

Industry & Local 338 Pension Plan

Preliminary July 1, 2023 Actuarial Valuation & Projections

January 26, 2024

Mary Ann Dunleavy, ASA



Today's Discussion

- **2023 Survey of Capital Market Assumptions**
- **Preliminary July 1, 2023 Actuarial Valuation**
- **Updated Funding Projections**
- **Appendix**
 - Contribution Rate Summaries
 - Plan Historical Risk Measures
 - Data, Assumptions, Methods and Plan Provisions
 - PPA Zone Certification Statuses
 - Project Timeline July 1, 2023-June 30, 2024
 - Actuarial Certification

2023 Survey of Capital Market Assumptions

2023 Survey: Overview

- **Capital market assumptions:**
 - Expected returns by asset class
 - Standard deviations by asset class
 - Correlation coefficient matrix
- **42 survey participants in 2023**
 - There were 40 advisors in the 2022 survey
 - One firm did not publish 2023 assumptions
 - Three new advisors for 2023
- **Short-term vs. long-term:**
 - "Short-term" considered to be 10 years or less
 - "Long-term" considered to be 20 years or more
 - All 42 respondents provided short-term assumptions
 - 27 respondents also provided long-term assumptions

2023 Survey Participants	
<i>AJ Gallagher</i>	<i>Merrill</i>
<i>Alan Biller</i>	<i>Milliman</i>
<i>AndCo Consulting</i>	<i>Morgan Stanley</i>
<i>Aon</i>	<i>NEPC</i>
<i>The Atlanta Consulting Group</i>	<i>PFM Asset Management, LLC</i>
<i>Bank of New York Mellon*</i>	<i>PIMCO</i>
<i>BlackRock*</i>	<i>Principal</i>
<i>Buck</i>	<i>Research Affiliates, LLC*</i>
<i>Callan Associates</i>	<i>Royal Bank of Canada</i>
<i>Cambridge Associates</i>	<i>RVK</i>
<i>CapTrust</i>	<i>Segal Marco Advisors</i>
<i>Envestnet</i>	<i>SEI</i>
<i>Goldman Sachs Asset Management</i>	<i>Sellwood Consulting</i>
<i>Graystone Consulting</i>	<i>Sterling Capital Management, LLC</i>
<i>Invesco*</i>	<i>Truist Investment Advisory</i>
<i>Investment Performance Services, LLC (IPS)</i>	<i>UBS</i>
<i>Janney Montgomery Scott, LLC</i>	<i>The Vanguard Group</i>
<i>J.P. Morgan Asset Management*</i>	<i>Verus</i>
<i>Marquette Associates</i>	<i>Voya Investment Management*</i>
<i>Meketa Investment Group</i>	<i>Willis Towers Watson</i>
<i>Mercer</i>	<i>Wilshire</i>

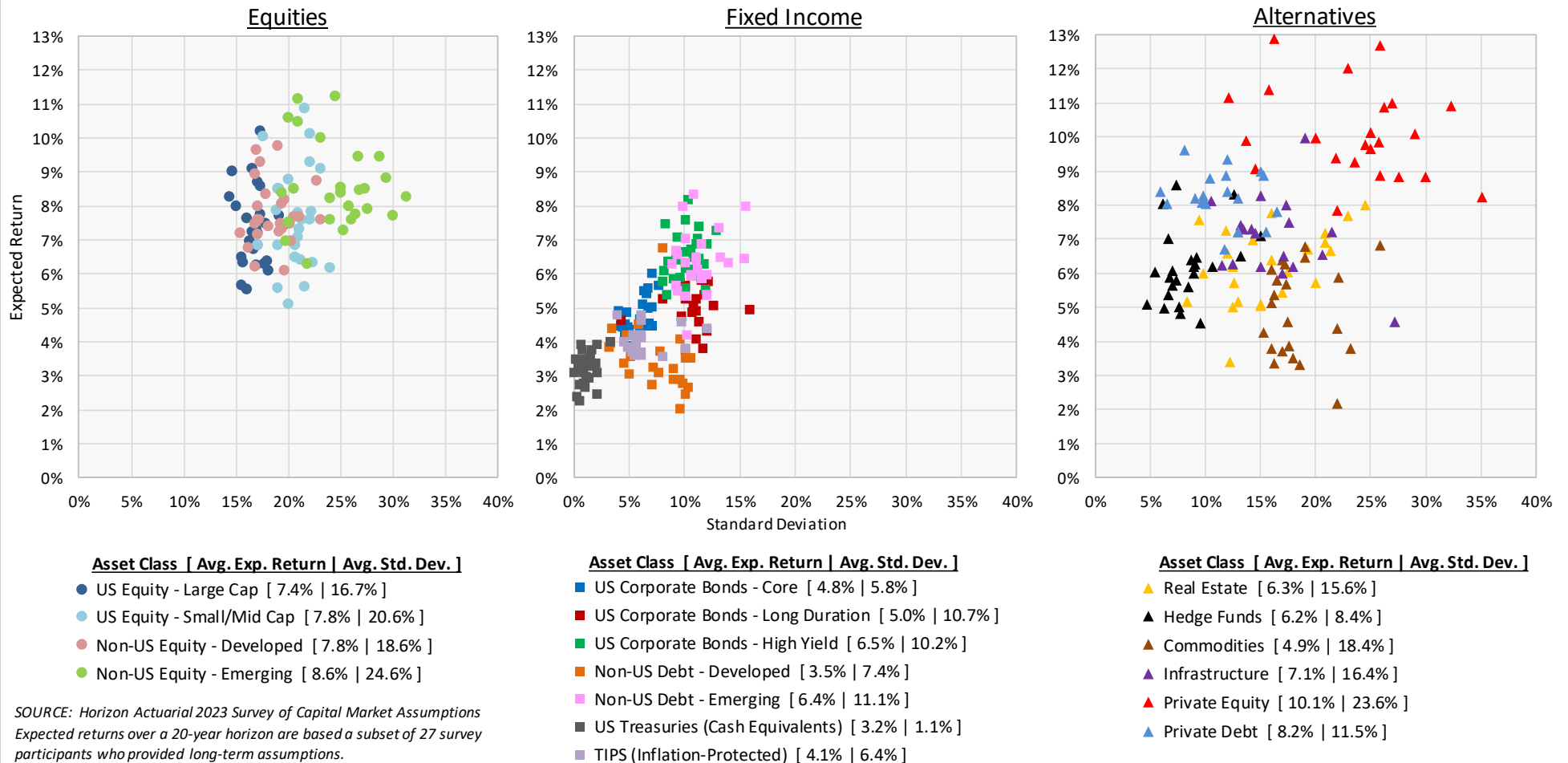
*Assumptions obtained from published white paper.

The full report can be found at www.horizonactuarial.com.

2023 Survey: Distribution of Assumptions (20-yr)

2023 Survey: Distribution of Expected Returns and Standard Deviations

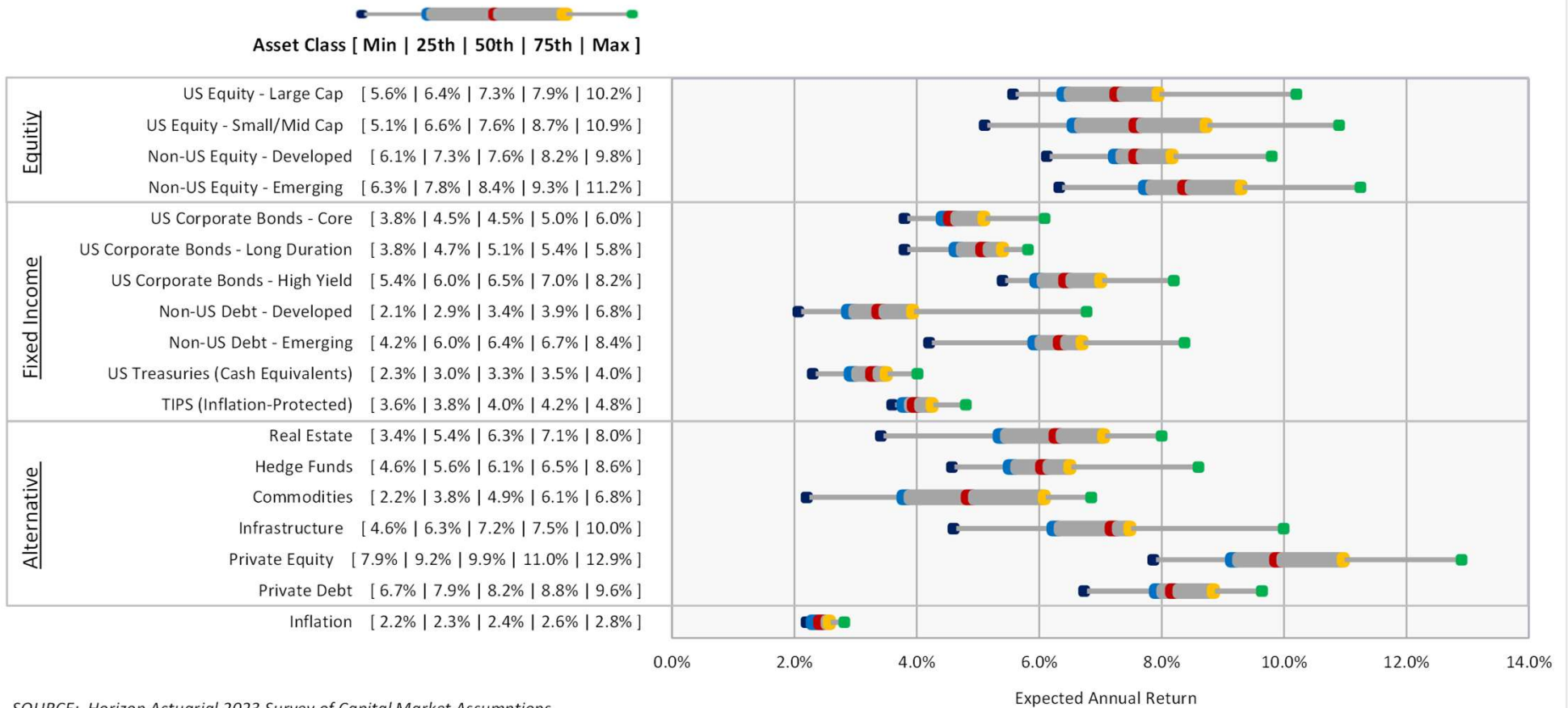
20-Year Horizon | Geometric Returns



The exhibit above shows a distribution based on a 20-year horizon for the subset of 27 advisors who provided longer-term assumptions. See the full report for a distribution based on a 10-year horizon which includes assumptions from all 42 participating advisors.

