	12.12%

10. Termination

Termination rates developed in the 2021 CalPERS Experience Study were used in the valuation. The following sample rates are based on age and service:

Public Agency Police and County Peace Officer - Male

Attained	Years of Service						
Age	0 – 1	5	10	15	20	25	30
30	12.98%	2.69%	1.45%	0.83%	0.00%	0.00%	0.00%
35	12.98%	2.69%	1.45%	0.83%	0.60%	0.00%	0.00%
40	12.98%	2.69%	1.45%	0.83%	0.60%	0.42%	0.00%
45	12.98%	2.69%	1.45%	0.83%	0.60%	0.42%	0.21%
50	12.98%	2.69%	1.45%	0.83%	0.60%	0.42%	0.21%
55	12.98%	1.13%	0.32%	0.00%	0.00%	0.00%	0.00%

Termination (cont.)

Public Agency Police and County Peace Officer - Female

Attained Age	Years of Service						
	0 – 1	5	10	15	20	25	30
30	13.89%	4.00%	2.46%	1.44%	0.00%	0.00%	0.00%
35	13.89%	4.00%	2.46%	1.44%	1.05%	0.00%	0.00%
40	13.89%	4.00%	2.46%	1.44%	1.05%	0.73%	0.00%
45	13.89%	4.00%	2.46%	1.44%	1.05%	0.73%	0.37%
50	13.89%	4.00%	2.46%	1.44%	1.05%	0.73%	0.37%
55	13.89%	1.28%	0.47%	0.00%	0.00%	0.00%	0.00%

Miscellaneous - Male

Attained Age	Years of Service						
	0 – 1	5	10	15	20	25	30
30	16.31%	8.04%	3.77%	1.80%	0.00%	0.00%	0.00%
35	14.93%	7.15%	3.66%	1.80%	1.41%	0.00%	0.00%
40	14.90%	6.27%	3.37%	1.80%	1.41%	0.84%	0.00%
45	14.87%	5.62%	3.09%	1.66%	1.41%	0.84%	0.47%
50	15.09%	4.97%	2.45%	1.52%	1.10%	0.84%	0.47%
55	15.30%	4.61%	1.81%	1.19%	0.79%	0.64%	0.47%

Miscellaneous - Female

Attained Age	Years of Service						
	0 – 1	5	10	15	20	25	30
30	18.24%	10.41%	5.02%	2.52%	0.00%	0.00%	0.00%
35	17.49%	9.25%	4.91%	2.52%	1.75%	0.00%	0.00%
40	17.31%	8.09%	4.46%	2.52%	1.75%	1.08%	0.00%
45	17.13%	7.30%	4.01%	2.13%	1.75%	1.08%	0.56%
50	17.41%	6.50%	3.08%	1.74%	1.31%	1.08%	0.56%
55	17.69%	5.80%	2.15%	1.32%	0.87%	0.76%	0.56%

11. Disability

Disability rates developed in the 2021 CalPERS Experience Study were used in the valuation. Sample rates are as follows:

	Public Agency Police & County Peace Officer		CalPERS Miscellaneous	
Age	Male	Female	Male	Female
25	0.17%	0.17%	0.01%	0.01%
30	0.49%	0.49%	0.02%	0.03%
35	0.81%	0.81%	0.04%	0.07%
40	1.12%	1.12%	0.09%	0.12%
45	1.44%	1.44%	0.15%	0.19%
50	0.00%	0.00%	0.15%	0.19%
55	0.00%	0.00%	0.14%	0.13%

12. Retirement Age

Retirement rates developed in the 2021 CalPERS Experience Study are used in the valuation. Sample rates are provided below.

- Hire date prior to August 24, 2012:
  - Police 3% @ 50 were used for safety employees (including County Peace Officers)
  - Miscellaneous 3% @ 60 rates were used for all other employees.
- Hire date August 24, 2012 to December 31, 2012:
  - Police 2% @ 50 were used for safety employees (including County Peace Officers)
  - Miscellaneous 2% @ 60 rates were used for all other employees.
- Hire date post December 31, 2012:
  - Police 2.7% @ 57 were used for safety employees (including County Peace Officers)
  - Miscellaneous 2% @ 62 rates were used for all other employees.

Miscellaneous 3% @ 60

Attained	Years of Service						
Age	5	10	15	20	25	30	35
50	1.50%	2.00%	2.50%	3.90%	4.00%	4.40%	4.40%
55	13.70%	4.30%	5.10%	6.50%	7.60%	10.80%	13.60%
60	8.10%	8.50%	13.30%	21.50%	28.00%	33.30%	37.80%
65	15.20%	20.10%	26.20%	29.90%	32.30%	32.30%	32.30%
70	24.50%	24.50%	24.50%	24.50%	24.50%	24.50%	24.50%
75	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Miscellaneous 2% @ 60

Attained	Years of Service						
Age	5	10	15	20	25	30	35
50	1.00%	1.10%	1.40%	1.40%	1.70%	1.70%	1.70%
55	1.20%	1.60%	2.40%	3.20%	3.60%	3.60%	3.60%
60	6.30%	6.90%	7.40%	9.00%	13.70%	11.60%	12.50%
65	13.80%	16.00%	21.40%	21.60%	23.70%	28.30%	31.30%
70	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
75	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Miscellaneous 2% @ 62

Attained	Years of Service						
Age	5	10	15	20	25	30	35
50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
55	1.00%	1.90%	2.80%	3.60%	6.10%	9.60%	15.20%
60	3.10%	5.10%	7.10%	9.10%	11.10%	13.80%	18.30%
65	10.80%	14.10%	17.30%	20.60%	23.90%	30.00%	34.80%
70	12.00%	15.60%	19.30%	22.90%	26.50%	33.30%	38.70%
75	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Police 3% @ 50

Attained Age	Years of Service						
	5	**10**	**15**	**20**	**25**	**30**	**35**
50	12.40%	10.30%	11.30%	14.30%	24.40%	37.60%	43.80%
55	6.90%	7.40%	8.10%	11.30%	20.90%	30.50%	33.60%
60	34.30%	18.00%	15.90%	18.80%	24.70%	24.70%	24.70%
65	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
75	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Police 2% @ 50

Attained Age	Years of Service						
	5	**10**	**15**	**20**	**25**	**30**	**35**
50	1.80%	7.70%	5.60%	4.60%	4.30%	4.60%	4.60%
55	0.90%	4.00%	9.90%	15.70%	18.60%	18.60%	18.60%
60	17.70%	17.70%	17.70%	17.70%	17.70%	17.70%	17.70%
65	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
75	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Police 2.7% @ 57

Attained Age	Years of Service						
	5	**10**	**15**	**20**	**25**	**30**	**35**
50	5.00%	5.00%	5.00%	5.00%	5.00%	10.00%	11.00%
55	6.80%	6.80%	6.80%	9.10%	13.40%	24.20%	38.80%
60	15.00%	15.00%	15.00%	15.00%	15.00%	22.80%	35.00%
65	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
75	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

13. Annual Medical Inflation ("Trend")

County Contribution: PEMHCA amounts have been determined through 2025 ($158.00). After 2025, the PEMHCA amounts will increase at the same rate as the Medical CPI. For valuation purposes, this is assumed to be 4% for all years. This applies to RSA Public Safety, Deputy District Attorney, Law Enforcement Management, Confidential, Management, Executive Staff, and Unrepresented who were assumed to participate in CalPERS Health Benefits programs and receive the PEMHCA amounts.

All other County contributions are assumed to remain at their current level.

For purposes of calculating the implicit subsidy, a medical trend rate assumption was used to develop the projected future medical claim amounts. The medical trend rate represents the long-term expected growth of medical benefits paid by the plan, due to non-age-related factors such as general medical inflation, utilization, new technology, and the like. The following table sets forth the trend assumptions used for the valuation:

	Medical	
Year	**Pre Medicare**	**Post Medicare**
2024*	7.31%	7.98%
2025	6.78%	7.62%
2026	6.46%	7.19%
2027	6.14%	6.75%
2028	5.82%	6.30%
2029	5.49%	5.86%
2030	5.16%	5.41%
2031	4.83%	4.95%
2032+	4.50%	4.50%

* The rates shown above for 2024 are the actual increase in premium rates from 2024 to 2025 based on the published 2025 premiums shown below.

14. Monthly Medical Costs (for Implicit Subsidy calculations)

The table below shows 2025 premiums as of the valuation date based on Region 3 (Los Angeles, Riverside, San Bernardino).

Plan	HMO/PPO	Employee Only	Employee & 1 Dep.
Basic			
Anthem Select	HMO	$916.88	$1,833.76
Anthem Traditional	HMO	1,065.46	2,130.92
Blue Shield Access +	HMO	828.48	1,656.96
Blue Shield Trio	HMO	738.11	1,476.22
Health Net Salud y Más	HMO	714.40	1,428.80
Kaiser	HMO	926.52	1,853.04
PERS Gold	PPO	868.15	1,736.30
PERS Platinum	PPO	1,263.73	2,527.46
PORAC	PPO	970.00	1,951.00
United Healthcare Alliance	HMO	866.40	1,732.80
United Healthcare Harmony	HMO	756.28	1,512.56
Supplemental/Managed Medicare			
Anthem	HMO	487.56	975.12
Blue Shield	HMO	448.28	896.56
Kaiser	HMO	343.08	686.16
PERS Gold	PPO	546.13	1,092.26
PERS Platinum	PPO	584.70	1,169.40
PORAC	PPO	507.00	1,123.00
United Healthcare	PPO	442.25	884.50

Monthly Medical costs were developed by applying age adjustments to the above premiums to reflect the implicit subsidy. These age adjustments are based on statewide information provided by CalPERS (updated in 2023). Single rate age adjustment factors are used for retirees and spouses. A sampling of the factors used is included below:

Aging Factors

Age	HMO Plans	PPO Plans
20	0.36	0.34
30	0.53	0.52
40	0.67	0.63
50	1.00	0.93
60	1.51	1.37
64	1.73	1.58
65	0.82	0.80
70	0.92	0.90
80	1.12	1.10
90+	1.15	1.15

15. Retiree Contributions

Retirees pay the premiums in excess of the County contributions.

16. Dental Benefits

Retirees are eligible for dental benefits if they pay the entire premium. Since dental claims are not assumed to vary with age, costs are expected to be fully paid by retirees and no County liabilities exist.

17. Lapse Rates

The lapse rate represents the annual rate at which retirees elect not to renew coverage. Assumed lapse rates of future and current retirees are included below:

Age	Lapse Rate
50-59	6.5%
60-64	6.5%
65-69	5.0%
70-74	4.0%
75-79	3.5%
80-84	3.0%
85+	0.0%

18. Participants Valued

Only current active and retired participants are directly valued. No future entrants are considered in this valuation except for the participants listed below.

Certain employees who do not immediately elect coverage at retirement are eligible to elect retiree coverage at a later date. Currently, there are approximately 4,000 such deferred retirees. These deferred retirees' liabilities are estimated using recent experience and July 1, 2024 census data. Future deferred election rates are included below:

Age	Election Rate
50-54	3.5%
55-59	6.0%
60-64	10.5%
65-69	4.0%
70+	0.0%

For RSA, it is anticipated that a significant number of retirees will defer benefits to later years. The RSA retiree liability was loaded 15% to account for such current "deferred" retirees that are not included in the census data.

19. Plan Participation

Assumed plan participation rates of future retirees is as set out in the following table:

Health Plan / Benefit Eligibility	Assumed Participation Rate
CalPERS health plans	60% immediate / 10% defer to age 68
RSA health plans	60% immediate / 20% defer to age 65

These percentages were developed based on a review of the County's recent experience.

Future retirees are assumed to elect health plans in the same proportions as the current allocation.

20. Spousal Coverage Assumption

50% of future eligible retirees are assumed to cover their spouses. Males are assumed to be three years older than their female spouses. Current spousal coverage is used for current retirees.

21. Participants Excluded

Special District (Waste, Parks, and Flood) employees, along with active Court members, were not included in this valuation.

22. Changes in Valuation Assumptions

The following assumptions were changed from the prior valuation:

1) Expected return on assets was updated from 7.80% to 7.30%.
2) GASB discount rate was updated from 7.80% to 7.30%, in light of change in expected return assumption. No change in the funding discount rate, 7.00%.
3) The claim tables were updated to reflect most recent CalPERS monthly premiums available for 2025.

Appendix A—Comparison of County Contribution to PEMHCA

The following table compares the projected monthly benefit per participant under the current plan to the projected monthly benefit per participant under PEMHCA. The PEMHCA amounts are assumed to increase at the same rate as medical inflation each year after 2025.

	Current Benefits		
Year	**Low - $25/month**	**High - $256/month**	**PEMHCA Benefit[1]**
2024	$25.00	$256.00	$157.50
2025	$25.00	$256.00	$161.16
2026	$25.00	$256.00	$167.61
2027	$25.00	$256.00	$174.31
2028	$25.00	$256.00	$181.28
2029	$25.00	$256.00	$188.53
2030	$25.00	$256.00	$196.08
2031	$25.00	$256.00	$203.92
2032	$25.00	$256.00	$212.08
2033	$25.00	$256.00	$220.56
2034	$25.00	$256.00	$229.38
2035	$25.00	$256.00	$238.56
2036	$25.00	$256.00	$248.10
2037	$25.00	$256.00	$258.02
2038	$25.00	$256.00	$268.34
2039	$25.00	$256.00	$279.08
2040	$25.00	$256.00	$290.24
2041	$25.00	$256.00	$301.85
2042	$25.00	$256.00	$313.92
2043	$25.00	$256.00	$326.48
2044	$25.00	$256.00	$339.54
2045	$25.00	$256.00	$353.12

[1] PEMHCA amounts shown in the table are estimates for Plan Year (e.g., 2024 is based on the average of 1/1/2024 and 1/1/2025 amounts)

Appendix B—GASB 75 Expense Estimate for Fiscal Year Ending June 30, 2026

The following table illustrates the estimated OPEB expense under GASB 75 for the Fiscal Year ending June 30, 2026. The amounts shown are estimates based on the results of the July 1, 2024 actuarial valuation and a 7.30% discount rate.

	Fiscal Year Ending 6/30/2026 [1]
(1) Service Cost	$ 13,454,000
(2) Interest Cost	22,646,000
(3) Expected Investment Return	(10,132,000)
(4) Employee Contributions	0
(5) Administrative Expense	59,000
(6) Plan Changes	0
(7) Amortization of Unrecognized	
(a) Liability (Gain)/Loss	(475,000)
(b) Asset (Gain)/Loss	(1,173,000)
(c) Assumption Change (Gain)/Loss	17,842,000
(8) Total Estimated Expense	$ 42,221,000
(9) Total Expense as a Percentage of Payroll [2]	2.14%

[1] Final FYE 2026 expense information will be provided in the actuarial valuation based on a June 30, 2025 measurement date reflecting updated census, assumptions, plan provisions and actual asset values, in addition to any asset, liability, or assumption gains/losses initially recognized over the period June 30, 2024 to June 30, 2025.
[2] Based on estimated payroll.

Appendix C—Pre-65 / Post-65 Breakdown

Alternate breakdown of AAL is shown below to help understand the source of costs. The liabilities shown in this exhibit were calculated using a 7.30% discount rate.

	Pre-65	Post-65	Total
All Benefits			
County Contribution - Flat Dollar (RSA)			
Retirees	$100,921	$201,480	$302,401
Actives	$1,220,381	$1,073,963	$2,294,344
Subtotal	$1,321,302	$1,275,443	$2,596,745
County Contribution - CalPERS Benefits			
Retirees	$12,999,326	$70,092,280	$83,091,606
Actives	$20,958,923	$49,805,321	$70,764,244
Subtotal	$33,958,249	$119,897,601	$153,855,850
CalPERS - Implicit Subsidy			
Retirees	$52,099,224	$4,401,559	$56,500,783
Actives	$92,035,825	($467,581)	$91,568,244
Subtotal	$144,135,049	$3,933,978	$148,069,027
Total AAL	**$179,414,600**	**$125,107,022**	**$304,521,622**
Number of Retirees as of 7/1/2024[1]	1,301	3,338	3,338
Number of Actives as of 7/1/2024[1]	21,919	22,286	22,286
AAL Per Retiree[2]	$27,910	$17,161	$28,039
AAL Per Active	$5,211	$2,262	$7,387
Normal Cost			
Flat Dollar (RSA)	$111,220	$71,612	$182,832
CalPERS Benefits	$1,659,877	$4,791,330	$6,451,207
CalPERS - Implicit Subsidy	$6,729,482	$90,873	$6,820,355
Total Normal Cost	**$8,500,579**	**$4,953,815**	**$13,454,394**

[1] For purpose of illustrating per participant AAL, counts reflect number of participants eligible for pre-65 and post-65 benefits, respectively. Deferred retirees are not explicitly included in the count, but their future benefits are valued based on the election assumption developed in the experience study carried out in 2021 and reviewed in subsequent years and the actual deferred retiree population 2024.

[2] Average liability excluding deferred retirees; Average liability for eligible deferred retirees is approximately $11,500.

Actuarial Valuation Report

County of Riverside

Part-time and Temporary Employees' Retirement Plan

As of July 1, 2024

Executive Summary

Background

The County of Riverside established the Part-Time and Temporary Employees' Retirement Plan to provide retirement benefits to eligible employees as a substitute for benefits under Social Security, as allowed under OBRA '90. The Plan is an IRS Section 401(a) defined benefit plan.

The County's current funding policy is to contribute a level percentage of pay based on the sum of:

<u>Ongoing accruals</u>

a) Normal Cost with interest and administrative expense, less
b) Expected Employee Contributions

<u>Plus, Amortization of unfunded liabilities</u>

c) Amortization of July 1, 2017 Unfunded Actuarial Accrued Liability (UAAL) over the period ending June 30, 2037, plus
d) Amortization of subsequent unanticipated changes in liability (i.e., actuarial gains / losses and changes in assumptions) over 15-year periods and unanticipated changes in assets over 5-year periods.

Amortization amounts are calculated based on the discount rate and payroll increase assumption appropriate for the valuation date.

Summary of Results

Funding Contribution

The funding contribution for Fiscal Year Ending (FYE) 2025 is $0 and was developed based on the prior year valuation. The funding contribution for FYE 2026 is $0 and is developed based on the funding policy described in the Background section above and reflecting the funded status of the plan.

Although the funding contribution methodology results in a current and near term $0 contribution amount, the plan has a shortfall and hence, the County may wish to consider an alternative funding amount.

The current policy amortizes assets and liabilities experience over different periods, which results in a negative net amortization in the next few years, switching to highly positive net amortization amounts after 2028. This negative amortization is larger than the cost of accruals, resulting in a $0 contribution.

An alternative amortization of the UAAL that uses a single 15-year amortization period would address the volatility in the 5-year/15-year amortization amounts under the current policy and address the plan's current funded status. In addition, due to the high turnover of this plan's participants, the County may want to base the contribution amount (as a % of pay) on the total expected payroll for the year, rather than just a snapshot of the compensation earned for the active population as of the valuation date.

Application of the 15-year amortization period leads to a contribution of 1.61% of total expected payroll. More information regarding both the standard and alternative funding scenarios is provided in the Development of Funding Contribution section of the report.

GASB 68

This valuation is based on census data provided as of July 1, 2024 for the purpose of providing GASB 68 financial statement information, including expense, for FYE June 30, 2025. The final FYE June 30, 2025 expense/(income) is $983,683, which is lower than that estimated in the prior valuation primarily due to higher than expected employee contributions.

The estimated FYE 2026 expense is $(558,000) **income**. The decrease from FYE 2025 expense is a result of prior amortization bases being fully recognized and higher expected return on assets (due to the higher asset value coupled with the increased expected return on assets assumption), offset by higher interest cost. The final FYE 2026 expense will be updated to reflect actual cash flows, actual employee contributions and any unexpected gains or losses on the assets and liability during the measurement period ending June 2025.

The measurement date for results shown in this valuation report is June 30, 2024.

ASOP 51

In September 2017, the Actuarial Standards Board (ASB) introduced Actuarial Standard of Practice (ASOP) No. 51, *Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions*, which is effective for any actuarial work product with a measurement date on or after November 1, 2018. This ASOP provides guidance to actuaries with regard to the assessment and disclosure of the risk that actual future measurements may differ significantly from expected future measurements. Examples of future measurements include pension liabilities, actuarially determined contributions, and funded status. A report that addresses the requirements of ASOP 51 will be provided in a report separate to these valuation results.

ASOP 4

For all funding valuations with measurement dates on or after February 15, 2023, and for which an actuarial report is issued on or after February 15, 2023, ASOP 4 now requires the calculation and disclosure of an additional measure of the plan's liability using a discount rate or discount rates derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future. This additional liability measure is referred to as the Low-Default-Risk Obligation Measure (LDROM). The LDROM is documented in Appendix B of the report.

The actuarially determined contribution (ADC) in this report is considered reasonable because it meets the criteria of Section 3.21 of Actuarial Standard of Practice No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions* (ASOP 4):

- All significant assumptions are reasonable
- Combined impact of assumptions are projected to have no significant bias
- The actuarial cost method allocates cost in a reasonable way over employees' careers
- Amortizations are projected to either fully amortize the unfunded liability or reduce the unfunded accrued liability by a reasonable amount within a reasonable period - For the 401a plan, the funding policy is expected to fully amortize the unfunded liability over 15 years. Currently, the contribution is indefinitely expected to exceed the normal cost plus interest on the unfunded actuarial accrued liability.
- The asset method and output smoothing method (if any) are consistent with actuarial standards.
- The contribution allocation procedure or funding policy is not inconsistent with the plan accumulating assets adequate to make benefit payments when due, and the assets are not projected to be depleted.

Comparison to Prior Valuation

The purpose of the actuarial valuation of the Plan is to:

- Determine the Plan's funded status and annual costs; and
- Provide information for Government Accounting Standards Board financial statement disclosure.

The following table summarizes the current valuation results as of July 1, 2024, compared to prior year results:

	July 1, 2023	July 1, 2024
Active participant count	2,331	2,591
Funding Contribution		
Discount Rate	6.00%	6.00%
Actuarial accrued liability (Projected Unit Credit):	$ 73,855,328	$ 78,852,813
Actuarial Value of Assets	61,261,292	67,418,347
Unfunded liability	$ 12,594,036	$ 11,434,466
Funded percentage	82.9%	85.5%
Actuarially Determined Contribution (ADC), FYE 2025 / 2026	$ 0	$ 0
Expected Total Participant Compensation FYE 2025/2026	$ 71,100,000	$ 76,760,000
Contribution as a Percentage of Compensation	0.00%	0.00%
Alternative Contribution	2.32%	1.61%
GASB 68 Expense		
Discount Rate	6.00%	6.90%
Total Pension Liability (Entry Age Normal):	$ 67,876,484	$ 65,070,069
Plan Fiduciary Net Position	59,186,816	69,522,952
Net Pension Liability	$ 8,689,668	$ (4,452,883)
GASB 68 Annual Pension Expense/(Income), FYE 2025 final / 2026 estimate	$ 983,683	$ (558,000)

Overall, the plan's funded status for funding purposes was relatively similar to last year; however, the GASB 68 funded status improved, and Net Pension Liability decreased from the prior valuation. The primary reason for these differing results is the asset gain, which gets spread over five years with the asset smoothing under the funding method but recognized immediately for GASB accounting purposes. Overall, the following offsetting factors impacted plan results:

- Assets were higher than expected due to favorable investment return on plan assets (14.2% actual compared to 6.0% assumed);
- Employer and employee contributions were higher than the actuarially determined contribution;
- Demographic experience was different than expected, primarily due to more terminations than expected, new entrants, and full-time active participants moving to part-time, resulting in a net liability loss.

Projected Funding Status

The County's target is to maintain an 80% funded status for the plan. The funded status as of July 1, 2024 is above 80% and is projected to be above 80% in future years.

95% Funded Status

The County also requested review of maintaining an alternative 95% funded status for the Plan. The valuation projects the Plan to be under 95% funded based on the cost method used for funding, as shown below.

Projected Actuarial Accrued Liability (AAL), 6/30/2025	$ 80,421,149
Projected Smoothed Value of Assets, 6/30/2025	74,021,388
Funding Shortfall, 6/30/2025	$ 6,399,761
Projected Funded Status, 6/30/2025	92.0%
Shortfall to achieve 95% as of 6/30/2025	$ 2,378,704
Additional funding in FYE 2025 to achieve 95% as of 6/30/2025[1]	$ 2,310,401

[1] Assumes mid-year funding on 1/1/2025 and is in addition to the anticipated FYE 2025 County contribution of 5.58% of pay.

The table below summarizes the estimated contribution projected in order to attain 95% at various future dates. The total contributions assume the June 30, 2026 ADC rate (0% of pay) plus the additional amount to attain 95% funded status by the target funding date.

	Additional Payment to Fund 95% by Target Date		Total Contribution to Fund 95% by Target Date	
95% Target Funding Date	**Annual Payment in FYE 2026[1]**	**% of Pay**	**Annual Payment in FYE 2026[1,2]**	**% of Pay[2]**
6/30/2026	$3,854,044	5.02%	$3,854,044	5.02%
6/30/2027	$1,408,792	1.84%	$1,408,792	1.84%
6/30/2028	$729,329	0.95%	$729,329	0.95%
6/30/2029	$329,701	0.43%	$329,701	0.43%
6/30/2030	$3,277	0.00%	$3,277	0.00%
6/30/2031	$0	0.00%	$0	0.00%

[1] Contributions shown for FYE 2026 are assumed to be made throughout the year based on a level percent of pay and are therefore assumed to increase at 2.80% per year from FYE 2026 to the target funding date.
[2] Includes FYE 2025 contribution of $4.2M (5.58% of pay) and FYE 2026 contribution of $0 (0% of pay).

For example, to attain 95% funded by FYE 2027 the County would need to contribute approximately $1.4M in FYE 2026 in addition to the current ADC contributions of $0M in FYE 2026, plus $1.5M ($1.4M including interest) in FYE 2027.

* * *

This July 1, 2024 valuation is based on census data provided as of June 30, 2024 for the purpose of providing GASB 68 financial statement information, including final expense for the fiscal year ending June 30, 2025, estimated expense for fiscal year ending June 30, 2026 and the funding contribution amount for the fiscal year ending June 30, 2026.

The following report provides details of the results summarized above and the disclosure information for fiscal year ending 2025.

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Actuarial Valuation Certification

This report documents the results of the July 1, 2024 actuarial valuation for the County of Riverside Part-time and Temporary Employee's Retirement Plan. The information provided in this report is intended strictly for documenting the development of the Funding Contribution and disclosure items under Governmental Accounting Standards Board (GASB) Statements No. 68.

Determinations for purposes other than the financial accounting requirements may be significantly different from the results in this report. Thus, the use of this report for purposes other than those expressed here may not be appropriate.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board. In addition, the valuation results are based on our understanding of the financial accounting and reporting requirements under U.S. Generally Accepted Accounting Principles as set forth in Government Accounting Standards Board Statement 68 (GASB 68) including any guidance or interpretations provided by the Company and/or its audit partners prior to the issuance of this report. The information in this report is not intended to supersede or supplant the advice and interpretations of the County of Riverside's auditors.

A valuation model was used to develop the liabilities for the June 30, 2024 valuation. The valuation model relies on ProVal software, which was developed by Winklevoss Technologies, LLC. Experts within Aon selected this software and determined it is appropriate for performing valuations. We coded and reviewed the software for the provisions, assumptions, methods, and data of the County of Riverside Part-time and Temporary Employee's Retirement Plan.

A model was used to develop the appropriate GASB discount rate. The undersigned relied on experts within Aon for the development of the capital market assumptions and the model underlying the expected rate of return.

The valuation model outputs various cost scenarios. The "1% increase" and "1% decrease" interest rate scenarios vary only the discount rate assumption, in order to illustrate the impact of a change in that assumption in isolation. In practice, certain other assumptions, such as the expected or realized asset returns, would also be expected to vary when the discount rate changes. Therefore, the output from these scenarios should be used solely for assessing the impact of the discount rate in isolation and may not represent a realistic set of results for other purposes.

The valuation model was used to project certain financial results for the liability projections. The valuation model relies on ProVal software, which was developed by Winklevoss Technologies, LLC and selected, reviewed, and evaluated by experts within Aon as appropriate for use for developing liabilities for liability projections.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to (but not limited to) such factors as the following:

- Plan experience differing from that anticipated by the economic or demographic assumptions
- Changes in actuarial methods or in economic or demographic assumptions
- Increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period)

- Changes in plan provisions or applicable law

Due to the limited scope of this valuation report, we have not included an analysis of the potential range of such future measurements. However, an assessment and disclosure of risks pertaining to the funding valuation as required by the actuarial standards of practice is being provided in a separate report.

Actuarial computations under GASB are for purposes of fulfilling plan and employer accounting requirements. The calculations reported herein have been made on a basis consistent with our understanding of these accounting standards. Determinations for purposes other than meeting Employer financial accounting requirements may be different from these results.

This report is intended for the sole use of the County of Riverside. It is intended only to supply information for the County of Riverside to comply with the stated purpose of the report and may not be appropriate for other business purposes. Reliance on information contained in this report by anyone for other than the intended purposes, puts the relying entity at risk of being misled because of confusion or failure to understand applicable assumptions, methodologies, or limitations of the report's conclusions. Accordingly, no person or entity, including the County of Riverside, should base any representations or warranties in any business agreement on any statements or conclusions contained in this report without the written consent of Aon.

Funded status measurements shown in this report may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations, and funded status measurements for the employer and plan disclosure and reporting purposes may not be appropriate for assessing the need for or the amount of future contributions.

In determining the annual expense and Funding Contribution for the County of Riverside Part-time and Temporary Employees' Retirement Plan and information relating to plan disclosure and reporting requirements, Aon may be assisting the appropriate plan fiduciary as it performs tasks that are required for the administration of an employee benefit plan. Aon also may be consulting with the employer/plan sponsor (County of Riverside) as it considers alternative strategies for funding the plan, or as it evaluates information relating to employer reporting requirements. Thus, Aon potentially will be providing assistance to County of Riverside (and/or certain of its employees) acting in a fiduciary capacity (for the benefit of plan participants and beneficiaries) and to County of Riverside (and/or its executives) acting in a settlor capacity (for the benefit of the employer sponsoring the County of Riverside Part-time and Temporary Employees' Retirement Plan).

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by the County of Riverside as of the valuation date. While we cannot verify the accuracy of all the information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy or completeness of the information and believe that it has produced appropriate results. We have relied on actual and expected contributions as summarized within this report.

The actuarial assumptions and methods used in this valuation are described in the Actuarial Assumptions and Methods section of this report. Plan Sponsor selected the accounting economic and demographic assumptions and prescribed them for use for purposes of compliance with GASB 68. Plan Sponsor selected the funding economic and demographic assumptions and prescribed them for use for purposes of compliance with the state's funding regulations. Aon provided guidance with respect to these assumptions, and it is our belief that the assumptions represent reasonable expectations of anticipated plan experience and the combined effect of the assumptions have no significant bias.

The undersigned are familiar with the near-term and long-term aspects of pension valuations and collectively meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. The information provided in this report is dependent upon various factors as documented throughout this report, which may be subject to change. Each section of this report is considered to be an integral part of the actuarial opinions.

To our knowledge, no colleague of Aon providing services to the County of Riverside has any material direct or indirect financial interest in the County of Riverside. Thus, we believe there is no relationship existing that might affect our capacity to prepare and certify this actuarial report for the County of Riverside.

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November 1, 2024

Summary of Liabilities

This exhibit shows the plan liabilities as of July 1, 2024 based on census data provided by the County as of June 30, 2024 and the Summary of Plan Provisions and Summary of Actuarial Assumptions described in this report.

The Actuarial Accrued Liability (AAL) is the portion of the actuarial present value of all future benefits to be paid to current plan participants that is attributable to past service.

GASB 68 prescribes use of the Entry Age Normal (EAN) cost method for development of expense and disclosure information. For funding contributions, the Projected Unit Credit (PUC) cost method is used to maintain a more stable contribution level for this plan that experiences high turnover rates.

	Funding Contributions	**GASB 68**
Cost Method	PUC	EAN
Discount Rate	6.00%	6.90%
Actuarial Accrued Liability (AAL), as of July 1, 2024		
Retirees and Beneficiaries	$ 18,409,598	$ 17,310,286
Deferred Vested Terminated	26,440,791	22,482,566
Active Participants		
Part-Time Actives	16,509,969	15,166,765
Full-Time Actives[1]	17,492,455	10,110,452
Subtotal Actives	34,002,424	25,277,217
Total	$ 78,852,813	$ 65,070,069
Normal (Service) Cost, as of July 1, 2024	$ 2,066,882	$ 2,058,615

[1] Participants who become full-time employees and transfer to CalPERS are no longer accruing a benefit under the plan.

Summary of Plan Assets

This exhibit develops the asset values used in the valuation.

Statement of Invested Plan Assets as of June 30, 2024	**2024**
1. Mutual Funds – Equity	$ 49,370,730
2. Mutual Funds – Fixed Income	19,081,999
3. Cash and Equivalents (including receivables)	1,070,222
4. Total Assets held in Trust for Pension Benefits	$ 69,522,951
Reconciliation of Plan Assets	
1. Market Value of Assets at beginning of Plan Year	$ 59,186,816
2. Employer Contributions	4,038,726
3. Employee Contributions	2,723,813
4. Net Investment Income	8,506,596
5. Benefit Payments	(4,497,050)
6. Administrative Expenses	(435,949)
7. Market Value of Assets at end of Plan Year	$ 69,522,952
Rate of Return for FYE 2024 Plan year (net of administrative expenses)	14.15%
Development of (Gain)/Loss	
1. Expected Investment Earnings (assumed 6.00%)	$ 3,605,296
2. Actual Investment Earnings	8,506,596
3. (Gain)/Loss on Assets (1)-(2)	$ (4,901,300)
Actuarial Value of Assets as of June 30, 2024	
1. Market Value of Assets at end of Plan Year	$ 69,522,952
2. Unrecognized (Gain)/Loss[1]	(2,104,605)
3. Preliminary Actuarial Value of Assets at end of Plan Year (1)+(2)	$ 67,418,347
4. Lower Corridor (80% of Market Value)	$ 55,618,362
5. Upper Corridor (120% of Market Value)	$ 83,427,542
6. Actuarial Value of Assets	$ 67,418,347

[1] Schedule of the Current and Prior Asset (Gains)/Losses as of June 30, 2024.

Date Established	**Original (Gain)/Loss**	**Years Remaining as of 06/30/2024**	**Amount Recognized**	**Total Amount Unrecognized**
7/1/2024	($4,901,300)	4	($980,260)	($3,921,040)
7/1/2023	($2,791,073)	3	($1,116,430)	($1,674,643)
7/1/2022	$14,371,564	2	$8,622,939	$5,748,625
7/1/2021	($11,287,727)	1	($9,030,180)	($2,257,547)
Total	($4,608,536)		($2,503,931)	($2,104,605)

Summary of Funded Status

The Plan's funded status as of July 1, 2024 is developed based on the Actuarial Accrued Liability determined using the Projected Unit Credit methodology and the smoothed value of Plan assets.

The following table shows the development of the Plan's funded status as of July 1, 2024:

Funding Methodology	Projected Unit Credit
Discount Rate	6.00%
Actuarial Accrued Liability	$ 78,852,813
Actuarial Value of Plan Assets	67,418,347
Unfunded Liability	$ 11,434,466
Funded Percentage	85.5%

Development of Funding Contribution

The County's current funding policy is to contribute an amount equal to a level percentage of pay. Note the determination developed below assumes a constant active population over which the unfunded liabilities are amortized. The funding contribution is based on the sum of:

Ongoing accruals

a) Normal Cost with interest and administrative expense, less
b) Expected Employee Contributions

Plus, Amortization of unfunded liabilities

c) Amortization of July 1, 2017 Unfunded Actuarial Accrued Liability (UAAL) over the period ending June 30, 2037, plus
d) Amortization of subsequent unanticipated changes in liability (i.e., actuarial gains / losses and changes in assumptions) over 15-year periods and unanticipated changes in assets over 5-year periods.

