

# ELEVATE

## Your Financial Vision



Montana Public Employees' Retirement Board  
June 30, 2024 Actuarial Valuation Results

# Why does my Plan need an Actuary?

## Develop

- Develop a strategy to systematically fund the promised benefits of the system

## Measure

- Measure assets and liabilities (future benefit payments)

## Determine

- Determine actuarial contribution rates

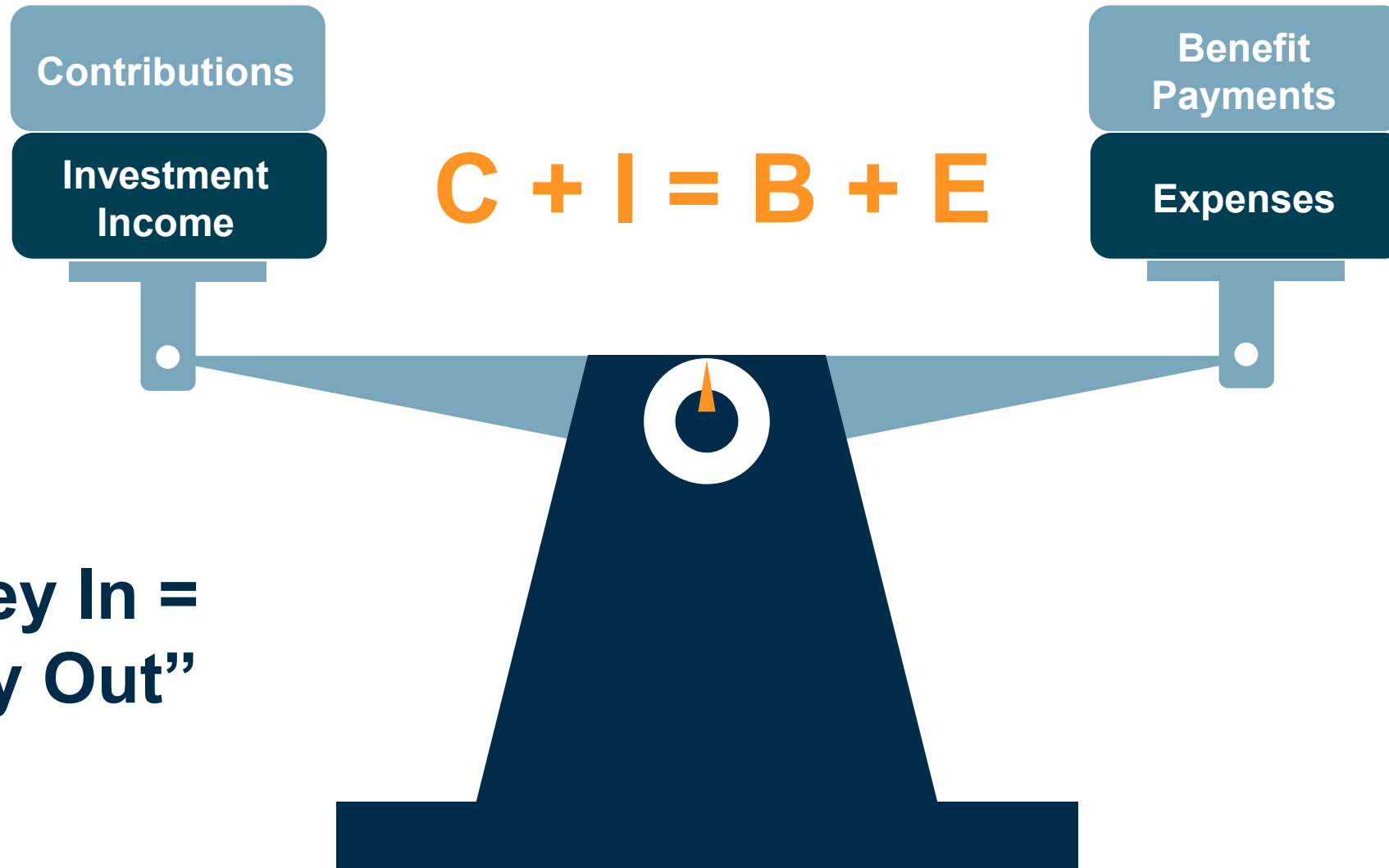
## Analyze

- Analyze experience (actual vs. expected)

## Report

- Report on trends, risks, accounting, etc.