2023 Survey: Distribution of Expected Returns (20-yr)

2023 Survey: Expected Returns by Asset Class (20-Year Horizon)



SOURCE: Horizon Actuarial 2023 Survey of Capital Market Assumptions

Expected returns are annualized over 20 years (geometric), based on a subset of 27 advisors who provided longer term assumptions.

The exhibit above shows a distribution based on a 20-year horizon for the subset of 27 advisors who provided longer-term assumptions. See the full report for a distribution based on a 10-year horizon which includes assumptions from all 42 participating advisors.

2023 Survey: Average Assumptions

Horizon Actuarial 2023 Survey of Capital Market Assumptions Average Survey Assumptions

		Expected Returns				Standard Deviation	Correlation Matrix																
		10-Year Horizon		20-Year Horizon			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Asset Class		Arith.	Geom.	Arith.	Geom.																		
1	US Equity - Large Cap	8.19%	6.90%	8.67%	7.37%	16.64%	1.00																
2	US Equity - Small/Mid Cap	9.33%	7.38%	9.72%	7.75%	20.51%	0.89	1.00															
3	Non-US Equity - Developed	9.05%	7.49%	9.38%	7.78%	18.26%	0.81	0.77	1.00														
4	Non-US Equity - Emerging	10.86%	8.21%	11.39%	8.59%	23.87%	0.68	0.66	0.76	1.00													
5	US Corporate Bonds - Core	4.88%	4.71%	4.93%	4.76%	5.85%	0.26	0.22	0.24	0.24	1.00												
6	US Corporate Bonds - Long Duration	5.38%	4.80%	5.56%	5.00%	10.91%	0.25	0.21	0.24	0.21	0.86	1.00											
7	US Corporate Bonds - High Yield	6.91%	6.43%	7.03%	6.54%	10.01%	0.64	0.65	0.61	0.60	0.47	0.39	1.00										
8	Non-US Debt - Developed	3.71%	3.42%	3.81%	3.52%	7.31%	0.17	0.13	0.27	0.22	0.60	0.57	0.26	1.00									
9	Non-US Debt - Emerging	6.86%	6.29%	7.00%	6.40%	10.93%	0.50	0.47	0.53	0.60	0.55	0.48	0.61	0.43	1.00								
10	US Treasuries (Cash Equivalents)	3.39%	3.38%	3.23%	3.23%	1.09%	(0.06)	(0.07)	(0.05)	(0.04)	0.16	0.07	(0.05)	0.16	0.05	1.00							
11	TIPS (Inflation-Protected)	4.27%	4.07%	4.29%	4.08%	6.17%	0.14	0.11	0.15	0.18	0.64	0.57	0.32	0.49	0.40	0.16	1.00						
12	Real Estate	7.34%	5.95%	7.48%	6.25%	16.72%	0.56	0.55	0.50	0.42	0.25	0.24	0.45	0.18	0.38	(0.01)	0.19	1.00					
13	Hedge Funds	6.29%	5.96%	6.54%	6.18%	8.06%	0.68	0.69	0.68	0.64	0.24	0.21	0.60	0.14	0.48	(0.01)	0.16	0.43	1.00				
14	Commodities	6.53%	4.96%	6.55%	4.90%	18.02%	0.33	0.34	0.40	0.40	0.07	0.02	0.34	0.11	0.25	(0.02)	0.19	0.25	0.38	1.00			
15	Infrastructure	8.56%	7.00%	8.38%	7.06%	17.10%	0.64	0.60	0.60	0.54	0.29	0.32	0.54	0.24	0.45	(0.03)	0.21	0.47	0.52	0.38	1.00		
16	Private Equity	11.92%	9.46%	12.77%	10.13%	22.57%	0.73	0.71	0.66	0.60	0.16	0.17	0.50	0.12	0.39	(0.07)	0.08	0.45	0.60	0.30	0.55	1.00	
17	Private Debt	8.84%	8.16%	8.89%	8.24%	11.73%	0.51	0.52	0.49	0.46	0.14	0.16	0.61	0.06	0.36	(0.07)	0.08	0.35	0.54	0.29	0.42	0.54	1.00
	Inflation	2.56%	2.55%	2.47%	2.46%	1.90%																	

Expected returns over a 10-year horizon include all 42 survey participants.

Expected returns over a 20-year horizon are based a subset of 27 survey participants who provided long-term assumptions.

- Each of the assumption sets was given equal weight in determining the average assumptions.
- For reference, expected returns are shown over 10-year and 20-year horizons.
- Expected returns are also provided on both an arithmetic basis (one-year average) and geometric basis (multi-year annualized).
- The standard deviations (volatilities) and correlations apply to both arithmetic and geometric expected returns.

2023 Survey: Evaluating the Return Assumption

Industry & Local 338

2023 Survey of Capital Market Assumptions

Asset Class	Portfolio Weight	Average Survey Assumptions		
		10-Year Horizon	20-Year Horizon	Standard Deviation
US Equity - Large Cap	26.0%	6.90%	7.37%	16.64%
US Equity - Small/Mid Cap	3.0%	7.38%	7.75%	20.51%
Non-US Equity - Developed	20.0%	7.49%	7.78%	18.26%
Non-US Equity - Emerging	3.0%	8.21%	8.59%	23.87%
US Corporate Bonds - Core	14.5%	4.71%	4.76%	5.85%
US Corporate Bonds - Long Duration	7.0%	4.80%	5.00%	10.91%
US Corporate Bonds - High Yield	4.0%	6.43%	6.54%	10.01%
Non-US Debt - Developed		3.42%	3.52%	7.31%
Non-US Debt - Emerging	4.0%	6.29%	6.40%	10.93%
US Treasuries (Cash Equivalents)		3.38%	3.23%	1.09%
TIPS (Inflation-Protected)		4.07%	4.08%	6.17%
Real Estate	7.0%	5.95%	6.25%	16.72%
Hedge Funds		5.96%	6.18%	8.06%
Commodities		4.96%	4.90%	18.02%
Infrastructure		7.00%	7.06%	17.10%
Private Equity	11.5%	9.46%	10.13%	22.57%
Private Debt		8.16%	8.24%	11.73%
Inflation	N/A	2.55%	2.46%	1.90%
TOTAL PORTFOLIO	100.0%	Expected returns are geometric.		

Considerations and Limitations

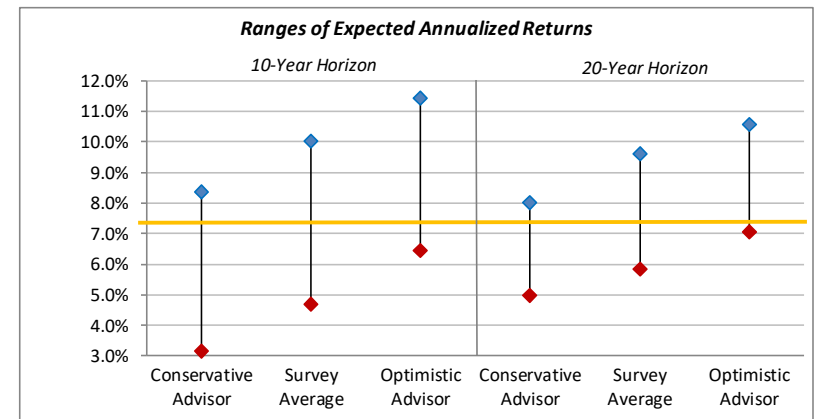
- Allocations may be approximated if certain asset classes are not included in the survey.
- Many investment advisors provided only shorter-term assumptions (10 years or less).
- Assumptions are generally based on indexed returns and do not reflect anticipated alpha.
- Assumptions do not reflect investment opportunities or fee considerations available to larger funds.

SOURCE: Horizon Actuarial 2023 Survey of Capital Market Assumptions

Expected returns over a 10-year horizon include all 42 survey participants.

Expected returns over a 20-year horizon are based a subset of 27 survey participants who provided long-term assumptions.

	10-Year Horizon			20-Year Horizon		
	Conservative Advisor	Survey Average	Optimistic Advisor	Conservative Advisor	Survey Average	Optimistic Advisor
Expected Returns						
Average Annual Return (Arithmetic)	6.44%	8.06%	9.53%	6.95%	8.42%	9.41%
Annualized Return (Geometric)	5.74%	7.34%	8.91%	6.48%	7.70%	8.79%
Annual Volatility (Standard Deviation)	12.22%	12.52%	11.68%	9.99%	12.46%	11.68%
Range of Expected Annualized Returns						
75th Percentile	8.34%	10.01%	11.40%	7.99%	9.58%	10.55%
25th Percentile	3.13%	4.67%	6.42%	4.97%	5.82%	7.03%
Probabilities of Exceeding Certain Returns						
7.50% per Year, Annualized	32.4%	48.4%	64.9%	32.4%	52.9%	68.9%
7.25% per Year, Annualized	34.8%	50.9%	67.3%	36.5%	56.5%	72.2%
7.00% per Year, Annualized	37.2%	53.4%	69.7%	40.8%	60.0%	75.3%



The exhibit above evaluates the investment return assumption for the portfolio shown above (highlighted in yellow). Note that the most conservative and optimistic advisors for the 10-year horizon are not necessarily the same as the most conservative and optimistic advisors for the 20-year horizon.