The following table shows the development of the funding contribution as a level percentage of payroll, assuming middle of year payment, for the FYE June 30, 2026:

Funding Contribution, FYE June 30, 2026	**Total Amount**	**% of Pay**
Ongoing Accruals[1]		
Projected Normal Cost (including expense), plus interest	$ 2,555,664	3.97%
Expected Employee Contributions During Plan Year ending 6/30/2026	(2,413,219)	(3.75%)
Ongoing Accrual Contribution	$ 142,445	0.22%
Amortization of Unfunded Liabilities[2]		
7/1/2017 Unfunded Actuarial Accrued Liabilities, plus interest	$ 643,772	0.84%
Subsequent Unfunded Actuarial Accrued Liabilities, plus interest	(2,171,375)	(2.83%)
Amortization Contribution	$ (1,527,603)	(1.99%)
Funding Policy Contribution (Ongoing plus Amortization, not less than 0)	**$ 0**	**0.00%**
Considerations for % of Pay Alternatives[2]		
Ongoing Accrual Contribution		0.22%
Alternative Amortization of UAAL over 15 years	$ 1,064,490	1.39%
Alternative Funding Contribution		**1.61%**

[1]Developed based on estimated compensation for active population as of July 1, 2024, $64.4 million
[2]Developed based on estimated total compensation for active population at any time during FYE2024, $76.8 million

The County Plan contributions are determined based on the percentage of pay determined above and other considerations, such as the Plan's current funded status and funding goal. To the extent actual funding differs from dollar ***amount*** anticipated, the variation will be reflected in future contribution levels through amortization of unexpected changes in the UAAL.

Discussion of % of Pay Alternatives

Due to the high turnover of this plan's participants, a snapshot of the compensation earned for the active population as of the valuation date does not:

a) reflect a full year of compensation for those hired in the last year, and
b) account for any participants who join and leave the plan during the same plan year.

For example, in 2024 the total compensation earned by all active participants at any time in FYE 2024 was $72.4 million (employer contribution during FYE2024 divided by 5.58%), whereas the total compensation earned by those that were still active as of July 1, 2024 was only $60.9 million. Since the County will apply this % of pay to all earnings next year, it may be appropriate to calculate the funding % as a % of the total payroll.

The ongoing funding contribution of 0.22% represents the cost of benefits accruing in the next year for current actives and may be appropriate for the cost of accruals for any new hires. Any variation will be reflected in future contribution levels.

The Alternative Amortization of the UAAL, 1.39%, is based on the % of pay reflecting the total expected earnings for all participants in FYE 2026 (i.e., expected payroll of $76.8M). In addition, the alternative applies a single 15-year amortization period to the UAAL as a threshold to address potential volatility in the 5-year/15-year amounts under the current policy (e.g., current policy: $1.6M negative amortization in FYE 2026 and $1.6M positive amortization in FYE 2030).

Liability (Gain)/ Loss

The following table shows the development of the liability (gain)/loss as of June 30, 2024.

Liability as of June 30, 2023	$	73,855,328
Service Cost		1,469,717
Interest on Liability		4,395,338
Assumption Changes		0
Expected Benefit Payments		(4,200,000)
Expected Liability as of June 30, 2024	$	75,520,383
Actual Liability as of June 30, 2024		78,852,813
FYE 2024 Liability (gain)/loss	$	3,332,430

Asset (Gain)/Loss

The following table shows the development of the asset (gain)/loss as of June 30, 2024.

Actuarial Value of Assets (AVA) as of June 30, 2023	$	61,261,292
Expected Total Contributions[1]		1,037,491
Expected Benefit Payments		(4,200,000)
Expected Investment Earnings (based on 6.00%)		3,613,763
Expected AVA as of June 30, 2024	$	61,712,546
Actual AVA as of June 30, 2024		67,418,347
Asset Difference for Funding Amortization, due to:	$	(5,705,801)
Contributions in Excess of Expected	$	(5,725,048)
Other Asset Experience	$	19,247
Implicit Rate of Return		6.0%

[1]County contributions based on normal cost plus expected amortization amount of the UAAL developed in the 2023 valuation.

Amortization Schedule

The following table shows the amortization of Unfunded Actuarial Accrued Liability as of July 1, 2025. Amortization of bases is first recognized in the fiscal year subsequent to the year established.

Date Established	Type of Base	Original Period	Remaining Period as of June 30, 2025	Original Balance	Balance Remaining as of June 30, 2025[2]	Amortization Recognized in FYE June 30, 2026
6/30/2024	Liability (Gain)/Loss	15	15	3,332,430	3,532,376	289,310
6/30/2024	Assets (Gain)/Loss	5	5	(5,705,801)	(6,048,149)	($1,284,902)
6/30/2023	Liability (Gain)/Loss	15	14	3,663,080	3,778,741	326,920
6/30/2023	Assets (Gain)/Loss	5	4	(1,547,733)	(1,369,584)	(358,297)
6/30/2022	Liability (Gain)/Loss	15	13	3,459,710	3,455,789	317,415
6/30/2022	Assets (Gain)/Loss[1]	5	3	(10,555,896)	(7,311,040)	(2,512,087)
6/30/2022	Assumptions	15	13	45,224	45,173	4,149
6/30/2021	Liability (Gain)/Loss	15	12	4,020,672	3,864,990	379,104
6/30/2021	Assumptions	15	12	124,057	119,252	11,697
6/30/2020	Liability (Gain)/Loss	15	11	645,612	593,158	62,561
6/30/2020	Assumptions	15	11	(273,516)	(251,294)	(26,504)
6/30/2019	Liability (Gain)/Loss	15	10	2,675,755	2,330,388	266,473
6/30/2019	Assumptions	15	10	2,564,505	2,233,493	255,394
6/30/2018	Liability (Gain)/Loss	15	9	1,628,720	1,331,306	166,697
6/30/2018	Assumptions	15	9	(67,964)	(55,556)	(6,956)
6/30/2017	7/1/2017 UAAL	20	12	8,013,534	6,374,836	625,287
				$12,022,389	$12,623,879	($1,483,739)

[1] Re-established amount includes prior outstanding Asset (Gain)/Loss bases established prior to 6/30/2022 (gain of $9,374,852), FYE 2022 AVA Asset (Gain)/Loss plus other adjustments to reflect funded status.
[2] Reflecting experience through June 30, 2024

Development of GASB 68 Net Pension Expense

Calculation Details

The expense amounts shown below have been prepared for GASB 68 reporting purposes for the fiscal year ending June 30, 2025 based on a Valuation Date of July 1, 2024 and Measurement period of July 1, 2023 to June 30, 2024

The following table illustrates the Net Pension Liability under GASB 68.

	Fiscal Year Ending 6/30/2024	Fiscal Year Ending 6/30/2025
(1) Pension Liability		
(a) Retired Participants and Beneficiaries Receiving Payment	$ 16,942,935	$ 17,310,286
(b) Terminated Vested	25,811,785	22,482,566
(c) Active Participants		
(i) Part-time Actives	14,119,405	15,166,765
(ii) Full-time Actives	11,002,359	10,110,452
(iii) Active Subtotal	$ 25,121,764	$ 25,277,217
(d) Total	$ 67,876,484	$ 65,070,069
(2) Plan Fiduciary Net Position	59,186,816	69,522,952
(3) Net Pension Liability	$ 8,689,668	$ (4,452,883)
(4) Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	87.20%	106.84%
(5) Deferred Outflow of Resources for Contributions Made After Measurement Date	$ 4,038,726	TBD

Expense

The following table illustrates the Pension expense under GASB 68.

	Fiscal Year Ending 6/30/2024	Fiscal Year Ending 6/30/2025
(1) Service Cost	$ 2,012,827	$ 2,003,914
(2) Interest Cost	3,684,575	4,059,878
(3) Expected Investment Return	(3,127,539)	(3,605,296)
(4) Employee Contributions	(2,523,702)	(2,723,813)
(5) Administrative Expense	398,714	435,949
(6) Other	0	0
(7) Plan Changes	0	251,937
(8) Amortization of Unrecognized		
(a) Liability (Gain)/Loss	1,862,736	2,137,973
(b) Asset (Gain)/Loss	369,412	(722,219)
(c) Assumption Change (Gain)/Loss	339,519	(854,640)
(9) Total Expense	$ 3,016,542	$ 983,683

Shown below are details regarding the calculation of Service Cost, Interest Cost and Expected Investment Return components of the Expense.

	Fiscal Year Ending 6/30/2024	Fiscal Year Ending 6/30/2025
(1) Development of Service Cost:		
(a) Normal Cost at Beginning of Measurement Period	$ 2,012,827	$ 2,003,914
(2) Development of Interest Cost:		
(a) Total Pension Liability at Beginning of Measurement Period	$ 61,184,393	$ 67,876,484
(b) Normal Cost at Beginning of Measurement Period	2,012,827	2,003,914
(c) Actual Benefit Payments	(3,628,160)	(4,497,050)
(d) Discount Rate	6.00%	6.00%
(e) Interest Cost	$ 3,684,575	$ 4,059,878
(3) Development of Expected Investment Return:		
(a) Plan Fiduciary Net Position at Beginning of Measurement Period	$ 51,015,884	$ 59,186,816
(b) Actual Contributions—Employer	3,755,492	4,038,726
(c) Actual Contributions—Employee	2,523,702	2,723,813
(d) Actual Benefit Payments	(3,628,160)	(4,497,050)
(e) Administrative Expenses	(398,714)	(435,949)
(f) Other	0	0
(g) Expected Return on Assets	6.00%	6.00%
(h) Expected Return	$ 3,127,539	$ 3,605,296

Reconciliation of Net Pension Liability

Shown below are details regarding the Total Pension Liability, Plan Fiduciary Net Position, and Net Pension Liability for the Measurement Period from July 1, 2023 to July 1, 2024:

	Increase (Decrease)		
	Total Pension Liability (a)	**Plan Fiduciary Net Position (b)**	**Net Pension Liability (c) = (a) – (b)**
Balance Recognized at 6/30/2024 (Based on 7/1/2023 Measurement Date)	$ 67,876,484	$ 59,186,816	$ 8,689,668
Changes Recognized for the Fiscal Year:			
Service Cost	$ 2,003,914	N/A	$ 2,003,914
Interest on the Total Pension Liability	4,059,878	N/A	4,059,878
Changes of Benefit Terms	251,937	N/A	251,937
Differences Between Expected and Actual Experience	4,176,802	N/A	4,176,802
Changes of Assumptions	(8,801,896)	N/A	(8,801,896)
Benefit Payments	(4,497,050)	(4,497,050)	0
Contributions From the Employer	N/A	4,038,726	(4,038,726)
Contributions From the Employee	N/A	2,723,813	(2,723,813)
Net Investment Income	N/A	8,506,596	(8,506,596)
Administrative Expense	N/A	(435,949)	435,949
Other	N/A	0	0
Net Changes	$ (2,806,415)	$ 10,336,136	$ (13,142,551)
Balance Recognized at 6/30/2025 (Based on 7/1/2024 Measurement Date)	$ 65,070,069	$ 69,522,952	$ (4,452,883)

Liability (Gain)/Loss

The following table illustrates the liability gain/loss under GASB 68.

		Fiscal Year Ending 6/30/2024	Fiscal Year Ending 6/30/2025
(1)	Pension Liability at Beginning of Measurement Period	$ 61,184,393	$ 67,876,484
(2)	Service Cost	2,012,827	2,003,914
(3)	Interest on the Total Pension Liability	3,684,575	4,059,878
(4)	Changes of Benefit Terms	0	251,937
(5)	Changes of Assumptions	0	(8,801,896)
(6)	Benefit Payments	(3,628,160)	(4,497,050)
(7)	Expected Pension Liability at End of Measurement Period	$ 63,253,635	$ 60,893,267
(8)	Actual Pension Liability at End of Measurement Period	67,876,484	65,070,069
(9)	Pension Liability (Gain)/Loss	$ 4,622,849	$ 4,176,802
(10)	Average Future Working Life Expectancy	8.06	8.10
(11)	Pension Liability (Gain)/Loss Amortization	$ 573,554	$ 515,655

Asset (Gain)/Loss

The following table illustrates the asset gain/loss under GASB 68.

		Fiscal Year Ending 6/30/2024	Fiscal Year Ending 6/30/2025
(1)	Pension Asset at Beginning of Measurement Period	$ 51,015,884	$ 59,186,816
(2)	Contributions—Employer	3,755,492	4,038,726
(3)	Contributions—Employee	2,523,702	2,723,813
(4)	Expected Investment Income	3,127,539	3,605,296
(5)	Benefit Payments	(3,628,160)	(4,497,050)
(6)	Administrative Expense	(398,714)	(435,949)
(7)	Other	0	0
(8)	Expected Pension Asset at End of Measurement Period	$ 56,395,743	$ 64,621,652
(9)	Actual Pension Asset at End of Measurement Period	59,186,816	69,522,952
(10)	Pension Asset (Gain)/Loss	$ (2,791,073)	$ (4,901,300)
(11)	Amortization Factor	5.00	5.00
(12)	Pension Asset (Gain)/Loss Amortization	$ (558,215)	$ (980,260)

Deferred Outflows/Inflows

The following table illustrates the Deferred Inflows and Outflows as of June 30, 2025 under GASB 68.

		Deferred Outflows	Deferred Inflows
(1)	Difference Between Actual and Expected Experience	$ 10,244,042	$ 169,178
(2)	Net Difference Between Expected and Actual Earnings on Pension Plan Investments	0	2,104,605
(3)	Assumption Changes	1,016,584	7,873,827
(4)	Sub Total	$ 11,260,626	$ 10,147,610
(5)	Contributions Made in Fiscal Year Ending 6/30/2025 After Measurement Date	TBD	N/A
(6)	Total	$ TBD	$ 10,147,610

Amortization of Deferred Inflows/Outflows

The table below lists the amortization bases included in the deferred inflows/outflows as of June 30, 2025.

Date		Period		Balance		Annual
Established	Type of Base	Original	Remaining	Original	Remaining	Payment
6/30/2024	Liability (Gain)/Loss	8.10	7.10	$ 4,176,802	$ 3,661,147	$ 515,655
6/30/2024	Asset (Gain)/Loss	5.00	4.00	(4,901,300)	(3,921,040)	(980,260)
6/30/2024	Assumption Change	8.10	7.10	(8,801,896)	(7,715,242)	(1,086,654)
6/30/2023	Liability (Gain)/Loss	8.06	6.06	4,622,849	3,475,741	573,554
6/30/2023	Asset (Gain)/Loss	5.00	3.00	(2,791,073)	(1,674,643)	(558,215)
6/30/2022	Liability (Gain)/Loss	8.25	5.25	704,676	448,431	85,415
6/30/2022	Asset (Gain)/Loss	5.00	2.00	14,371,564	5,748,625	2,874,313
6/30/2022	Assumption Change	8.25	5.25	(61,072)	(38,863)	(7,403)
6/30/2021	Liability (Gain)/Loss	9.04	5.04	2,831,731	1,578,751	313,245
6/30/2021	Asset (Gain)/Loss	5.00	1.00	(11,287,727)	(2,257,547)	(2,257,545)
6/30/2021	Assumption Change	9.04	5.04	118,669	66,161	13,127
6/30/2020	Liability (Gain)/Loss	9.31	4.31	(365,443)	(169,178)	(39,253)
6/30/2020	Asset (Gain)/Loss	5.00	0.00	997,436	0	199,488
6/30/2020	Assumption Change	9.31	4.31	(258,607)	(119,722)	(27,777)
6/30/2019	Liability (Gain)/Loss	8.78	2.78	2,732,087	865,055	311,172
6/30/2019	Assumption Change	8.78	2.78	2,985,149	945,185	339,994
6/30/2018	Liability (Gain)/Loss	8.07	1.07	1,620,937	214,917	200,860
6/30/2018	Assumption Change	8.07	1.07	39,510	5,238	4,896
6/30/2017	Liability (Gain)/Loss	7.97	0.00	1,456,980	0	177,324
6/30/2017	Assumption Change	7.97	0.00	(746,218)	0	(90,822)
	Total Charges			$ 7,445,054	$ 1,113,016	$ 561,114

Amounts Recognized in the deferred outflows of resources and deferred inflows of resources related to Pension will be recognized in the Pension expense as follows:

Year End June 30:

2026	$	275,122
2027	$	2,341,311
2028	$	(690,656)
2029	$	(640,351)
2030	$	386,159
Thereafter	$	(558,569)
Total	$	1,113,016

Plan Fiduciary Net Position Projection

The following table illustrates the projection of the fiduciary net position for use in the calculation of the discount rate as of June 30, 2025.

($ in thousands)

Year Ending June 30[2]	Beginning Fiduciary Net Position (a)	Total Contributions (b)	Benefit Payments (c)	Administrative Expenses (d)	Investment Earnings (e)	Ending Fiduciary Net Position[1] (f)
2025	69,523	6,942	5,202	303	4,850	75,809
2026	75,809	2,247	3,948	311	5,164	78,962
2027	78,962	1,972	3,930	322	5,372	82,054
2028	82,054	1,600	3,978	332	5,571	84,915
2029	84,915	1,755	4,127	341	5,768	87,970
2030	87,970	2,109	4,231	350	5,987	91,485
2031	91,485	3,619	4,321	359	6,279	96,702
2032	96,702	3,681	4,378	369	6,638	102,275
2033	102,275	3,758	4,440	379	7,023	108,236
2034	108,236	3,846	4,524	390	7,434	114,603
2035	114,603	3,733	4,710	401	7,863	121,087
2036	121,087	3,123	4,811	413	8,286	127,272
2037	127,272	3,158	4,888	426	8,710	133,827
2038	133,827	1,787	5,030	439	9,110	139,256
2039	139,256	1,729	5,100	452	9,480	144,912
2040	144,912	1,728	5,187	465	9,867	150,854
2041	150,854	1,834	5,292	480	10,276	157,193
2042	157,193	1,904	5,496	494	10,709	163,817
2043	163,817	2,018	5,595	508	11,166	170,898
2044	170,898	2,060	5,638	523	11,654	178,451
2045	178,451	2,119	5,708	539	12,174	186,498
2046	186,498	2,322	5,778	555	12,734	195,221
2047	195,221	2,290	5,834	572	13,332	204,437
2048	204,437	2,487	5,981	591	13,969	214,321
2049	214,321	2,550	6,048	610	14,650	224,863
2050	224,863	2,649	6,095	631	15,379	236,165
2051	236,165	2,752	6,211	652	16,158	248,212
2052	248,212	2,803	6,261	674	16,988	261,068
2053	261,068	2,913	6,426	697	17,873	274,730
2054	274,730	3,050	6,472	720	18,818	289,406

[1] (f)=(a) + (b) – (c) – (d) + (e)
[2] Years later than 2053 were omitted from this table.

Plan Fiduciary Net Position

The last year in which projected benefit payments are due from the Plan is 2124.

The Plan's projected fiduciary net position is not projected to reach $0.

As such, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "depletion date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 6.90% per annum was applied to all periods of projected benefit payments to determine the total Pension liability as of June 30, 2025 shown earlier in this report, pursuant to paragraph 30 of GASB Statement No. 68.

Asset Projection Basis

In projecting the Plan's fiduciary net position, the following assumptions were made:

1. Interest rate for discounting was 6.90% per annum.

2. Projected total contributions are employer and employee contributions to the unfunded actuarial accrued liability and normal cost (for the current active population only). Contributions are assumed to be paid mid-year.

3. Projected employer contributions for FYE 2025 are 5.58% of compensation and ADC thereafter. Projected employee contributions are 3.75% of compensation.

4. Projected benefit payments have been determined in accordance with Paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members and beneficiaries as of June 30, 2024. Benefit payments are assumed to be paid mid-year.

5. Administrative expenses are assumed to be $300,000 per year increased with inflation at 2.3% per year and pro-rated based on projected proportion of headcount that relates to current population.

Interest Rate Sensitivity

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year ending June 30, 2024:

	1% Decrease (5.00%)	Current Rate (6.00%)	1% Increase (7.00%)
(1) Total Pension Liability	$ 79,300,347	$ 67,876,484	$ 58,964,588
(2) Plan Fiduciary Net Position	59,186,816	59,186,816	59,186,816
(3) Net Pension Liability	$ 20,113,531	$ 8,689,668	$ (222,228)

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year ending June 30, 2025:

	1% Decrease (5.90%)	Current Rate (6.90%)	1% Increase (7.90%)
(1) Total Pension Liability	$ 74,885,355	$ 65,070,069	$ 57,312,566
(2) Plan Fiduciary Net Position	69,522,952	69,522,952	69,522,952
(3) Net Pension Liability	$ 5,362,403	$ (4,452,883)	$(12,210,386)

Disclosure—Changes in the Net Pension Liability and Related Ratios

Changes in the Net Pension Liability and Related Ratios[1]

	Fiscal Year Ending				
	2016	2017	2018	2019	2020
Total Pension Liability					
Service Cost	$ 1,511,755	$ 1,717,422	$ 1,913,998	$ 1,299,918	$ 1,082,026
Interest Cost	1,983,322	2,186,254	2,358,408	2,547,913	2,747,097
Changes of Benefit Terms	0	0	0	0	0
Differences Between Expected and Actual Experiences	795,023	1,524,469	1,456,980	1,620,937	2,732,087
Changes of Assumptions	2,939,020	(594,082)	(746,218)	39,510	2,985,149
Benefit Payments	(1,511,284)	(1,506,614)	(1,757,166)	(1,726,399)	(2,222,152)
Net Change in Total Pension Liability	$ 5,717,836	$ 3,327,449	$ 3,226,002	$ 3,781,879	$ 7,324,207
Total Pension Liability (Beginning)	29,744,643	35,462,479	38,789,928	42,015,930	45,797,809
Total Pension Liability (Ending)	$ 35,462,479	$ 38,789,928	$ 42,015,930	$ 45,797,809	$ 53,122,016
Plan Fiduciary Net Position					
Contributions—Employer	$ 606,694	$ 667,952	$ 1,341,340	$ 815,531	$ 831,825
Contributions—Member	1,266,962	1,399,254	1,674,410	1,632,926	1,701,351
Net Investment Income	131,206	(116,966)	4,288,900	3,647,640	1,939,447
Benefit Payments	(1,511,284)	(1,506,614)	(1,757,166)	(1,726,399)	(2,222,152)
Administrative Expense	(217,041)	(188,657)	(127,973)	(347,081)	(251,756)
Other	0	0	0	0	0
Net Change in Plan Fiduciary Net Position	$ 276,537	$ 254,969	$ 5,419,511	$ 4,022,617	$ 1,998,715
Plan Fiduciary Net Position (Beginning)	31,602,341	31,878,878	32,133,847	37,553,358	41,575,975
Plan Fiduciary Net Position (Ending)	$ 31,878,878	$ 32,133,847	$ 37,553,358	$ 41,575,975	$ 43,574,690
Net Pension Liability (Ending)	$ (3,583,601)	$ 6,656,081	$ 4,462,572	$ 4,221,834	$ 9,547,326
Net Position as a Percentage of Pension Liability	89.89%	82.84%	89.38%	90.78%	82.03%
Covered-Employee Payroll	$ 23,120,653	$ 33,058,770	$ 34,610,720	$ 29,381,080	$ 32,096,397
Net Pension Liability as a Percentage of Payroll	15.50%	20.13%	12.89%	14.37%	29.75%

[1] GASB 68 was effective first for employer fiscal years beginning after June 15, 2014.

Disclosure—Changes in the Net Pension Liability and Related Ratios

Changes in the Net Pension Liability and Related Ratios[1]

	Fiscal Year Ending				
	2021	2022	2023	2024	2025
Total Pension Liability					
Service Cost	$ 1,255,013	$ 1,099,119	$ 1,621,033	$ 2,012,827	$ 2,003,914
Interest Cost	3,200,332	3,289,615	3,557,579	3,684,575	4,059,878
Changes of Benefit Terms	0	0	0	0	251,937
Differences Between Expected and Actual Experiences	(365,443)	2,831,731	704,676	4,622,849	4,176,802
Changes of Assumptions	(258,607)	118,669	(61,072)	0	(8,801,896)
Benefit Payments	(2,107,016)	(2,270,047)	(4,553,205)	(3,628,160)	(4,497,050)
Net Change in Total Pension Liability	$ 1,724,279	$ 5,069,087	$ 1,269,011	$ 6,692,091	$ (2,806,415)
Total Pension Liability (Beginning)	53,122,016	54,846,295	59,915,382	61,184,393	67,876,484
Total Pension Liability (Ending)	$ 54,846,295	$ 59,915,382	$ 61,184,393	$ 67,876,484	$ 65,070,069
Plan Fiduciary Net Position					
Contributions—Employer	$ 811,519	$ 2,281,929	$ 3,140,160	$ 3,755,492	$ 4,038,726
Contributions—Member	1,722,324	2,268,481	2,107,867	2,523,702	2,723,813
Net Investment Income	1,622,054	14,068,526	(10,678,121)	5,918,612	8,506,596
Benefit Payments	(2,107,016)	(2,270,047)	(4,553,205)	(3,628,160)	(4,497,050)
Administrative Expense	(257,402)	(290,416)	(425,459)	(398,714)	(435,949)
Other	0	0	0	0	0
Net Change in Plan Fiduciary Net Position	$ 1,791,479	$ 16,058,473	$ (10,408,758)	$ 8,170,932	$ 10,336,136
Plan Fiduciary Net Position (Beginning)	43,574,690	45,366,169	61,424,642	51,015,884	59,186,816
Plan Fiduciary Net Position (Ending)	$ 45,366,169	$ 61,424,642	$ 51,015,884	$ 59,186,816	$ 69,522,952
Net Pension Liability (Ending)	$ 9,480,126	$ (1,509,260)	$ 10,168,509	$ 8,689,668	$ (4,452,883)
Net Position as a Percentage of Pension Liability	82.72%	102.52%	83.38%	87.20%	106.84%
Covered-Employee Payroll	$ 27,012,910	$ 32,217,343	$ 23,507,247	$ 40,675,747	$ 60,816,029
Net Pension Liability as a Percentage of Payroll	35.09%	-4.68%	43.26%	21.36%	-7.32%

[1] GASB 68 was effective first for employer fiscal years beginning after June 15, 2014.

Disclosure—Contribution Schedule

Contributions

	Fiscal Year Ending 2016	2017	2018	2019	2020
Actuarially Determined Contribution	$ 122,127	$ 727,119	$ 656,930	$ 610,522	$ 474,617
Contributions Made in Relation to the Actuarially Determined Contribution	$ 667,952	$ 1,341,340	$ 815,531	$ 831,825	$ 811,519
Contribution Deficiency (Excess)	$ (545,825)	$ (585,457)	$ (158,601)	$ (221,303)	$ (336,902)
Covered-Employee Payroll[1]	$ 41,747,000	$ 44,650,933	$ 43,544,693	$ 50,109,940	$ 53,040,458
Contributions as a Percentage of Payroll	1.60%	3.00%	1.87%	1.66%	1.53%

	Fiscal Year Ending 2021	2022	2023	2024	2025
Actuarially Determined Contribution	$ 1,325,770	$ 1,547,637	$ 0	$ 0	0
Contributions Made in Relation to the Actuarially Determined Contribution	$ 2,281,929	$ 3,140,160	$ 3,755,492	$ 4,038,726	TBD
Contribution Deficiency (Excess)	$ (956,159)	$ (1,592,523)	$ (3,755,492)	$ (4,038,726)	TBD
Covered-Employee Payroll[1]	$ 56,764,403	$ 56,275,269	$ 67,302,724	$ 72,378,602	TBD
Contributions as a Percentage of Payroll	4.02%	5.58%	5.58%	5.58%	TBD

Schedule of Investment Returns

The follow exhibit is a 10-year history of Investment Returns.

Year Ending June 30,	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Annual Money-Weighted Rate of Return, Net of Investment Expense	0.41%	(0.36%)	13.12%	9.66%	4.66%	3.72%	30.35%	(17.35%)	11.35%	14.15%

These schedules are presented to illustrate the requirement to show information for 10 years.

[1] Covered-Employee Payroll represents the total compensation over the Measurement Period

Disclosure—Contribution Schedule

Notes to Schedule:

Valuation Date:	Actuarially determined contribution rates are calculated as of June 30, one year prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine FYE 2024 contribution rates:

Actuarial Cost Method	Projected Unit Credit with amortization of 7/1/2017 unfunded liability over a period ending 6/30/2037 and amortization of subsequent unanticipated changes in liability over 15-year periods and any asset gain/loss over 5-year periods.
Asset Valuation Method	Smoothed market value
Salary Increases	2.80% per annum
Investment Rate of Return	6.00%, net of Pension plan investment expense, including inflation.
Retirement Age	See assumption section
Mortality	Pub-2010 amount-weighted tables for General employees of all income levels, projected using improvement scale MP2021 from 2010

Participant Information

The below exhibits summarize participant demographic information as of June 30, 2024.

Number of Participants:	
Actives	2,591
Full-time Actives (not accruing benefits)[1]	5,311
Deferred Vested	2,631
Retirees	590
Total	11,123
Participant Compensation – Active Participants Currently Accruing Benefits	
Compensation (prior year)	$60,816,029
Number of Active Participants below assumed retirement age	2,544
Average Compensation	$23,906
Actives	
Average Age	39.76
Average Benefit Service (years)	2.63
Full-time Actives	
Average Age	43.82
Average Accrued Annual Benefit	$605
Deferred Vested	
Average Age	49.41
Average Accrued Annual Benefit	$1,852
Retired	
Average Age	73.42
Average Annual Benefit	$3,351

Reconciliation of Participants from Prior Valuation

	Actives	Full-time Actives	Terminated Vesteds	Retirees and Beneficiaries	Totals
As of July 1, 2023	2,331	5,708	3,051	548	11,638
Classification Change	(34)	34	n/a	n/a	0
New Entrants	1,442	172	104	0	1,718
Vested Terminations	(321)	(181)	502	0	0
Rehires	29	18	(47)	0	0
Retired	(7)	(8)	(38)	53	0
Deaths	0	0	(30)	(11)	(41)
Lump Sum Cashouts	(849)	(432)	(911)	0	(2,192)
Data Correction	0	0	0	0	0
Net Change	260	(397)	(420)	42	(515)
As of July 1, 2024	**2,591**	**5,311**	**2,631**	**590**	**11,123**

[1] Participants who become full-time employees and transfer to CalPERS are no longer accruing a benefit under the plan.

Active Age Distribution as of July 1, 2024

Age	Number of Participants
15-19	24
20-24	293
25-29	530
30-34	493
35-39	262
40-44	184
45-49	163
50-54	156
55-59	112
60-64	147
65-69	103
70-74	77
75 +	47
Total	2,591

Active Career Earnings Distribution as of July 1, 2024

Career Earnings	Number of Participants
Under $5,000	767
$5,000 - $10,000	281
$10,000 - $25,000	569
$25,000 - $50,000	227
$50,000 - $100,000	274
Over $100,000	473
Total	2,591

Development of GASB 68 Amortization Period for Changes in Liability

	July 1, 2023		July 1, 2024	
Status	**Count**	**Average Future Working Life**	**Count**	**Average Future Working Life**
1. Actives	2,331	0.90	2,591	0.91
2. Actives not accruing benefits	5,708	16.15	5,311	16.21
3. Deferred Vested Terminated	3,051	0.00	2,631	0.00
4. Retirees	548	0.00	590	0.00
5. Total/Weighted Average	11,638	8.10	11,123	7.95

Summary of Principal Plan Provisions

1. Membership Requirements

All employees of the County not covered by another retirement plan as provided by Code Section 3121(b)(7)(F).

2. Career Compensation

Total amount of compensation, limited annually by the Social Security Wage Base.

3. Normal or Late Retirement Benefit

Eligibility: Age 65

Benefit: 2% times Career Compensation, payable as a single life annuity.

4. Pre-Retirement Death Benefit

Refund of contributions accumulated with interest at 5% per annum.

5. Death after Retirement

None. Benefits are payable for the life of the employee only.

6. Termination Benefit

Normal retirement benefit accrued to date of termination.

A lump sum distribution is paid if the actuarial equivalent benefit is less than $7,000. Actuarial Equivalence for this purpose is based on the greater of the factor produced under the UP1984 unisex mortality table at 6% or the applicable mortality table and interest rate under 417(e).

7. Vesting

Benefits are 100% vested immediately.

8. Member Contributions

3.75% of compensation per pay period.

Changes in Plan Provisions Since the Prior Valuation

- Lump sum payment threshold changes from $5,000 to $7,000.

Actuarial Assumptions and Methods

1. Actuarial Cost Method

Actuarially Determined Contributions – Projected Unit Credit

GASB 68 – Entry Age Normal

2. Funding Contribution Methodology

Funding contributions are based on the sum of:

Ongoing accruals

a) Normal Cost with interest and administrative expense, less
b) Expected Employee Contributions

Plus, Amortization of unfunded liabilities

c) Amortization of July 1, 2017 Unfunded Actuarial Accrued Liability (UAAL) over the period ending June 30, 2037, plus
d) Amortization of subsequent unanticipated changes in liability (i.e., actuarial gains / losses and changes in assumptions) over 15-year periods and unanticipated changes in assets over 5-year periods.

3. GASB Discount Rate

6.90% - as of 7/1/2024
6.00% - as of 7/1/2023

Under GASB 68, the discount rate is based on a single equivalent rate that reflects a blend of:

- Expected return on assets during the period such that assets are projected to be sufficient to pay benefits of current participants; and
- 20-year, municipal bond yields / index for periods beyond the depletion of the assets.

Based on the current funding policy, projected cash flows, and the assumed asset return, the plan assets are not projected to be depleted, and the discount rate can be based on the expected asset return.

4. Municipal Bond Rate

3.93% - as of 7/1/2024
3.65% - as of 7/1/2023

Municipal Bond Rate is based on the Bond Buyer General Obligation 20-Bond Municipal Bond Index.

5. Funding Discount Rate

6.00% - Funding policy selected by the County. Used as the asset return assumption and based on the long term expected return on plan assets.

6. Expected Return on Assets

6.90% - Selected by the County

The long-term expected rate of return on plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the asset allocation percentage with allowance for volatility in returns and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the plan's target asset allocation as summarized in the following table:

Asset Classes	**Allocation**
Return-Seeking	
Public Equity	62%
Liquid Return-Seeking Fixed Income	6%
US REITs	6%
Risk-Reducing	
Core Bonds	26%

7. Salary Increases

2.80% per year

8. Payroll Growth (used for amortization of unfunded liability)

2.80% per year (same as CalPERS assumption)

9. Mortality

Pub-2010 amount-weighted tables for General employees of all income levels, projected using improvement scale MP-2021 from 2010.

Sample rates for the 2010 base year are as follows:

Age	Male	Female
30	0.04%	0.02%
40	0.07%	0.04%
50	0.30%	0.02%
60	0.61%	0.38%
70	0.70%	0.49%
80	1.73%	1.33%
90	14.67%	11.49%

10. Termination Rates

Actives (accruing benefits)

	Years of Service	
Attained Age	**0-2**	**2+**
20-24	65%	65%
25-29	65%	55%
30-34	65%	50%
35-39	65%	50%
40-44	65%	40%
45-49	65%	40%
50-54	55%	40%
55-59	50%	35%
60-64	50%	30%

Full-time Actives (no longer accruing benefits)

Turnover rates for male and female active participants developed in the 2021 CalPERS Experience Study for Miscellaneous were used in the valuation.