# Basic Retirement Funding Formula



$$C + I = B + E$$

“B” depends on

Plan Provisions

Experience

“C” depends on

Short Term

Actuarial Assumptions

Actuarial Cost Method

Long Term

I, B, E



# June 30, 2024 Funding Results



## Actuarial Experience Across All Plans

### Experience



Overall experience loss of \$0.2 million

### Assets



Actuarial value of assets investment gain of \$153.5 million due to unrecognized investment gains and losses

### Demographics






Demographic and mortality experience loss of \$68.2 million (0.5% of AAL)

### Salary



Experience loss of \$85.6 million due to salary increases that were greater than anticipated

- Market asset returns (net of investment and administrative expenses) averaged 8.87% vs. 7.30% expected (1.57% more than expected)
- Actuarial asset returns (net of investment and administrative expenses) averaged 8.72% vs. 7.30% expected (1.42% more than expected)
  - Actuarial value of assets smooth investment gains and losses on a market value basis over a four-year period
  - The actuarial value of assets will recognize deferred investment gains/losses over the following three years
  - In general, if all assumptions are met going forward, we can expect:
    - 2025: Investment Loss 
    - 2026: Investment Gain 
    - 2027: Investment Gain 



## Funded Ratios

- Funded ratios increased for ALL plans
- VFCA, JRS and PERS-LTD are all over 100% funded



## Amortization Periods

- Amortization Periods decreased (or remained at 0) for ALL plans
- In accordance with HB 569, HPORS, SRS, GWPORS and JRS moved from 25 to 24 years



## Additional Contributions

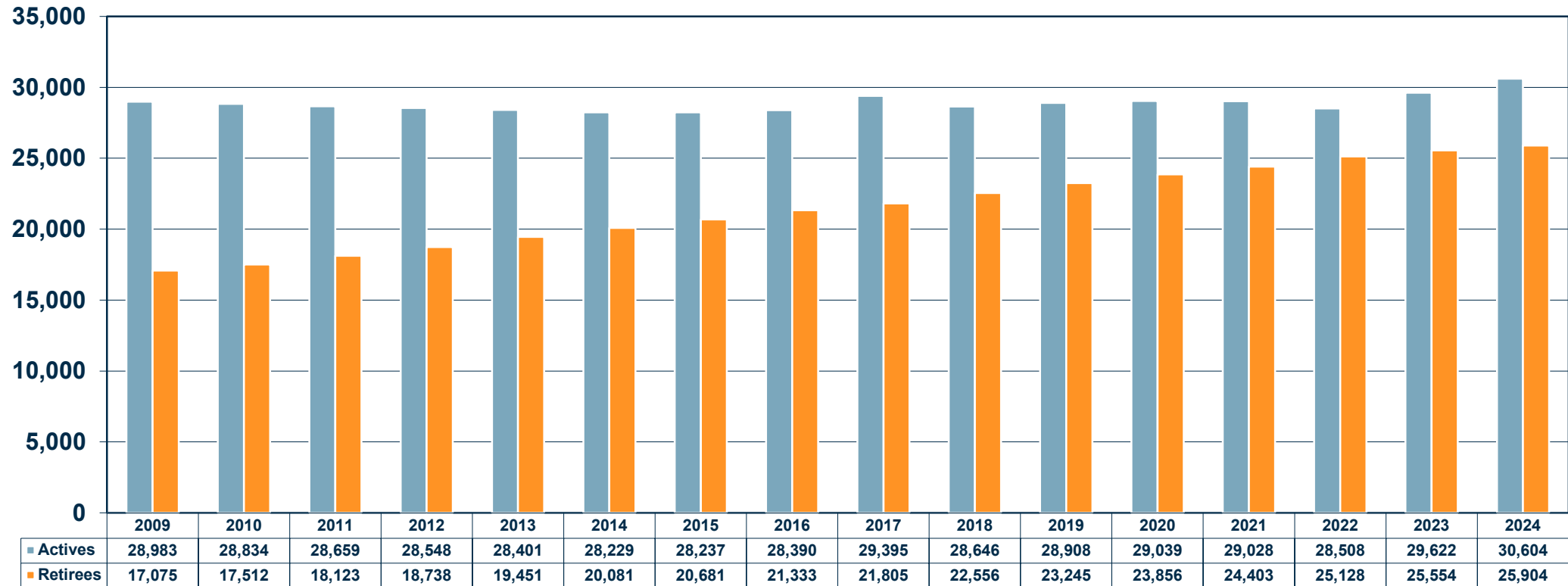
- One-time contributions were received in July 2023
  - HPORS: \$27.6M
  - SRS: \$26.8M
  - GWPORS: \$41.2M
- HPORS to receive \$500M each August 15 until 100% funded