Changes in Expected Returns

- **Average assumptions change each year**

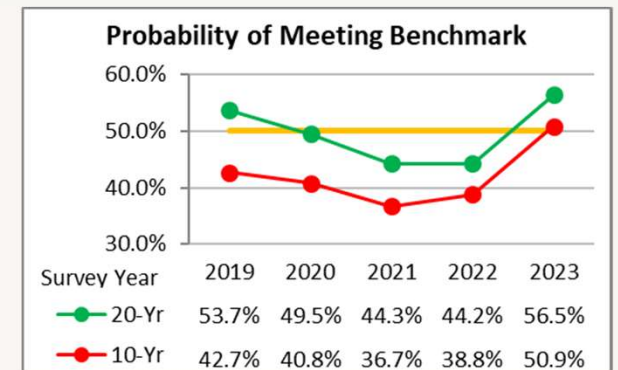
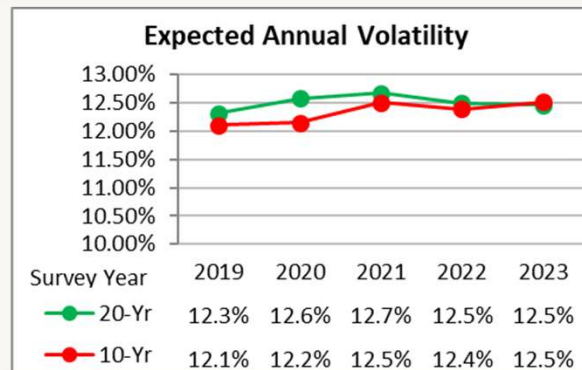
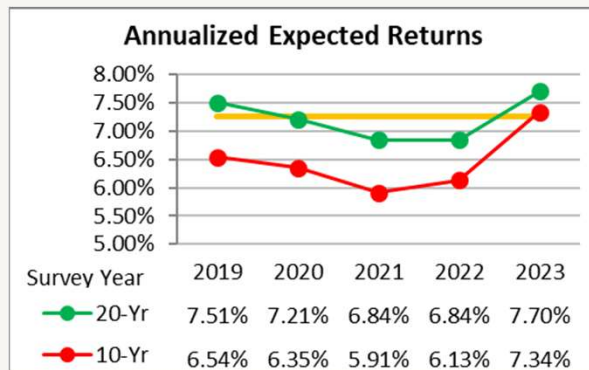
- Mostly driven by changing return expectations
- Changes in survey participants is also a factor

- **Focus on sustained trends**

- It is generally not appropriate to change the investment return assumption each year
- More appropriate to consider sustained trends when evaluating and updating assumption

- **The following graphs show the survey average results for the past five years**

- Changes in individual plan results shown below may also be driven by changes in asset allocation



Preliminary July 1, 2023 Actuarial Valuation

2023 PPA Certification

- **The Plan was certified as in the “Green Zone” for the July 1, 2023 – June 30, 2024 Plan Year on September 27, 2023**
 - Projected Funded % at 7/1/2023 = 96.7%
 - Uses Actuarial Value of Assets
 - No projected funding deficiency in the projection period
- **Basis of the certification:**
 - Preliminary market value of assets based on 9.84% return for the plan year ending June 30, 2023 provided by SEI, then earning 7.25% in all future years
 - Projected liabilities based on results of the July 1, 2022 actuarial valuation, including a 7.25% interest rate
 - Projected Contributions
 - Only contribution rate increases already included in CBAs as of the certification date are recognized
 - Reflects 9,600 weeks in all future years, based on input from the Trustees at the June 28, 2023 Board Meeting

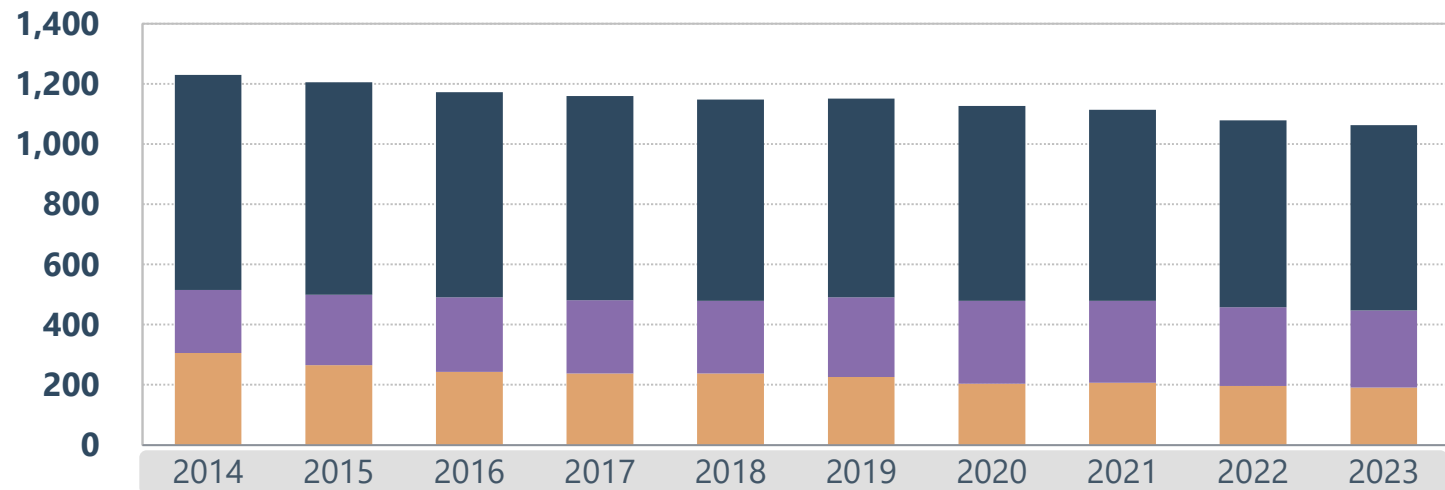
Purpose of the Valuation

- **Determine**
 - Whether negotiated contributions adequately fund benefits
 - The minimum required and maximum deductible contributions for the plan year
 - The unfunded vested liability for computation of withdrawal liability
 - The contribution margin for the plan year
 - The benefit liabilities for the next status certification under PPA
 - The benefit liabilities and assets are the basis of any benefit or contribution study
- **Review & Establish**
 - Actuarial assumptions in view of recent experience

Participation

*Preliminary Valuation
Results as of July 1, 2023*

**Industry & Local 338 Pension Plan
Participation as of the Valuation Date**



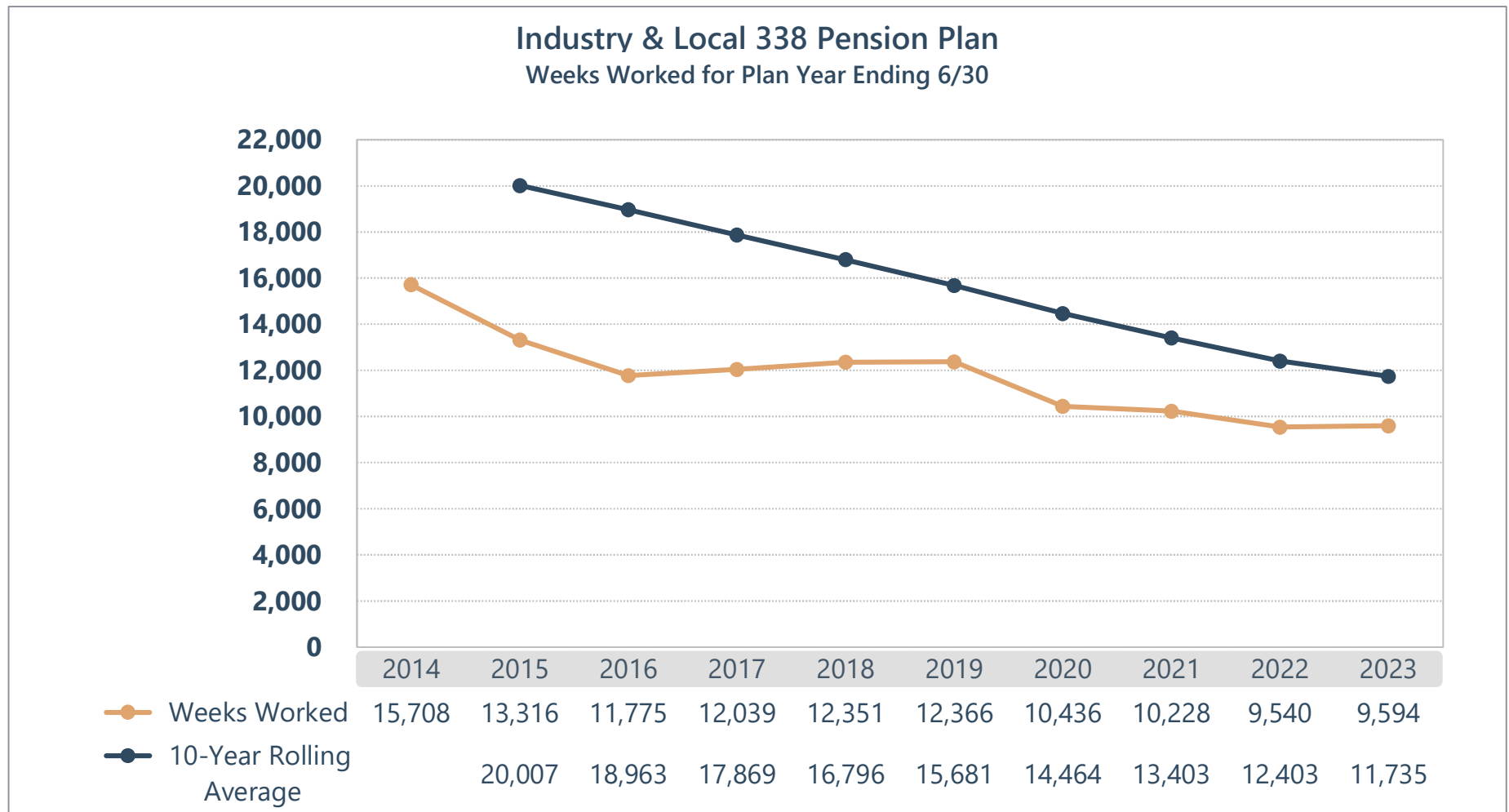
Retirees & Beneficiaries	714	706	683	677	667	659	646	634	622	615
Inactive Vested Participants	210	234	247	244	242	265	276	272	261	256
Active Participants	306	265	243	238	238	226	204	207	196	192
Total Participants	1,230	1,205	1,173	1,159	1,147	1,150	1,126	1,113	1,079	1,063
Ratio of Inactives to Actives	3.02	3.55	3.83	3.87	3.82	4.09	4.52	4.38	4.51	4.54

Notes

- 1) All participants of Crowley Foods (Binghamton) were considered Inactive as of July 1, 2015.
- 2) All participants of Culinarart are considered Inactive as of July 1, 2019
- 3) All participants of College of New Rochelle are considered Inactive as of July 1, 2020 (withdrawn August 9, 2019).
- 4) Retiree and Beneficiary counts above exclude Alternate Payees awarded plan benefits under a QDRO.