The following sample rates for male actives are based on age and service:

Attained	Years of Service						
Age	**0 – 1**	**5**	**10**	**15**	**20**	**25**	**30**
30	16.31%	8.04%	3.77%	1.80%	0.00%	0.00%	0.00%
35	14.93%	7.15%	3.66%	1.80%	1.41%	0.00%	0.00%
40	14.90%	6.27%	3.37%	1.80%	1.41%	0.84%	0.00%
45	14.87%	5.62%	3.09%	1.66%	1.41%	0.84%	0.47%
50	15.09%	4.97%	2.45%	1.52%	1.10%	0.84%	0.47%
55	15.30%	4.61%	1.81%	1.19%	0.79%	0.64%	0.47%

The following sample rates for female actives are based on age and service:

Attained Age	Years of Service 0 – 1	5	10	15	20	25	30
30	18.24%	10.41%	5.02%	2.52%	0.00%	0.00%	0.00%
35	17.49%	9.25%	4.91%	2.52%	1.75%	0.00%	0.00%
40	17.31%	8.09%	4.46%	2.52%	1.75%	1.08%	0.00%
45	17.13%	7.30%	4.01%	2.13%	1.75%	1.08%	0.56%
50	17.41%	6.50%	3.08%	1.74%	1.31%	1.08%	0.56%
55	17.69%	5.80%	2.15%	1.32%	0.87%	0.76%	0.56%

11. Retirement Rates

Actives (accruing benefits)

Attained Age	Probability of Retirement
65-66	60%
67-74	50%
75+	100%

Full-time Actives (no longer accruing benefits)

Retirement rates developed in the 2021 CalPERS Experience Study for Miscellaneous were used in the valuation. Applicable retirement rate table is based on employee date of hire, as summarized below:

- Hire date prior to August 24, 2012: Miscellaneous 3% @ 60 rates
- Hire date August 24, 2012 to December 31, 2012: Miscellaneous 2% @ 60 rates
- Hire date post December 31, 2012: Miscellaneous 2% @ 62 rates

Sample rates from the ‘Miscellaneous 3% @ 60 table’ are as follows:

Attained Age	Years of Service 5	10	15	20	25	30	35
<65	N/A	N/A	N/A	N/A	N/A	N/A	N/A
65	15.20%	20.10%	26.20%	29.90%	32.30%	32.30%	32.30%
70	24.50%	24.50%	24.50%	24.50%	24.50%	24.50%	24.50%
75	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Sample rates from the ‘Miscellaneous 2% @ 60 table’ are as follows:

Attained Age	Years of Service 5	10	15	20	25	30	35
<65	N/A	N/A	N/A	N/A	N/A	N/A	N/A
65	13.80%	16.00%	21.40%	21.60%	23.70%	28.30%	31.30%
70	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
75	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Sample rates from the 'Miscellaneous 2% @ 62 table' are as follows:

Attained	Years of Service						
Age	**5**	**10**	**15**	**20**	**25**	**30**	**35**
<65	N/A	N/A	N/A	N/A	N/A	N/A	N/A
65	10.80%	14.10%	17.30%	20.60%	23.90%	30.00%	34.80%
70	12.00%	15.60%	19.30%	22.90%	26.50%	33.30%	38.70%
75	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

12. Value of Assets

Funding – Effective June 30, 2014, smoothed asset value, with differences between actual and expected earnings recognized over a 5-year period (with the first year of recognition being the period in which the Gain/(Loss) occurred), subject to an 80%-120% corridor around market value.

GASB 68 – Market value

13. Form of Benefit Paid

Lump sums paid immediately at termination for benefits with a present value less than $7,000. Single life annuities deferred to normal retirement age paid for benefits with a present value greater than $7,000.

14. Lump Sum Conversion Assumptions

Mortality – Current IRC section 417(e) table

Lump Sum Interest Rate – 4.00%
Used to estimate lump sum benefit amounts and based on the long term expected effective rate used for determining lump sums under plan provisions. Generally, this is based on high quality corporate bonds.

15. Administrative Expenses

Assumed $300,000 per year

16. Participants Valued

Only current active, full time active, terminated vested, retirees and beneficiaries of the plan as of June 30, 2024 are included in the valuation.

Changes in Assumptions and Methods Since the Prior Valuation

- GASB 68 Discount Rate changes from 6.00% to 6.90%.

Appendix A – Estimated Annual Expense for FYE 2026

Development of Annual Expense FYE 2026 under GASB 68 (Estimate)

The estimated expense amount shown below has been prepared for GASB 68 for the fiscal year ending June 30, 2026.

The Actuarial Accrued Liability as of July 1, 2024 has been prepared using the Entry Age Normal cost method, as required by GASB 68. The following estimated expense amounts have been prepared based on a Valuation Date of July 1, 2024, Measurement Date of July 1, 2025 and interest rate of 6.90%.

The expense shown below will be updated in next year's report to reflect actual administrative costs, employee contributions, and any gains or losses with respect to assets and liabilities.

Unfunded Actuarial Accrued Liability, as of July 1, 2024		
Actuarial Accrued Liability as of 7/1/2024	$	65,070,069
Value of Plan Assets as of 7/1/2024		69,522,952
Unfunded Actuarial Accrued Liability (UAAL)	$	4,452,883
Estimated Annual Expense, FYE June 30, 2026 [1]		
1. Service Cost	$	2,059,000
2. Interest Cost		4,455,000
3. Expected Return on Assets		(4,847,000)
4. Employee Contributions[2]		(2,800,000)
5. Administrative Expense		300,000
6. Plan Changes		-
7. Amortization of Unrecognized		
(a) Liability (Gain)/Loss		1,961,000
(b) Asset (Gain)/Loss		(922,000)
(c) Assumption Changes		(764,000)
(d) Total		275,000
8. Annual Expense	$	(558,000)

[1] Final FYE 2026 expense information will be provided in the actuarial valuation based on a June 30, 2025 measurement date reflecting updated census, assumptions, plan provisions and actual asset values, in addition to any asset, liability, or assumption gains/losses initially recognized over the period June 30, 2024 to June 30, 2025

[2] Employee contribution was estimated based on total compensation during FY2024, assuming a constant active population

Appendix B – Low-Default-Risk Obligation Measure (“LDROM”)

A key purpose of this report is to communicate an Actuarially Determined Contribution and Funded Percentage for the Part-time and Temporary Employees’ Retirement Plan. For both of these calculations, we use an Actuarial Accrued Liability that represents the present value of the portion of expected future benefit payments accrued under the plan’s actuarial cost method, discounted back to the valuation date using an asset return expectation of 6.90%. The asset return expectation is based on the plan’s diversified asset portfolio and long-term capital market return assumptions for the various asset classes represented in the portfolio. The objective of the portfolio is to maximize investment returns with a reasonable amount of risk.

For all funding valuations with measurement dates on or after February 15, 2023, and for which an actuarial report is issued on or after February 15, 2023, ASOP 4 now requires the calculation and disclosure of an additional measure of the plan’s liability using a discount rate or discount rates derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future.

This additional liability measure is referred to as the Low-Default-Risk Obligation Measure (LDROM). The LDROM shown in this report is based upon the Bond Buyer GO-20 index as of the measurement date, 3.93%, although other discount rates may also be appropriate for this purpose.

The LDROM can be thought of as a measure of what the plan’s funding liability would be if the plan were to use an ultra-low-risk investment policy. Since plan assets are not invested in an all-bond portfolio, the LDROM may not be appropriate for assessing funding status progress on an Actuarial Accrued Liability basis, necessary plan contributions, or the security of participant benefits.

All assumptions and methods other than the asset return assumption are the same for the calculation of Actuarial Accrued Liability and LDROM.

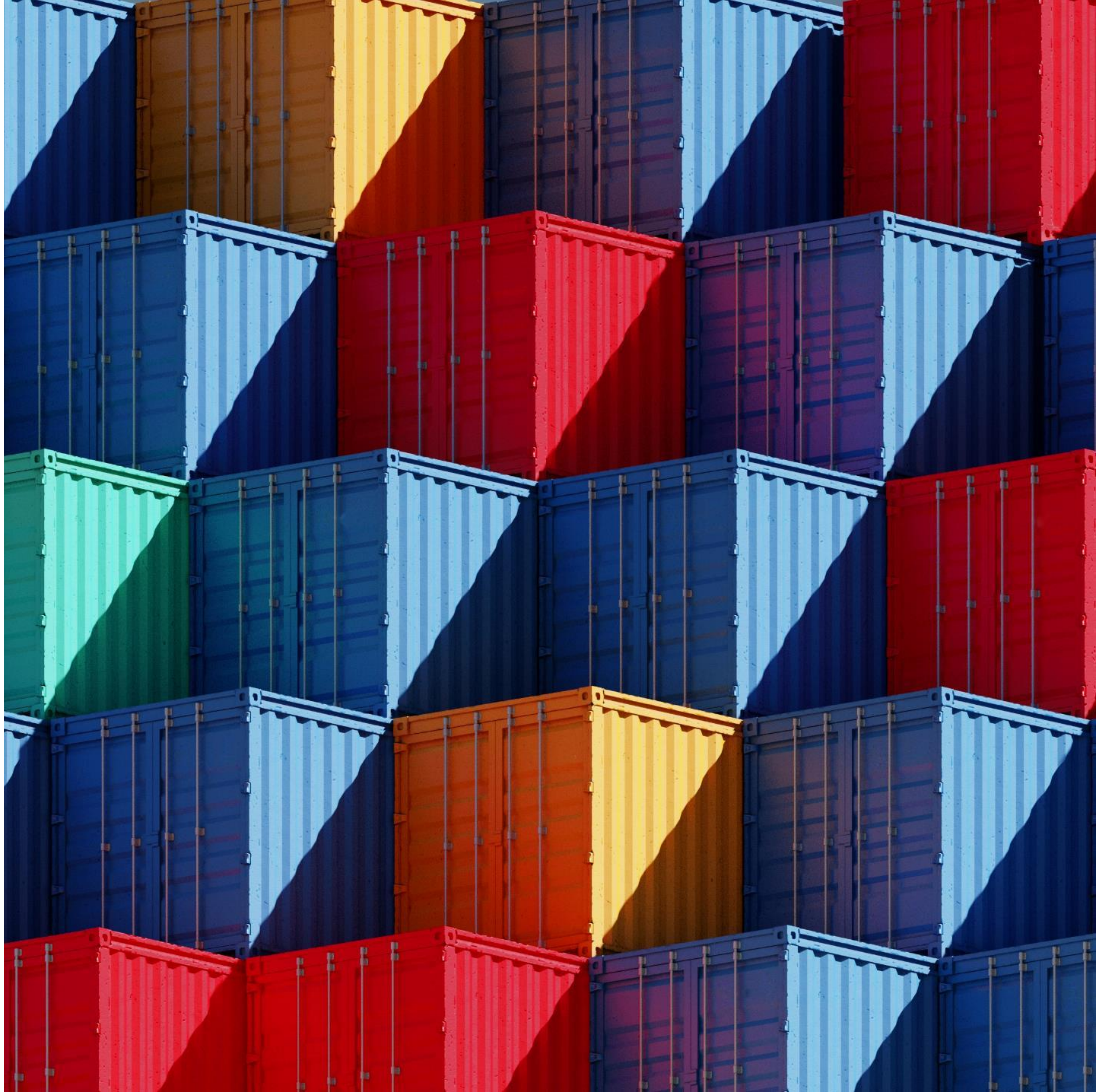
	Measurement Date July 1, 2024
LDROM	$ 103,530,865
Interest Rate	3.93%
Actuarial Cost Method	Entry Age Normal

AON

Asset-Liability Study: Final Results

County of Riverside, CA Part-Time and Temporary Employees' Retirement Plan

November 13, 2024



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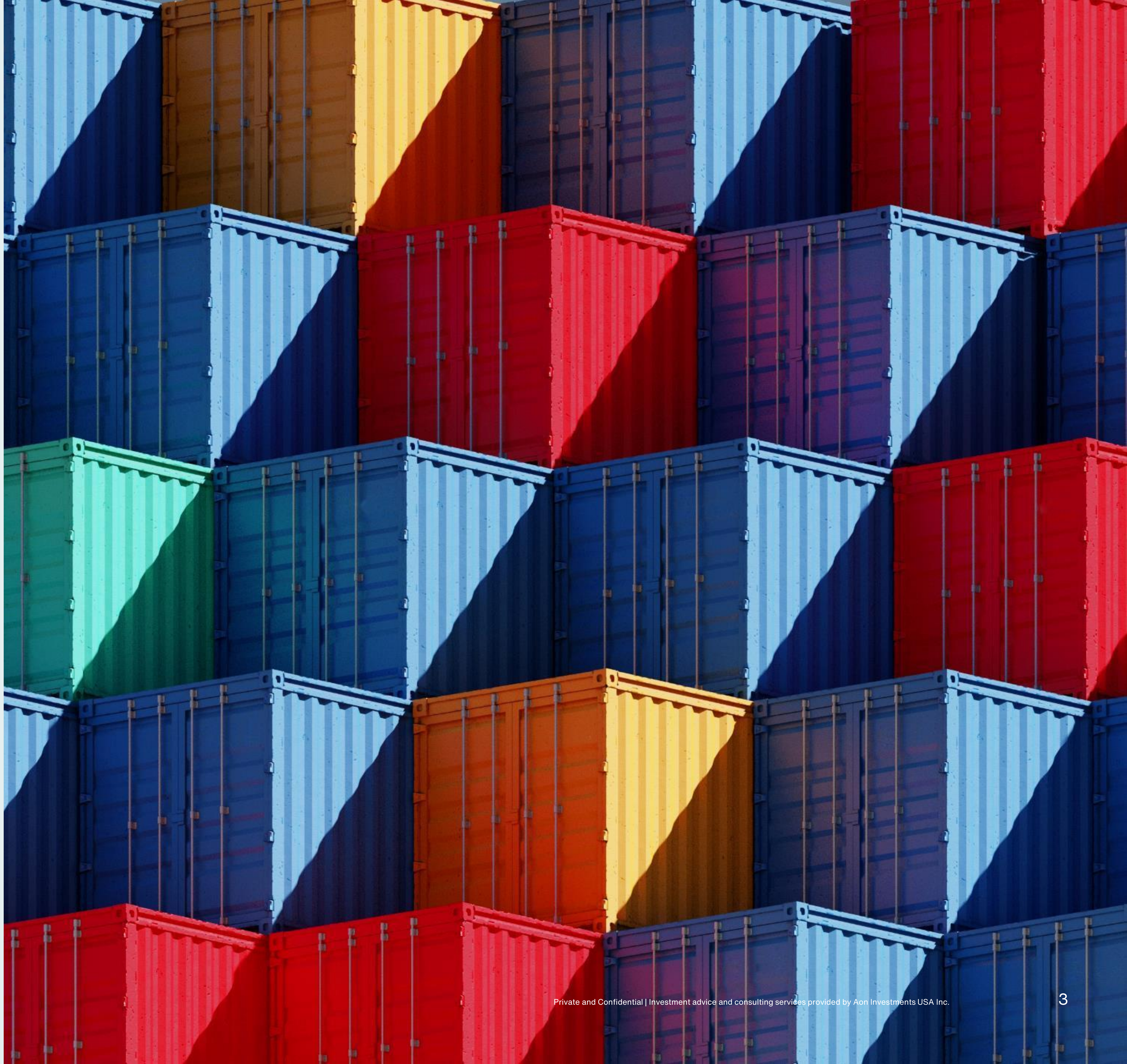
Executive Summary

AON



What Is An Asset-Liability Study?

What?

A comprehensive toolkit for making decisions on a **fund's asset allocation and investment risk that align with the liabilities** those funds support

Why?

Aon believes optimal decisions regarding pension plan management are made when they are based on a **clear understanding of the assets and liabilities** and how they interact

When?

Aon suggests conducting asset-liability studies every **3-5 years** depending on client specifics, or more frequently should circumstances dictate

How?

Identify future trends in the financial health of the fund based on economic uncertainties that may not be evident from an actuarial valuation

Current State Overview

As of June 30, 2024

89.8%

Estimated funded ratio as of June 30, 2024

- Based on market value of assets using a 6.00% actuarial discount rate

6.88%

30-year expected return[1]

- Aon's assumption for the current target asset allocation as of June 30, 2024
- Expected return exceeds the actuarial assumed rate of return (6.00%)

+548 bps

Hurdle rate surplus

- Projected asset growth (contributions + investment returns) based on funding policy outpaces projected liability growth, which is expected to increase near-term funded ratio

74%

Current target level of return-seeking asset

- Return-Seeking assets are diversified with public equity, return-seeking fixed income, and REITs

[1] Expected returns are using Aon's Q3 2024 30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Analysis includes estimated administrative expenses of $0.3 million plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results. See appendix for capital market assumptions disclosure pages.

Planning Meeting Recap

Feedback expressed during September discussion with PARC Chair and Staff

Portfolio

- Ease into any new asset classes
- Assets should have illiquidity at least three months or less (i.e. investors able to move into or out of a strategy every three months)
- Focus on Aon's "Liquid" and "Less Liquid" model portfolio structures

Funded Ratio

- Goal to be fully funded by 2030
- Would like to minimize likelihood of falling below 80% funded

Assumptions

- Actuarial rate of return to remain 6.00%
- Assumptions based on those used in the actuarial valuation

Contributions

- Contributions are 5.58% of pay for the County and 3.75% for employees
- Aim to lower the County contribution level in time, potentially matching employee contribution level

Key Themes of the Asset-Liability Study

Current State Overview

- County of Riverside has an estimated funded ratio of 89.8% as of 6/30/2024 using a market-based funded ratio

- The plan's asset growth is expected to outpace the liability growth over the coming year – i.e., a hurdle rate surplus – resulting in a near-term funding ratio increase

Portfolio Analysis

- Current asset allocation is 74% return-seeking assets consisting of public equity, return-seeking fixed income, and real estate
  - Current portfolio has an expected return[1] of **6.88%**, which exceeds the actuarial assumed rate of return (6.00%)

- Aon studied portfolios up and down the risk spectrum in addition to the current allocation

Asset-Liability Projection Analysis

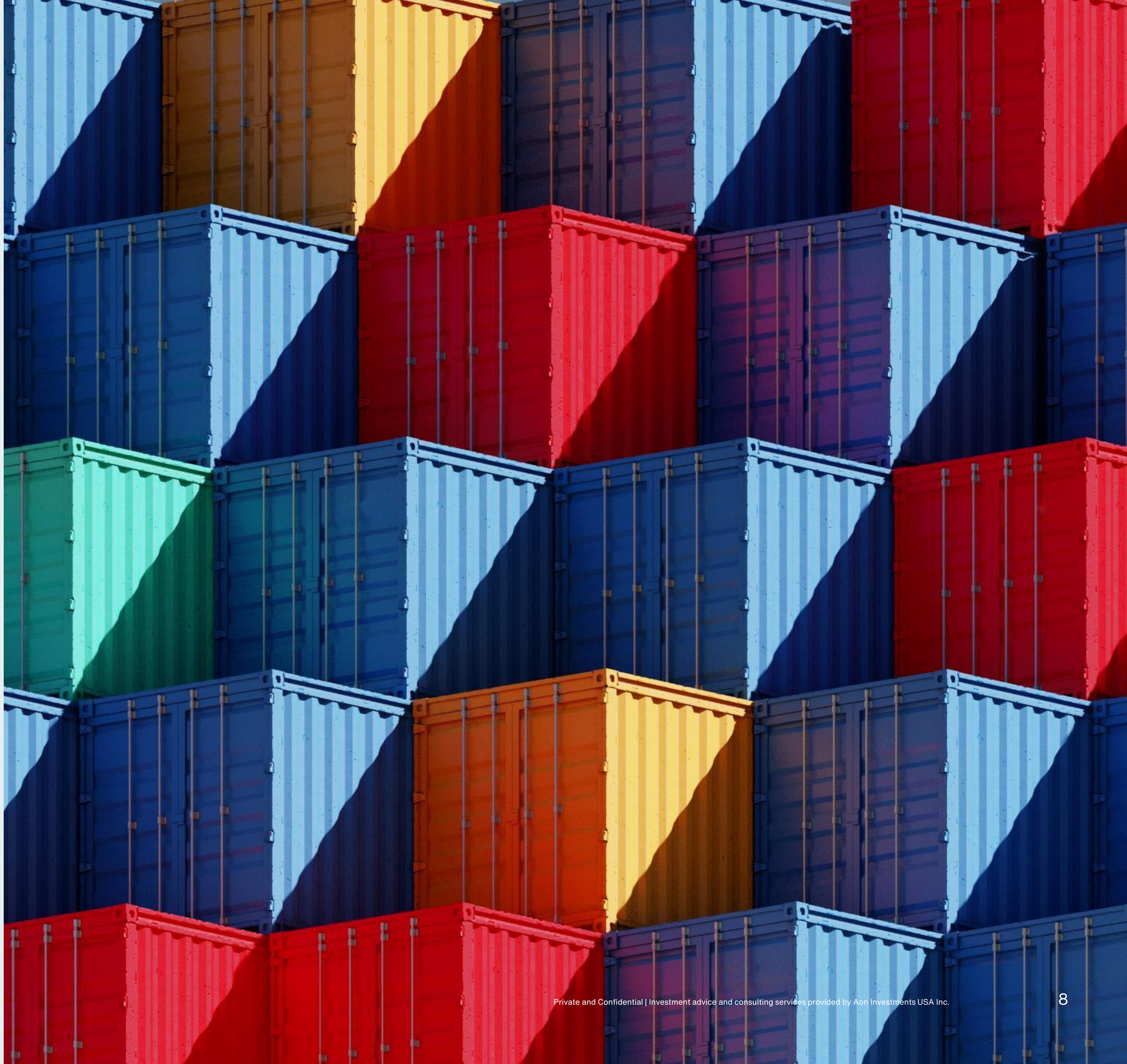
- Based on the funding policy, County of Riverside is expected to reach full funding in the near future
  - The investment policies studied project a fully funded plan in 2027 or 2028 under central expectations

- Investment strategy and/or funding policy adjustments impact the expected time for the plan to reach full funding

[1] Expected returns are using Aon's Q3 2024 30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Analysis includes estimated administrative expenses of $0.3 million plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results. See appendix for capital market assumptions disclosure pages.

2

Key Results



AON

Estimated Current State Asset-Liability Profile (as of June 30, 2024)

Employer contributions are needed for near-term funded status to be expected to grow

Asset-Liability Snapshot				
	As of 7/1/2023		Est. as of 6/30/2024	
Metric ($, MM)	**Value**	**Fund %**	**Value**	**Fund %**
Market Value of Assets	$59.2	80.1%	$69.5[1]	89.8%
Actuarial Value of Assets	$61.3	82.9%		
Liability Metrics				
Actuarial Liability (AL) – Funding[2]	$73.9		$77.4	

Key Takeaways

- Plan is estimated to be **89.8%** funded on a market value of assets basis as of June 30, 2024
- Asset hurdle rate of **11.26%**, via cash funding and investment returns, needed to maintain or improve funded status
- The Total Expected Asset Growth rate (expected return plus expected employer and employee contributions) exceeds the Liability Hurdle Rate by **548 bps**.

Asset-Liability Growth Metrics			
Metric ($, MM)	**Value**	**% Liability**	**% Assets**
AL Discount Cost	$4.6	6.00%	6.68%
AL Normal Cost	$2.7	3.49%	3.89%
Plan Expenses[3]	$0.5	0.62%	0.69%
Total Liability Hurdle Rate	**$7.8**	**10.11%**	**11.26%**
Expected Return on Assets[4]	$4.8	6.18%	6.88%
Expected Contributions[5]	$6.9	8.86%	9.86%
Total Exp. Asset Growth	**$11.5**	**15.04%**	**16.74%**
Hurdle Rate (Shortfall)/Surplus	**$3.6**	**4.93%**	**5.48%**
Est. Benefit Payments	$4.5	5.77%	6.42%

Immediate Future Target Asset Allocation (as of 6/30/2024)		
Metric ($, MM)	**Value**	**Alloc %**
Return-Seeking		
- Public Equity	$43.1	62%
- Liquid Return-Seeking Fixed Income	$4.4	6%
- US REITs	$4.2	6%
- Total	$51.7	74%
Risk-Reducing		
- Core Bonds	$17.8	26%
- Total	$17.8	26%
Total	$69.5	100%

[1] June 30, 2024 market value of assets based on US Bank June 2024 monthly asset statement
[2] Based on a 6.00% discount rate consistent with the July 1, 2023 actuarial valuation report
[3] Includes estimated administrative expenses of $0.3 million plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets. Actual fees and expenses may differ from those presented.
[4] Expected returns are using Aon's 30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected Returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results.
[5] Employer contributions assumed to be $4.1 million or 5.58% of projected total payroll of $73.5 million and employee contributions assumed to be $2.8 million or 3.75% of total projected payroll.
Percentages may not sum to 100% due to rounding.

Asset Hurdle Rates

Growth needs of the plan adjust with funded status changes

What is the Asset Hurdle Rate?

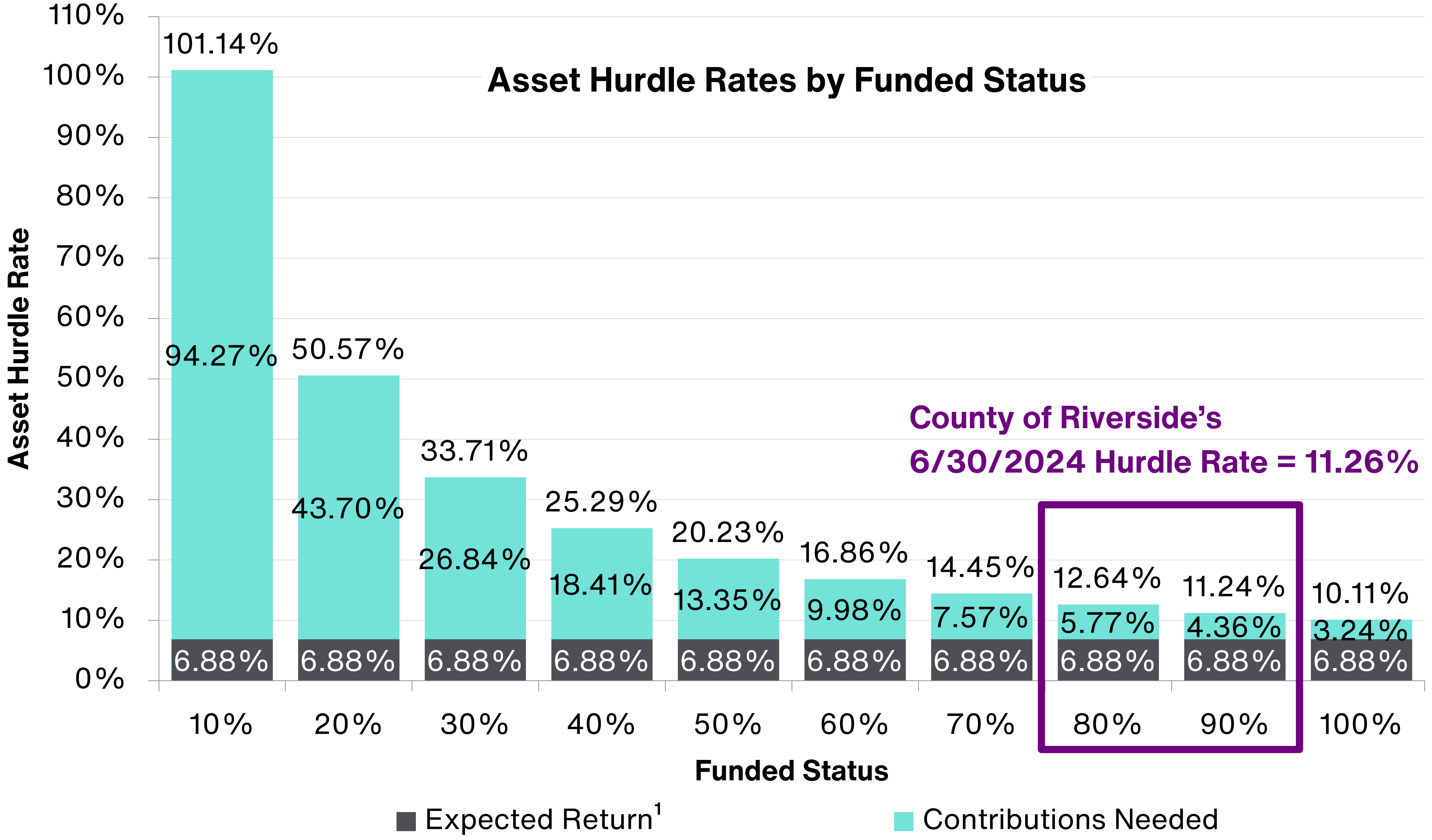
Asset Hurdle Rate is the required rate of asset growth needed to keep pace with the growth of the Plan liabilities

- Assets must grow at this rate or more in order to maintain or reduce a potential funding shortfall
- **Formula = (Normal Cost + Discount Cost + Expenses) / Funded Ratio**

Assets can grow in two ways:

- Investment returns
- Funding contributions

Asset hurdle rates are expected to decline as the funded status increases



[1] Expected returns are using Aon's Q3 2024 30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Analysis includes estimated administrative expenses of $0.3 million plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results. See appendix for capital market assumptions disclosure pages.

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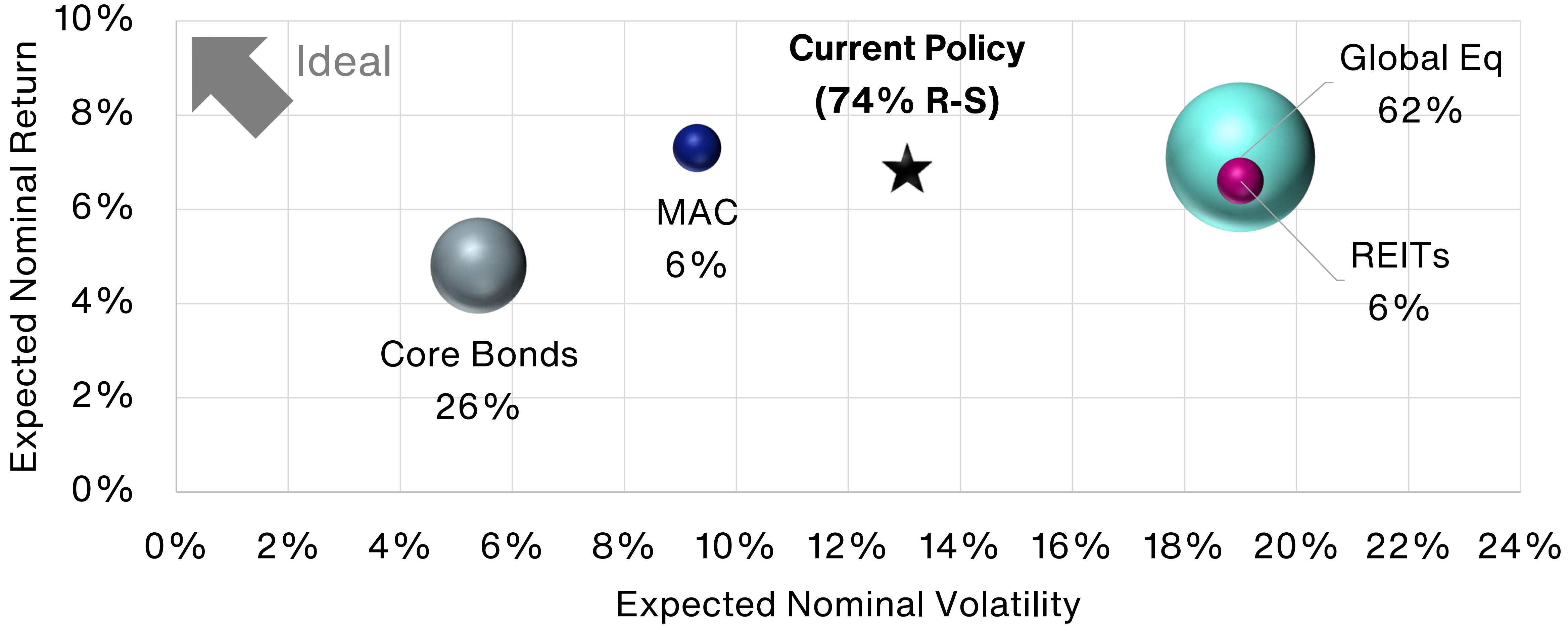
Portfolio Analysis – Immediate Future Portfolio

Current diversification results in an expected return of 6.88%[1]

Portfolio Risk/Reward Analysis



Asset Class – Target %	Expected Real Return[1]	Expected Nominal Return[1]	Expected Nominal Volatility
Equity			
Global Equity – 62%	4.7%	7.1%	19.0%
Fixed Income			
Core Bonds – 26%	2.4%	4.8%	5.4%
Alternatives			
US REITs – 6%	4.2%	6.6%	19.0%
Multi-Asset Credit – 6%	4.9%	7.3%	9.3%
Portfolio Metrics (30-Year Assumptions)			
Total Fund	**4.49%**	**6.88%**	**13.05%**

Legend

Bubble size proportional to current asset allocation (i.e., larger bubbles = larger allocations); Asset classes are color coded:

- Equities (teal), Liquid Alternatives (blue), Return-Seeking Fixed Income (navy blue), Real Assets (purple), Safety (gray)

[1] Expected returns are using Aon's 30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected Returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Analysis includes estimated administrative expenses of $0.3 million plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results.