# PERS Valuation Results



# Active and Retired Membership

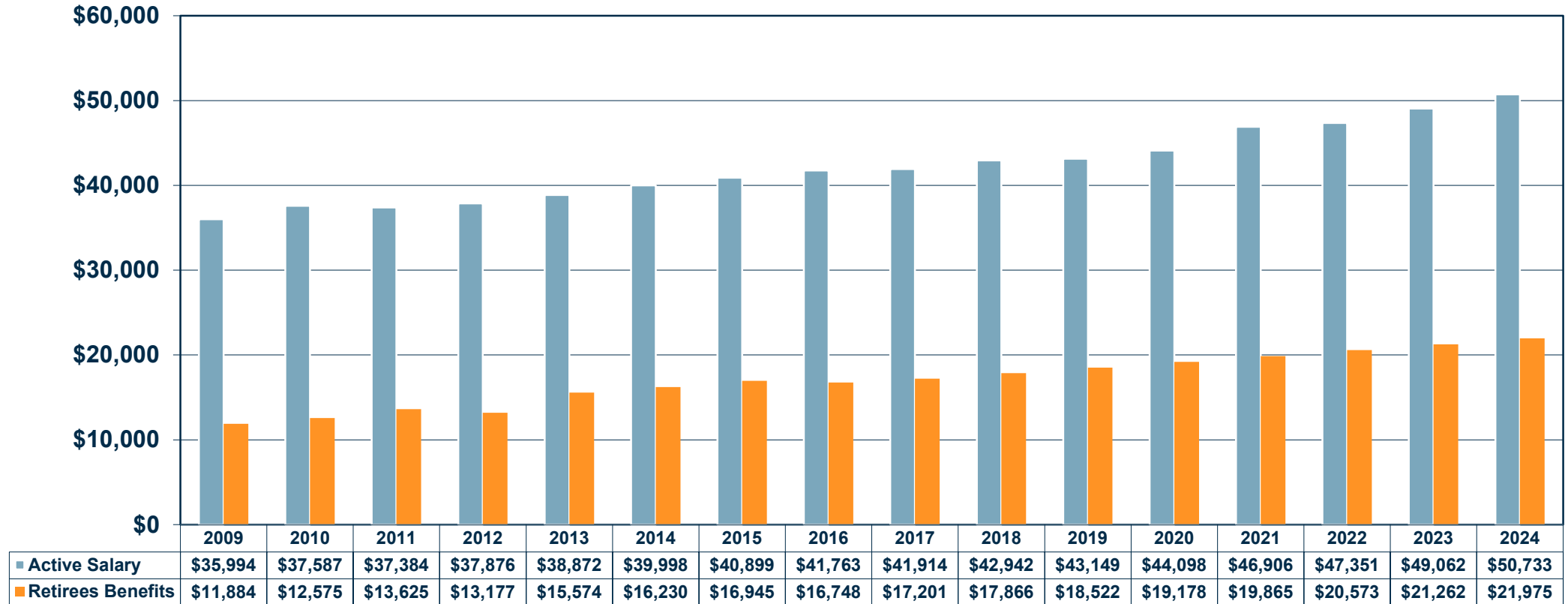


0.4% annual increase for active members since 2009; 3.3% increase for 2024.

2.8% annual increase for retired members since 2009; 1.4% increase for 2024.

0.6 retirees per active 15 years ago; 0.8 retirees per active now.