Weeks Worked

*Preliminary Valuation
Results as of July 1, 2023*

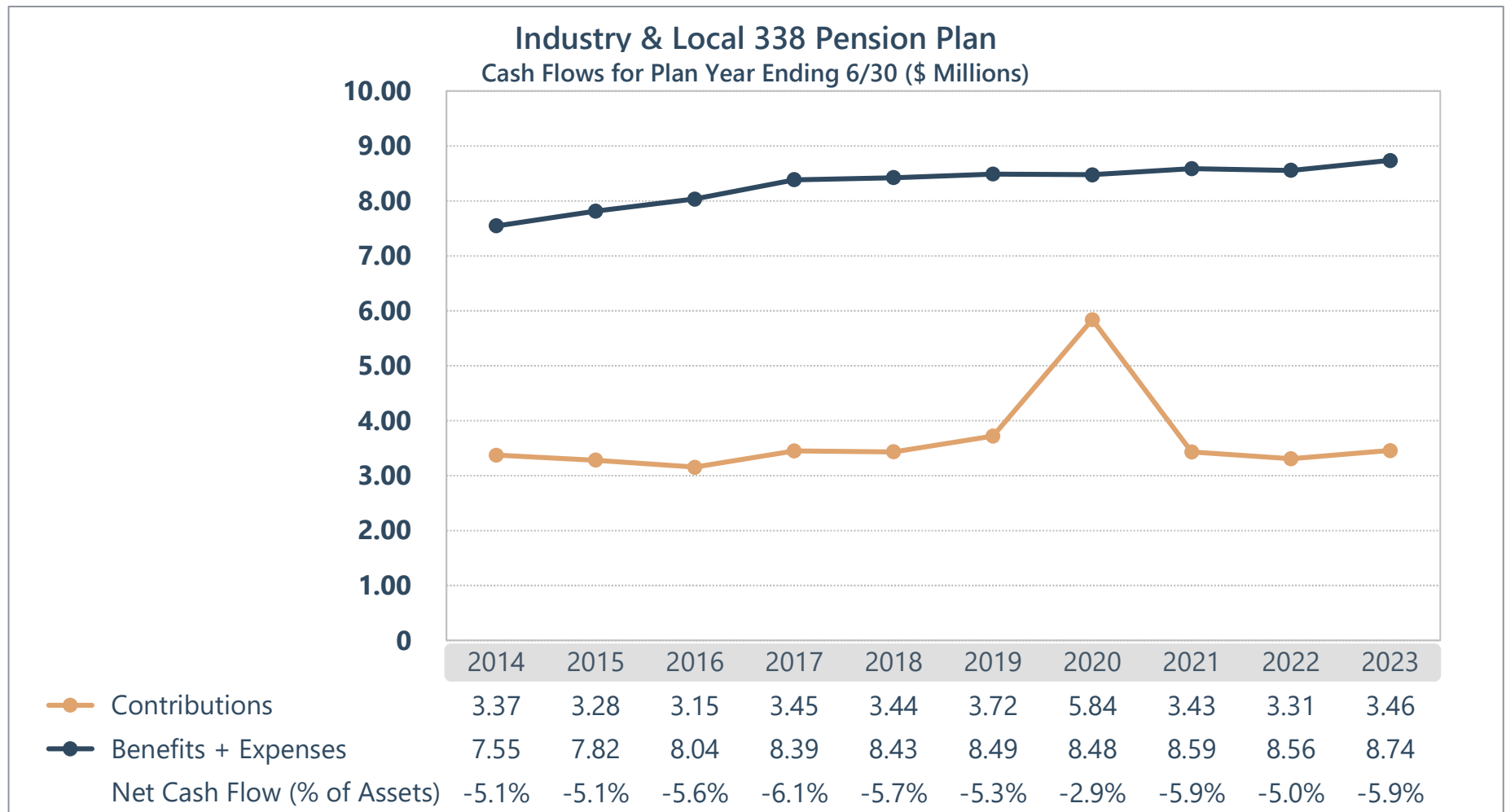


Notes

- 1) The Rolling 10-Year Average shown represents the annual average weeks worked for the 10 plan years ending on each respective valuation date.

Cash Flows

*Preliminary Valuation
Results as of July 1, 2023*

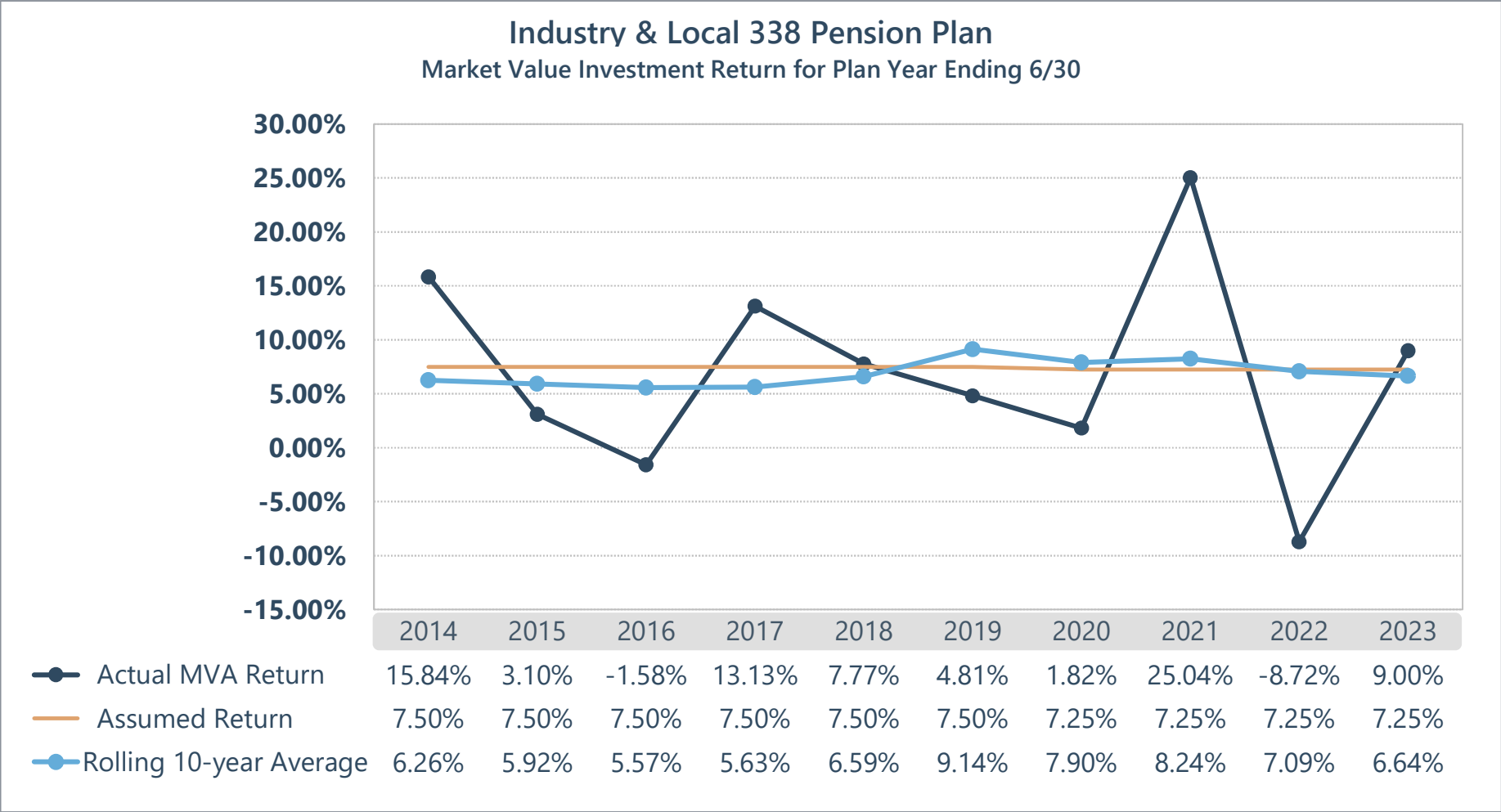


Notes

1) Contributions include withdrawal liability payments.

Investment Returns

Preliminary Valuation
Results as of July 1, 2023



Notes

- 1) The Rolling 10-year Average shown represents the annual average geometric return for the 10 plan years ending on each respective valuation date.



Summary of Preliminary Valuation Results

- **Active Experience**

- Number of actives decreased from 196 as of July 1, 2022 to 192 as of July 1, 2023.
- Participants classified as active for the July 1, 2023 valuation worked 8,954 total weeks in the plan year ending June 30, 2023.

- **Market Value of Assets**

- At \$8.1 million, the net investment return for the plan year ending June 30, 2023 was 9.00% (1.75% more than the 7.25% assumed return).
- This resulted in a market value gain from investments of approximately \$1.6 million, relative to the 7.25% assumption.

- **Liability Gain**

- Approximately \$1,100,000 or about 1.1% of total plan liabilities.
 - This is primarily attributable to more retiree deaths than expected.
- We will continue to monitor the assumptions to make sure they are reasonable both in the aggregate and on an individual basis.