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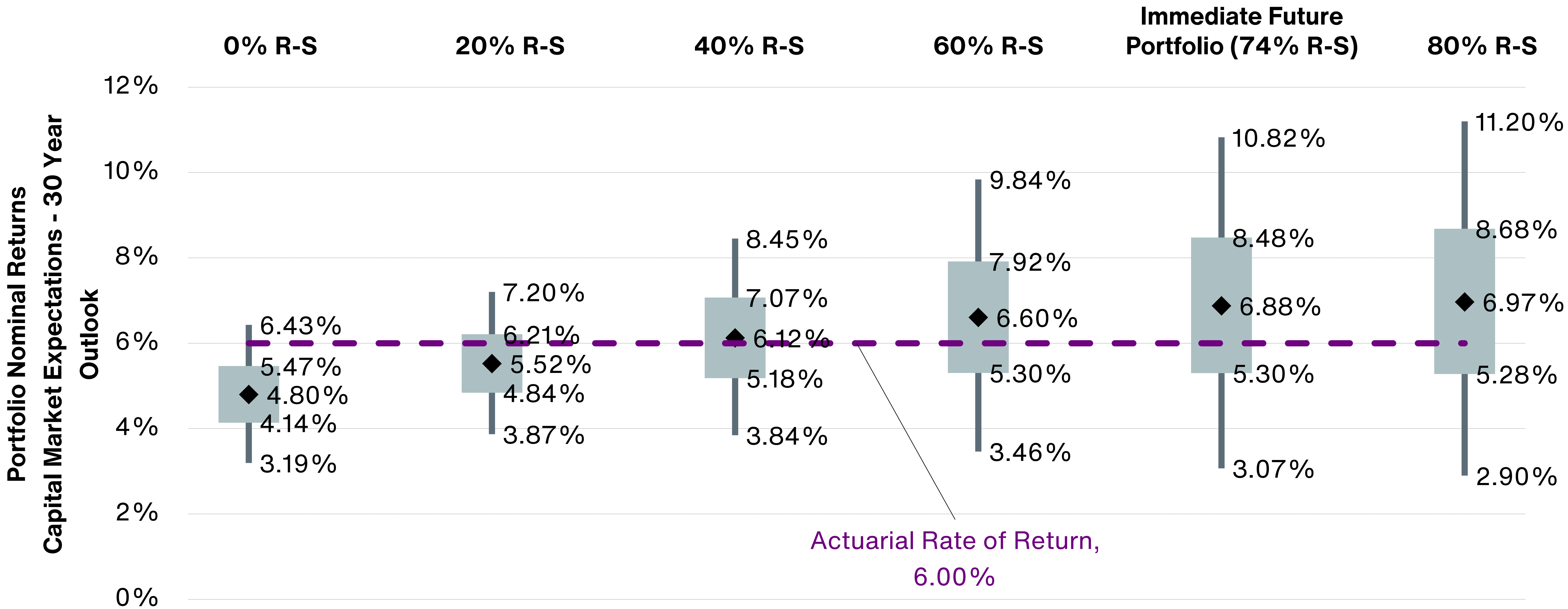
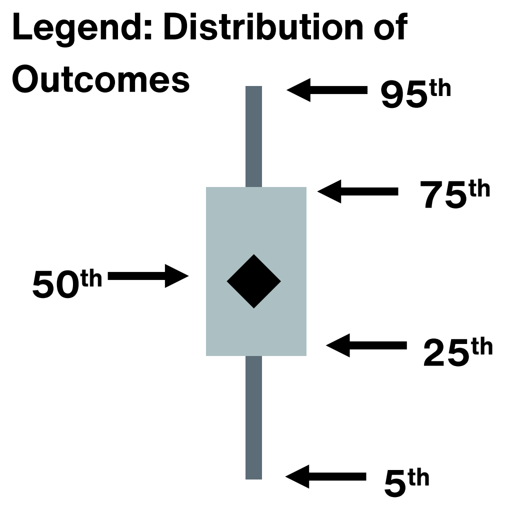
Portfolio Analysis – Range of Nominal Returns

Portfolios with 40% and higher return-seeking assets have an expected return[1] that exceeds the actuarial assumed rate of return





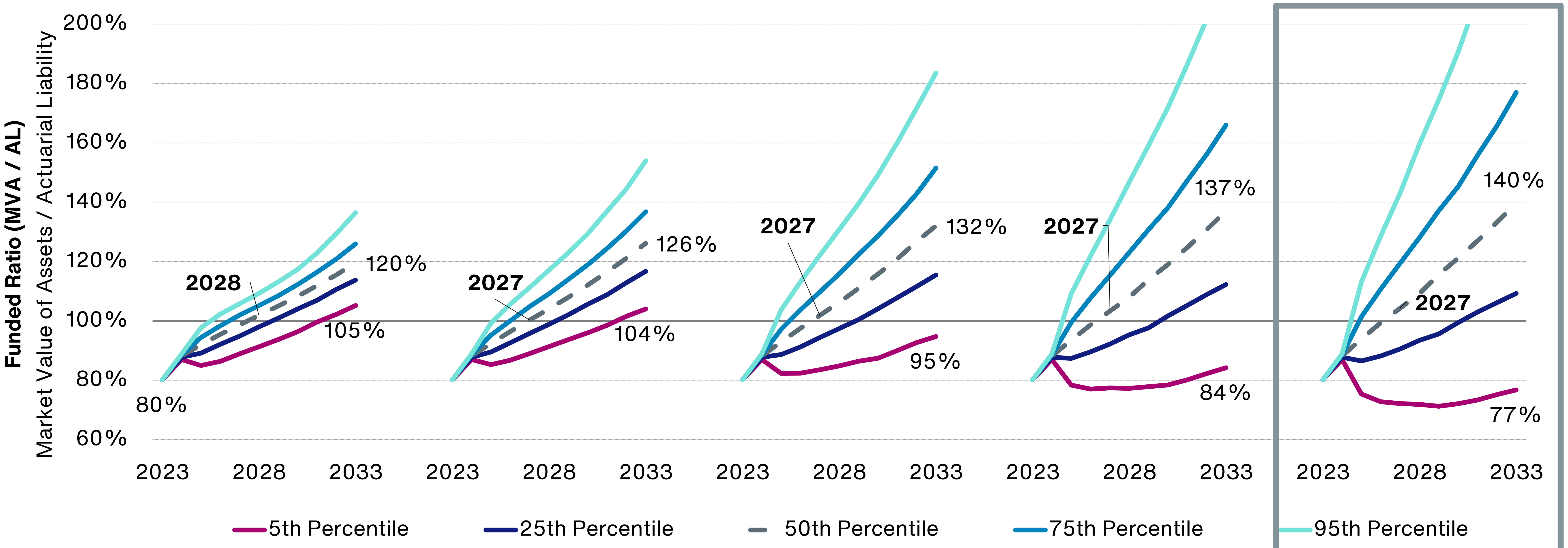
[1] Expected returns are using Aon's Q3 2024 30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Analysis includes estimated administrative expenses of $0.3 million plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results. See appendix for capital market assumptions disclosure pages.

Key Observations

- Higher allocation to return-seeking assets increases the expected return[1] (50th percentile outcome) but with a wider range of outcomes
- The probability of meeting the actuarial rate of return by portfolio is the following:
  - 0% Return-Seeking: 11%
  - 20% Return-Seeking: 32%
  - 40% Return-Seeking: 54%
  - 60% Return-Seeking: 62%
  - **74% Return-Seeking: 65%**
  - 80% Return-Seeking: 65%

Asset-Liability Projection Analysis – Funded Ratio

Market-based funded ratio is expected to attain full funding within the next few years



Strategy	0% Return-Seeking			20% Return-Seeking			40% Return-Seeking			60% Return-Seeking			Immediate Future Portfolio (74% Return-Seeking)		
Year	2023	2028	2033	2023	2028	2033	2023	2028	2033	2023	2028	2033	2023	2028	2033
5th %-ile	80%	91%	105%	80%	91%	104%	80%	85%	95%	80%	77%	84%	80%	72%	77%
25th %-ile	80%	98%	114%	80%	99%	117%	80%	97%	115%	80%	95%	112%	80%	93%	109%
50th %-ile	80%	102%	120%	80%	104%	126%	80%	106%	132%	80%	108%	137%	80%	109%	140%
75th %-ile	80%	105%	126%	80%	109%	137%	80%	116%	152%	80%	123%	166%	80%	128%	177%
95th %-ile	80%	109%	137%	80%	117%	154%	80%	131%	184%	80%	147%	>200%	80%	160%	>200%
Prob. > 80%	>99%	>99%	>99%	>99%	>99%	>99%	>99%	97%	>99%	>99%	92%	96%	>99%	87%	93%

Projections assume a constant 6.00% discount rate for pension liabilities for all investment policies studied and reflect actual investment returns through June 30, 2024. Projections in this material include estimated administrative expenses of $0.3 million for FYE 6/30/2024, increased annually with inflation, plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Actual fees and expenses may differ from those presented.
Projections assume current contribution policy of 5.58% of employer contributions and 3.75% of employee contributions on total payroll continues over the projection period.

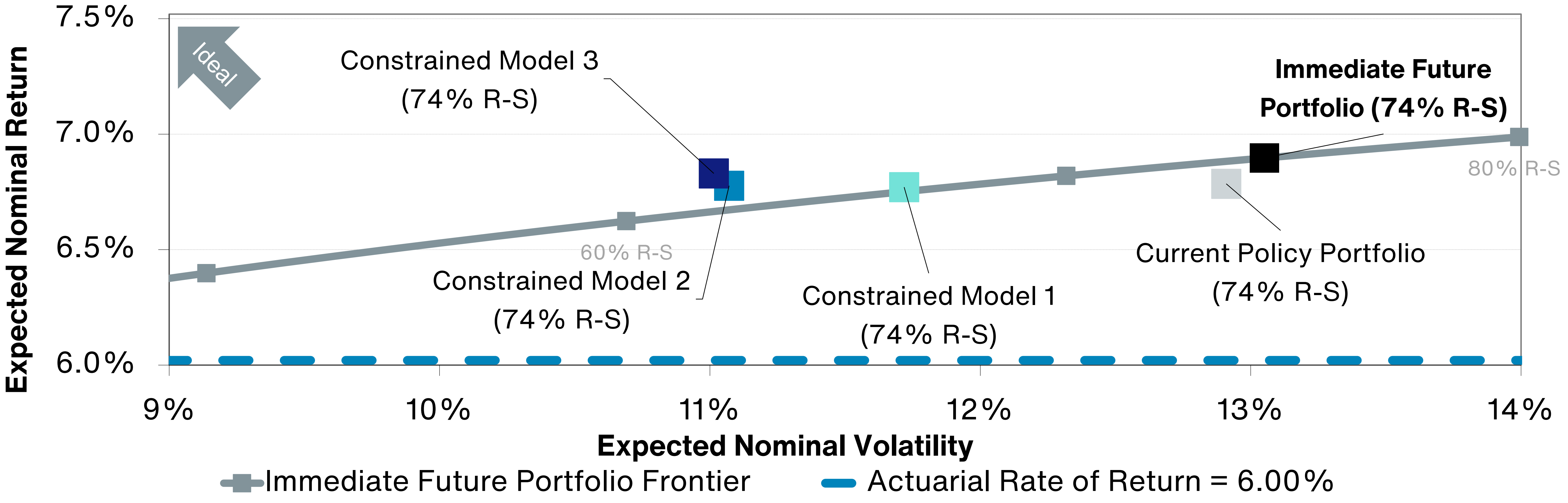
Key Observations

- The plan is expected to reach full funding in the next few years across the studied investment strategies due to the contribution policy
- Under the current contribution policy, lower return-seeking portfolios are still expected to achieve full funding with a narrower range of potential outcomes
- Lower (or higher) return-seeking strategies adjust the central trend lines and range of outcomes over time

AON

Portfolio Construction – Risk/Reward Spectrum Analysis

Opportunities exist to reduce portfolio volatility while still achieving the actuarial assumed rate of return, subject to County of Riverside’s constraints



Observations

- **Immediate Future Portfolio** expected return (6.88%[1]) exceeds the actuarial assumed rate of return (6.00%)
- **Constrained Model 1** increases allocation and adjusts composition to liquid return-seeking fixed income and open-end real assets
- **Constrained Model 2** introduces liquid alternatives
- **Constrained Model 3** adds an allocation to illiquid return-seeking fixed income

	Portfolio Metrics			Return-Seeking (R-S) Assets							Risk-Reducing/ Safety Assets
	Expected Nominal Return[1]	Expected Nominal Volatility	Sharpe Ratio	Public Equity	Private Equity	Liquid Alts	Liquid R-S Fixed Income[2]	Illiquid R-S Fixed Income	Open-End Real Assets[3]	Closed-End Real Assets / Commodities	Core Bonds
Current Policy Portfolio (74% R-S)	6.77%	12.91%	0.21	60%	0%	0%	6%	0%	6%	2%	26%
Immediate Future Portfolio (74% R-S)	6.88%	13.05%	0.21	62%	0%	0%	6%	0%	6%	0%	26%
Constrained Model 1	6.75%	11.72%	0.23	56%	0%	0%	7%	0%	12%	0%	26%
Constrained Model 2	6.76%	11.07%	0.24	51%	0%	5%	7%	0%	12%	0%	26%
Constrained Model 3	6.81%	11.01%	0.25	51%	0%	7%	5%	2%	9%	0%	26%
Immediate Future Portfolio Frontier											
60% Return-Seeking	6.60%	10.69%	0.23	50%	0%	0%	5%	0%	5%	0%	40%
80% Return-Seeking	6.97%	13.99%	0.20	67%	0%	0%	7%	0%	6%	0%	20%

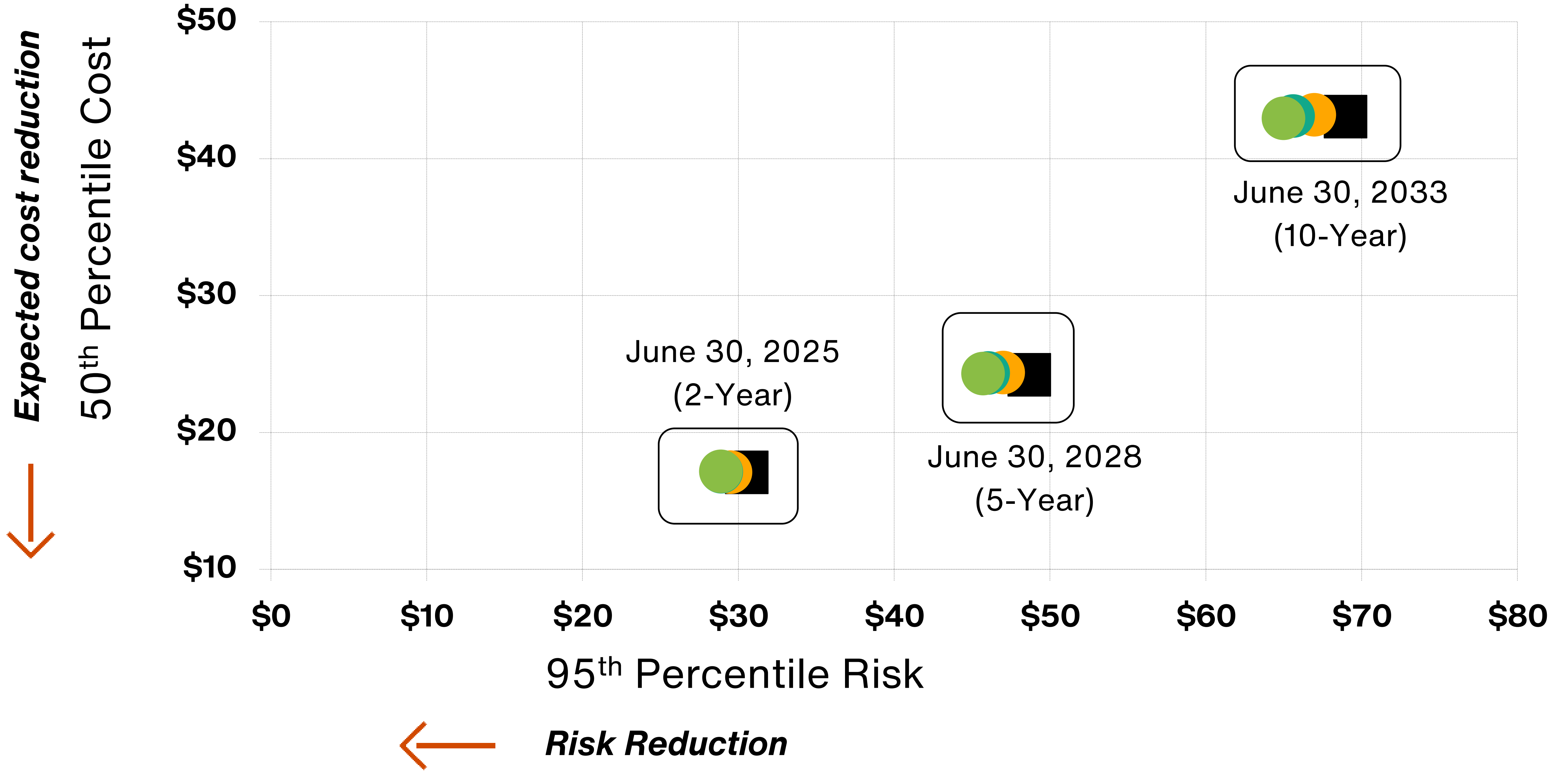
[1] Expected returns are using Aon’s 30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected Returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results.
[2] Current Policy Portfolio models High Yield Bonds while all others model Multi-Asset Credit
[3] Current Policy Portfolio and Immediate Future Portfolio models US REITs while all others model Core Real Estate
Percentages may not sum to 100% due to rounding.

Economic Cost and Risk

Analysis over a 2, 5, and 10-year horizon

Economic Cost[1]

Present Value of Contributions plus AL Funding Shortfall/(Surplus)* at 6.00%, $ Millions



Economic Cost

Strategy ($ Millions)	Cost	Risk
June 30, 2025 (2-year)		
Immediate Future (74% R-S)	$17.1	$30.5
Constrained Model 1 (74% R-S)	$17.1	$29.5
Constrained Model 2 (74% R-S)	$17.1	$28.9
Constrained Model 3 (74% R-S)	$17.2	$28.9
June 30, 2028 (5-year)		
Strategy ($ Millions)	**Cost**	**Risk**
Immediate Future (74% R-S)	$24.2	$48.7
Constrained Model 1 (74% R-S)	$24.4	$47.0
Constrained Model 2 (74% R-S)	$24.3	$46.0
Constrained Model 3 (74% R-S)	$24.3	$45.7
June 30, 2033 (10-year)		
Strategy ($ Millions)	**Cost**	**Risk**
Immediate Future (74% R-S)	$43.1	$69.0
Constrained Model 1 (74% R-S)	$43.2	$66.9
Constrained Model 2 (74% R-S)	$43.1	$65.6
Constrained Model 3 (74% R-S)	$42.9	$65.0

Key Takeaway

- Risk improvements from the constrained model portfolios become more pronounced over longer time periods

* Projections assume constant 6.00% discount rate for pension liabilities for all investment policies studied
Note: Excludes 50% of surplus in excess of 110% of Actuarial liability, and includes twice the shortfall below 40% of Actuarial liability, on a market value basis
Projections assume current contribution policy of 5.58% of employer contributions and 3.75% of employee contributions on total payroll continues over the projection period.

Summary of Results

Highlighted areas achieve intended goals

Portfolios	Portfolio Metrics (30-year CMAs)			Financial Results					
				10-year Ending Funded Ratio (MVA / AL)			10-year Present Value of Contributions		Full Funding
	Expected Nominal Return[1]	Expected Nominal Volatility	Sharpe Ratio	Expected[2]	Downside[3]	Probability Below 80%	Expected[2]	Downside[4]	Expected Year
Immediate Future Portfolio (74% R-S)	6.88%	13.05%	0.21	140%	77%	7%	$56.4	$57.2	2027
Constrained Model 1 (74% R-S)	6.75%	11.72%	0.23	139%	80%	5%	$56.4	$57.2	2027
Constrained Model 2 (74% R-S)	6.76%	11.07%	0.24	140%	83%	4%	$56.4	$57.2	2027
Constrained Model 3 (74% R-S)	6.81%	11.01%	0.25	140%	84%	4%	$56.4	$57.2	2027
Current Frontier									
0% Return-Seeking	4.80%	5.40%	0.13	120%	105%	<1%	$56.4	$57.2	2028
10% Return-Seeking	5.18%	5.17%	0.21	123%	107%	<1%	$56.4	$57.2	2027
20% Return-Seeking	5.52%	5.57%	0.26	126%	104%	<1%	$56.4	$57.2	2027
30% Return-Seeking	5.84%	6.47%	0.27	130%	100%	<1%	$56.4	$57.2	2027
40% Return-Seeking	6.12%	7.70%	0.26	132%	95%	<1%	$56.4	$57.2	2027
50% Return-Seeking	6.38%	9.14%	0.25	135%	90%	2%	$56.4	$57.2	2027
60% Return-Seeking	6.60%	10.69%	0.23	137%	84%	4%	$56.4	$57.2	2027
70% Return-Seeking	6.80%	12.32%	0.22	139%	79%	6%	$56.4	$57.2	2027
80% Return-Seeking	6.97%	13.99%	0.20	141%	74%	9%	$56.4	$57.2	2027
90% Return-Seeking	7.11%	15.70%	0.19	142%	69%	11%	$56.4	$57.2	2027
100% Return-Seeking	7.22%	17.43%	0.18	143%	63%	13%	$56.4	$57.2	2027

[1] Expected returns are using Aon's Q3 2024 30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Projections in this material include estimated administrative expenses of $0.3 million for FYE 6/30/2024, increased annually with inflation, plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Actual fees and expenses may differ from those presented.

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[2] Expected = 50th percentile outcome or central expectation across all 5,000 simulations

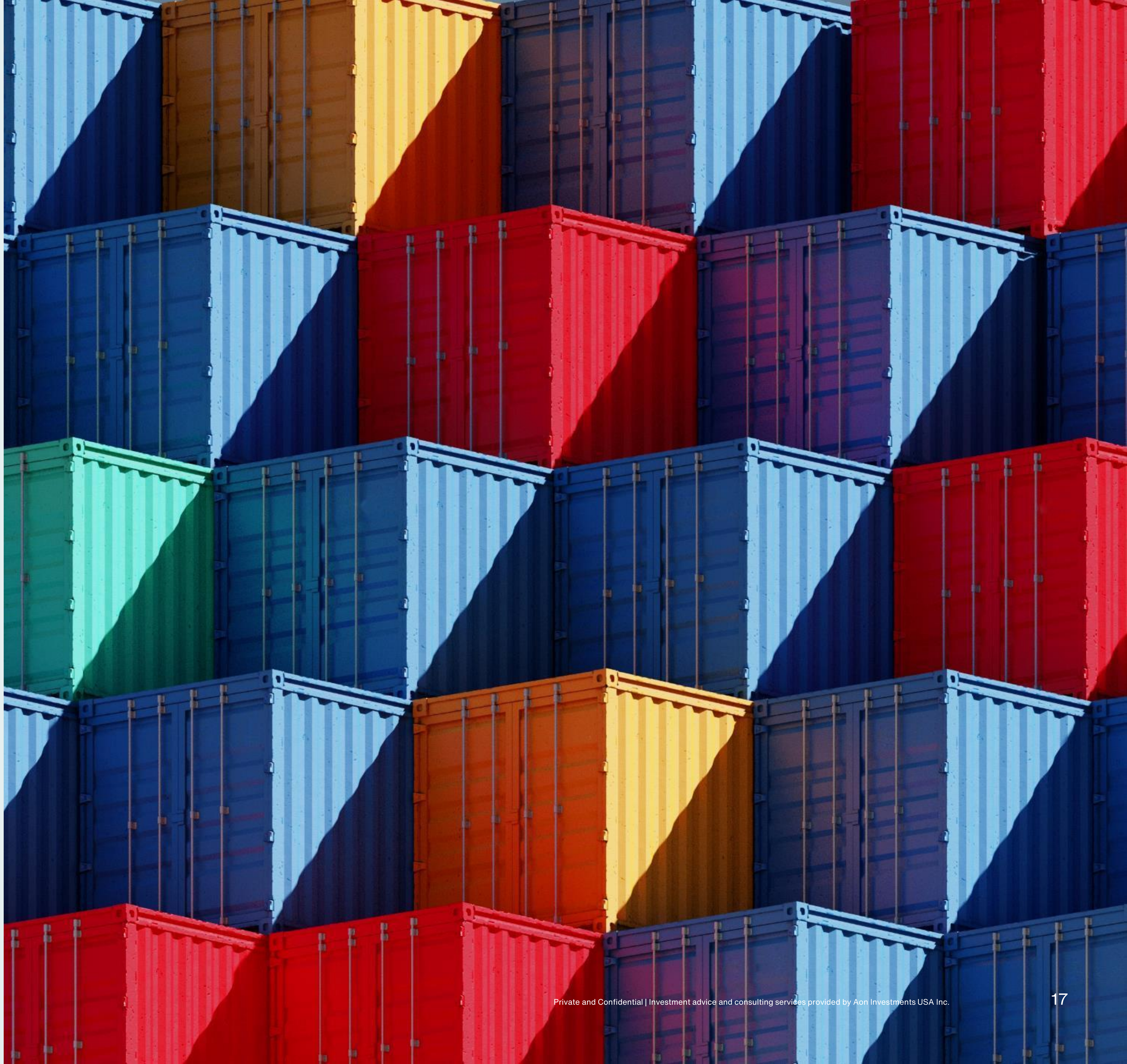
[3] Downside = 5th percentile outcome across all 5,000 simulations

[4] Downside = 95th percentile outcome across all 5,000 simulations

3

Detailed Analysis

- Portfolio Analysis
- Asset-Liability Projection Analysis – Asset Allocation
- Asset-Liability Projection Analysis – Portfolio Construction



Portfolio Analysis

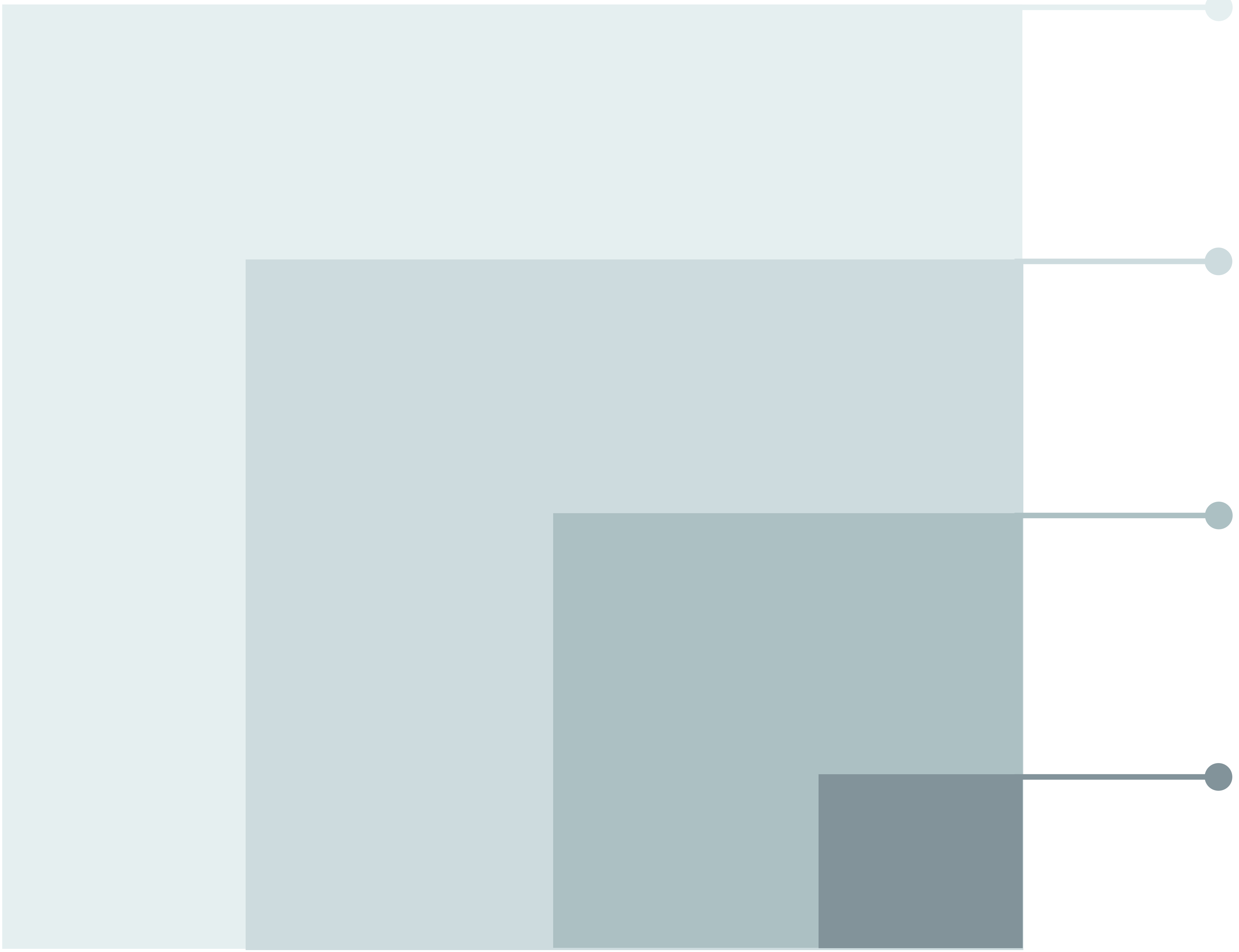
Section 3: Detailed Analysis

Our Process

Return-seeking portfolio construction

Goal: Outperform liabilities while mitigating downside risk

Key Concept: Diversify risk exposures; capture illiquidity premium where prudent



Equity

Equity beta is the primary driver of excess return over liabilities

Real Assets

Source of alternative income, inflation protection, and provides downside protection versus equity beta

Return-Seeking Fixed Income

Adds credit beta and provides downside protection versus equity beta

Liquid Alternatives

Absolute return and provides downside protection versus equity beta

Aon's Model Portfolio Building Blocks

Return-Seeking Asset Views

Building Block	Aon's Views
Public Equity	• Base of return-seeking portfolio • Primary source of excess return • 65% U.S. equity / 35% non-U.S.
Private Equity	• Expected premiums for equity risk, illiquidity, and complexity/skill • Smaller portfolios can use fund of funds and secondaries • Diversify across sub-sectors/strategies (e.g., buyouts, venture capital, etc.) and vintage years for larger portfolios
Liquid Alternatives	• Diversifies by having less exposure to general economic growth (biggest driver of equity market returns) • Expected premiums for illiquidity and complexity/skill • Includes (but not limited to): equity hedge, event driven/distressed, macro, relative value, multi strategy, and orthogonal

Building Block	Aon's Views
Liquid Return-Seeking Fixed Income	• Diversifies public equities and core fixed income • Provides credit spread duration and additional yield • Rotates among credit sub-strategies including, but not limited to: high yield, emerging markets debt, bank loans, and securitized
Illiquid Fixed Income	• Expected illiquidity premium in addition to most of the benefits of liquid return-seeking fixed income • Base is direct corporate lending; also includes real estate debt/asset-backed lending and opportunistic credit
Open-End Real Assets	• Diversifies public equities- moderate correlation in most markets • Income and inflation protection • 50% core real estate / 50% core infrastructure
Closed-End Real Assets	• Expected illiquidity and risk premia in addition to most of the benefits of open-end real assets • Base is non-core real estate and infrastructure; also includes agriculture, farmland, timber, and opportunistic

Spectrum of Our Model Portfolios

Reflects our best ideas for a typical pension plan

Aon's Model Portfolios reflect Aon's best ideas for a typical total return defined benefit plan across a range of circumstances noted below

Intended as a starting point for asset allocation analysis and decision-making and to be customized based on client-specific needs and circumstances

	Liquid	Less Liquid	More Illiquid	Unconstrained
Complexity	Simple			Complex
Costs	Low Cost			Higher Cost
Resources	Light Resources			Deep Resources
Governance	Modest Governance			Strong Governance
Liquidity	More Liquid			Less Liquid

As a general statement, moving from left-to-right on the above spectrum increases both investment portfolio return potential and risk-adjusted return potential, based on our capital markets modelling

- It also increases the reliance on "alpha" (manager skill) and reduces the emphasis on market "beta" (market risk premiums); alpha is not guaranteed

Spectrum of Our Model Portfolios

Assumes 80% return-seeking portfolio; model portfolios scaled to desired risk tolerance

Aon Model Portfolio	Liquid	Less Liquid	More Illiquid	Unconstrained
Guidance on Choosing the Right Model Portfolio	Appropriate for pension plans intending to access markets in a simple, low cost manner	Public pension plans with modest governance structure and some appetite for illiquidity	Typical public pension plan	Public pension plans with strong governance structure and large appetite for illiquidity
Asset Allocation				
Total Return-Seeking Assets	**80.0%**	**80.0%**	**80.0%**	**80.0%**
Public Equity	60.0%	50.0%	45.0%	35.0%
Private Equity	--	5.0%	10.0%	15.0%
Liquid Alternatives	--	5.0%	7.5%	7.5%
Liquid Return-Seeking Fixed Income	7.5%	7.5%	5.0%	5.0%
Illiquid Fixed Income	--	--	2.5%	5.0%
Open-end Real Assets	12.5%	7.5%	5.0%	5.0%
Closed-end Real Assets	--	5.0%	5.0%	7.5%
Opportunity	0.0%	0-5%	0-10%	0-10%
Total Risk-Reducing Assets	**20.0%**	**20.0%**	**20.0%**	**20.0%**
Core/Core-Plus Fixed Income	20.0%	20.0%	20.0%	20.0%
Total Assets	**100.0%**	**100.0%**	**100.0%**	**100.0%**

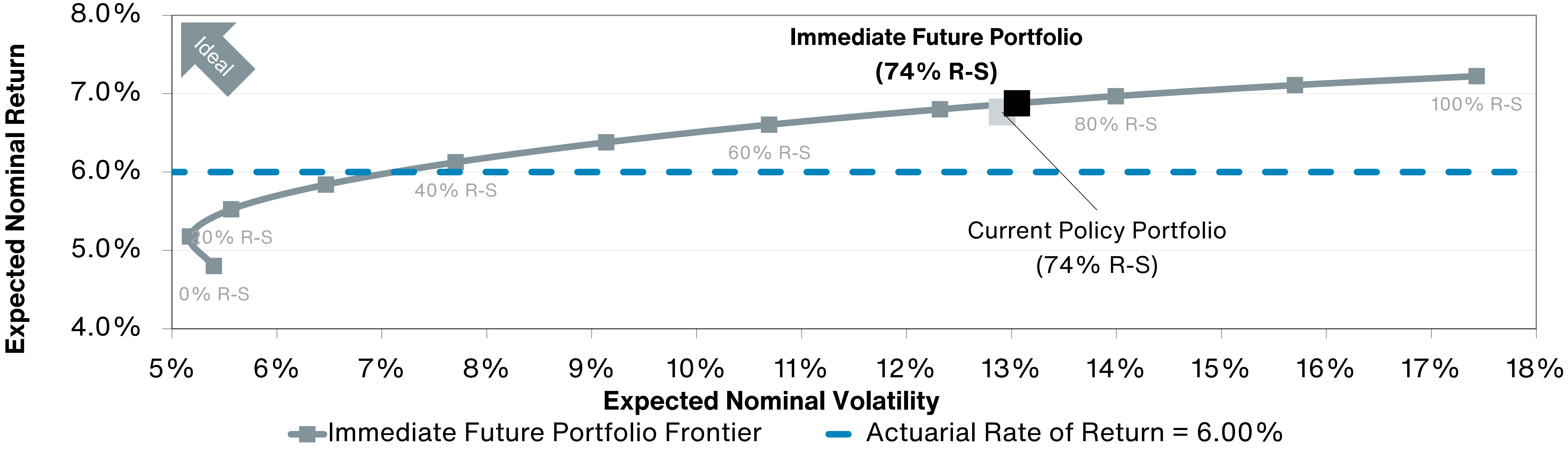
Planning Meeting Recap – Portfolio Feedback

Portfolio feedback expressed during September discussion

- Ease into any new asset classes
- Assets should have illiquidity at least three months or less (i.e. investors able to move into or out of a strategy every three months)
- Focus on “Liquid” and “Less Liquid” model portfolio structures

Portfolio Construction – Risk/Reward Spectrum Analysis

Opportunities exist to reduce portfolio volatility while still achieving the actuarial assumed rate of return, subject to County of Riverside's constraints



Key Observation

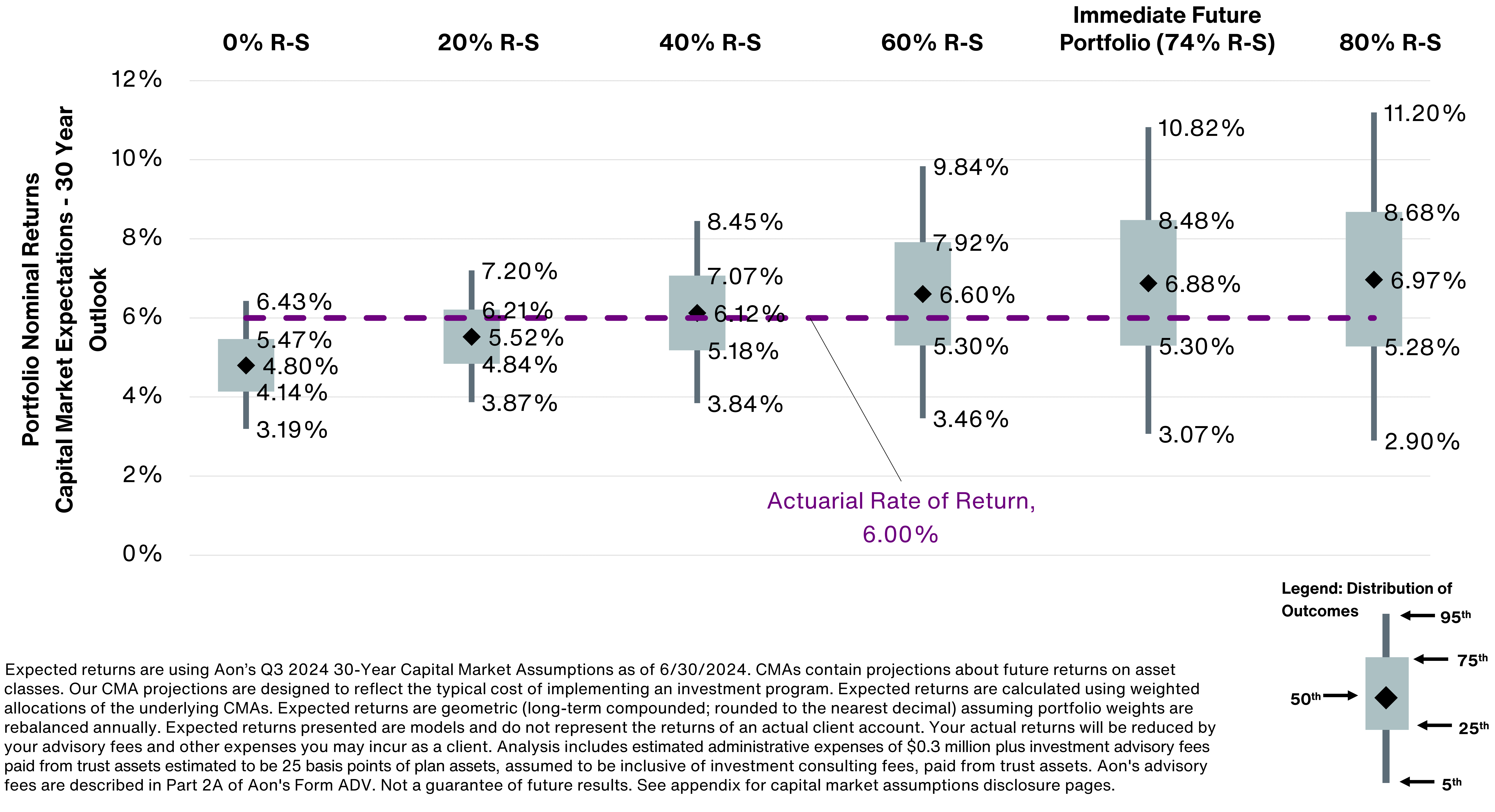
- Allocations to return-seeking assets of 40% or higher on the **Immediate Future Portfolio** frontier have an expected return that exceeds the actuarial assumed rate of return of 6.00%

	Portfolio Metrics			Return-Seeking (R-S) Assets							Risk-Reducing/ Safety Assets
	Expected Nominal Return[1]	Expected Nominal Volatility	Sharpe Ratio	Public Equity	Private Equity	Liquid Alts	Liquid R-S Fixed Income[2]	Illiquid R-S Fixed Income	Open-End Real Assets[3]	Closed-End Real Assets / Commodities	Core Bonds
Current Policy Portfolio (74% R-S)	6.77%	12.91%	0.21	60%	0%	0%	6%	0%	6%	2%	26%
Immediate Future Portfolio (74% R-S)	6.88%	13.05%	0.21	62%	0%	0%	6%	0%	6%	0%	26%
Immediate Future Portfolio Frontier											
0% Return-Seeking	4.80%	5.40%	0.13	0%	0%	0%	0%	0%	0%	0%	100%
20% Return-Seeking	5.52%	5.57%	0.26	17%	0%	0%	2%	0%	2%	0%	80%
40% Return-Seeking	6.12%	7.70%	0.26	33%	0%	0%	3%	0%	3%	0%	60%
60% Return-Seeking	6.60%	10.69%	0.23	50%	0%	0%	5%	0%	5%	0%	40%
80% Return-Seeking	6.97%	13.99%	0.20	67%	0%	0%	7%	0%	6%	0%	20%
100% Return-Seeking	7.22%	17.43%	0.18	83%	0%	0%	9%	0%	8%	0%	0%

[1] Expected returns are using Aon's 30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected Returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results.
[2] Current Policy Portfolio models High Yield Bonds while all others model Multi-Asset Credit
[3] Current Policy Portfolio and Immediate Future Portfolio models US REITs while all others model Core Real Estate
Percentages may not sum to 100% due to rounding.