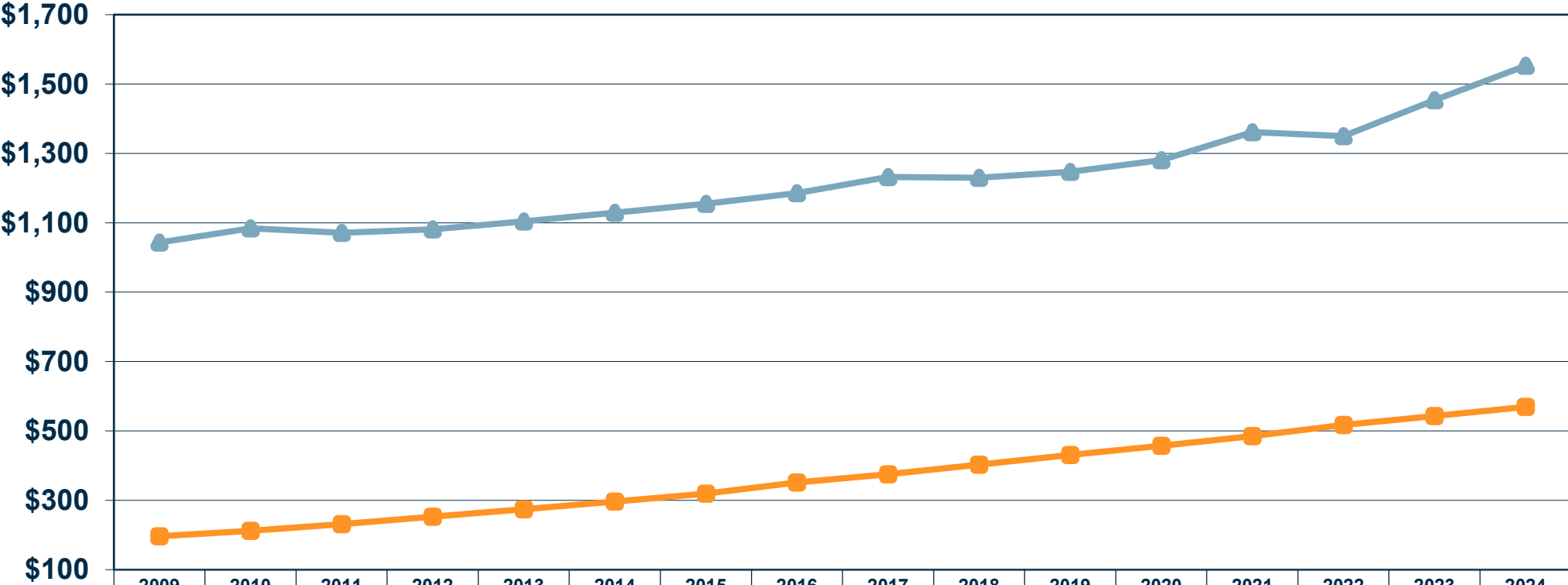
# Average Salary and Benefits



2.3% annual increase for average salary since 2009; 3.4% increase for 2024.