Items Impacting Current Valuation Results

- **Plan Changes**
 - None
- **Assumption Changes**
 - Inactive Vested participants over the age of 72 are excluded from the valuation.
 - In the prior valuation the assumption was Inactive Vested participants were excluded over the age of 70
 - The impact of this change was an increase in Actuarial Accrued Liability of approximately \$186,000.
- **Method Change**
 - None

Items Impacting Current Valuation Results

- **Contribution Income**

- Expected \$3.1 million in contributions, financial statements show \$3.3 million received (excluding withdrawal liability payments)
- Total weeks worked equaled 9,594 during the plan year ending June 30, 2023 (compared to 9,600 assumed)
 - 8,954 weeks for participants classified as active for the July 1, 2023 valuation
 - 640 weeks for other participants
- The average contribution rate for the Plan increased to roughly \$335/week for the plan year beginning July 1, 2023. The average contribution rate was roughly \$325/week for the plan year beginning July 1, 2022.
 - The plan remains sensitive to population changes amongst employers

Participant Reconciliation

*Preliminary Valuation
Results as of July 1, 2023*

Reconciliation of Participants by Status						
	Active	Inactive Vested	Non-Disabled Retirees	Disabled Retirees	Beneficiaries	Total
A. Count as of July 1, 2022	196	261	481	18	123	1,079
B. Status Changes During Plan Year						
1. Nonvested Terminations	(14)					(14)
2. Vested Terminations	(11)	11				0
3. Retirement	(6)	(12)	18			0
4. Disabled						0
5. Deceased	(1)	(2)	(35)	(1)	(10)	(49)
6. Certain Period Ended						0
7. Lump Sum						0
8. Rehires	2	(1)				1
9. New Entrants	26					26
10. New Beneficiaries					21	21
11. Net Adjustments		(1)				(1)
Net Increase (Decrease)	(4)	(5)	(17)	(1)	11	(16)
C. Count as of July 1, 2023	192	256	464	17	134	1,063

Notes

1) Counts exclude 11 Alternate Payees as July 1, 2023 and 11 Alternate Payees as of July 1, 2022.

Participant Demographic Summary

*Preliminary Valuation
Results as of July 1, 2023*

Measurement Date	July 1, 2023		July 1, 2022	
A. Active Participants				
1. Count		192		196
2. Average Age		46.2		46.0
3. Average Credited Service		11.3		11.6
4. Average Prior Year Weeks		46.6		46.2
5. Average Monthly Accrued Benefit	\$	1,468	\$	1,462
B. Inactive Vested Participants				
1. Count		256		261
2. Average Age		53.2		53.1
3. Average Monthly Accrued Benefit	\$	1,147	\$	1,148
C. Retired Participants and Beneficiaries				
1. Count		615		622
2. Average Age		74.9		74.9
3. Average Monthly Benefit	\$	1,105	\$	1,081

Notes

1) Retiree and Beneficiary counts above exclude Alternate Payees awarded plan benefits under a QDRO.



Summary of Key Results

*Preliminary Valuation
Results as of July 1, 2023*

Measurement Date	July 1, 2023	July 1, 2022
A. Normal Cost		
1. Cost of Benefit Accruals	\$ 928,209	\$ 930,164
2. Assumed Operating Expenses	361,882	361,882
3. Total	\$ 1,290,091	\$ 1,292,046
B. Actuarial Accrued Liability		
1. Active Participants	\$ 13,191,980	\$ 14,340,128
2. Inactive Vested Participants	16,524,165	16,436,865
3. Retired Participants and Beneficiaries	76,750,036	76,523,824
4. Total	\$ 106,466,181	\$ 107,300,817
C. Assets		
1. Market Value of Assets	\$ 95,399,699	\$ 92,586,065
Prior Year Net Investment Return	9.0%	-8.7%
2. Actuarial Value of Assets	\$ 104,132,817	\$ 105,907,526
Prior Year Net Investment Return	3.4%	4.1%
D. Funded Percentages		
1. Market Value Funded Percentage (C.1. / B.4.)	89.6%	86.2%
2. Actuarial Value Funded Percentage (C.2. / B.4.)	97.8%	98.7%



Contribution Margin

*Preliminary Valuation
Results as of July 1, 2023*

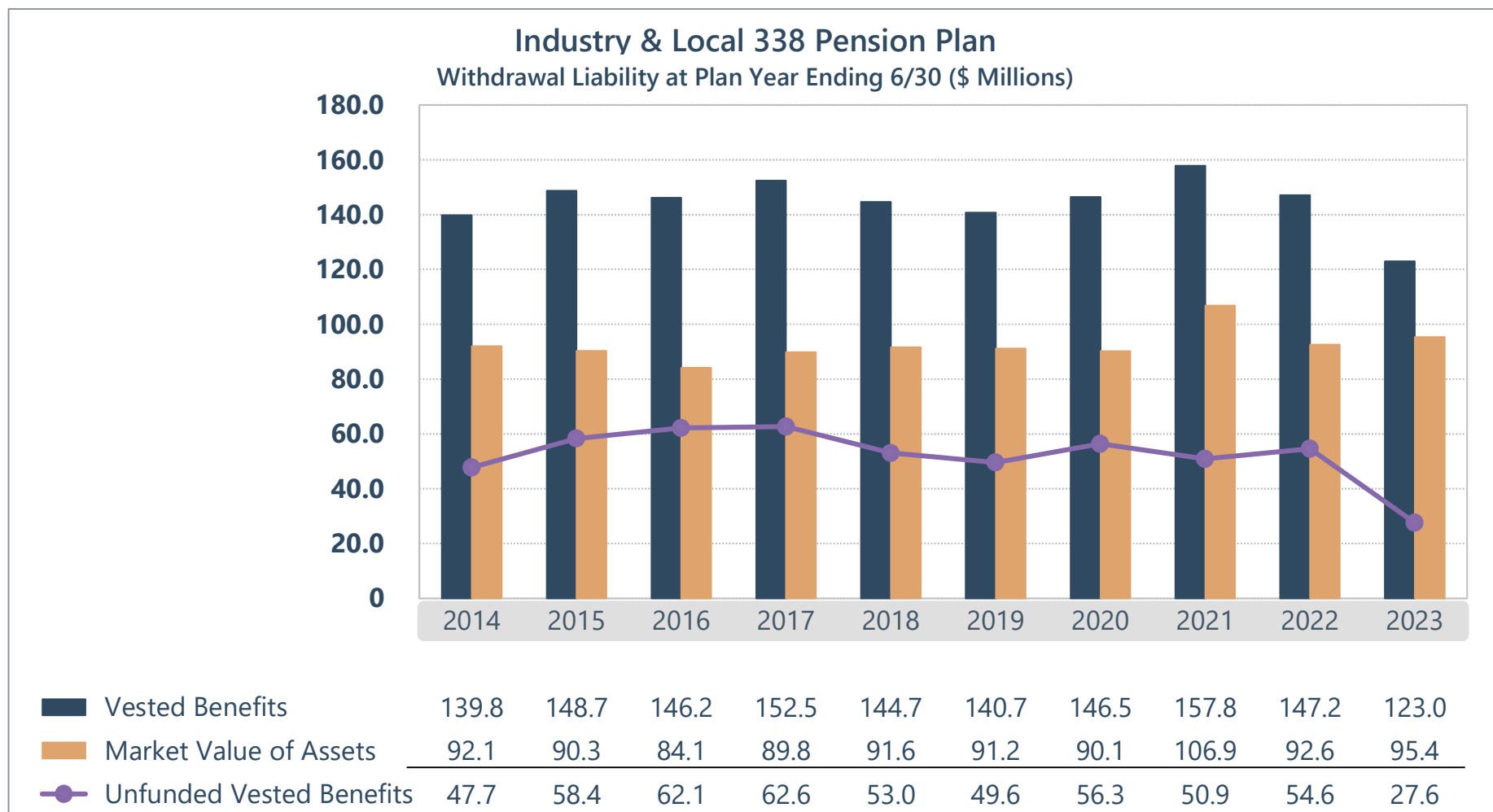
Measurement Date	July 1, 2023	July 1, 2022
A. Unfunded Actuarial Accrued Liability		
1. Actuarial Accrued Liability	\$ 106,466,181	\$ 107,300,817
2. Market Value of Assets	95,399,699	92,586,065
3. Unfunded Liability	\$ 11,066,482	\$ 14,714,752
B. Actuarial Cost		
1. Normal Cost		
a. Cost of Benefit Accruals	\$ 961,857	\$ 963,882
b. Assumed Operating Expenses	375,000	375,000
c. Total	\$ 1,336,857	\$ 1,338,882
2. Unfunded Liability Amortization Payment	1,540,003	2,047,693
3. Total Actuarial Cost for Plan Year	\$ 2,876,860	\$ 3,386,575
C. Expected Employer Contributions		
1. Expected Weeks	9,600	9,600
2. Average Contribution Rate per Week	\$ 334.56	\$ 325.35
3. Expected Contributions	\$ 3,211,776	\$ 3,123,375
D. Contribution Margin		
1. Contribution Margin for Plan Year	\$ 334,916	\$ (263,200)
2. Contribution Margin per Week	\$ 34.89	\$ (27.42)

Notes

- 1) The actuarial costs in B. above include an include interest adjustments to reflect payments throughout the year.
- 2) The Unfunded Liability Amortization Period is 10 years.

Withdrawal Liability

*Preliminary Valuation
Results as of July 1, 2023*



Notes

- 1) The value of vested benefits is determined using a blend of the valuation interest rate and PBGC termination rates
- 2) Vested Benefits as of 6/30/2018 reflects reductions in adjustable benefits required by the Rehabilitation Plan that must be disregarded for withdrawal liability purposes. The value of adjustable benefits is \$10.2 million as of 6/30/2023.

Updated Funding Projections

Projection Assumptions and Methods

- **Unless otherwise stated, the projection assumptions, methods, data and plan provisions used are the same as those used for the July 1, 2023 actuarial valuation.**
 - No future expected gains or losses other than those attributable to investment returns, as applicable.
- **Investment Earnings**
 - 7.25% per year, net of investment-related expenses, thereafter unless otherwise noted
- **Operating Expenses**
 - \$375,000 for the plan year beginning July 1, 2023, increasing 3.0% per year
- **Work Levels**
 - Plan year beginning July 1, 2023 and later: 9,600 total weeks, unless otherwise noted
- **Contribution Rates**
 - Included in Collective Bargaining Agreements as bargained
- **Withdrawal Liability Income**
 - Reflects expected payments from employers withdrawn before July 1, 2023
 - Approximately \$183,000 per year for 10 years

Other assumptions may be reasonable and could produce different results. Other risks can negatively impact the funded status of the plan such as participants living longer than assumed. Additional scenarios available upon request.

Projection Assumptions and Methods (cont.)