Portfolio Analysis – Range of Nominal Returns

Portfolios with 40% and higher return-seeking assets have an expected return[1] that exceeds the actuarial assumed rate of return



[1] Expected returns are using Aon's Q3 2024 30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Analysis includes estimated administrative expenses of $0.3 million plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results. See appendix for capital market assumptions disclosure pages.

Key Observations

- Higher allocation to return-seeking assets increases the expected return[1] (50th percentile outcome) but with a wider range of outcomes
- The probability of meeting the actuarial rate of return by portfolio is the following:
  - 0% Return-Seeking: 11%
  - 20% Return-Seeking: 32%
  - 40% Return-Seeking: 54%
  - 60% Return-Seeking: 62%
  - **74% Return-Seeking: 65%**
  - 80% Return-Seeking: 65%

Asset-Liability Projection Analysis – Asset Allocation

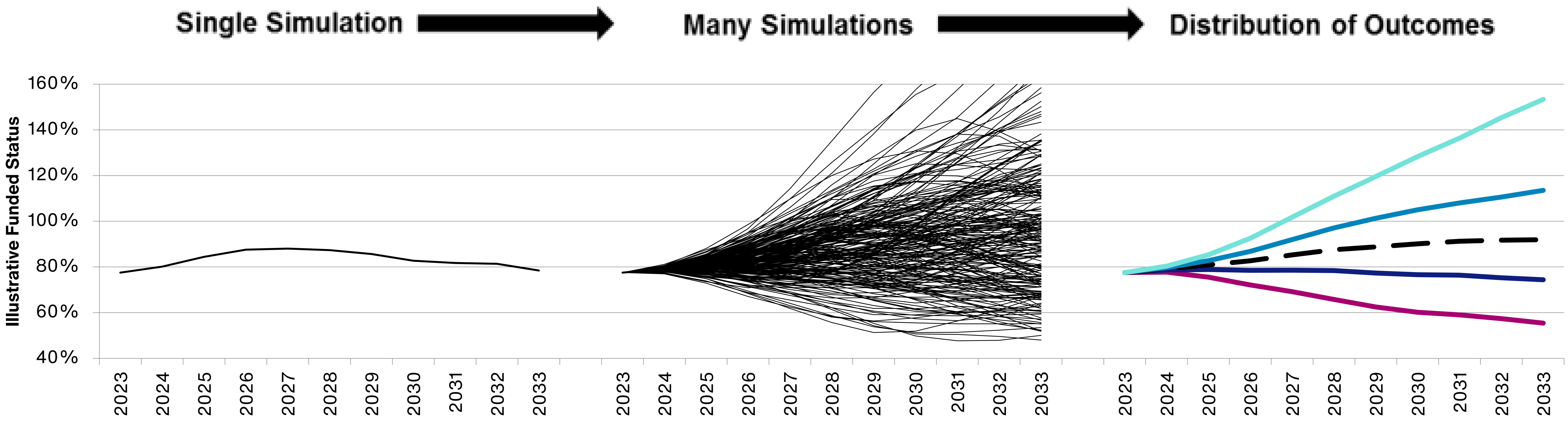
Section 3: Detailed Analysis

Asset-Liability Projection Analysis

Simulation overview (illustrative example)

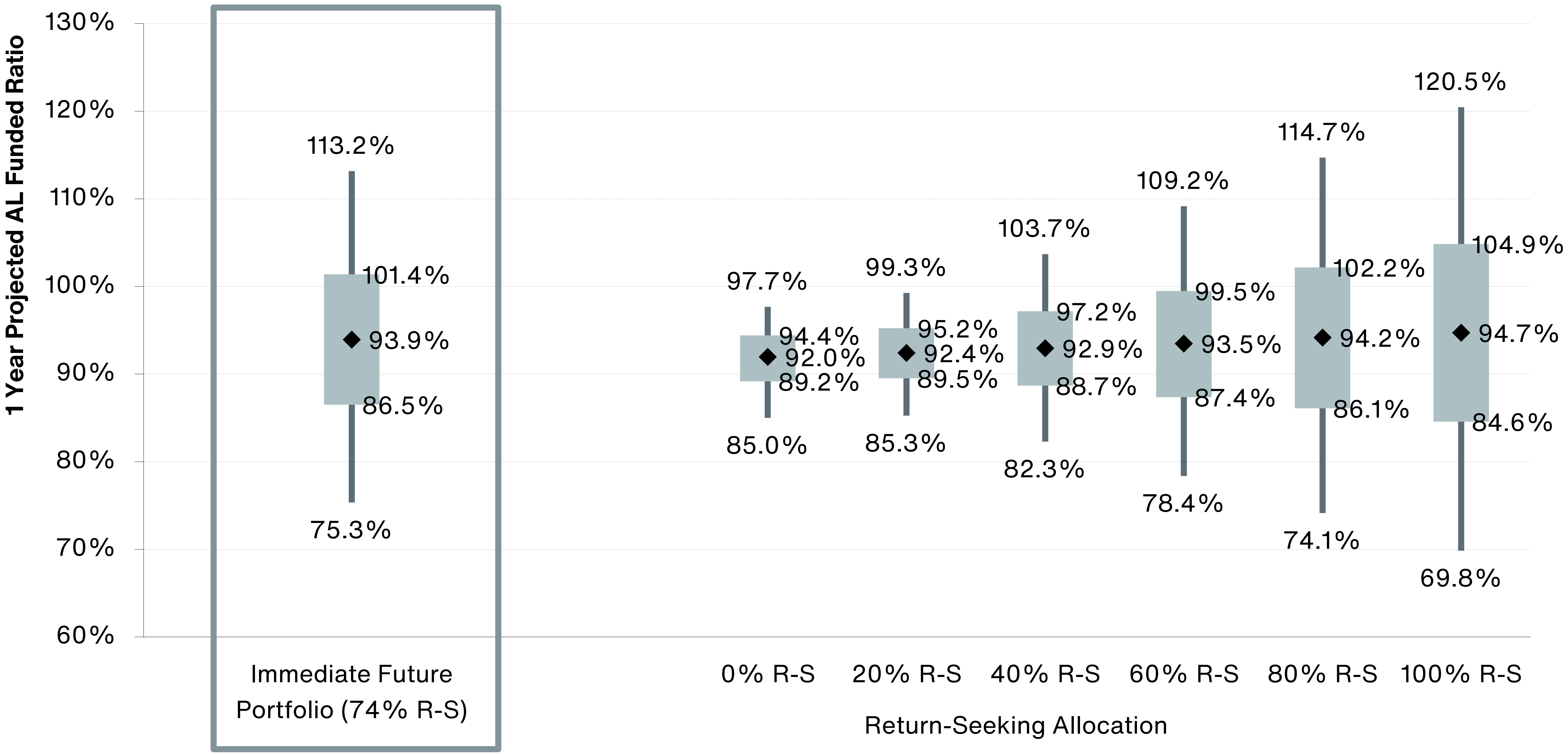
Illustrative

- Thousands of simulations plotted in one graph would be impossible to interpret
- Instead, we rank the simulations at each point over the future
- This produces a distribution of outcomes illustrating the degree of uncertainty of a plan's financial position over the projection period
- Different investment strategies will produce different distributions of outcomes



Asset-Liability Projection Analysis – Short-term Funded Ratio

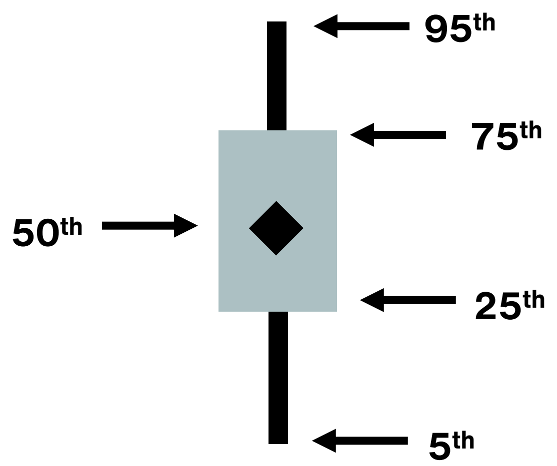
FYE 2025 Funded Ratio (Market Value of Assets / Actuarial Liability)



Key Observations

- Higher risk portfolios are projected to have both more upside and downside potential over a short time horizon
- Similarly, lower risk portfolios will have a narrower range of potential outcomes

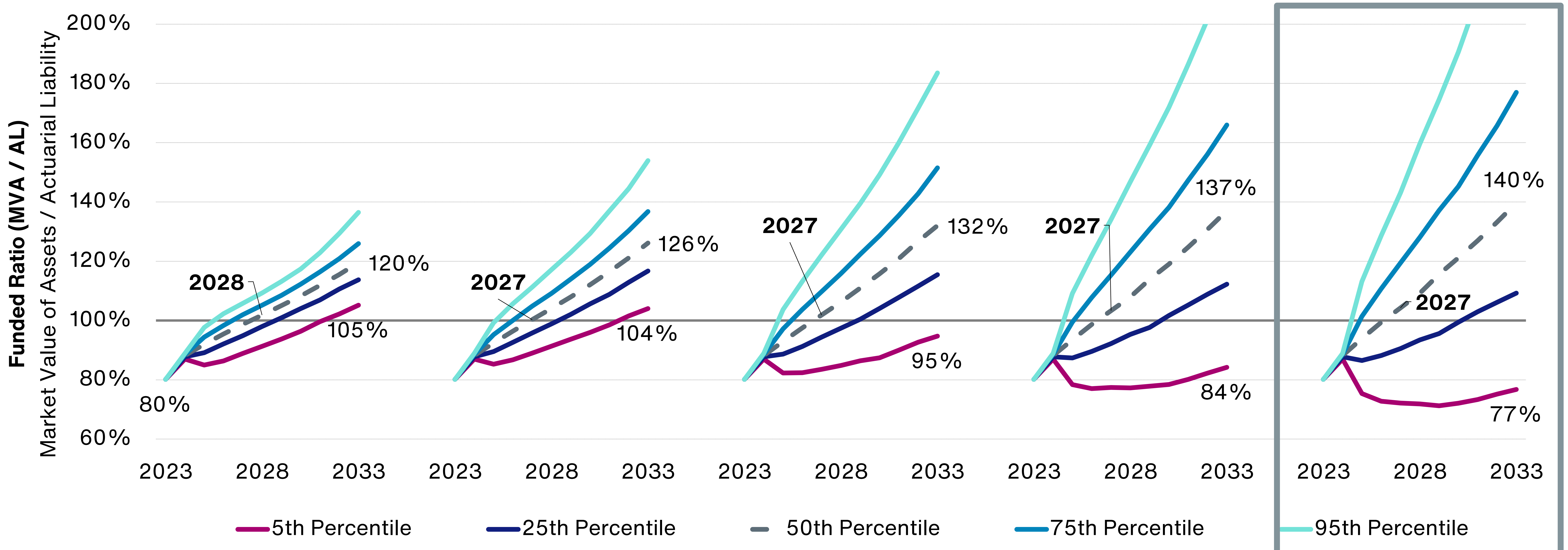
Legend: Distribution of Outcomes



Projections assume a constant 6.00% discount rate for pension liabilities for all investment policies studied and reflect actual investment returns through June 30, 2024. Projections in this material include estimated administrative expenses of $0.3 million for FYE 6/30/2024, increased annually with inflation, plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Actual fees and expenses may differ from those presented.
Projections assume current contribution policy of 5.58% of employer contributions and 3.75% of employee contributions on total payroll continues over the projection period.

Asset-Liability Projection Analysis – Funded Ratio

Market-based funded ratio is expected to attain full funding within the next few years



Strategy	0% Return-Seeking			20% Return-Seeking			40% Return-Seeking			60% Return-Seeking			Immediate Future Portfolio (74% Return-Seeking)		
Year	2023	2028	2033	2023	2028	2033	2023	2028	2033	2023	2028	2033	2023	2028	2033
5th %-ile	80%	91%	105%	80%	91%	104%	80%	85%	95%	80%	77%	84%	80%	72%	77%
25th %-ile	80%	98%	114%	80%	99%	117%	80%	97%	115%	80%	95%	112%	80%	93%	109%
50th %-ile	80%	102%	120%	80%	104%	126%	80%	106%	132%	80%	108%	137%	80%	109%	140%
75th %-ile	80%	105%	126%	80%	109%	137%	80%	116%	152%	80%	123%	166%	80%	128%	177%
95th %-ile	80%	109%	137%	80%	117%	154%	80%	131%	184%	80%	147%	>200%	80%	160%	>200%
Prob. > 80%	>99%	>99%	>99%	>99%	>99%	>99%	>99%	97%	>99%	>99%	92%	96%	>99%	87%	93%

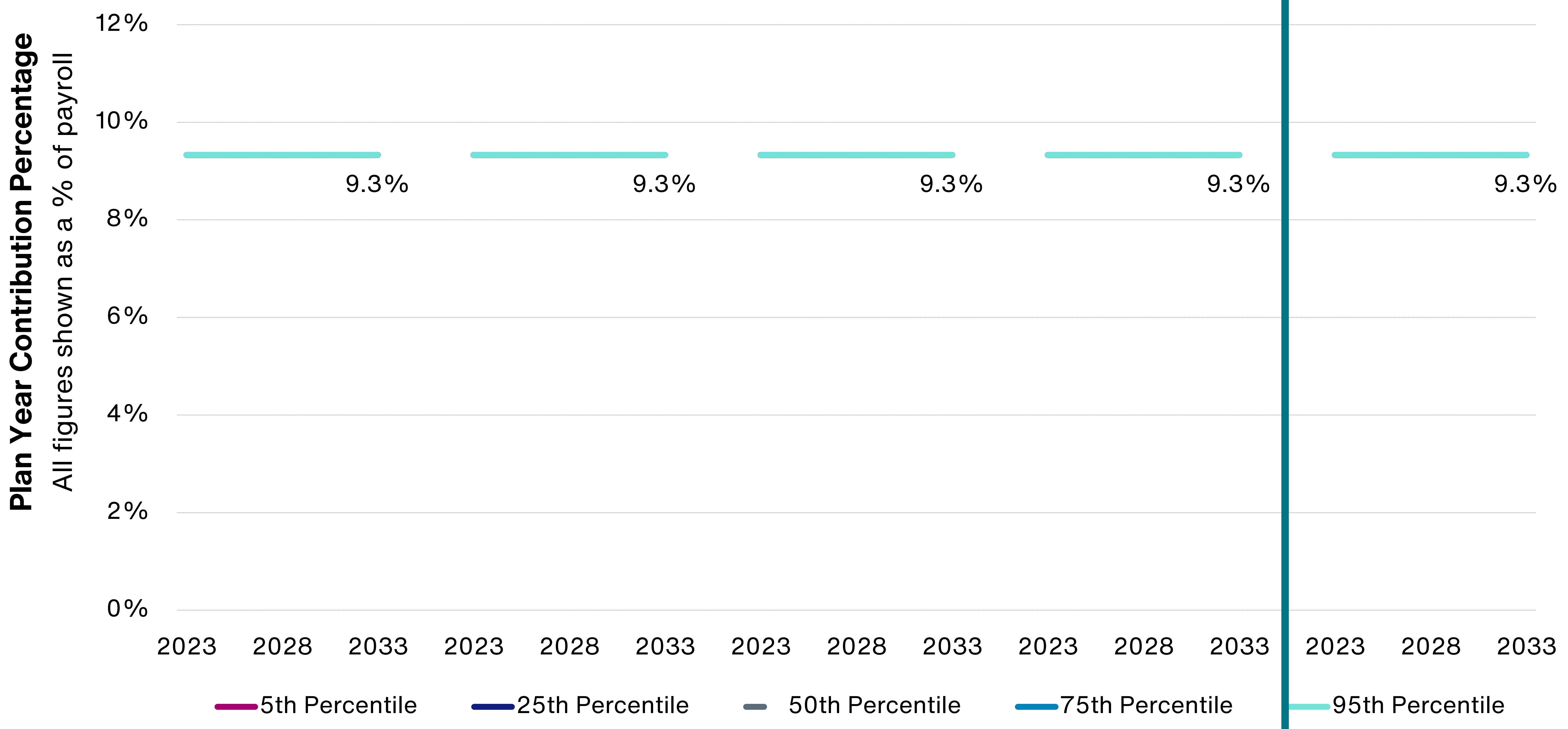
Projections assume a constant 6.00% discount rate for pension liabilities for all investment policies studied and reflect actual investment returns through June 30, 2024. Projections in this material include estimated administrative expenses of $0.3 million for FYE 6/30/2024, increased annually with inflation, plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Actual fees and expenses may differ from those presented.
Projections assume current contribution policy of 5.58% of employer contributions and 3.75% of employee contributions on total payroll continues over the projection period.

Key Observations

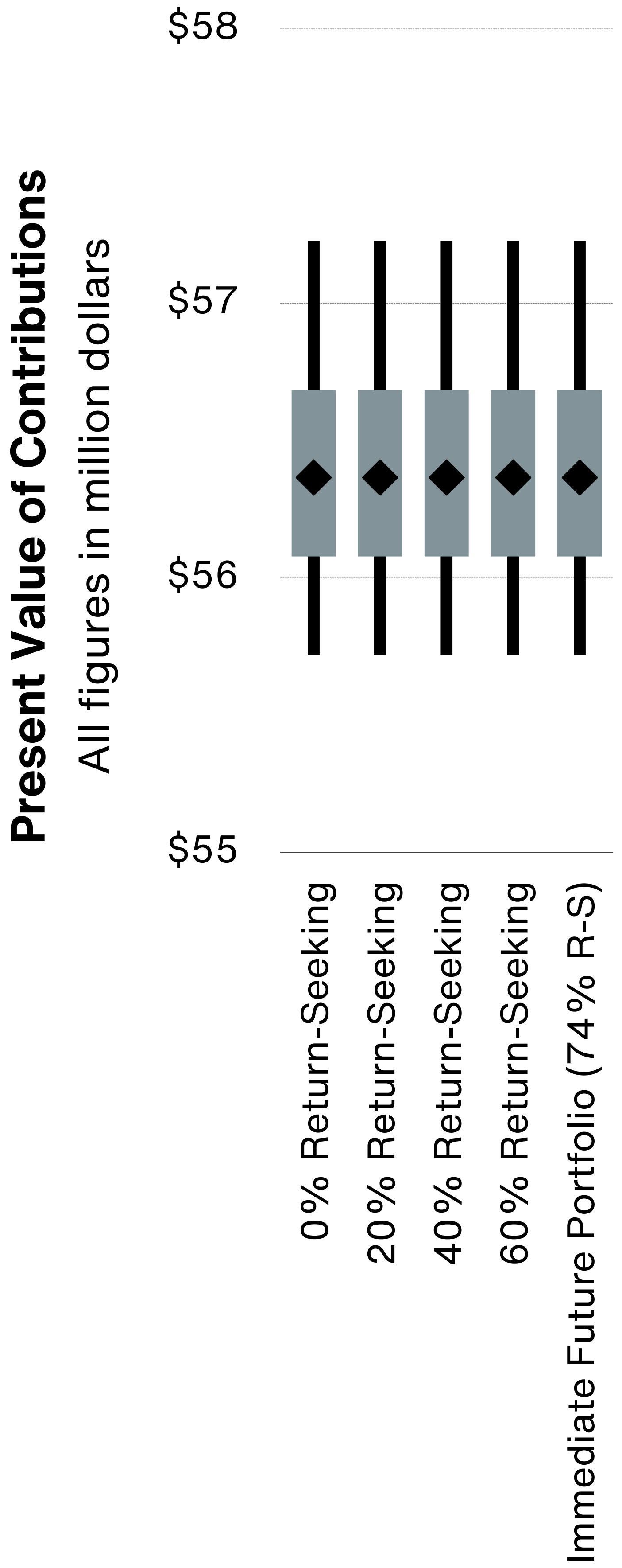
- The plan is expected to reach full funding in the next few years across the studied investment strategies due to the contribution policy
- Under the current contribution policy, lower return-seeking portfolios are still expected to achieve full funding with a narrower range of potential outcomes
- Lower (or higher) return-seeking strategies adjust the central trend lines and range of outcomes over time

Asset-Liability Projection Analysis – Total Contributions

Employer and employee contribution rates were assumed to continue over the projection period



Strategy	0% Return-Seeking			20% Return-Seeking			40% Return-Seeking			60% Return-Seeking			Immediate Future Portfolio (74% Return-Seeking)		
Year	**2023**	**2028**	**2033**	**2023**	**2028**	**2033**	**2023**	**2028**	**2033**	**2023**	**2028**	**2033**	**2023**	**2028**	**2033**
5th Percentile	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%
25th Percentile	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%
50th Percentile	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%
75th Percentile	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%
95th Percentile	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%

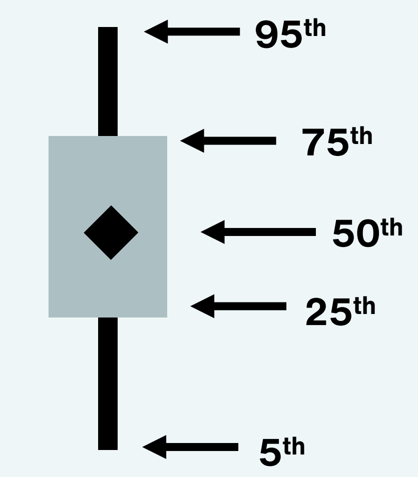


Projections assume a constant 6.00% discount rate for pension liabilities for all investment policies studied and reflect actual investment returns through June 30, 2024. Projections in this material include estimated administrative expenses of $0.3 million for FYE 6/30/2024, increased annually with inflation, plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Actual fees and expenses may differ from those presented. Present values measured at 6.00% discount rate.
Projections assume current contribution policy of 5.58% of employer contributions and 3.75% of employee contributions on total payroll continues over the projection period

Key Observation

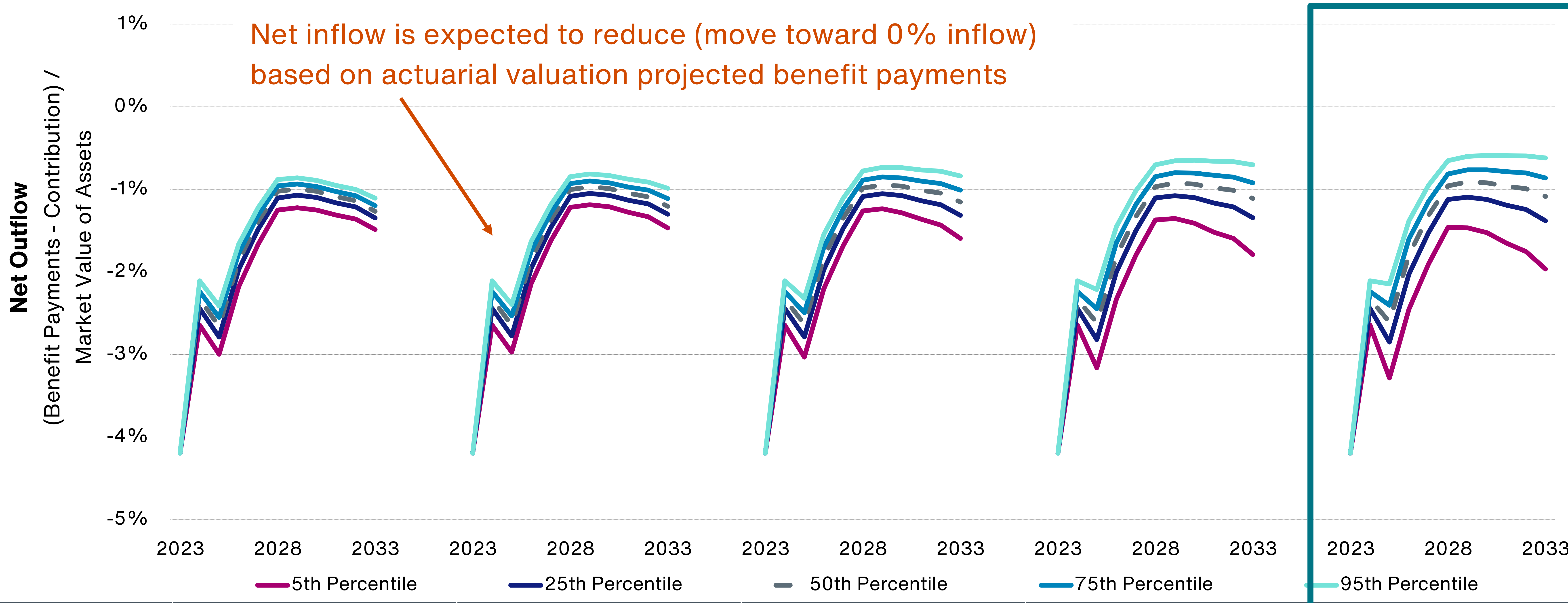
- Cash contributions are set at 9.33% of total payroll which consists of employer amounts of 5.58% and employee amounts of 3.75% of total payroll

Legend: Distribution of Outcomes



Asset-Liability Projection Analysis

Net Outflow Analysis: (Benefit Payments less Contributions) / Market Value of Assets



Strategy	0% Return-Seeking			20% Return-Seeking			40% Return-Seeking			60% Return-Seeking			Immediate Future Portfolio (74% Return-Seeking)		
Year	2023	2028	2033	2023	2028	2033	2023	2028	2033	2023	2028	2033	2023	2028	2033
5th Percentile	-4.2%	-1.3%	-1.5%	-4.2%	-1.2%	-1.5%	-4.2%	-1.3%	-1.6%	-4.2%	-1.4%	-1.8%	-4.2%	-1.5%	-2.0%
25th Percentile	-4.2%	-1.1%	-1.3%	-4.2%	-1.1%	-1.3%	-4.2%	-1.1%	-1.3%	-4.2%	-1.1%	-1.3%	-4.2%	-1.1%	-1.4%
50th Percentile	-4.2%	-1.0%	-1.3%	-4.2%	-1.0%	-1.2%	-4.2%	-1.0%	-1.2%	-4.2%	-1.0%	-1.1%	-4.2%	-1.0%	-1.1%
75th Percentile	-4.2%	-1.0%	-1.2%	-4.2%	-0.9%	-1.1%	-4.2%	-0.9%	-1.0%	-4.2%	-0.8%	-0.9%	-4.2%	-0.8%	-0.9%
95th Percentile	-4.2%	-0.9%	-1.1%	-4.2%	-0.8%	-1.0%	-4.2%	-0.8%	-0.8%	-4.2%	-0.7%	-0.7%	-4.2%	-0.7%	-0.6%

Projections assume a constant 6.00% discount rate for pension liabilities for all investment policies studied and reflect actual investment returns through June 30, 2024. Projections in this material include estimated administrative expenses of $0.3 million for FYE 6/30/2024, increased annually with inflation, plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Actual fees and expenses may differ from those presented.
Projections assume current contribution policy of 5.58% of employer contributions and 3.75% of employee contributions on total payroll continues over the projection period.

Key Observations

- The Plan is expected to have a net inflow over the projection period based on assumed contribution policy
- The inflow level is expected to reduce over the next few years as projected benefit payments from the plan increase relative to projected contributions
- Net outflows of 10%+ can put stress on fund liquidity over time; however, it is not likely over the projection period

Asset-Liability Projection Analysis

Economic cost analysis over a 2, 5, and 10-year horizon

Economic Cost

Present Value of Contributions plus AL Funding Shortfall/(Surplus)* at 6.00%, $billions

* Projections assume constant 6.00% discount rate for pension liabilities for all investment policies studied
Note: Excludes 50% of surplus in excess of 110% of Actuarial liability, and includes twice the shortfall below 40% of Actuarial liability, on a market value basis
Projections assume current contribution policy of 5.58% of employer contributions and 3.75% of employee contributions on total payroll continues over the projection period.