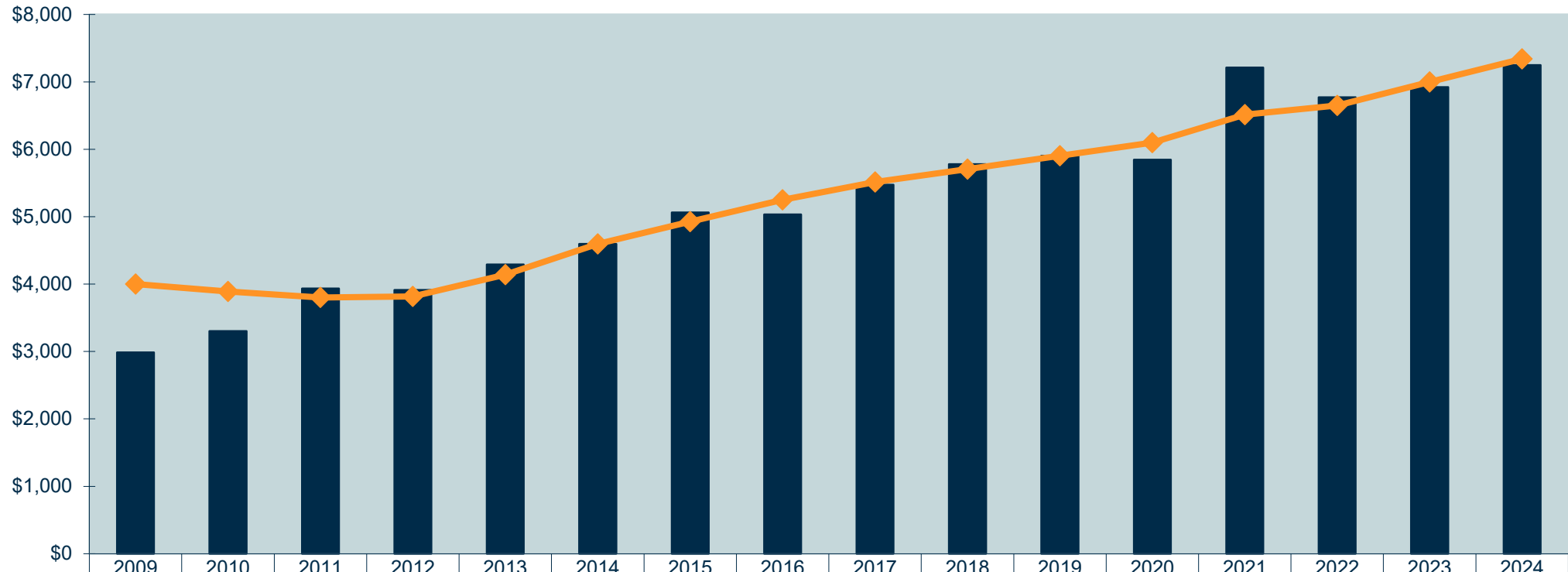
4.2% annual increase for average benefits since 2009; 3.4% increase for 2024.

# Payroll & Benefits (Millions)



● Total Payroll	\$1,043.2	\$1,083.8	\$1,071.4	\$1,081.3	\$1,104.0	\$1,129.1	\$1,154.9	\$1,185.6	\$1,232.1	\$1,230.1	\$1,247.3	\$1,280.6	\$1,361.6	\$1,349.9	\$1,453.3	\$1,552.6
● Benefits	\$196.4	\$212.2	\$231.2	\$252.8	\$274.0	\$296.2	\$319.5	\$351.7	\$375.1	\$403.0	\$430.6	\$457.5	\$484.8	\$517.0	\$543.3	\$569.2

# Assets (\$ Millions)



Market Value	\$2,988	\$3,304	\$3,933	\$3,913	\$4,290	\$4,596	\$5,061	\$5,033	\$5,473	\$5,780	\$5,903	\$5,845	\$7,210	\$6,771	\$6,921	\$7,250
Actuarial Value	\$4,002	\$3,890	\$3,801	\$3,817	\$4,140	\$4,596	\$4,927	\$5,248	\$5,514	\$5,705	\$5,903	\$6,099	\$6,515	\$6,649	\$6,999	\$7,341