- **Contracts**

- 85% of hours worked under contracts beginning that are expected to renew in PYB 2023
 - HP Hood, expiration September 30, 2023
 - FrieslandCampina, expiration December 31, 2023
 - Montefiore New Rochelle, expiration November 5, 2023
 - Paraco, expiration January 31, 2024
- 15% of hours worked under contracts beginning that are expected to renew in PYB 2025
 - LP Transport, expires August 15, 2025
 - Westchester Local 860, expires September 30, 2025

Other assumptions may be reasonable and could produce different results. Other risks can negatively impact the funded status of the plan such as participants living longer than assumed. Additional scenarios available upon request.

Projection Roadmap

Scenario	Investment Return PYB 2022 / PYB 2023/ PYB 2024+	Weeks Worked PYB 2023+	Funded % / Credit Bal (\$M) PYB 2024	Future Zone Status Changes	100% Funded PYB	% Funded 7/1/2042	Credit Balance (\$M) 6/30/2042
1 July 1, 2023 Valuation	9.00% 2022 / 7.25% thereafter	9,600	96% / \$12	Green	2030	138%	\$40
2 Lower Hours	9.00% 2022 / 7.25% thereafter	9,150 (5% lower)	96% / \$12	Green	2031	134%	\$35
3 ROA PYB 2023 That Results in Non-Green 2024	9.00% 2022 / -13.00% 2023 / 7.25% thereafter	9,600	87% / \$11	Yellow 2026 Red 2030	N/A	63%	(\$31)
4 3.75% Per Year Contribution Increases	9.00% 2022 / -13.00% 2023 / 7.25% thereafter	9,600	87% / \$11	Yellow 2027 Red 2033	N/A	95%	\$1

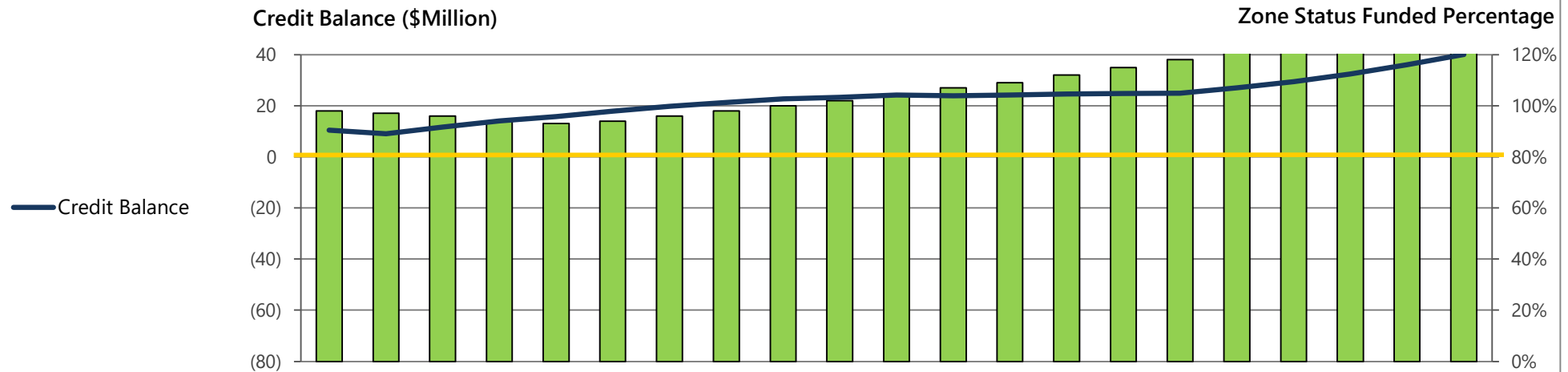
Notes:

- Scenario 4 Contribution Increases begin 7/1/2024

Scenario 1: July 1, 2023 Valuation

9.00% Return PYB 2022; 7.25% Return PYB 2023+ | 9.6 Thousand Weeks Worked beginning PYB 2023+

Industry And Local 338 Pension Plan



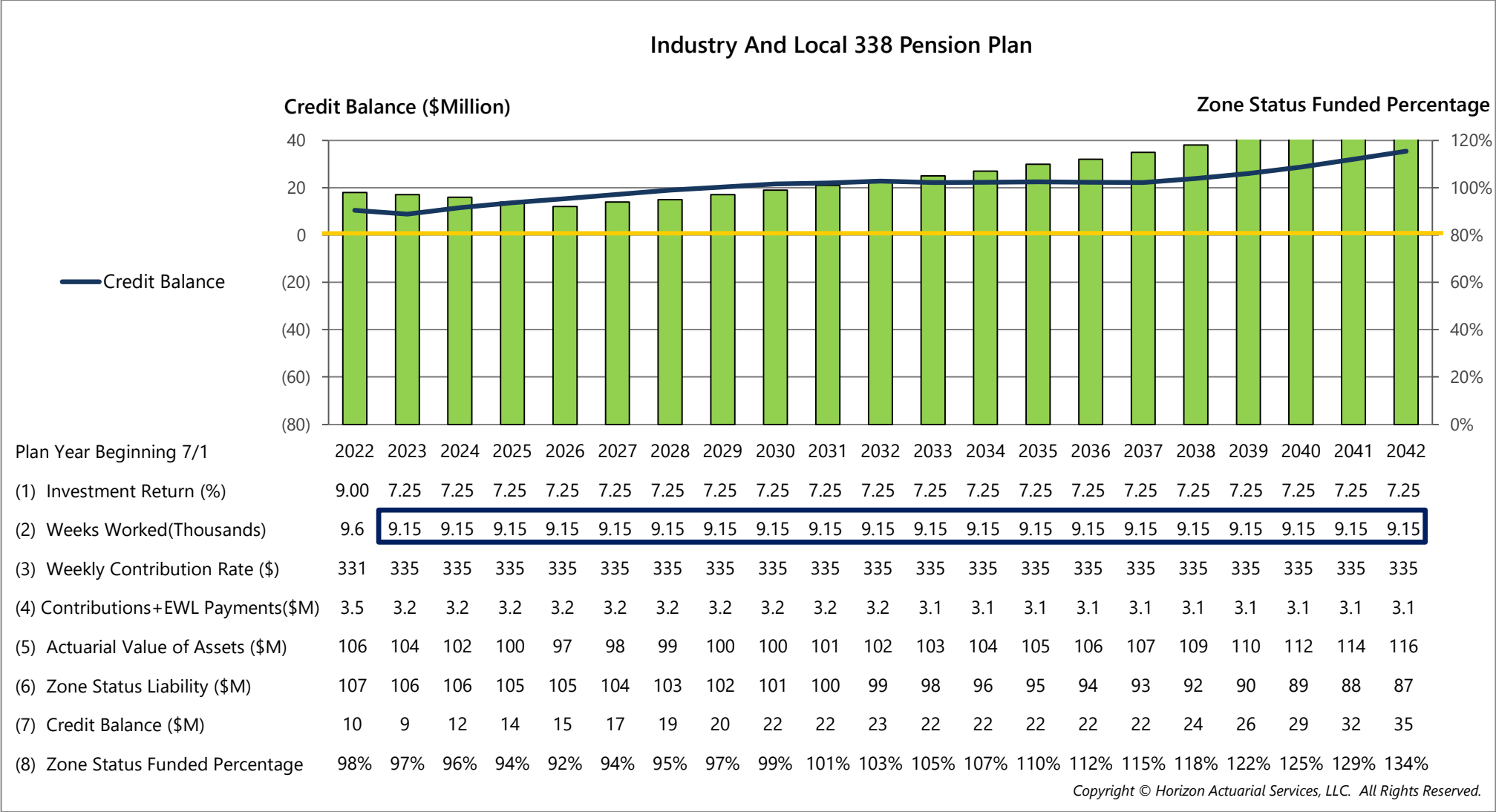
Plan Year Beginning 7/1

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
(1) Investment Return (%)	9.00	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25
(2) Weeks Worked(Thousands)	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
(3) Weekly Contribution Rate (\$)	331	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335
(4) Contributions+EWL Payments(\$M)	3.5	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
(5) Actuarial Value of Assets (\$M)	106	104	102	100	98	99	100	101	102	103	104	105	106	108	109	111	113	115	117	119	122
(6) Zone Status Liability (\$M)	107	106	106	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92	90	89	88
(7) Credit Balance (\$M)	10	9	12	14	16	18	20	21	23	23	24	24	24	25	25	25	27	29	33	36	40
(8) Zone Status Funded Percentage	98%	97%	96%	94%	93%	94%	96%	98%	100%	102%	104%	107%	109%	112%	115%	118%	121%	125%	129%	133%	138%