Key Observations

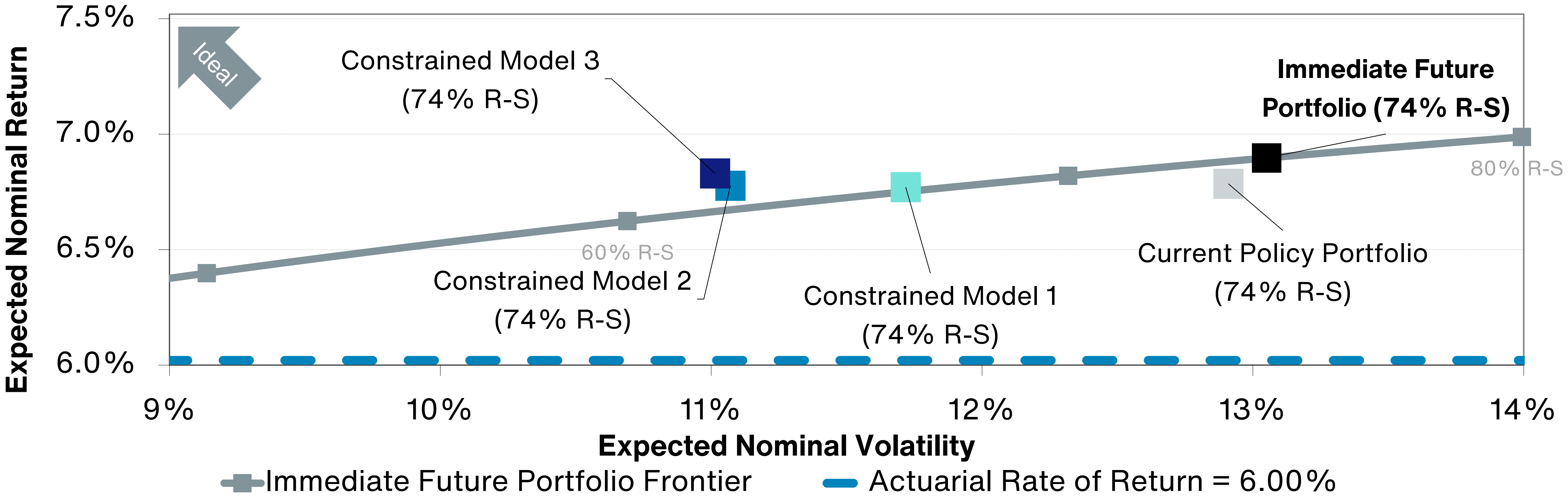
- Horizontal economic cost curves imply that added risk does not result in a significant expected reward/economic cost reduction
- Vertical economic cost curves imply that added risk does result in a significant expected reward/economic cost reduction
- The County's economic curves over the projection periods shown are largely horizontal indicating that additional risk in the portfolio does not equate to economic cost reduction

Asset-Liability Projection Analysis – Portfolio Construction

Section 3: Detailed Analysis

Portfolio Construction – Risk/Reward Spectrum Analysis

Opportunities exist to reduce portfolio volatility while still achieving the actuarial assumed rate of return, subject to County of Riverside's constraints



Observations

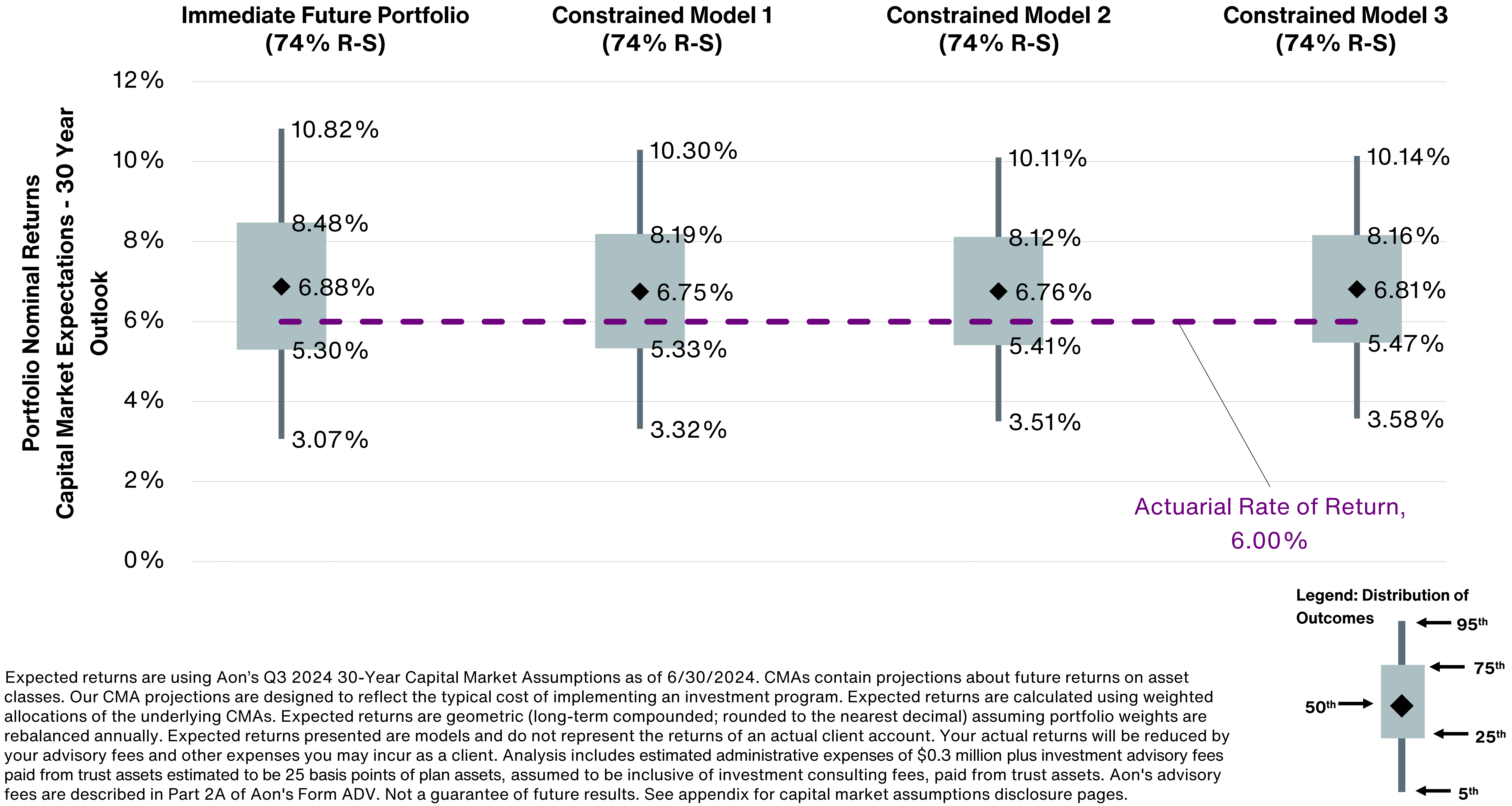
- **Immediate Future Portfolio** expected return (6.88%[1]) exceeds the actuarial assumed rate of return (6.00%)
- **Constrained Model 1** increases allocation and adjusts composition to liquid return-seeking fixed income and open-end real assets
- **Constrained Model 2** introduces liquid alternatives
- **Constrained Model 3** adds an allocation to illiquid return-seeking fixed income

	Portfolio Metrics			Return-Seeking (R-S) Assets							Risk-Reducing/ Safety Assets
	Expected Nominal Return[1]	Expected Nominal Volatility	Sharpe Ratio	Public Equity	Private Equity	Liquid Alts	Liquid R-S Fixed Income[2]	Illiquid R-S Fixed Income	Open-End Real Assets[3]	Closed-End Real Assets / Commodities	Core Bonds
Current Policy Portfolio (74% R-S)	6.77%	12.91%	0.21	60%	0%	0%	6%	0%	6%	2%	26%
Immediate Future Portfolio (74% R-S)	6.88%	13.05%	0.21	62%	0%	0%	6%	0%	6%	0%	26%
Constrained Model 1	6.75%	11.72%	0.23	56%	0%	0%	7%	0%	12%	0%	26%
Constrained Model 2	6.76%	11.07%	0.24	51%	0%	5%	7%	0%	12%	0%	26%
Constrained Model 3	6.81%	11.01%	0.25	51%	0%	7%	5%	2%	9%	0%	26%
Immediate Future Portfolio Frontier											
60% Return-Seeking	6.60%	10.69%	0.23	50%	0%	0%	5%	0%	5%	0%	40%
80% Return-Seeking	6.97%	13.99%	0.20	67%	0%	0%	7%	0%	6%	0%	20%

[1] Expected returns are using Aon's 30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected Returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results.
[2] Current Policy Portfolio models High Yield Bonds while all others model Multi-Asset Credit
[3] Current Policy Portfolio and Immediate Future Portfolio models US REITs while all others model Core Real Estate
Percentages may not sum to 100% due to rounding.

Portfolio Analysis – Range of Nominal Returns

Expected return[1] exceeds the actuarial rate of return for all considered portfolios



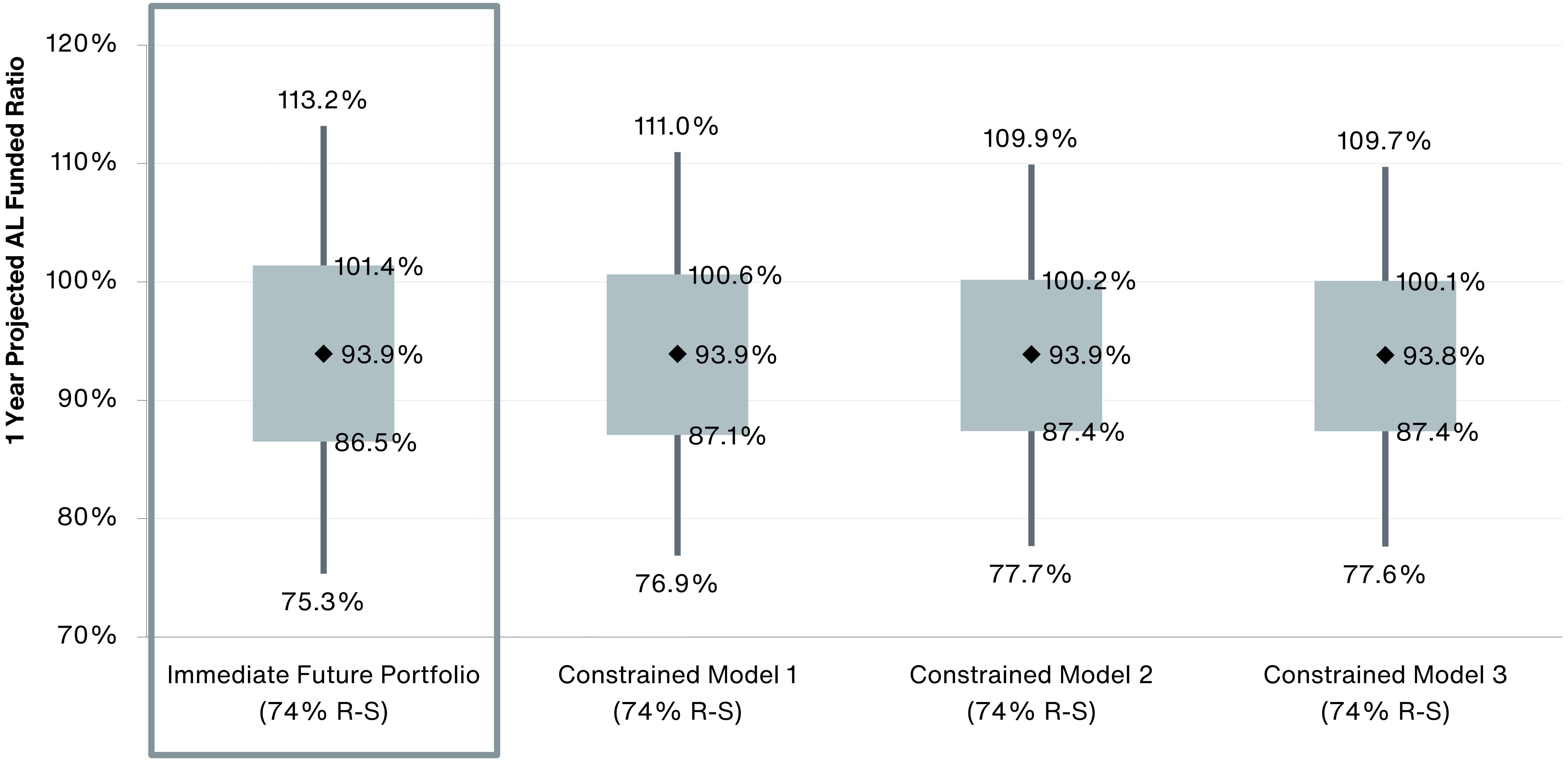
[1] Expected returns are using Aon's Q3 2024 30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Analysis includes estimated administrative expenses of $0.3 million plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results. See appendix for capital market assumptions disclosure pages.

Key Observations

- Median expected returns for all policies shown are projected to exceed the actuarial assumed rate of return (6.00%)
- The probability of meeting the actuarial rate of return by portfolio is the following:
  - Immediate Future: 65%
  - Constrained Model 1: 64%
  - Constrained Model 2: 65%
  - Constrained Model 3: 66%

Asset-Liability Projection Analysis

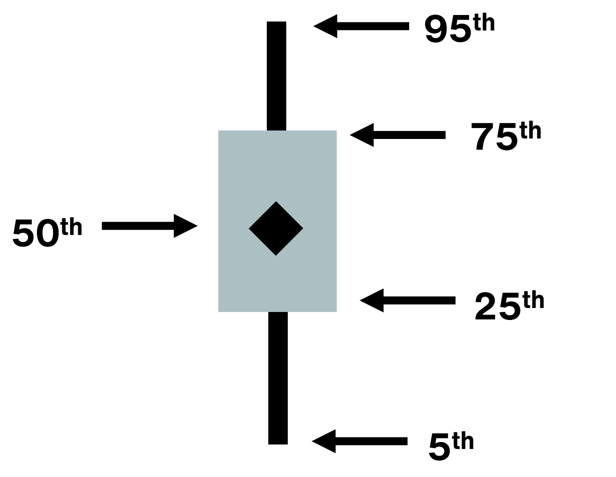
Short-Term – FYE 2025 Funded Ratio (Market Value of Assets / Actuarial Liability)



Key Observation

- Constrained Model portfolios are projected to have narrower range of potential outcomes with similar expected (50th percentile) outcome to the Current Policy over a 1-year projection period

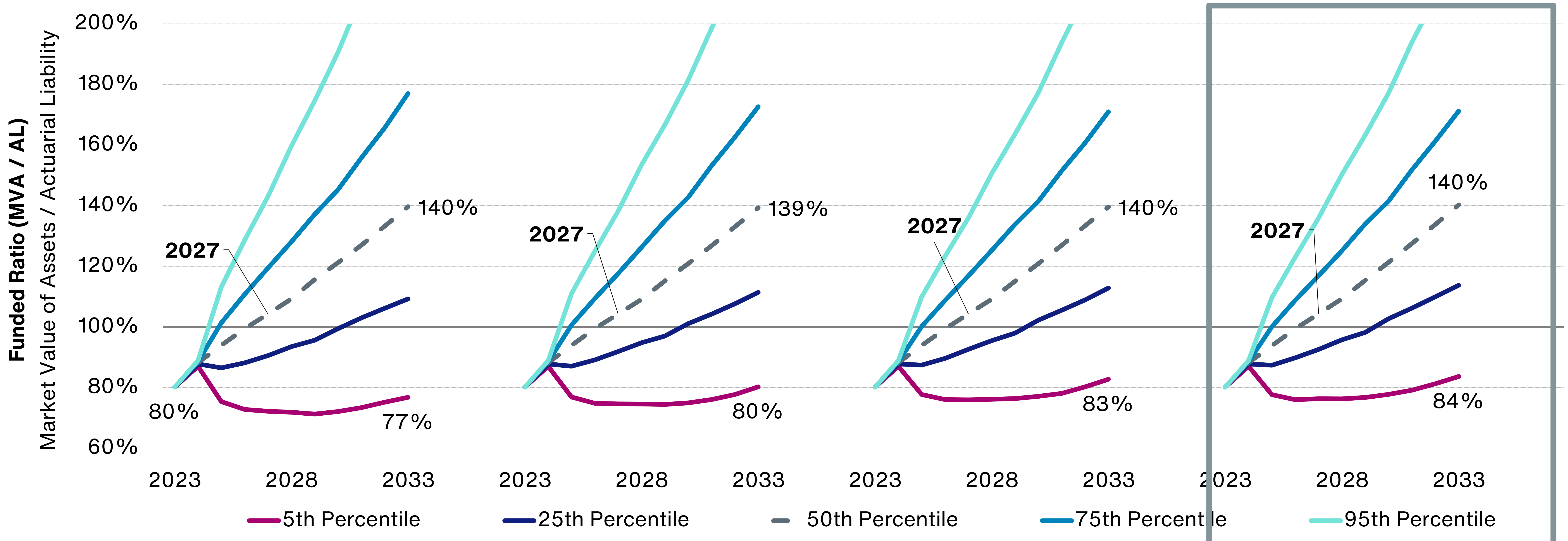
Legend: Distribution of Outcomes



Projections assume a constant 6.00% discount rate for pension liabilities for all investment policies studied and reflect actual investment returns through June 30, 2024. Projections in this material include estimated administrative expenses of $0.3 million for FYE 6/30/2024, increased annually with inflation, plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Actual fees and expenses may differ from those presented.
Projections assume current contribution policy of 5.58% of employer contributions and 3.75% of employee contributions on total payroll continues over the projection period.

Asset-Liability Projection Analysis – Funded Ratio

Market-based funded ratio is expected to attain full funding by FYE 2027



Strategy	Immediate Future Portfolio (74% Return-Seeking)			Constrained Model 1 (74% R-S)			Constrained Model 2 (74% R-S)			Constrained Model 3 (74% R-S)		
Year	**2023**	**2028**	**2033**	**2023**	**2028**	**2033**	**2023**	**2028**	**2033**	**2023**	**2028**	**2033**
5th %-ile	80%	72%	77%	80%	75%	80%	80%	76%	83%	80%	76%	84%
25th %-ile	80%	93%	109%	80%	95%	111%	80%	95%	113%	80%	96%	114%
50th %-ile	80%	109%	140%	80%	109%	139%	80%	109%	140%	80%	109%	140%
75th %-ile	80%	128%	177%	80%	126%	173%	80%	125%	171%	80%	125%	171%
95th %-ile	80%	160%	>200%	80%	153%	>200%	80%	151%	>200%	80%	150%	>200%
Prob. > 80%	>99%	87%	93%	>99%	90%	95%	>99%	91%	96%	>99%	91%	96%

Projections assume a constant 6.00% discount rate for pension liabilities for all investment policies studied and reflect actual investment returns through June 30, 2024. Projections in this material include estimated administrative expenses of $0.3 million for FYE 6/30/2024, increased annually with inflation, plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Actual fees and expenses may differ from those presented.
Projections assume current contribution policy of 5.58% of employer contributions and 3.75% of employee contributions on total payroll continues over the projection period.

Key Observations

- The plan is expected to reach full funding in the next few years across the studied investment strategies due to the contribution policy
- Under the current contribution policy, constrained model portfolios are still expected to achieve full funding with a narrower range of potential outcomes

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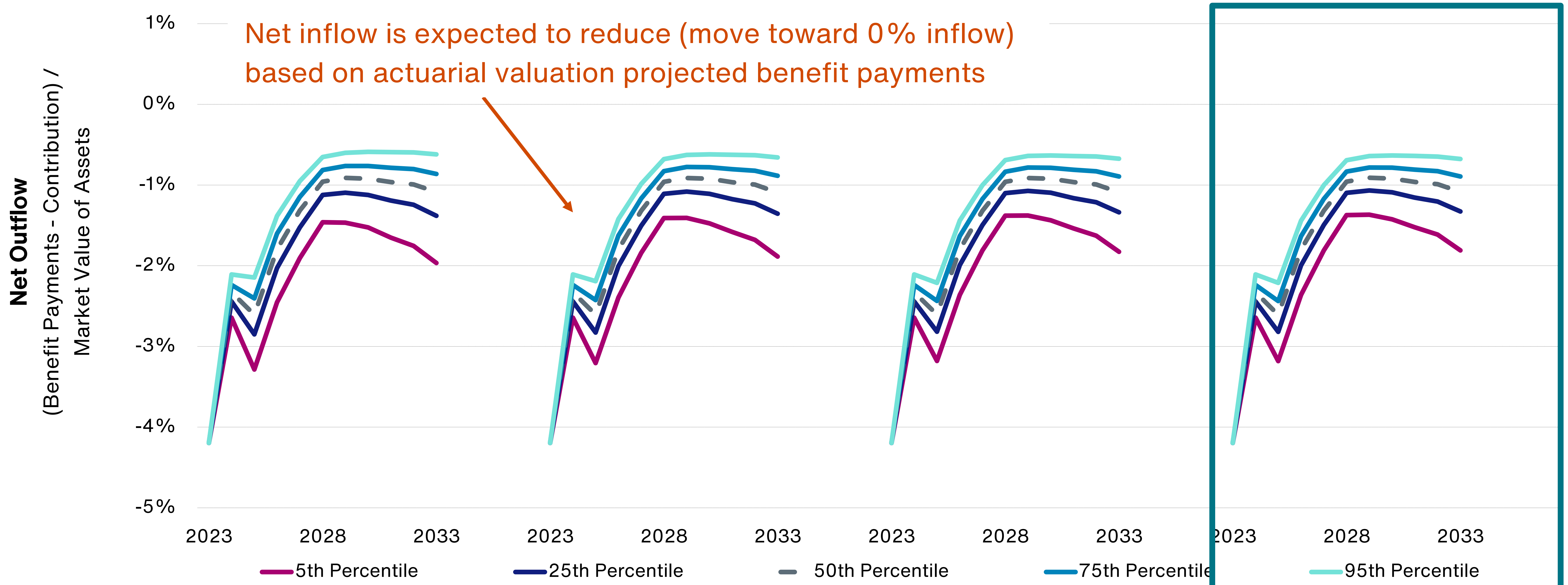
Asset-Liability Projection Analysis

Net Outflow Analysis: (Benefit Payments less Contributions) / Market Value of Assets



Strategy	Immediate Future Portfolio (74% Return-Seeking)			Constrained Model 1 (74% R-S)			Constrained Model 2 (74% R-S)			Constrained Model 3 (74% R-S)		
Year	2023	2028	2033	2023	2028	2033	2023	2028	2033	2023	2028	2033
5th Percentile	-4.2%	-1.5%	-2.0%	-4.2%	-1.4%	-1.9%	-4.2%	-1.4%	-1.8%	-4.2%	-1.4%	-1.8%
25th Percentile	-4.2%	-1.1%	-1.4%	-4.2%	-1.1%	-1.4%	-4.2%	-1.1%	-1.3%	-4.2%	-1.1%	-1.3%
50th Percentile	-4.2%	-1.0%	-1.1%	-4.2%	-1.0%	-1.1%	-4.2%	-1.0%	-1.1%	-4.2%	-1.0%	-1.1%
75th Percentile	-4.2%	-0.8%	-0.9%	-4.2%	-0.8%	-0.9%	-4.2%	-0.8%	-0.9%	-4.2%	-0.8%	-0.9%
95th Percentile	-4.2%	-0.7%	-0.6%	-4.2%	-0.7%	-0.7%	-4.2%	-0.7%	-0.7%	-4.2%	-0.7%	-0.7%

Projections assume a constant 6.00% discount rate for pension liabilities for all investment policies studied and reflect actual investment returns through June 30, 2024. Projections in this material include estimated administrative expenses of $0.3 million for FYE 6/30/2024, increased annually with inflation, plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Actual fees and expenses may differ from those presented.
Projections assume current contribution policy of 5.58% of employer contributions and 3.75% of employee contributions on total payroll continues over the projection period.

Key Observations

- The Plan is expected to have a net inflow over the projection period based on assumed contribution policy
- The inflow level is expected to reduce over the next few years as projected benefit payments from the plan increase relative to projected contributions
- Net outflows of 10%+ can put stress on fund liquidity over time; however, it is not likely over the projection period

Economic Cost and Risk

Analysis over a 2, 5, and 10-year horizon

Economic Cost[1]

Present Value of Contributions plus AL Funding Shortfall/(Surplus)* at 6.00%, $ Millions

Economic Cost

Strategy ($ Millions)	Cost	Risk
June 30, 2025 (2-year)		
Immediate Future (74% R-S)	$17.1	$30.5
Constrained Model 1 (74% R-S)	$17.1	$29.5
Constrained Model 2 (74% R-S)	$17.1	$28.9
Constrained Model 3 (74% R-S)	$17.2	$28.9

Strategy ($ Millions)	Cost	Risk
June 30, 2028 (5-year)		
Immediate Future (74% R-S)	$24.2	$48.7
Constrained Model 1 (74% R-S)	$24.4	$47.0
Constrained Model 2 (74% R-S)	$24.3	$46.0
Constrained Model 3 (74% R-S)	$24.3	$45.7

Strategy ($ Millions)	Cost	Risk
June 30, 2033 (10-year)		
Immediate Future (74% R-S)	$43.1	$69.0
Constrained Model 1 (74% R-S)	$43.2	$66.9
Constrained Model 2 (74% R-S)	$43.1	$65.6
Constrained Model 3 (74% R-S)	$42.9	$65.0

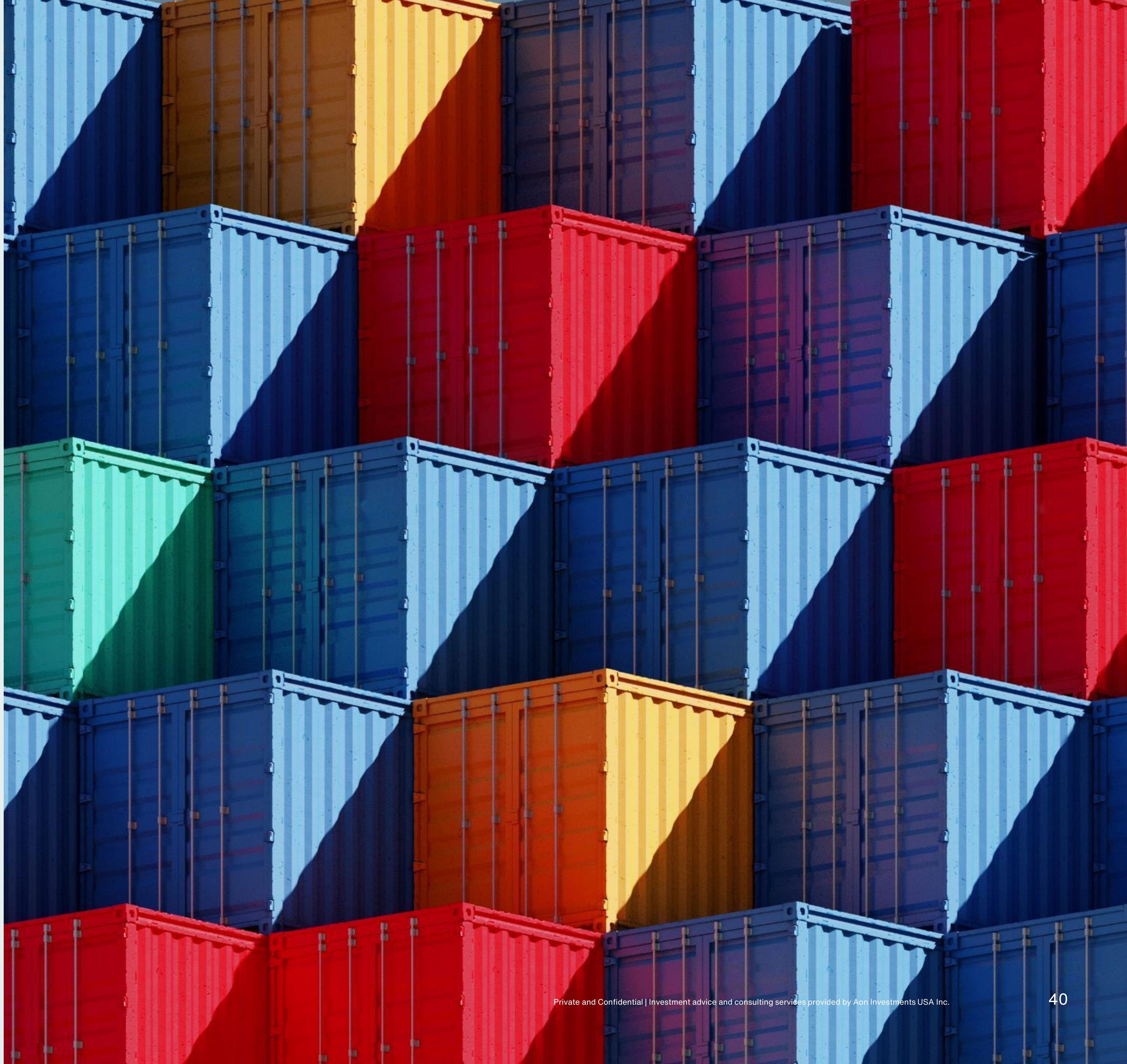
Key Takeaway

- Risk improvements from the constrained model portfolios become more pronounced over longer time periods

* Projections assume constant 6.00% discount rate for pension liabilities for all investment policies studied
Note: Excludes 50% of surplus in excess of 110% of Actuarial liability, and includes twice the shortfall below 40% of Actuarial liability, on a market value basis
Projections assume current contribution policy of 5.58% of employer contributions and 3.75% of employee contributions on total payroll continues over the projection period.

4

Summary and Conclusions



Planning Meeting Recap

Feedback expressed during September discussion

Portfolio

- Ease into any new asset classes
- Assets should have illiquidity at least three months or less (i.e. investors able to move into or out of a strategy every three months)
- Focus on “Liquid” and “Less Liquid” model portfolio structures

Funded Ratio

- **Goal to be fully funded by 2030**
- **Would like to minimize likelihood of falling below 80% funded**

Assumptions

- **Actuarial rate of return to remain 6.00%**
- Assumptions based on those used in the actuarial valuation

Contributions

- Contributions are 5.58% of pay for the County and 3.75% for employees
- Aim to lower the County contribution level in time, potentially matching employee contribution level

Summary of Results

Highlighted areas achieve intended goals

Portfolios	Portfolio Metrics (30-year CMAs)			Financial Results					
				10-year Ending Funded Ratio (MVA / AL)			10-year Present Value of Contributions		Full Funding
	Expected Nominal Return[1]	Expected Nominal Volatility	Sharpe Ratio	Expected[2]	Downside[3]	Probability Below 80%	Expected[2]	Downside[4]	Expected Year
Immediate Future Portfolio (74% R-S)	6.88%	13.05%	0.21	140%	77%	7%	$56.4	$57.2	2027
Constrained Model 1 (74% R-S)	6.75%	11.72%	0.23	139%	80%	5%	$56.4	$57.2	2027
Constrained Model 2 (74% R-S)	6.76%	11.07%	0.24	140%	83%	4%	$56.4	$57.2	2027
Constrained Model 3 (74% R-S)	6.81%	11.01%	0.25	140%	84%	4%	$56.4	$57.2	2027
Current Frontier									
0% Return-Seeking	4.80%	5.40%	0.13	120%	105%	<1%	$56.4	$57.2	2028
10% Return-Seeking	5.18%	5.17%	0.21	123%	107%	<1%	$56.4	$57.2	2027
20% Return-Seeking	5.52%	5.57%	0.26	126%	104%	<1%	$56.4	$57.2	2027
30% Return-Seeking	5.84%	6.47%	0.27	130%	100%	<1%	$56.4	$57.2	2027
40% Return-Seeking	6.12%	7.70%	0.26	132%	95%	<1%	$56.4	$57.2	2027
50% Return-Seeking	6.38%	9.14%	0.25	135%	90%	2%	$56.4	$57.2	2027
60% Return-Seeking	6.60%	10.69%	0.23	137%	84%	4%	$56.4	$57.2	2027
70% Return-Seeking	6.80%	12.32%	0.22	139%	79%	6%	$56.4	$57.2	2027
80% Return-Seeking	6.97%	13.99%	0.20	141%	74%	9%	$56.4	$57.2	2027
90% Return-Seeking	7.11%	15.70%	0.19	142%	69%	11%	$56.4	$57.2	2027
100% Return-Seeking	7.22%	17.43%	0.18	143%	63%	13%	$56.4	$57.2	2027

[1] Expected returns are using Aon's Q3 2024 30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Projections in this material include estimated administrative expenses of $0.3 million for FYE 6/30/2024, increased annually with inflation, plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Actual fees and expenses may differ from those presented.

Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results. See appendix for capital market assumptions disclosure pages.

[2] Expected = 50th percentile outcome or central expectation across all 5,000 simulations

[3] Downside = 5th percentile outcome across all 5,000 simulations

[4] Downside = 95th percentile outcome across all 5,000 simulations

Conclusions

Current State Overview

- County of Riverside has an estimated funded ratio of 89.8% as of 6/30/2024 using a market-based funded ratio

- The plan's asset growth is expected to outpace the liability growth over the coming year – i.e., a hurdle rate surplus – resulting in a near-term funding ratio increase

Portfolio Analysis

- Current asset allocation is 74% return-seeking assets consisting of public equity, return-seeking fixed income, and real estate
  - Current portfolio has an expected return[1] of **6.88%**, which exceeds the actuarial assumed rate of return (6.00%)

- Aon studied portfolios up/down the risk spectrum in addition to the current allocation

Asset-Liability Projection Analysis

- Based on the funding policy, County of Riverside is expected to reach full funding in the near future
  - The investment policies studied project a fully funded plan in 2027 or 2028 under central expectations

- Investment strategy and/or funding policy adjustments impact the expected time for the plan to reach full funding

[1] Expected returns are using Aon's Q3 2024 30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Analysis includes estimated administrative expenses of $0.3 million plus investment advisory fees paid from trust assets estimated to be 25 basis points of plan assets, assumed to be inclusive of investment consulting fees, paid from trust assets. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results. See appendix for capital market assumptions disclosure pages.