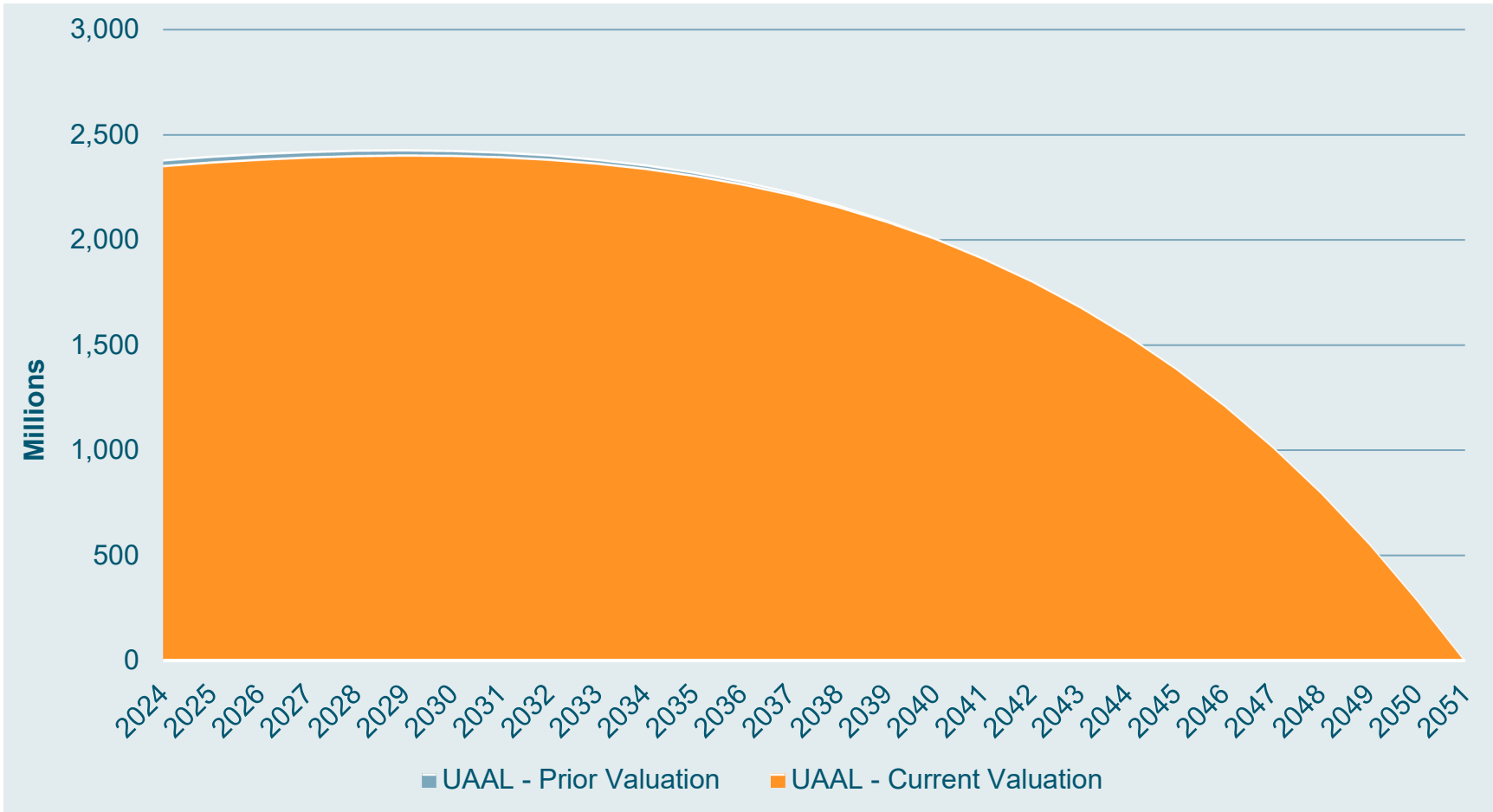
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Market Return	(20.9)%	12.9%	21.7%	2.3%	13.0%	17.1%	4.6%	2.0%	11.9%	8.9%	5.7%	2.7%	27.8%	(4.2)%	8.4%	8.9%
Actuarial Return	(0.2)%	(1.2)%	(0.1)%	3.3%	11.9%	13.2%	9.6%	9.3%	8.1%	6.7%	7.1%	7.1%	10.8%	8.2%	7.6%	9.0%

# Funding Results

	July 1, 2024 Valuation	July 1, 2023 Valuation
Total Normal Cost Rate	9.83%	9.45%
Less Member Rate	<u>7.90%</u>	<u>7.90%</u>
Employer Normal Cost Rate	1.93%	1.55%
Rate to Amortize UAL	7.20%	7.58%
Transfer to DB Education Fund	<u>0.04%</u>	<u>0.04%</u>
Total Employer Statutory Rate	9.17%	9.17%
Actuarial Accrued Liability	\$9,695.5 million	\$9,361.2 million
Actuarial Value of Assets	\$7,341.3 million	\$6,999.3 million
Unfunded Actuarial Accrued Liability	\$2,354.2 million	\$2,361.9 million
Funded Ratio	75.72%	74.77%
Amortization Period *	27 Years	28 Years

\* Reflects projected State revenue. Payable in fiscal year immediately following the valuation date.