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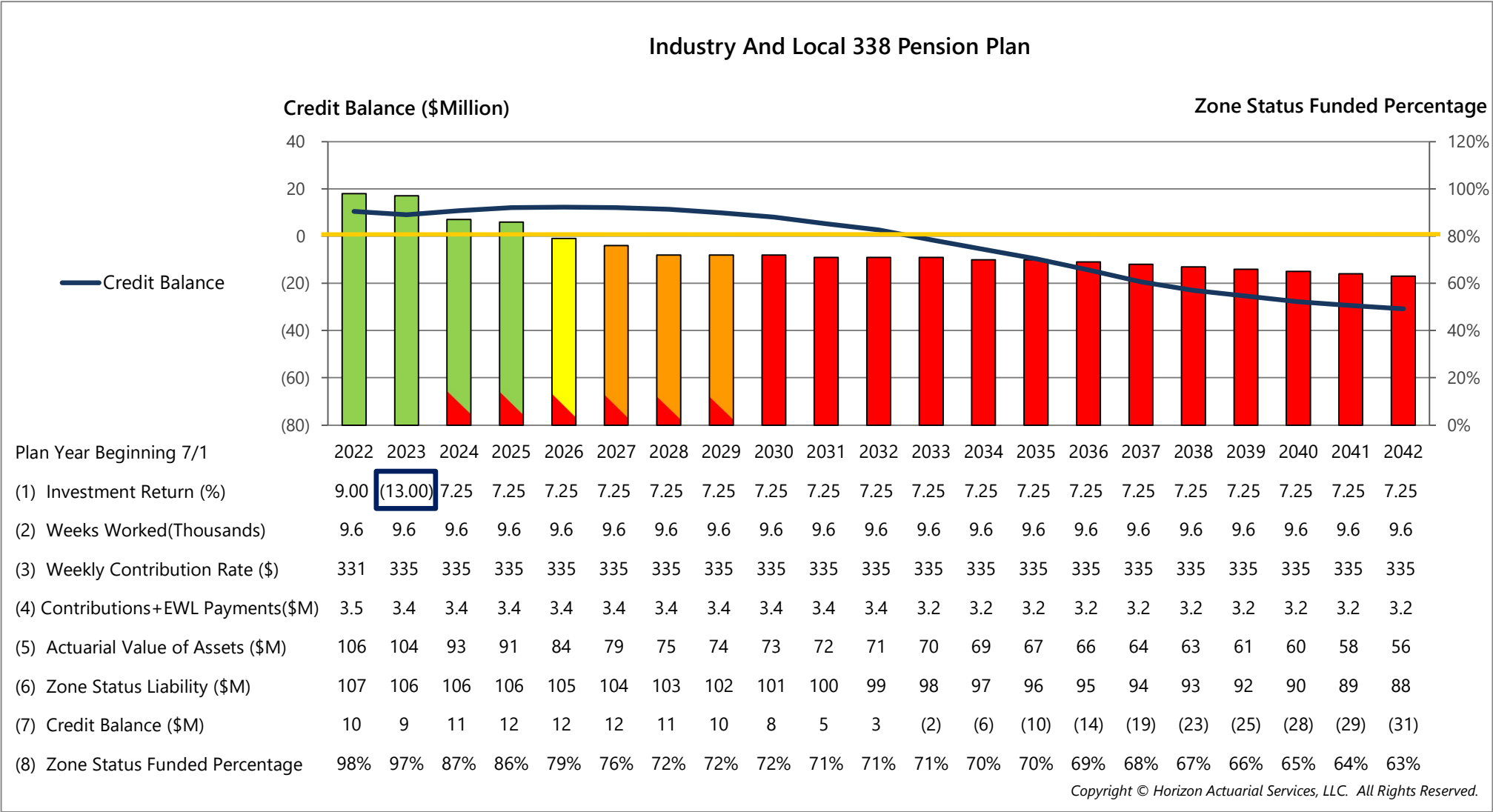
Scenario 2: Low Weeks Worked

9.00% Return PYB 2022; 7.25% Return PYB 2023+ | 9.15 Thousand Weeks Worked beginning PYB 2023



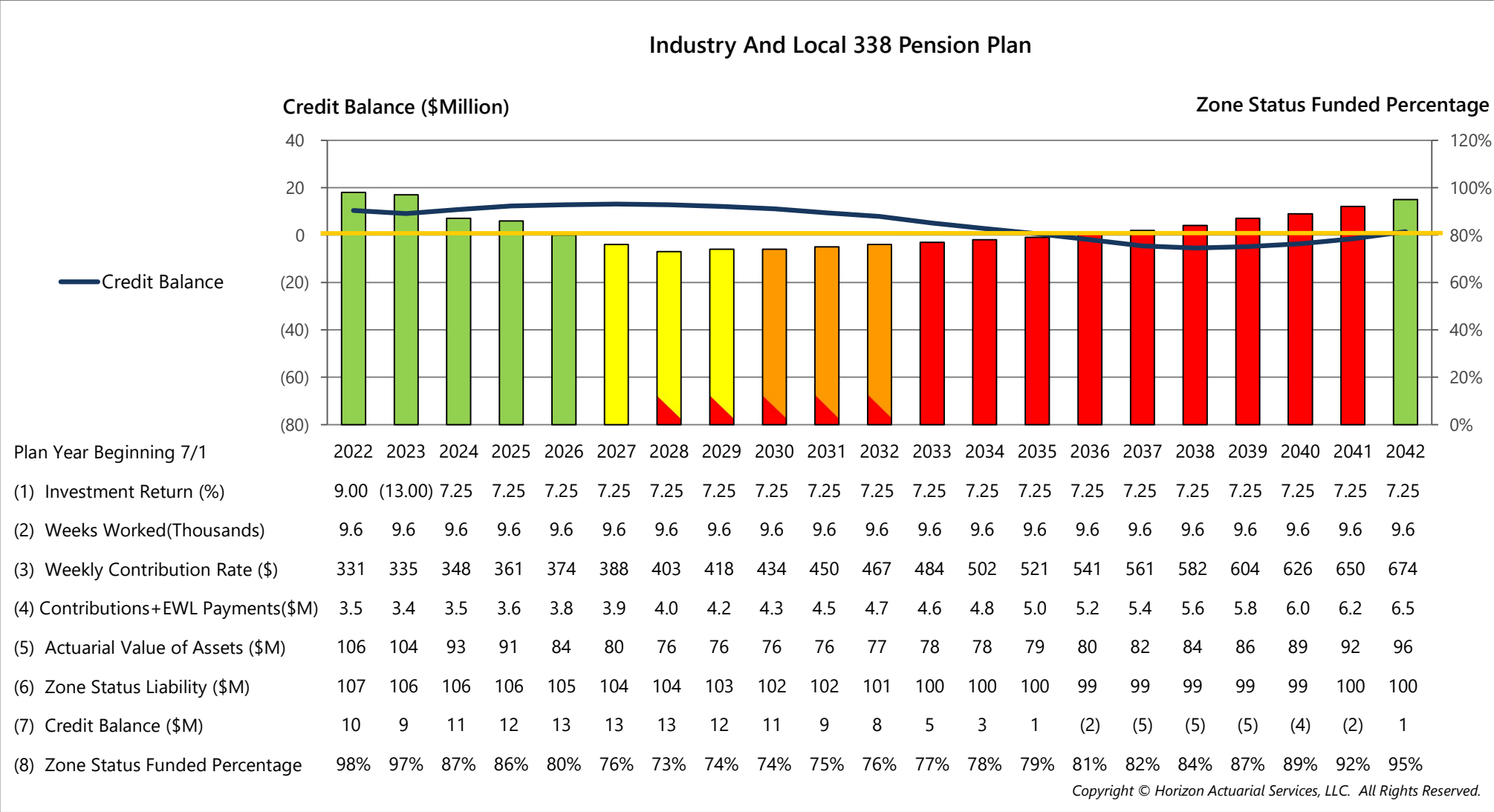
Scenario 3: Low 2023 ROA That Results in Non-Green 2024

-13.00% Return in PYB 2023; 7.25% Return PYB 2024+ | 9.6 Thousand Weeks Worked beginning PYB 2023



Scenario 4: 3.75% Per Year Contribution Increases

-13.00% Return in PYB 2023; 7.25% Return PYB 2023+ | 9.6 Thousand Weeks Worked beginning PYB 2023
3.75% per year increase in Contribution Rate beginning 7/1/2024



Observations

- **The Plan remains sensitive to both investment return and contributions**
 - A further decrease in hours as demonstrated in Scenario 2 will remove some of the Plan's ability to handle investment volatility
 - Scenario 3 demonstrates how the Plan may encounter zone status issues in the future
 - Absent investment returns above those assumed, an increase in contributions of 3.75% annually would be required to recover from such a one-time investment loss, as demonstrated in Scenario 4
- **Long term funding improvement is compromised if investment returns are less than assumed or if contributions levels fall**
 - Investment returns for the current plan year are below the assumed rate of return
 - We continue to monitor movements in the outlook for future investment returns reported by investment professionals

Appendix

Contribution Rate Summary

Employer	Contract Expiration Date	As of 7/1/2021		As of 7/1/2022		As of 7/1/2023	
		Active Count (Valn Data)	Total Wkly Contrib Rate	Active Count (Valn Data)	Total Wkly Contrib Rate	Active Count (Valn Data)	Total Wkly Contrib Rate
HP Hood / Crowley	9/30/2023	94	342.58	89	345.38	91	346.80
Freisland Campina	12/31/2023	65	281.24	58	290.00	51	299.02
LP Transport	8/15/2025	27	340.53	28	349.82	30	349.82
Montefiore New Rochelle	11/5/2023	13	311.41	14	333.99	13	358.52
Paraco Gas	1/31/2024	7	292.51	6	301.53	5	310.82
Westchester L860	9/30/2025	1	243.28	1	305.14	2	329.19
Total		207		196		192	

Notes

- 1) All contributions are benefit-bearing, effective beginning July 1, 2016.
- 2) Contribution rates shown above are as reported by Plan Administrator.

Plan Historical Risk Measures

- **The Plan is mature**
 - High negative net cash flow
 - High number of inactive participants supported by each active participant

Historical Plan Measures

<u>Plan Year Ended June 30</u>	<u>Net Cash Flow % Market Value</u>	<u># Active</u>	<u>Inactive to Active Liability Ratio</u>	<u>Total Liability per Active</u>	<u>Unfunded per Active</u>	<u>Contributions Incl Wdl Liab</u>	<u>Contrib per Active</u>
2023	-5.9%	192	7.1	\$ 554,511	\$ 57,638	\$ 3,457,464	\$ 18,008
2022	-5.0%	196	6.5	547,453	75,075	3,306,650	16,871
2021	-5.9%	207	6.3	515,419	-	3,432,621	16,583
2020	-2.9%	204	6.9	520,003	78,095	5,839,691	28,626
2019	-5.3%	226	6.3	468,149	64,821	3,721,091	16,465
2018	-5.7%	238	5.9	430,222	45,228	3,435,385	14,434
2017	-6.1%	238	3.9	476,419	98,968	3,448,566	14,490
2016	-5.6%	243	3.9	456,389	110,458	3,152,597	12,974
2015	-5.1%	265	3.6	413,283	72,394	3,282,076	12,385
2014	-5.1%	306	2.7	349,703	48,774	3,372,931	11,023
10-Year Average	-5.3%	232	5.3	473,156	65,145	3,644,907	

Summary of Assumptions and Methods

Assumption or Method	Description of Assumption or Method
Interest Rate	7.25% per annum
Plan Year	The twelve-month period beginning July 1 and ending June 30.
Mortality	Non-Disabled: Non-annuitant: 125% of the sex-distinct RP-2014 Blue Collar Employee Mortality Table Annuitant: 125% of the sex-distinct RP-2014 Blue Collar Annuitant Mortality Table Disabled: 125% of the sex-distinct RP-2014 Disabled Mortality Tables All mortality tables are adjusted to future years using generational projection under Scale MP-2014 to anticipate future mortality improvement.
Active Participant	Active participants are defined as those with at least two months of employment in the most recent plan year and who have accumulated at least one pension credit, excluding those who have retired as of the valuation date and those who work for an employer that has withdrawn from the Plan on or before the valuation date.
Exclusion of Inactive Vested Participants	Inactive participants over age 72 are excluded from the valuation.
Operating Expenses	Operating expenses were assumed to be \$375,000 for the plan year beginning July 1, 2023 (equivalent to \$361,882 payable at the beginning of the year).