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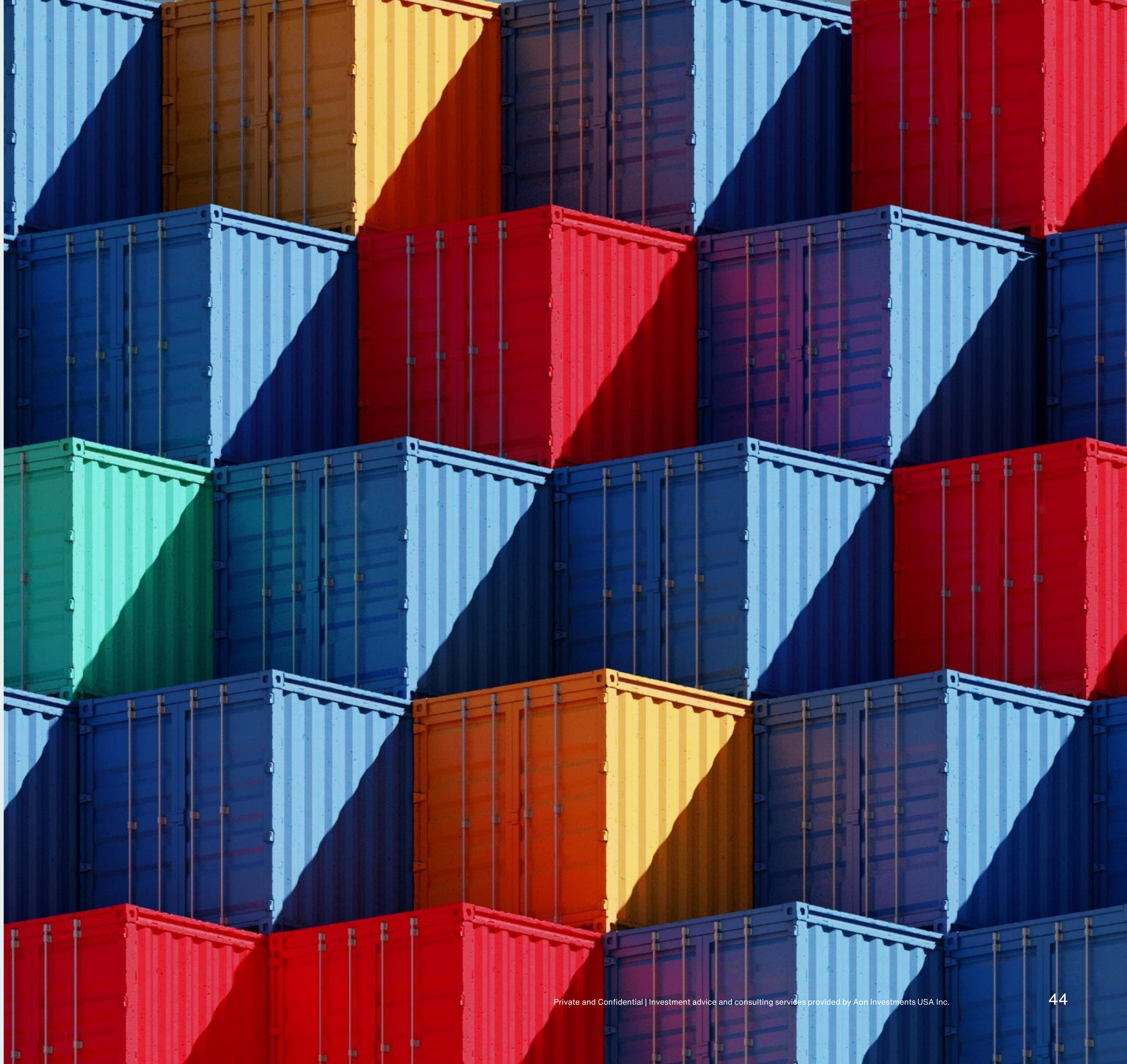
Appendix



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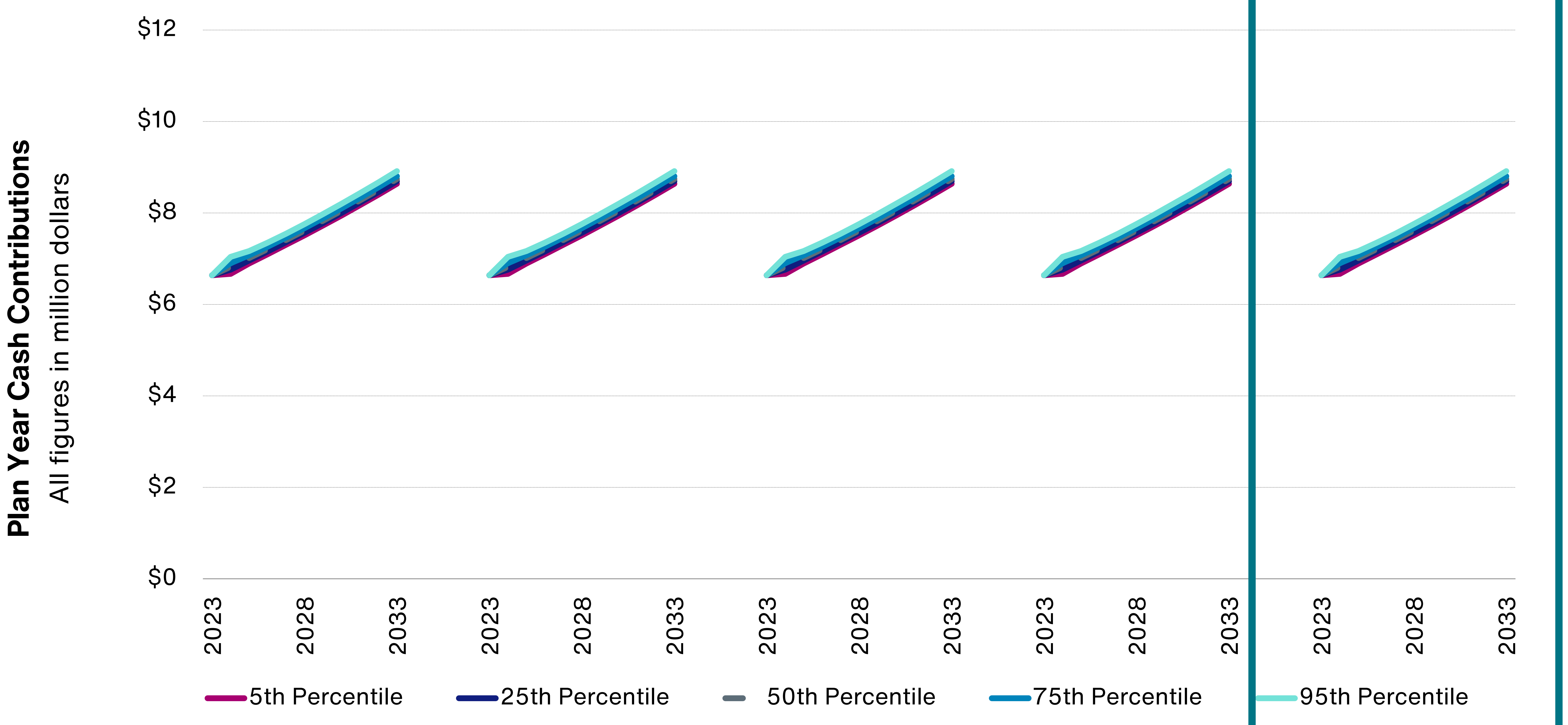
Additional Analysis

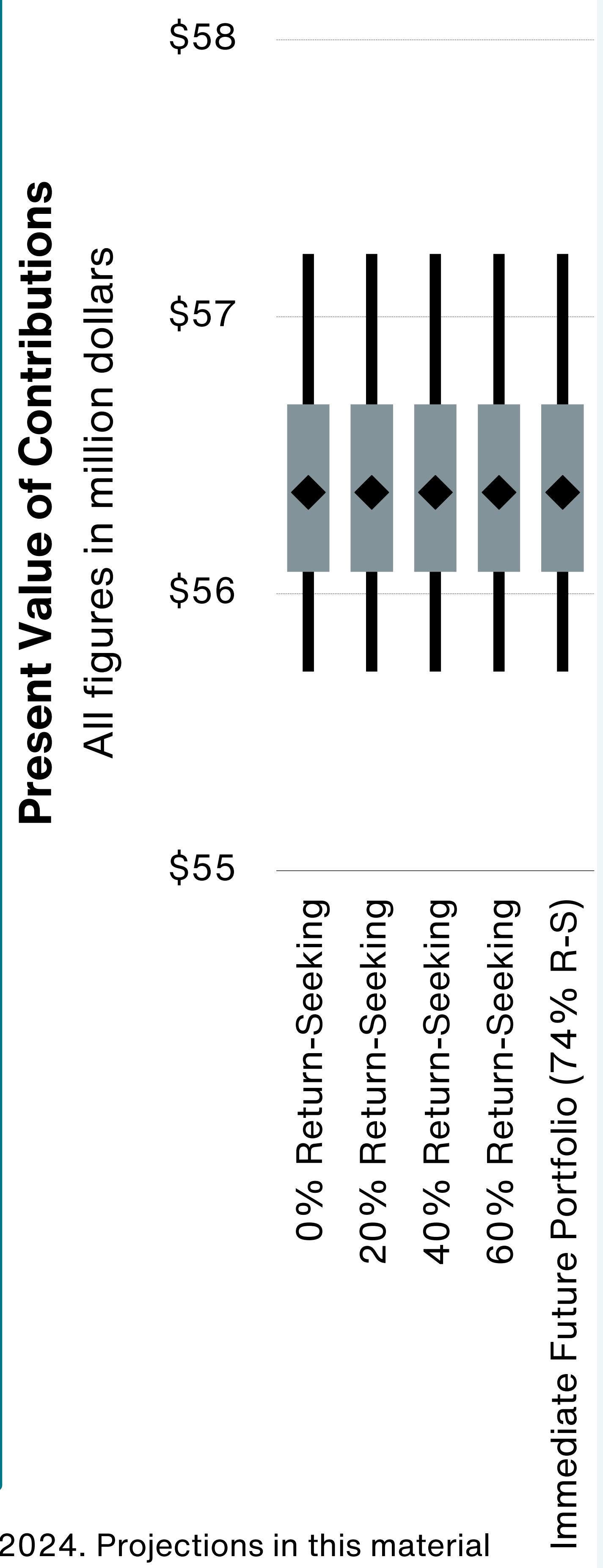
Section 5: Appendix

Asset-Liability Projection Analysis

Total Contribution Amounts (Employer + Employee)



Strategy	0% Return-Seeking			20% Return-Seeking			40% Return-Seeking			60% Return-Seeking			Immediate Future Portfolio (74% Return-Seeking)		
Year	2023	2028	2033	2023	2028	2033	2023	2028	2033	2023	2028	2033	2023	2028	2033
5th Percentile	$7	$8	$9	$7	$8	$9	$7	$8	$9	$7	$8	$9	$7	$8	$9
25th Percentile	$7	$8	$9	$7	$8	$9	$7	$8	$9	$7	$8	$9	$7	$8	$9
50th Percentile	$7	$8	$9	$7	$8	$9	$7	$8	$9	$7	$8	$9	$7	$8	$9
75th Percentile	$7	$8	$9	$7	$8	$9	$7	$8	$9	$7	$8	$9	$7	$8	$9
95th Percentile	$7	$8	$9	$7	$8	$9	$7	$8	$9	$7	$8	$9	$7	$8	$9

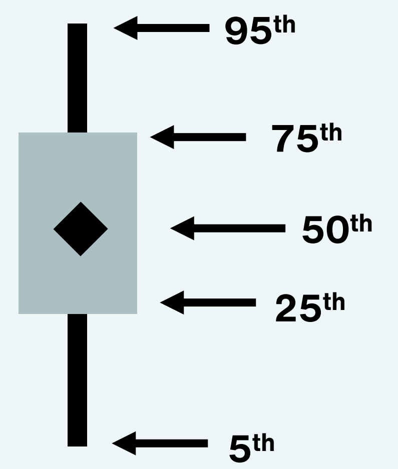


Projections assume a constant 6.00% discount rate for pension liabilities for all investment policies studied and reflect actual investment returns through June 30, 2024. Projections in this material include expenses paid from plan assets estimated to be 25 bps of plan assets, estimated to be $0.3 million for fiscal year ending 6/30/2025, which is assumed to be inclusive of investment management fees. These are increased with inflation for projection purposes. Actual fees and expenses may differ from those presented. Present values measured at 6.00% discount rate.
Projections assume current contribution policy of 5.58% of employer contributions and 3.75% of employee contributions on total payroll continues over the projection period.

Key Observation

- Cash contributions are set at 9.33% of total payroll which consists of employer contribution of 5.58% and employee contribution of 3.75%

Legend: Distribution of Outcomes



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Asset-Liability Management Overview

Section 5: Appendix

Asset-Liability Management Overview

Ultimate retirement benefit cost equation

The cost ultimately borne by the Plan will be represented by the financing equation shown below:

(Benefits Paid + Administrative Expenses) = (Investment Returns + Plan Funding (EE + ER))

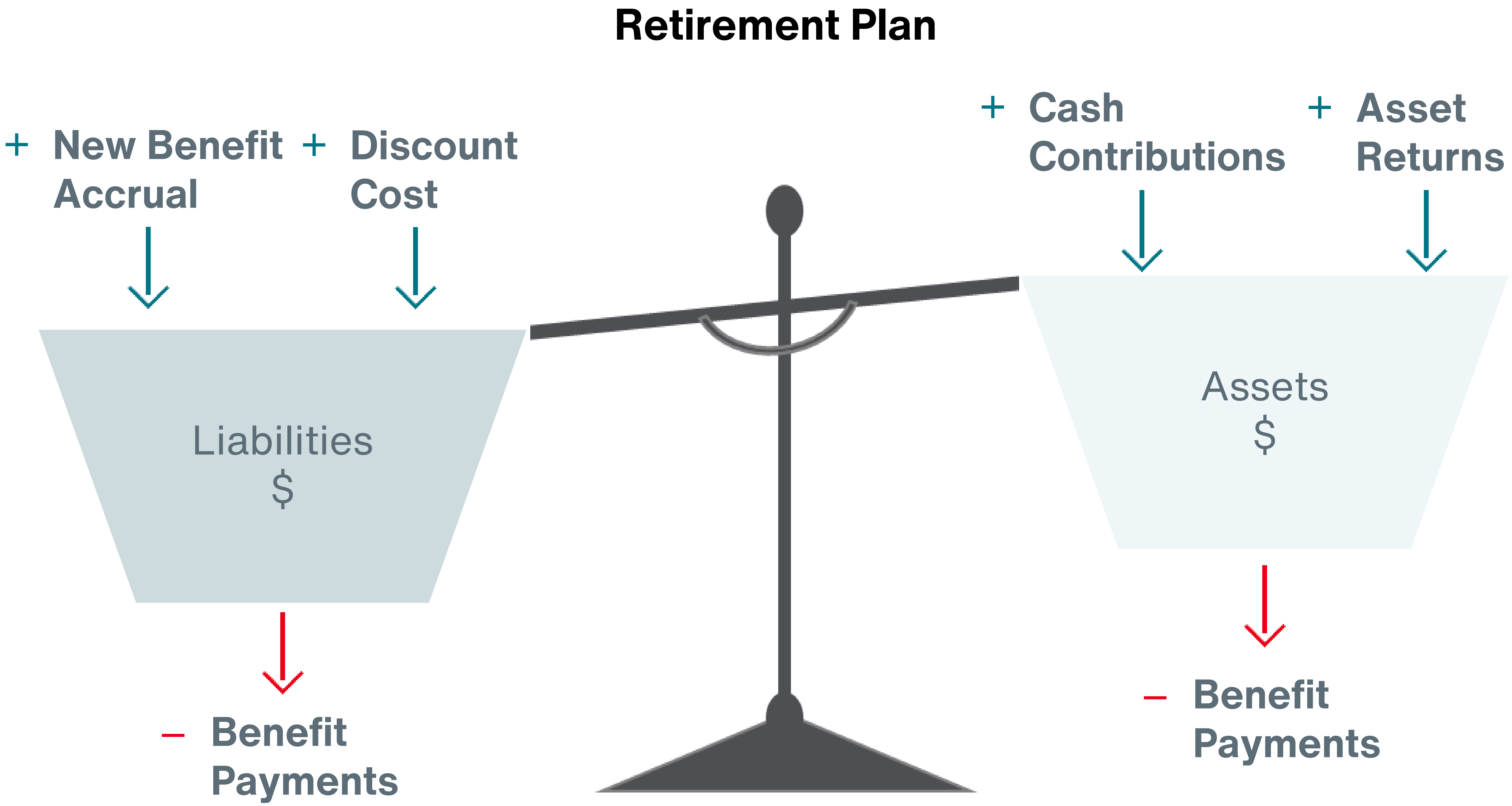
The asset-liability study will analyze the variability of future investment returns on the Plan financials

Higher than expected returns will result in lower future Plan costs

Lower than expected returns will result in higher future Plan costs

Asset-Liability Management Overview

Balance of liabilities and assets



Key Takeaways

Plan Liabilities will grow in two ways:

- New benefit accruals (or Normal Cost)
- One less year of interest discounting (or Discount Cost)

Assets will grow in two ways:

- Cash Contributions to the Plan
- Asset Returns

Both liabilities and assets will be reduced by benefits paid to participants

Asset-Liability Management Overview

Hurdle rate analysis: How are assets and liability expected to move in the coming year?

What is the Asset Hurdle Rate?

Asset Hurdle Rate is the required rate of asset growth needed to keep pace with the growth of the Plan liabilities

- Assets must grow at this rate or more in order to maintain or reduce a potential funding shortfall
- **Formula = (Normal Cost + Discount Cost + Plan Expenses) / Funded Ratio**

Assets can grow in two ways:

- Investment returns
- Funding contributions

Asset hurdle rates are expected to decline as the funded status increases

Sample Calculation

(1) Assets (in $B)	$90
(2) Liabilities (in $B)	$100
(3) Funded Ratio (= 1 / 2)	90%
(4) Liability Growth Rate	9%
(5) Asset Hurdle Rate (= 4 / 3)	10%

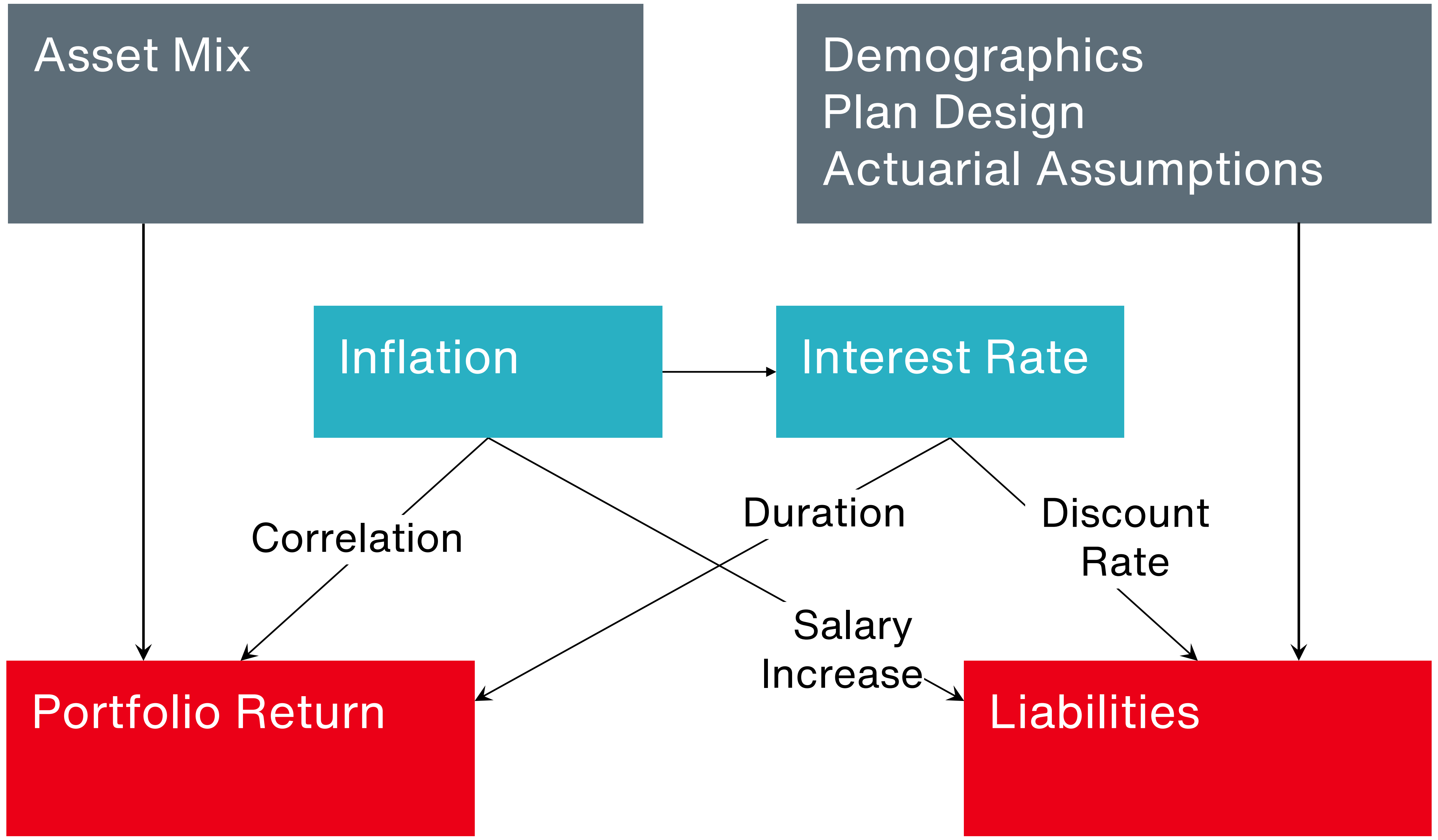
How Does the Asset Hurdle Rate Inform Future Projections?

Short-term funded ratio progress can be estimated from the asset hurdle rate analysis

- If investment returns + contributions exceed the asset hurdle rate, funded ratio can expect to grow
- If investment return + contributions fall short of the asset hurdle rate, funded ratio can expect to diminish

Asset-Liability Management Overview

Mechanics of the asset-liability modeling process



Contributions
Funded Ratio
Net Outflow

Key Features

Asset and liability modeling integrated in single platform

Integrates impact of key economic variables such as portfolio returns, inflation, and interest rates

- Flexibility in modeling parameters and output to client preferences

Stochastic and deterministic modeling performed

Asset-Liability Management Overview

Future projection approaches: Deterministic vs. stochastic forecasting

Deterministic Forecasting

Places certainty in the path of future outcomes

- Assumes a single future path, often with the assumption that actual experience will equal all actuarial assumptions resulting in no unexpected (gain)/loss

Stochastic Forecasting

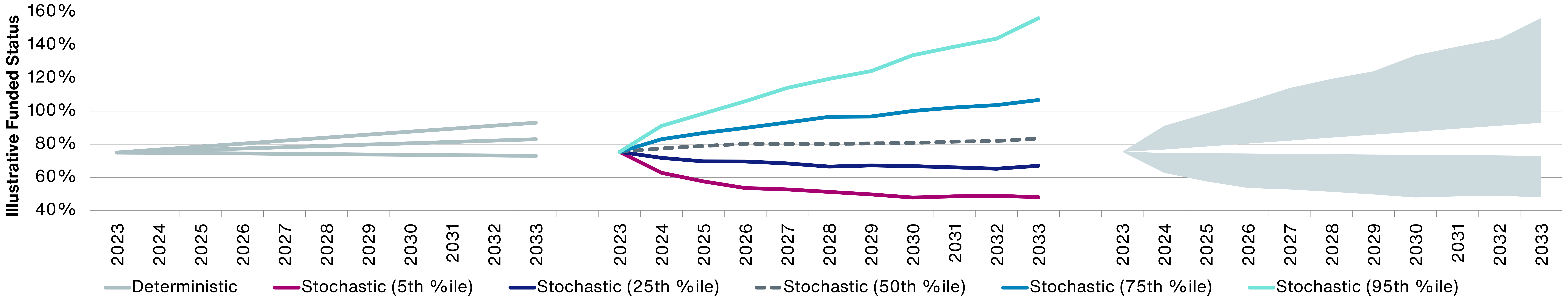
Embraces uncertainty by modeling a range of potential future outcomes

- Aon's approach utilizes up to 5,000 projection trials, representing a wide range of economic scenarios, and then ranks results of key variables into percentile distributions

Benefits of Stochastic Modeling

Encompasses a much broader view than deterministic forecasting alone (i.e., the shaded area below), especially in extreme cases which may potentially go unnoticed to stakeholders

- Shows impact of market expectations differing from actuarial assumptions
- Illustrates interplay of economic uncertainty with funding policies

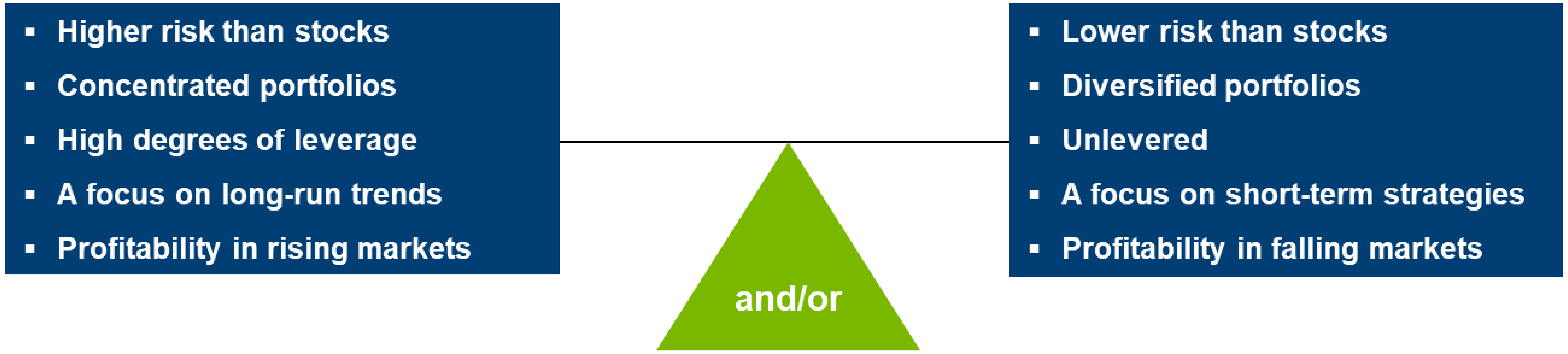


New Asset Class Overviews

Section 5: Appendix

Hedge Funds (Liquid Alternatives)
Overview

- Hedge Funds are investment vehicles structured to take advantage of diverse or unique opportunity sets, often using broad guidelines that are benchmark agnostic. Hedge funds are not an asset class, rather a structure to implement strategies across a diverse range of asset classes. They have sensitivities to underlying factors that drive asset class returns and risk.
  - The term “hedge fund” really refers to the legal and operational structure
- It tells us nothing about the underlying investment strategies, which vary by asset type, leverage, market exposure, and other important characteristics
- Effectively, hedge funds are private funds investing in public markets



- While the exact nature of any particular hedge fund can vary widely, one trait common to all is that investors rely primarily on manager skill (i.e., alpha) rather than market returns (i.e., beta)

Aon Diversifying Alternatives Portfolio ("DAP") Portfolio Strategies

Multi-Strategy 20%-40%	▪ Tactically allocate across a range of hedge fund strategies using either a systematic or discretionary processes to take advantage of the most compelling opportunities while hedging overall market risk
Global Macro 10%-35%	▪ Anticipate and capture directional trends in global macroeconomic variables and markets using either discretionary or systematic analysis and portfolio construction techniques
Relative Value & Event Driven 10%-40%	▪ Exploit mispriced securities either across similar assets or in light of pending events such as restructurings, mergers, bankruptcies or other corporate events
Equity Hedge 0%-20%	▪ Attempt to add value through stock selection by taking long and short positions that neutralize exposure to broad market moves
Orthogonal 0%-20%	▪ Investment strategies that are fundamentally uncorrelated to stocks and bonds but have an attractive risk/return profile

Includes 12 underlying investment strategies (as of 8/31/2024)

Aon Return Enhancing Alternatives Portfolio (“REAP”): Portfolio Strategies

Equity Hedge 20%-40%	▪ Attempt to add value through stock selection by taking long and short positions across global equity markets
Global Macro 10%-35%	▪ Anticipate and capture directional trends in global macroeconomic variables and markets using either discretionary or systematic analysis and portfolio construction techniques
Relative Value 15%-50%	▪ Exploit mispriced securities across similar assets and markets that are driven by market dynamics and inefficiencies
Event Driven 10%-35%	▪ Tactically invest in securities that will be impacted by mergers, acquisitions, bankruptcies or other corporate events
Orthogonal 0%-20%	▪ Investment strategies that are fundamentally uncorrelated to stocks and bonds but have an attractive risk/return profile

Includes 22 underlying investment strategies (as of 7/31/2024)

Real Estate
REITs vs. Core Open-Ended

- **Core (Open-Ended)** – Most conservative investment strategy focused on owning high quality, stabilized properties in the most liquid and economically diverse/vibrant markets. Low use of leverage; significant focus on current income yield. Often also referred to as the Beta of the asset class

- **REITs** – Access to real estate through the securities traded in the public markets. Very similar qualities as Core but slightly higher leverage. The liquidity benefit that comes from being daily traded has a trade-off in the form of higher volatility than private Core and thus is elevated on the risk spectrum

Aon Core Real Estate Fund Target Portfolio Structure

Fund	Target Allocations (%)	Investment Strategy
JP Morgan Strategic Property Fund ("SPF")	29%	JP Morgan Strategic Property Fund is an open-end core fund that seeks to make investments in core real estate properties in the major gateway cities in the U.S. The Fund targets stabilized assets across the four traditional asset types. Key identifiers within SPF's portfolio include trophy CBD office assets and high-rise luxury apartments in major markets, as well as a portfolio of Class-A super regional malls and lifestyle centers. The target return of the Fund is to outperform the NFI-ODCE over a full market cycle and the fund is focused on generating returns primarily through income and moderate appreciation gains.
MS Prime Property Fund ("PRIME")	23%	The Prime Property Fund ("Prime" or the "Fund") is a U.S. open-end diversified Core fund that targets high quality, income-producing Class A properties located in primary markets. Its goal is to outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10%, gross of fees. Focus is placed on current income, aiming to generate 6-8% annually. The Fund pursues a slightly higher risk strategy within the Core classification due to its relatively higher use of leverage and utilization of wholly-owned operating companies within the Fund.
PRISA	19%	PRISA invests primarily in stabilized, income-producing properties with a strong cash flow expected to increase over time and thereby provide the potential for capital appreciation. PRISA primarily invests in the office, retail, industrial, and apartment sectors, and to a lesser extent in self-storage and other property sectors. The Fund is geographically diversified within the U.S., with a majority of investments in major markets and coastal regions. PRISA's strategy provides for investing at least 85% of its gross market value in core assets, and up to 15% of its gross market value in non-core assets that are expected to achieve above-average real estate returns. Single asset exposure is limited to 5% of PRISA GMV.
RREEF America REIT II ("RA II")	11%	RREEF America REIT II continues to emphasize core properties, income, and capital preservation consistent with its investment objectives. Relative to its peers within the NFI-ODCE, RREEF has above average income over the long term which represents roughly 74% of the Fund's gross returns since inception. The Fund remains diversified by sectors/markets and has not experienced significant growth or other changes in the composition of the portfolio. Specifically, RREEF will maintain an overweight to industrial, but reduce the exposure slightly to move more in line with the benchmark as market supply increases and the tactical opportunity reduces. Some highlights of the portfolio strategy include upgrading the portfolio through acquisitions in apartments and small-bay industrial warehouses and exiting non-strategic positions with lower growth and select suburban markets. Although the Fund's non-core exposure is less than half that of its benchmark, it has recently increased exposure through garden apartments and the acquisition of a student housing portfolio.

Aon Core Real Estate Fund Target Portfolio Structure - continued

Fund	Target Allocations (%)	Investment Strategy
Clarion Lion Properties Fund ("LPF")	11%	LPF is an open-end, diversified Core real estate fund with a portfolio of primarily institutional quality real estate assets located throughout the United States. The investment objective is to provide a strong income return with the potential for long-term capital appreciation. The Fund will put emphasis on properties that the manager views as "competitive." These include recently constructed assets or assets located in desirable locations that are well-designed and preferably maintain an at or above market lease level. The manager may periodically seek "Value Creation Investments" when an investment's returns are believed to be enhanced by instilling proactive management techniques or value-added programs. The manager has a 15% cap of gross asset value of the entirety of the Fund for these "Value Creation Assets." The Fund's primary return objective is to place above the median for peer group investment funds (NCREIF NFI-ODCE). Overall, the Fund seeks to take advantage of the continuously changing conditions of the U.S. property and capital markets all while remaining focused on the management of a core equity specific real estate portfolio.
Clarion Lion Industrial Trust ("LIT")	7%	LIT is an open-end, core industrial real estate fund with a with a portfolio of primarily institutional quality industrial properties located throughout the United States. The investment objective is to provide a strong income return with the potential for long-term capital appreciation by acquiring, developing and managing industrial real estate assets in North America. Overall, the he Fund invests in warehouse/distribution facilities that appeal to companies focused on e-commerce, logistics and supply-chain management. The manager may periodically seek "Value Creation Investments" when an investment's returns are believed to be enhanced by instilling proactive management techniques or value-added programs. The manager has a 15% cap of gross asset value of the entirety of the Fund for these "Value Creation Assets." The Fund's primary return objective is to achieve, in the long term, a gross total annual return on invested equity of 11-13% (9.5% - 11.5% net of expenses, but prior to taxes).

The target allocation is NAV driven and will change based on size of the Funds. Aon can add more managers as its discretion or overweight/underweight managers.

Note: The Aon Collective Investment Trust (ACIT) is sponsored by Aon Trust Company LLC, an affiliate of Aon Investments USA Inc., who acts as investment advisor to the ACIT. Actual allocations may differ from the target allocations above. For more information, please read the ACIT Offering Statement and any supplements for important information including risk factors, conflicts of interest, fees and expenses, and tax-related information. Such material must be reviewed prior to any determination to invest in any fund.

The above is an overview of individual sub-advisors that manage portions of the Fund and do not represent an overview of the Fund itself. The investment managers have no affiliation with Aon Investments USA Inc. and, subject to the approval of Aon Trust Company LLC as trustee of the ACIT, may change, be rebalanced or be removed at any given time without notification. There is no guarantee that any sub-advisor will remain a manager of the Fund at the time of reading or in the future. Individual components may not exactly add up to the totals due to rounding.

Actuarial Assumptions and Methods

Section 5: Appendix

Actuarial Assumptions and Methods

Data used & actuarial assumptions

Actuarial projections provided by the plan actuary as of June 30, 2023. Projections incorporate liability updates for June 30, 2024 valuation results.

Actuarial assumptions

- Valuation Rate of Interest = 6.00%
- Salary Increases = 2.80%
- Payroll Growth = 2.80%
- Total Payroll assumed to be $71.1 million for fiscal year ending 6/30/2024 and increased by payroll growth assumption of 2.80%
- All other assumptions as documented in the Actuarial Valuation Report as of July 1, 2023 unless noted otherwise

Contributions

- Employer contributions assumed to be 5.58% of total payroll
- Employee contributions assumed to be 3.75% of total payroll

Actual asset performance for the period July 1, 2023 – June 30, 2024 was incorporated into the modeling, reflecting $69.5 million in assets as of June 30, 2024 based on US Bank June monthly asset statement

Capital Market Assumptions

Section 5: Appendix

Aon's Capital Market Assumptions
Background

- Long-term (10- and 30-year forecasts) forward-looking assumptions (asset class geometric return, volatility, and correlations)
- Building block approach, primarily based on consensus expectations and market-based inputs
- Best estimates of annualized returns (50/50 better or worse)
- Market returns: no active management value added (except for certain assets classes, such as hedge funds)
- Net of investment fees
- Updated quarterly

Summary of Capital Market Assumptions

As of June 30, 2024

		10-Year CMAs				30-Year CMAs			
		Expected Real Return[1]	Expected Nominal Return[1]	Expected Nominal Volatility	Assumed Global Equity Beta	Expected Real Return[1]	Expected Nominal Return[1]	Expected Nominal Volatility	Assumed Global Equity Beta
	Equity								
1	Large Cap U.S. Equity	4.4%	6.7%	18.5%	0.98	4.3%	6.7%	19.0%	0.98
2	Small Cap U.S. Equity	4.6%	6.9%	24.5%	1.24	4.8%	7.2%	25.3%	1.25
3	Global Equity IMI	4.6%	6.9%	18.5%	1.00	4.7%	7.1%	19.0%	1.00
4	International Equity (Developed)	4.2%	6.5%	19.0%	0.90	4.2%	6.6%	19.4%	0.90
5	Emerging Markets Equity	4.5%	6.8%	22.0%	0.97	4.5%	6.9%	22.5%	0.96
	Fixed Income								
6	Cash (Gov't)	2.1%	4.3%	1.4%	0.01	1.8%	4.1%	2.1%	0.01
7	Core Fixed Income	2.6%	4.9%	5.0%	0.00	2.4%	4.8%	5.4%	0.00
8	Core Plus Fixed Income	2.9%	5.2%	5.4%	0.01	2.8%	5.2%	6.1%	0.01
9	Multi-Asset Credit[2]	5.0%	7.3%	8.8%	0.29	4.9%	7.3%	9.3%	0.30
	Alternatives								
10	Direct Hedge Funds[2,3]	5.0%	7.3%	5.2%	0.21	4.7%	7.1%	5.7%	0.22
11	Core Infrastructure	5.1%	7.4%	12.5%	0.18	5.0%	7.4%	12.8%	0.18
12	US REITs	4.2%	6.5%	18.5%	0.69	4.2%	6.6%	19.0%	0.69
13	Core Real Estate	3.6%	5.9%	15.0%	0.29	3.4%	5.8%	15.4%	0.29
14	Non-Core Real Estate	5.5%	7.8%	25.0%	0.65	5.2%	7.6%	25.5%	0.64
15	Commodities	2.3%	4.6%	17.0%	0.45	1.8%	4.1%	16.9%	0.43
16	Private Equity	6.8%	9.1%	20.0%	0.68	6.9%	9.4%	20.5%	0.68
17	Infrastructure	6.2%	8.5%	16.0%	0.31	6.2%	8.6%	16.5%	0.31
18	Open-End Real Assets	4.7%	7.0%	10.4%	0.24	4.6%	7.0%	10.7%	0.24
19	Closed-End Real Assets	6.6%	8.9%	16.2%	0.47	6.5%	8.9%	16.7%	0.48
20	Private Debt	6.2%	8.5%	16.5%	0.33	5.6%	8.0%	17.5%	0.34
	Inflation								
21	Inflation	0.0%	2.2%	1.7%		0.0%	2.3%	1.7%	

[1] Expected returns are using Aon's 10/30-Year Capital Market Assumptions as of 6/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected Returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results.

[2] Alpha incorporated in Expected Nominal Return

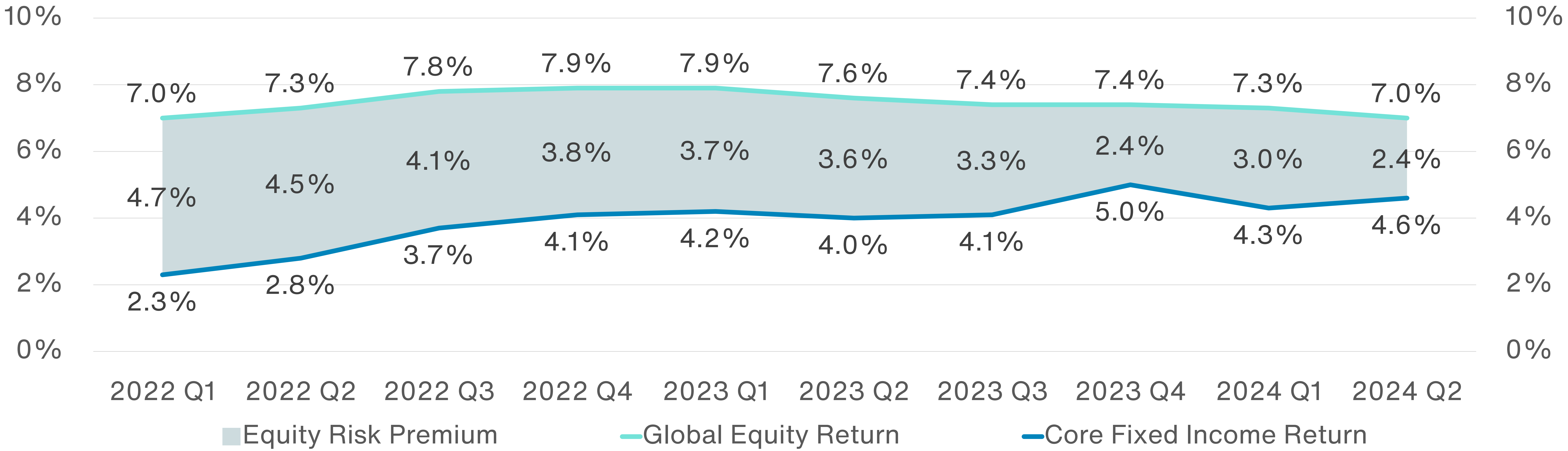
[3] Represents diversified portfolio of Direct hedge fund investments.