# Progress Toward 100% Funding



Amortization period decreased by one year therefore the date the unfunded liability will be fully amortized has not changed.



## Plan Experience

### Experience



Overall experience loss of \$1.6 million

\$118.6M gain due to investment experience

\$120.2M loss due to liability experience

### Assets



(\$91.5) million deferred asset loss

- 2025 Loss: (\$164.3)M
- 2026 Gain: \$45.0M
- 2027 Gain: \$27.8M

### Demographics



Demographic and mortality experience loss of \$59.2 million (0.6% of AAL)

### Salary



Experience loss of \$61.0 million due to salary increases that were greater than anticipated



# Other Fixed Rate Plans Valuation Results



# Valuation Results

System	Funded Ratio		Amortization Period		Rate			30-Year Funding Rate	
	2024	2023	2024	2023	Member	Employer	Total	2024	2023
MPORS	75%	73%	18	21	9.00%	43.78%	52.78%	46.72%	48.50%
FURS	85%	82%	8	10	10.70%	46.97%	57.67%	41.52%	43.72%
VFCA*	107%	98%	0	1	5% of premium taxes			\$445,283	\$796,125

\* The actual contributions for the fiscal year ending 2023 and 2024 were \$3,156,488 and \$3,519,342, respectively



# Plans with Actuarial Determined Contribution Rates Valuation Results



# Funding Results for HPORS

	July 1, 2024 Valuation	July 1, 2023 Valuation
Total Normal Cost Rate	26.39%	26.89%
Less Member Rate	<u>13.05%</u>	<u>13.05%</u>
Employer Normal Cost Rate	13.34%	13.84%
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Contribution Rate for FY	<u>FY 2026</u>	<u>FY 2025</u>
Employer Normal Cost Rate	13.34%	13.84%
Rate to Amortize UAL	<u>21.69%</u>	<u>20.56%</u>
Total Actuarial Funding Rate	35.03%	34.40%
Statutory Funding Rate	34.90%	34.40%
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Actuarial Accrued Liability	\$292.1 million	\$283.4 million
Actuarial Value of Assets	\$226.7 million	\$188.7 million
Unfunded Actuarial Accrued Liability	\$65.4 million	\$94.7 million
Funded Ratio	77.62%	66.58%
Amortization Period	10 to 24 Years	25 Years

Statutory Funding Rate is capped at 0.5% above the prior year Statutory Rate.

Current Rate is 0.13% below the calculated Actuarial Rate.

Beginning July 1, 2023, new hires enter a new benefit tier with retirement eligibility at age 50 with 20 years of service.



# HPORS Development of UAAL Rate



Amortization Base	Original Amount	Remaining Payments	June 30, 2024 Balance	Annual Payment*
2023 Legacy UAAL	\$ 67,030,916	24	\$ 67,530,150	\$ 4,699,506
2024 Experience (Gain)	\$ (2,152,405)	10	\$ <u>(2,152,405)</u>	\$ <u>(282,728)</u>
Total			\$ 65,377,745	\$ 4,416,778

\* Payment amount reflects mid-year timing for the fiscal year the contributions will be made.

1. Total UAAL Amortization Payments	\$ 4,416,778
2. Special State Revenue Transfer Adjusted for Timing	\$ 550,864
3. Expected Payroll for FYE 2026	\$ 17,823,726
4. UAAL Amortization Payment Rate ((1) - (2)) / (3)	21.69%

# HPORS Development of UAAL Rate

A.	Employer Normal Cost Rate	13.34%
B.	UAAL Contribution Rate for FY 2025	21.69%
C.	Actuarial Determined Employer Contribution Rate for FY 2026 [(A) + (B)]	35.03%
D.	Statutory Employer Contribution Rate for FY 2025	34.40%
E.	Statutory Employer Contribution Rate for FY 2026*	34.90%