Capital Market Assumptions – Recent Changes

Equity risk premium[1] has decreased due to higher interest rates, fixed income returns

Below is a quarter-over-quarter historical look at the breakdown of the global equity risk premium[1] (defined as global public equity less core fixed income) using Aon's 30-year CMAs

Breakdown of Global Equity Risk Premium (30Y CMAs)



[1] Equity Risk Premium is defined as the excess return earned over bonds that compensates investors for taking on higher risk

Summary of Capital Market Assumptions

As of June 30, 2024

	Nominal Correlations	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	Large Cap U.S. Equity	**1.00**	0.93	0.98	0.79	0.73	0.10	0.00	0.04	0.58	0.74	0.27	0.70	0.35	0.46	0.46	0.62	0.35	0.41	0.52	0.34	0.09
2	Small Cap U.S. Equity	0.93	**1.00**	0.94	0.74	0.69	0.08	0.00	0.04	0.54	0.69	0.26	0.66	0.33	0.44	0.41	0.60	0.34	0.39	0.50	0.33	0.08
3	Global Equity IMI	0.98	0.94	**1.00**	0.88	0.81	0.09	-0.01	0.04	0.61	0.74	0.27	0.69	0.36	0.48	0.48	0.63	0.35	0.42	0.54	0.36	0.10
4	International Equity (Developed)	0.79	0.74	0.88	**1.00**	0.75	0.05	-0.02	0.03	0.58	0.63	0.24	0.57	0.34	0.44	0.50	0.55	0.31	0.38	0.49	0.34	0.11
5	Emerging Markets Equity	0.73	0.69	0.81	0.75	**1.00**	0.07	0.00	0.04	0.60	0.58	0.23	0.53	0.33	0.41	0.35	0.53	0.30	0.37	0.46	0.36	0.09
6	Cash (Gov't)	0.10	0.08	0.09	0.05	0.07	**1.00**	0.43	0.40	0.05	0.24	0.11	0.10	0.16	0.15	0.20	0.10	0.14	0.18	0.19	-0.23	0.42
7	Core Fixed Income	0.00	0.00	-0.01	-0.02	0.00	0.43	**1.00**	0.98	0.20	0.15	0.03	0.01	0.05	0.04	0.04	0.01	0.04	0.05	0.05	-0.03	0.00
8	Core Plus Fixed Income	0.04	0.04	0.04	0.03	0.04	0.40	0.98	**1.00**	0.33	0.22	0.04	0.04	0.06	0.06	0.04	0.04	0.06	0.07	0.08	0.12	0.00
9	Multi-Asset Credit	0.58	0.54	0.61	0.58	0.60	0.05	0.20	0.33	**1.00**	0.63	0.16	0.40	0.21	0.28	0.36	0.38	0.21	0.25	0.32	0.69	0.10
10	Direct Hedge Funds	0.74	0.69	0.74	0.63	0.58	0.24	0.15	0.22	0.63	**1.00**	0.24	0.54	0.32	0.40	0.35	0.52	0.31	0.37	0.46	0.41	0.14
11	Core Infrastructure	0.27	0.26	0.27	0.24	0.23	0.11	0.03	0.04	0.16	0.24	**1.00**	0.20	0.15	0.17	0.08	0.25	0.78	0.70	0.52	0.10	0.07
12	US REITs	0.70	0.66	0.69	0.57	0.53	0.10	0.01	0.04	0.40	0.54	0.20	**1.00**	0.45	0.50	0.31	0.47	0.26	0.45	0.51	0.24	0.08
13	Core Real Estate	0.35	0.33	0.36	0.34	0.33	0.16	0.05	0.06	0.21	0.32	0.15	0.45	**1.00**	0.96	0.11	0.32	0.19	0.81	0.83	0.12	0.10
14	Non-Core Real Estate	0.46	0.44	0.48	0.44	0.41	0.15	0.04	0.06	0.28	0.40	0.17	0.50	0.96	**1.00**	0.18	0.38	0.22	0.80	0.88	0.16	0.10
15	Commodities	0.46	0.41	0.48	0.50	0.35	0.20	0.04	0.04	0.36	0.35	0.08	0.31	0.11	0.18	**1.00**	0.14	0.10	0.13	0.19	0.15	0.42
16	Private Equity	0.62	0.60	0.63	0.55	0.53	0.10	0.01	0.04	0.38	0.52	0.25	0.47	0.32	0.38	0.14	**1.00**	0.33	0.38	0.45	0.27	0.08
17	Infrastructure	0.35	0.34	0.35	0.31	0.30	0.14	0.04	0.06	0.21	0.31	0.78	0.26	0.19	0.22	0.10	0.33	**1.00**	0.60	0.67	0.13	0.09
18	Open-End Real Assets	0.41	0.39	0.42	0.38	0.37	0.18	0.05	0.07	0.25	0.37	0.70	0.45	0.81	0.80	0.13	0.38	0.60	**1.00**	0.91	0.14	0.11
19	Closed-End Real Assets	0.52	0.50	0.54	0.49	0.46	0.19	0.05	0.08	0.32	0.46	0.52	0.51	0.83	0.88	0.19	0.45	0.67	0.91	**1.00**	0.18	0.12
20	Private Debt	0.34	0.33	0.36	0.34	0.36	-0.23	-0.03	0.12	0.69	0.41	0.10	0.24	0.12	0.16	0.15	0.27	0.13	0.14	0.18	**1.00**	0.00
21	Inflation	0.09	0.08	0.10	0.11	0.09	0.42	0.00	0.00	0.10	0.14	0.07	0.08	0.10	0.10	0.42	0.08	0.09	0.11	0.12	0.00	**1.00**

Aon Investments’ Capital Market Assumptions

Explanation of Capital Market Assumptions—06/30/2024

The following capital market assumptions were developed by Aon’s Global Asset Allocation Team and represent the long-term capital market outlook (i.e., 30 years) based on data at the end of the second quarter of 2024. The assumptions were developed using a building block approach, reflecting observable inflation and interest rate information available in the fixed income markets as well as Consensus Economics forecast and market data sources including, but not limited to MSCI, FactSet and Bloomberg. Our long-term assumptions for other asset classes are based on historical results, current market characteristics, and our professional judgment. Expected returns are using Aon 30 Year Capital Market Assumptions as of 06/30/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are calculated using weighted allocations of the underlying CMAs. Expected Returns are geometric (long-term compounded; rounded to the nearest decimal) assuming portfolio weights are rebalanced annually. Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results.

Inflation – Expected Level (2.3%)

Based on Consensus Economics long-term estimates and our near-term economic outlook, we expect U.S. consumer price inflation to be approximately 2.3% during the next 30 years.

Fixed Income		
Cash	1.8%	Over the long run, we expect the real yield on cash and money market instruments to produce a real return of 1.8% in a moderate to low-inflationary environment.
TIPS	2.2%	We expect intermediate duration Treasury Inflation-Protected Securities to produce a real return of about 2.2%.
Core Fixed Income (i.e., Market Duration)	2.4%	We expect intermediate duration Treasuries to produce a real return of about 1.8%. We estimate the fair value credit spread (credit risk premium - expected losses from defaults and downgrades) to be 0.6%, resulting in a long-term real return of 2.4%.

Aon Investments' Capital Market Assumptions

Explanation of Capital Market Assumptions—06/30/2024

Fixed Income		
Core Plus Bonds	2.8%	Modeled as 20% 5 duration gov't with real return of 1.8% and 80% 5 duration corporate bonds with real return of 3.1%.
Long Duration Bonds – Government and Credit	3.0%	We expect Treasuries with a duration of ~14 years to produce a real return of 2.5%. We estimate the fair value credit spread (credit risk premium - expected losses from defaults and downgrades) to be 0.5%, resulting in an expected real return of 3.0%.
Long Duration Bonds – Credit	3.6%	We expect Treasuries with a duration of ~12 years to produce a real return of 2.5%. We estimate the fair value credit spread (credit risk premium - expected losses from defaults and downgrades) to be 1.1%, resulting in an expected real return of 3.6%.
Long Duration Bonds – Government	2.5%	We expect Treasuries with a duration of ~16 years to produce a real return of 2.5% during the next 30 years.
High Yield Bonds	3.8%	We expect intermediate duration Treasuries to produce a real return of about 1.8%. We estimate the fair value credit spread (credit risk premium - expected losses from defaults and downgrades) to be 2.0%, resulting in an expected real return of 3.8%.
Bank Loans	4.2%	We expect LIBOR to produce a real return of about 2.4%. We estimate the fair value credit spread (credit risk premium - expected losses from defaults) to be 1.8%, resulting in an expected real return of 4.2%.
Non-U.S. Developed Bonds: 50% Hedged	2.0%	We forecast real returns for non-US developed market bonds to be 1.7% over a 30-year period after adjusting for a 50% currency hedge. We assume a blend of one-third investment grade corporate bonds and two-thirds government bonds. We also produce assumptions for 0% hedged and 100% hedged non-US developed bonds.
Emerging Market Bonds (Sovereign; USD)	4.1%	We forecast real returns for emerging market sovereign bonds denominated in US dollars to be 4.1% over a 30-year period.
Emerging Market Bonds (Corporate; USD)	3.7%	We forecast real returns for emerging market corporate bonds denominated in US dollars to be 3.7% over a 30-year period.

Aon Investments' Capital Market Assumptions

Explanation of Capital Market Assumptions—06/30/2024

Emerging Market Bonds (Sovereign; Local)	3.6%	We forecast real returns for emerging market sovereign bonds denominated in local currency to be 3.6% over a 30-year period.
Liquid Return-Seeking Fixed Income Institutional Quality	4.9%	We assume real returns from beta exposure to high yield, bank loans and emerging market debt to add 4.1% plus 0.8% from alpha for institutional quality managers, over a 30-year period.
Liquid Return-Seeking Fixed Income Universe	4.1%	We assume real returns from beta exposure to high yield, bank loans and emerging market debt to add 4.1%. We assume no alpha from universe funds, over a 30-year period.
Private Debt-Direct Lending	5.6%	The base building block is bank loans 4.2% + spread 1.4% (net of management fees and performance incentives). There is 100% leverage included in the assumption with the nominal cost of financing at LIBOR + 2.5%.
Equities		
Large Cap U.S. Equity	4.3%	This assumption is based on 1.03 beta to global equities plus inflation and real cash return
Small Cap U.S. Equity	4.8%	Adding a 0.5% return premium for small cap U.S. equity over large cap U.S. equity results in an expected real return of 4.8%. This return premium is theoretically justified by the higher risk inherent in small cap U.S. equity versus large cap U.S. equity and is also justified by historical data.
Global Equity (Developed & Emerging Markets	4.7%	We employ a building block process to develop discounted cash flows using the developed and emerging markets that comprise the MSCI All-Country World Index. Our roll-up model produces an expected real return of 4.7% for global equity.
International (Non-U.S.) Equity, Developed Markets	4.2%	This assumption is based on 0.85 beta to global equities plus inflation and real cash return
Emerging Market Stocks	4.5%	This assumption is based on 1.14 beta to global equities plus inflation and real cash return
65% U.S. Equity/35% Non-U.S. Equity	4.7%	Based on a mix of U.S. large and small caps/non-U.S. developed and emerging market equities

Aon Investments' Capital Market Assumptions

Explanation of Capital Market Assumptions—06/30/2024

Alternative Asset Classes		
Low Beta (Defensive) Hedge Funds	2.7%	Encompasses defensive/low volatility hedge fund strategies with low correlations to risk assets. This assumption represents median manager performance. 1% base fee + 10% performance fee is deducted from the return expectation.
Low Beta (Defensive) Hedge Funds Institutional Quality	3.7%	Represent defensive/low volatility hedge fund strategies with low correlations to risk assets. 1% base fee + 7% performance fee is deducted from return expectations. To use this category the funds must be institutional quality.
High Beta (Return Enhancing) Hedge Funds	3.7%	Encompasses return enhancing/higher volatility hedge fund strategies with higher correlations to risk assets. The assumption represents median manager performance. 1% base fee + 10% performance fee is deducted from the return expectations.
High Beta (Return Enhancing) Hedge Funds Institutional Quality	5.7%	Represents return enhancing/higher volatility hedge fund strategies with higher correlations to risk assets. 1% base fee + 7% performance fee is deducted from return expectations. To use this category the funds must be institutional quality.
Direct Hedge Funds Universe	3.2%	Generic hedge fund investments which represents a portfolio of diversified strategies. We assume 50% defensive/50% return enhancing strategies. 1% base fee + 10% performance fee is deducted from the return expectations.
Direct Hedge Funds Institutional Quality	4.7%	Generic hedge fund investments which represents a portfolio of top-tier diversified strategies. We assume 50% defensive institutional quality/50% return enhancing institutional quality strategies. To use this category the funds must be institutional quality. 1% base fee + 7% performance fee is deducted from the return expectations.
Core Real Estate	3.4%	Our real return assumption for core real estate is based a gross income of about 3.9%, management fees of roughly 1%, 25% leverage and future capital appreciation near the rate of inflation during the next 30 years. We assume a portfolio of equity real estate holdings that is diversified by property and by geographic region.
Non-Core Real Estate	5.2%	Core real estate is levered approximately 100% as the base building block for this assumption. We subtract financing costs for the leverage and 2% management costs. We also assume nominal alpha of 2% over core real estate. We assume a 50/50 mix of value-add and opportunistic investments.
U.S. REITs	4.2%	Our real return assumption for U.S. REITs is based on income of about 4.1% and future capital appreciation near the rate of inflation during the next 30 years. REITs are a sub-set of U.S. small/mid cap equity universe.

Aon Investments' Capital Market Assumptions

Explanation of Capital Market Assumptions—06/30/2024

Commodities	1.8%	Our commodity assumption is for a diversified portfolio of commodity futures contracts. Commodity futures returns are composed of three parts: spot price appreciation, collateral return, and roll return (positive or negative change implied by the shape of the future curve). We believe that spot prices will converge with CPI over the long run (i.e., 2.3%). Collateral is assumed to be Gov't cash (1.8%). Also, we believe the roll effect will be -2.3%, resulting in a real return of about 1.8% for commodities.
Private Equity	6.9%	Our private equity assumption reflects a diversified fund of funds with exposure to buyouts, venture capital, distressed debt, and mezzanine debt.
Open-End Infrastructure	5.0%	Our open-end infrastructure assumption assumes a mix of 65% core, 25% value-add and 10% opportunistic strategies. Return formulated through estimates of income and capital growth, leverage, debt costs, taxes and management expenses.
Closed-End Infrastructure	6.2%	Our closed-end infrastructure assumption assumes a mix of 50% value-add, 35% opportunistic and 15% private equity strategies. Return formulated through estimates of income and capital growth, leverage, debt costs, taxes and management expenses.
eLDI	4.0%	Combination of various long credit strategies (1/6 real estate debt, 1/3 securitized debt, 1/6 CMOs, 1/3 private placements).
Open-End Real Assets	4.6%	Combination of 50% Core Real Estate and 50% Open-End Infrastructure
Closed-End Real Assets	6.5%	Combination of 50% Non-Core Real Estate and 50% Closed-End Infrastructure

Volatility/Correlation Assumptions

Assumed volatilities are formulated with reference to implied volatilities priced into option contracts of various terms, as well as with regard to historical volatility levels. For asset classes which are not marked to market (for example real estate), we "de-smooth" historical returns before calculating volatilities. Importantly, we consider expected volatility trends in the future – in recent years we assumed the re-emergence of an economic cycle and a loss of confidence in central bankers would lead to an increase in volatility. Correlation assumptions are generally similar to actual historical results; however, we do make adjustments to reflect our forward-looking views as well as current market fundamentals.

2024 Horizon Survey

Section 5: Appendix

2024 Horizon Survey Results

What is the Horizon Survey?

Since 2010, Horizon Actuarial Services, LLC has conducted a capital market assumption survey of investment firms to aid in determining reasonable assumptions for a pension plan's expected return on assets

- While Aon does not seek to change our approach based on how we stack up to peers, it is a helpful double-check to make sure we are not too far off from others in the industry

For the 2024 survey, 41 investment advisors participated.

How does Aon compare to the 2024 survey results?

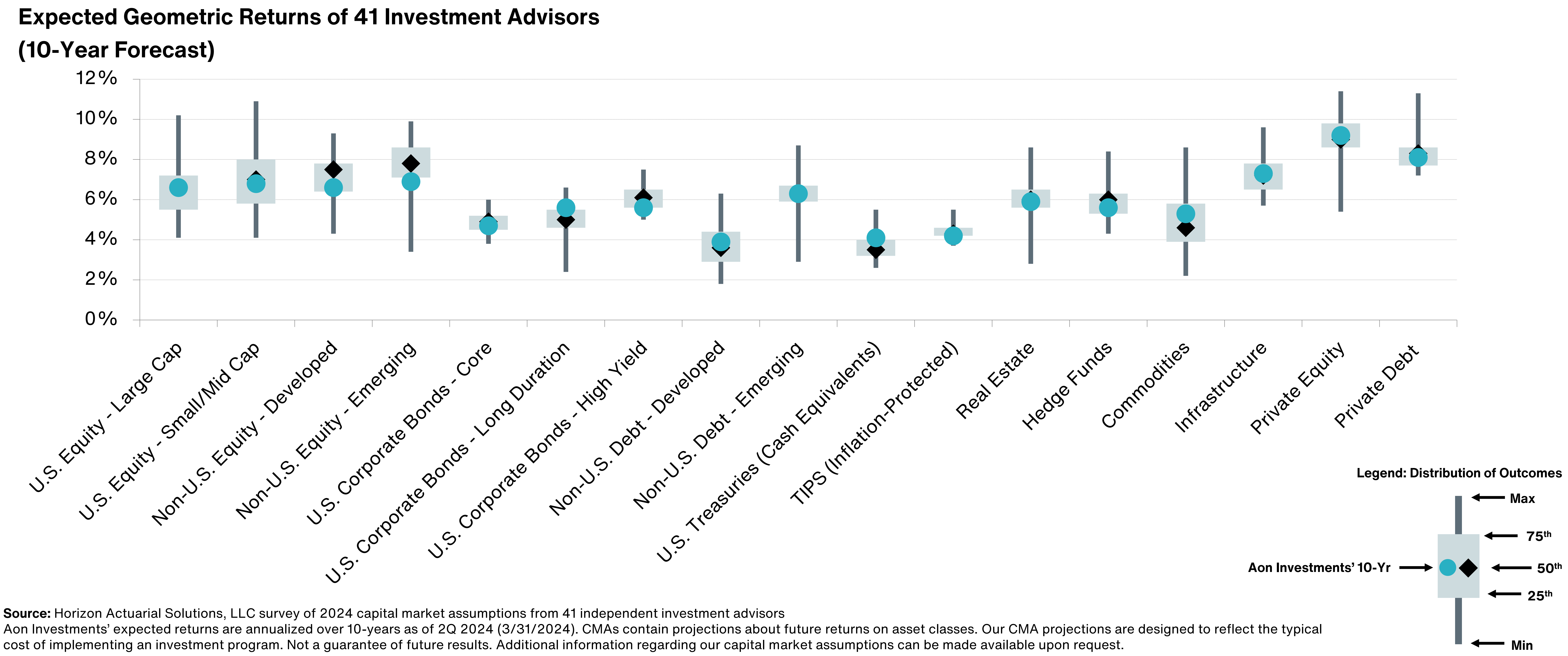
Aon Investments' 2024 10-year assumptions for expected returns (as of March 31, 2024)

- ***Equities:*** approximately middle of the pack for U.S. Equities; lower for Non-U.S. Equities
- ***Fixed Income:*** approximately middle of the pack relative to the survey's median level; lower for U.S. High Yield; higher for Cash and Long Duration Credit
- ***Alternatives:*** approximately middle of the pack relative to the survey's median level; higher for Commodities

Source: Horizon Actuarial Solutions, LLC survey of 2024 capital market assumptions from 41 independent investment advisors

Aon Investments' Capital Market Assumptions vs. Horizon Survey

10-Year Assumptions



Source: Horizon Actuarial Solutions, LLC survey of 2024 capital market assumptions from 41 independent investment advisors
Aon Investments' expected returns are annualized over 10-years as of 2Q 2024 (3/31/2024). CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Not a guarantee of future results. Additional information regarding our capital market assumptions can be made available upon request.

AON

Aon Investments vs. Peers (2024 Horizon Survey)

10-Year Assumptions

	Horizon Survey[1]		Aon Investments[2]		Difference	
	10-Year Assumptions		10-Year Assumptions		Aon Investments – Horizon Survey	
Asset Class	**Expected Return**	**Expected Risk**	**Expected Return**	**Expected Risk**	**Expected Return**	**Expected Risk**
U.S. Equity - Large Cap	6.6%	16.5%	6.6%	18.0%	0.0%	1.5%
U.S. Equity - Small/Mid Cap	7.0%	20.6%	6.8%	24.0%	-0.2%	3.4%
Non-U.S. Equity – Developed	7.5%	18.1%	6.6%	19.1%	-0.9%	1.0%
Non-U.S. Equity – Emerging	7.8%	23.6%	6.9%	22.0%	-0.9%	-1.6%
U.S. Fixed Income – Core	4.9%	5.9%	4.7%	5.0%	-0.2%	-0.9%
U.S. Fixed Income - Long Duration Corp	5.0%	11.0%	5.6%	9.9%	0.6%	-1.1%
U.S. Fixed Income - High Yield	6.1%	9.9%	5.6%	10.5%	-0.5%	0.6%
Non-U.S. Fixed Income – Developed	3.6%	7.3%	3.9%	6.1%	0.3%	-1.2%
Non-U.S. Fixed Income – Emerging	6.3%	10.8%	6.3%	11.0%	0.0%	0.2%
Treasuries (Cash Equivalents)	3.5%	1.1%	4.1%	1.4%	0.6%	0.3%
TIPS (Inflation-Protected)	4.3%	6.1%	4.2%	4.3%	-0.1%	-1.8%
Real Estate	6.0%	16.6%	5.9%	15.0%	-0.1%	-1.6%
Hedge Funds	6.0%	8.0%	5.6%	5.2%	-0.4%	-2.8%
Commodities	4.6%	17.8%	5.3%	17.0%	0.7%	-0.8%
Infrastructure	7.2%	16.0%	7.3%	14.5%	0.1%	-1.5%
Private Equity	9.0%	22.6%	9.2%	20.0%	0.2%	-2.6%
Private Debt	8.3%	12.0%	8.1%	16.6%	-0.2%	4.6%
Inflation	2.4%	1.9%	2.2%	1.7%	-0.2%	-0.2%

[1] **Notes (Horizon Survey)**
Source: Horizon Actuarial survey of 2024 capital market assumptions from 41 independent investment advisors. The survey was conducted by Horizon Actuarial Services, LLC, an independent consulting firm specializing in providing actuarial and consulting services to multiemployer benefit plans. Aon does not guarantee the accuracy or completeness of this information and cannot be held accountable for inaccurate data provided by third parties. Reliance upon information in this material is at the sole discretion of the reader.

Expected returns are median annualized (geometric). Please see following slide for additional information on this survey methodology.

[2] **Notes (Aon Investments' Assumptions)**
Aon Investments' assumptions are for 3/31/2024

- U.S. Equity - Small/Mid Cap assumptions represents Aon's assumption for U.S. Small Cap
- U.S. Fixed Income - Long Duration assumptions represents Aon's assumption for Long Duration Credit
- Non-U.S. Fixed Income - Developed assumptions represents Aon's assumption for Non-U.S. Fixed Income - Developed (50% Hedged)
- Non-U.S. Fixed Income - Emerging assumptions represents Aon's assumption for Emerging Market Bonds - Sovereign USD
- Real Estate assumptions represents Aon's assumption for Core Real Estate
- Hedge Fund assumptions represents Aon's assumption for Direct Hedge Funds (Universe)

Expected returns are using Aon's Q2 2024 10-Year Capital Market Assumptions as of 3/31/2024. CMAs contain projections about future returns on asset classes. Our CMA projections are designed to reflect the typical cost of implementing an investment program. Expected returns are geometric (long-term compounded; rounded to the nearest decimal). Expected returns presented are models and do not represent the returns of an actual client account. Your actual returns will be reduced by your advisory fees and other expenses you may incur as a client. Aon's advisory fees are described in Part 2A of Aon's Form ADV. Not a guarantee of future results. Additional information regarding our capital market assumptions can be made available upon request.

Survey Methodology

A description of the methodology used by Horizon Actuarial Services, LLC in conducting their survey is outlined in the 2024 version of the report found online at the link below:

- https://www.horizonactuarial.com/survey-of-capital-market-assumptions

The survey was conducted by Horizon Actuarial Services, LLC, an independent consulting firm specializing in providing actuarial and consulting services to multiemployer benefit plans. Aon Investments USA Inc. ("AIUSA") is not affiliated with Horizon Actuarial Services, LLC. AIUSA did not pay to participate in the survey and no direct or indirect compensation has been provided by AIUSA for participation. Please refer to the more thorough disclosure and additional information about the methodology used in compiling the survey results via the website of the publication. Clicking the above link will bring you to a site that contains information that has been created, published, maintained, or otherwise posted by an organization independent of AIUSA. AIUSA does not endorse, approve, certify, or control this website and does not assume responsibility for the accuracy, completeness, or timeliness of the information located there.

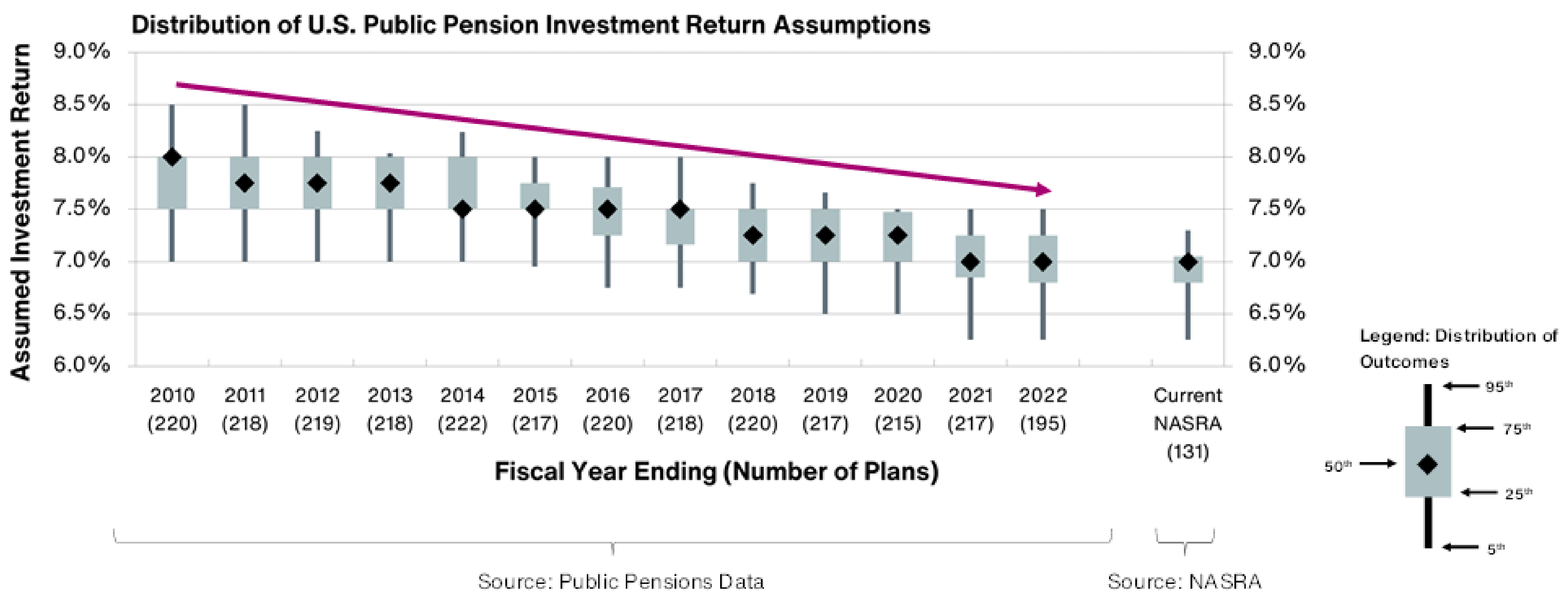
Expected Rates of Return: A Whipsaw Effect?

Section 5: Appendix

Expected Rates of Return: A Whipsaw Effect?

What should rising CMAs mean for a plan's expected return on assets assumption?

1. Recent history has seen a steady decline in actuarial assumed rates of return



2. Decisions regarding the assumed rate of return should balance the following perspectives

Investment

- Set investment strategy within goals/objectives/risk tolerance of the plan
- Strategy serves as one input to be considered

Actuarial

- Utilize both qualitative and quantitative measures such as
  - Future financial outcomes
  - Use of the assumed rate of return
  - A range of acceptable returns
  - History of assumption changes
  - Consulting industry trends
  - Peer data

Governmental

- Incentives may exist to increase return (ultimately lower funding needed) or lower the return (to increase funding)

3. Conclusions

- The movement to lower rates of return has subsided and we do not expect there to be a similar push to increase rates higher just yet
  - One approach may be a cautious, wait-and-see mindset
- While the downward trend in actuarial rates of return was partly attributed to historical differences from CMAs, plan sponsors would be wise to ensure similar dislocations do not exist going forward
  - Those whose investment strategy produces an expected return north of the actuarial rate of return may have support for rate increases
  - Those who faced pressure to lower assumptions in the past may have support for maintaining those levels

How Do Public Pensions Impact Credit Ratings?

Section 5: Appendix

How Do Public Pensions Impact Credit Ratings?

Summary and Conclusions

Pension Impact on Credit Ratings

Pension plans have a direct impact on the ultimate state or local credit rating

Rating agencies are not just looking at where public pension plans stand today; they are looking at the expected future trajectory of the plan based on how it is managed

Credit Ratings and Borrowing Costs

Taxpayers in lower credit rated jurisdictions are paying higher borrowing costs and could save money through healthier pension plan management

Call To Action

The Big Three (Fitch, Moody's and S&P) value selecting appropriate actuarial assumptions, avoiding excessive risk taking, and developing an adequate funding policy

While debt priorities and revenue framework to service such debt will vary on a case-by-case basis, every jurisdiction has the ability to thoughtfully develop a funding policy and set appropriate assumptions

These initial steps will help pension stakeholders better understand the true economic costs, improve the funding outlook for public pensions, and potentially reduce borrowing costs and further taxpayer burden

How Do Public Pensions Impact Credit Ratings?

Call to Action: Plan Sponsors Have the Ability to Impact Credit Rating

Below are three specific actions plan sponsors can take today to directly improve the impact a pension plan will have on the credit rating of its locality:

Action	Considerations
1. Conduct an actuarial assumption audit Review reasonability of key assumptions: • Salary scale, Mortality, Retirement rates, Turnover rates	• Assumptions set to plan-specific expectations will lead to lower contribution volatility • Aggressive assumptions may provide short-term relief but may have long-term consequences
2. Consider adjustments to expected return assumption Adjustments should be in line with forward-looking expectations for asset returns	• Contributing an actuarial amount? o Yes: Failing to achieve target returns will necessitate increases in future contributions and make what was intended to be a smooth, budget-friendly progression of contribution increases far more volatile o No: The funding gap will widen and become highly volatile as contribution policy will not add enough dollars to replenish losses
3. Review the plan's funding policy Look far enough into the future to identify potential pain points	• Conduct "tread water"/hurdle rate analysis to ensure short-term contributions are sufficient to keep pace with growth of plan liabilities • Consider asset-liability study to understand range of potential future outcomes rather than a single deterministic scenario

Glossary of Terms

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Glossary of Terms

AVA	Actuarial value of assets (i.e., incorporates smoothing of gains and losses)
Asset Growth Rate or “Hurdle Rate”	The required rate of growth of the assets (through both contributions and investment returns) to keep pace with the growth of the liability
Current Frontier	Uses the Plan’s mix of asset classes within the return-seeking allocation, then dials the return-seeking allocation up and down from 0% to 100% to illustrate forecasted returns at various return-seeking / safety asset mixes
Economic Cost	Present value of forecasted future contributions + present value of funding shortfall/(surplus) at the end of the projection period
Liability Growth Rate	The projected growth of the liability over the coming year as measured by the sum of the normal cost (new benefit accruals) and discount/interest cost (one less year of discounting at the time value of money)
MVA	Market value of assets (i.e., un-smoothed/economic reality)
Return-Seeking Assets (“R-S”)	All non “safety” assets
Risk-Reducing/Safety Assets	Assets where the primary function is risk control/downside mitigation.
Target Asset Allocation	The allocation of assets between return-seeking assets and safety assets

About This Material

Section 5: Appendix

About This Material

This material includes a summary of calculations and consulting related to the finances of the County of Riverside. The following variables have been addressed:

- Contributions, Economic Cost, Funded Ratio, Hurdle Rate, Net Outflow

This analysis is intended to assist the Investment Committee with a review of the associated issues and options, and its use may not be appropriate for other purposes. This analysis has been prepared solely for the benefit of the Investment Committee. Any further dissemination of this report is not allowed without the written consent of Aon Investments USA Inc.

Our calculations were generally based on the methodologies identified in the actuary's valuation report for County of Riverside Part-time and Temporary Employees' Retirement Plan. We believe the methodology used in these calculations conforms to the applicable standards identified in the report.

Models are used to develop alternative scenarios based on the underlying valuation model and project financial results under those scenarios. The models were developed by experts outside and within Aon. Where outside models were used, the models were reviewed by experts within Aon. The models were selected as appropriate for these projections by the undersigned.

Experience different than anticipated could have a material impact on the ultimate costs of the benefits. In addition, changes in plan provisions or applicable laws could have a significant impact on cost. Actual experience may differ from our modeling assumptions.

Our calculations were based on data provided by the plan actuary. The actuarial assumptions and methods and plan provisions reflected in these projections are the same as those used for the 2023 fiscal year actuarial valuation for County of Riverside Part-time and Temporary Employees' Retirement Plan as noted in the actuarial reports, except where noted in this report. Unless specifically noted, our calculations do not reflect any other changes or events after June 30, 2024. Reflecting events after June 30, 2024 would impact the results of the projection.

In conducting these projections, we have relied on plan design, demographic and financial information provided by other parties, including the plan's actuary and plan sponsor. While we cannot verify the accuracy of all of the information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy or completeness of the information and believe that it has produced appropriate results.

These projections have been conducted in accordance with generally accepted actuarial principles and practices, including applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board. The undersigned actuary is familiar with the near-term and long-term aspects of pension valuations and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no colleague of Aon Investments USA Inc. providing services to the County of Riverside has any direct financial interest or indirect material interest in the County of Riverside. Thus, we believe there is no relationship existing that might affect our capacity to prepare and certify this report for the County of Riverside.

Aon Investments USA Inc.

Phil Kivarkis FSA, CFA

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