\* Reflects 0.50% Statutory cap



# Funding Results for SRS

	July 1, 2024 Valuation	July 1, 2023 Valuation
Total Normal Cost Rate	15.480%	15.810%
Less Member Rate	<u>10.495%</u>	<u>10.495%</u>
Employer Normal Cost Rate	4.985%	5.315%
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Contribution Rate for FY	<u>FY 2026</u>	<u>FY 2025</u>
Employer Normal Cost Rate	4.985%	5.315%
Rate to Amortize UAL	<u>7.094%</u>	<u>6.759%</u>
Total Actuarial Funding Rate	12.079%	12.074%
Statutory Funding Rate	12.079%	12.074%
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Actuarial Accrued Liability	\$686.1 million	\$641.7 million
Actuarial Value of Assets	\$568.3 million	\$499.9 million
Unfunded Actuarial Accrued Liability	\$117.8 million	\$141.8 million
Funded Ratio	82.82%	77.91%
Amortization Period	10 to 24 Years	25 Years

Statutory Funding Rate increased only 0.005% from the prior year.

Beginning July 1, 2023, new hires enter a new benefit tier with retirement eligibility at age 50 with 20 years of service.



# Funding Results for GWPORS

	July 1, 2024 Valuation	July 1, 2023 Valuation
Total Normal Cost Rate	17.34%	17.92%
Less Member Rate	<u>10.56%</u>	<u>10.56%</u>
Employer Normal Cost Rate	6.78%	7.36%
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Contribution Rate for FY	<u>FY 2026</u>	<u>FY 2025</u>
Employer Normal Cost Rate	6.78%	7.36%
Rate to Amortize UAL	<u>2.40%</u>	<u>2.26%</u>
Total Actuarial Funding Rate	9.18%	9.62%
Statutory Funding Rate	9.18%	9.62%
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Actuarial Accrued Liability	\$377.1 million	\$348.3 million
Actuarial Value of Assets	\$353.8 million	\$284.5 million
Unfunded Actuarial Accrued Liability	\$23.3 million	\$63.8 million
Funded Ratio	93.84%	81.69%
Amortization Period	10 to 24 Years	25 Years

Statutory Funding Rate decreased 0.44% from the prior year.





# Funding Results for JRS

	July 1, 2024 Valuation	July 1, 2023 Valuation
Total Normal Cost Rate	27.19%	26.76%
Less Member Rate	<u>7.00%</u>	<u>7.00%</u>
Employer Normal Cost Rate	20.19%	19.76%
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Contribution Rate for FY	<u>FY 2026</u>	<u>FY 2025</u>
Employer Normal Cost Rate	20.19%	19.76%
Rate to Amortize UAL	<u>(47.96)%</u>	<u>(42.91)%</u>
Total Actuarial Funding Rate	0.00%	0.00%
Statutory Funding Rate	0.00%	0.00%
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Actuarial Accrued Liability	\$76.2 million	\$73.1 million
Actuarial Value of Assets	\$140.1 million	\$132.4 million
Unfunded Actuarial Accrued Liability	(\$63.9) million	(\$59.3) million
Funded Ratio	183.84%	181.03%
Amortization Period	10 to 24 Years	25 Years

Statutory Funding Rate remains at 0.00% and JRS continues to be over 100% funded.



# PERS DCRP Long Term Disability Plan Valuation Results



# Funding Results

	July 1, 2024 Valuation	July 1, 2023 Valuation
Total Normal Cost Rate	0.06%	0.05%
Rate to Amortize UAL	<u>0.24%</u>	<u>0.25%</u>
Total Employer Statutory Rate	0.30%	0.30%
Actuarial Accrued Liability	\$1,282,139	\$1,501,873
Actuarial Value of Assets (Market Value)	\$10,443,239	\$8,604,097
Unfunded Accrued Liability	(\$9,161,100)	(\$7,102,224)
Funded Ratio	814.52%	572.89%
Amortization Period	0 Years	0 Years
30-Year Funding Period	(0.17)%	(0.14)%

- Additional information regarding the assumptions and methods can be found in the July 1, 2024 actuarial valuation report.
- The actuaries who prepared these results, Todd B. Green, ASA, EA, MAAA, FCA, and Bryan K. Hoge, FSA, EA, MAAA, FCA, are members of the American Academy of Actuaries and are qualified to render the actuarial opinions presented herein. We are happy to provide additional information and answer any questions, if necessary.

THANK  
YOU