Summary of Assumptions and Methods

Assumption or Method	Description of Assumption or Method		
Retirement Rates	Age (if eligible for retirement)	Retirement Rate	
	55-59	10%	
	60-61	20%	
	62	75%	
	63-65	50%	
	66-69	25%	
	70	100%	
Inactive Vested Commencement	Retirement is assumed to occur at age 65 for participants with fewer than 15 pension credits, and at the later of current age or age 55 for participants with at least 15 pension credits.		
Sample Rates (before Retirement)	Age	Disability Rate (%)	Withdrawal Rate (%) (until earliest eligibility for a pension)
	20	0.05	6.58
	25	0.05	5.27
	30	0.05	4.83
	35	0.06	4.47
	40	0.09	3.84
	45	0.18	3.21
	50	0.40	1.52
	55	0.85	0.33
	60	1.74	0.00

Summary of Assumptions and Methods

Assumption or Method	Description of Assumption or Method
<i>Weeks (Hours) Worked</i>	For the plan year beginning July 1, 2023 each active participant is assumed to work 49 weeks (1,960 hours) per year. For the plan year beginning July 1, 2022 the assumption was 49 weeks (1,960 hours) per active participant per year.
<i>Future Benefit Accruals</i>	One pension credit per plan year.
<i>Contribution Income</i>	For the purpose of projecting future contribution income, it is assumed contributions are earned based on the assumed number of weeks worked for participants multiplied by the expected contribution rate. Participants are assumed to continue to work for the employer reported in the data and at the rate required by that employer's contract.
<i>Asset Method</i>	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the projected market return, and is recognized over a five-year period. The actuarial value is further adjusted, if necessary, to be within 20% of the market value.
<i>Actuarial Cost Method</i>	Unit Credit Cost Method.

Summary of Assumptions and Methods

Assumption or Method	Description of Assumption or Method
<i>Form of payment</i>	Unmarried participants are assumed to elect a Life Annuity. Married participants are assumed to elect a reduced 75% Joint and Survivor Annuity.
<i>Marriage</i>	75% of participants are assumed married.
<i>Spouse Age</i>	Female spouses are assumed to be three years younger than their male spouses, if actual age is unknown.
<i>Missing or Incomplete Participant Data</i>	Assumed to be the same as those exhibited by participants with similar known characteristics. For those with unknown gender, gender was assumed to be male.
<i>Unfunded Vested Benefits for Employer Withdrawals</i>	Interest: - For liabilities up to the market value of assets, liabilities are valued using interest rates used by PBGC for plan terminations. For the July 1, 2023 valuation these are 5.38% and 5.09% (for 20 years and thereafter, respectively). Operating expenses as prescribed by PBGC formula (29CFR Part 4044, Appendix C) are included for liabilities determined using PBGC termination interest rates. - For liabilities in excess of the market value of assets, valued using 7.25% All other assumptions are the same as those used for the funding valuation.

Summary of Assumptions and Methods

Assumption or Method	Description of Assumption or Method
ARPA Election	The Trustees elected to apply the following special funding rules under the American Rescue Plan Act of 2021, effective with the plan year beginning July 1, 2020: • <u>Special amortization rule</u>: As permitted under Section 431(b)(8)(A) of the Internal Revenue Code, eligible net investment losses incurred in the plan year ending June 30, 2020 are amortized in the funding standard account over the 29 years beginning July 1, 2020. The special rules apply retroactively to the plan year beginning July 1, 2019. For purposes of determining the amounts of the eligible net investment losses to be recognized in the funding standard account under the special amortization rule, the “prospective” method described in IRS Notice 2010-83 was used.

Summary of Plan Provisions

This appendix summarizes the major provisions of the Plan that were reflected in the actuarial valuation. This summary of provisions is not intended to be a comprehensive statement of all provisions of the Plan.

Plan Provision	Description of Plan Provision
<i>Plan Year</i>	The twelve-month period beginning July 1 and ending June 30.
<i>Participants</i>	An Employee becomes a participant in the Plan on January 1 or July 1 after completing four months of covered employment in any consecutive 12-month period.
<i>Normal Form of Payment</i>	For unmarried participants, a Life Annuity. For married participants, actuarially reduced 75% Joint and Survivor Annuity.
<i>Cost of Living Increases</i>	None.
<i>Benefit Service</i>	$\frac{1}{4}$ Pension Credit for each two months of covered employment, with a maximum of one pension credit after eight months. The maximum total pension credits for benefit purposes is 35.
<i>Vesting Service</i>	One year of vesting service for four months of covered employment.
<i>Break-in-Service</i>	A break in service occurs in any plan year in which the participant fails to complete at least two months of work. In determining whether a break in service has been incurred, work in non-covered employment that is credited as vesting service will be considered covered employment.

Summary of Plan Provisions

Plan Provision	Description of Plan Provision
<i>Regular Pension</i>	<u>Eligibility:</u> An Employee is eligible for a Regular Pension if the Employee has attained age 65 and has earned 15 pension credits. <u>Amount of Benefit:</u> Upon retirement on his Regular Retirement Date, a Participant will be entitled to receive a monthly benefit equal to: • For pension credits on or after July 1, 2016, monthly benefit accruals are equal to 0.9% of total contributions made for the participant's work. • For pension credit earned on or after July 1, 2010 and before July 1, 2016, \$37.00 for each \$1.00 of hourly (benefit-bearing) employer contribution rate. • For pension credits earned on or after July 1, 1997 and before July 1, 2010, the accrual rate is \$49.00 for each \$1.00 of hourly employer contribution rate. • For pension credits prior to July 1, 1997, the accrued benefit based on prior plan formula increased by 20.75%. • A maximum of 35 pension credits applies.
<i>Vested Benefit</i>	<u>Eligibility:</u> Five or more years of vesting service. <u>Amount of Benefit:</u> Regular Pension Payable at Normal Retirement Age.

Summary of Plan Provisions

Plan Provision	Description of Plan Provision
Contribution Rates	For the period beginning September 28, 2006 and ending June 30, 2016, in the event a contributing employer is obligated to make a special Supplemental Contribution to the Fund solely for the purpose of improving the funding status of the Plan, such Supplemental Contributions shall not be included in the calculation of a Participant's pension benefit. Effective July 1, 2016, all contributions are benefit-bearing under the newly adopted benefit formula (0.9% x Total Contributions). For the plan year ended June 30, 2023, total contribution rates range from \$299.02 to \$358.52 per week.
Service Pension	<u>Eligibility:</u> 20, 25, 30 or 35 pension credits <u>Amount of Benefit:</u> At the Service Pension Commencement Date, a Participant will be entitled to receive a monthly benefit equal to his Normal Retirement Benefit actuarially reduced for early commencement. If the participant retired before January 1, 2018, the Service Pension is determined under the Plan rules in effect at that time.

Summary of Plan Provisions

Plan Provision	Description of Plan Provision
<i>Early Pension</i>	<u>Eligibility:</u> An Employee is eligible for an Early Pension if the Employee has attained age 55 and has earned 15 pension credits. <u>Amount of Benefit:</u> Upon the Early Retirement Date, a Participant will be entitled to receive a monthly benefit equal to his Normal Retirement Benefit actuarially reduced for early commencement. If the participant retired before January 1, 2018, the Early Pension is determined under the Plan rules in effect at that time.
<i>Disability Pension</i>	<u>Eligibility:</u> Effective July 1, 2018 there is no disability benefit available to participants who were not already receiving benefits under disability.

Summary of Plan Provisions

Plan Provision	Description of Plan Provision
Death Benefits	<u>Married:</u> If a participant is married and dies after earning the right to a Statutory Pension (5 years of service), the spouse will be entitled to a survivor benefit, as long as they were married for at least one year at the time of death. The spouse's monthly benefit is 75% of the benefit earned as of the day before death, subject to any reduction that would have applied for form of payment and payments before age 65. If the participant had not yet reached age 55, the benefit will be calculated as if they had reached age 55 and applied for an Early Retirement Pension immediately before death, with adjustment for form of payment and payments before age 65. <u>Unmarried:</u> For participant deaths after December 31, 2017, no death benefit is payable. If the participant died before January 1, 2018, death benefits are determined under the Plan rules in effect at that time
Special Death Benefit	For participant deaths after December 31, 2017, no death benefit is payable. If the participant died before January 1, 2018, death benefits are determined under the Plan rules in effect at that time

PPA Certification Zone Statuses

Critical

In general, a projected funding deficiency in the next 4 or 5 years (other factors may apply)

Critical and Declining (NEW)

In critical status, and projected to go insolvent within the 20 years (15 years in some cases)

Endangered

Under 80% funded or a projected funding deficiency in the next 7 years

Seriously Endangered

Under 80% funded and a projected funding deficiency in the next 7 years

“Green Zone”

(none of the above)

- **Special rules, effective 12/31/2014:**

- A plan newly in endangered status that would require no corrective action under a funding improvement plan is considered in the “Green Zone”.
- A plan projected to enter Critical Status in the next 5 plan years may elect to be in Critical Status immediately.

2023 – 2024 Plan Year Timeline - PPA

Event	Deadline / Information	Latest Date
<i>Actuarial Certification</i>	90 days into plan year	9/28/2023 Complete
<i>Notice of Critical Status (if applicable)</i>	30 days after actuarial certification	N/A
<i>Develop Funding Improvement Plan (FIP) or Rehabilitation Plan (RP) (if applicable)</i>	Due 240 days after certification of endangered (FIP) or critical status (RP)	N/A
<i>Funding Improvement or Rehabilitation Period (if applicable)</i>	After expiration of contracts covering at least 75% of active participants, not later than first of plan year following second anniversary of adoption of FIP or RP	N/A

2023 – 2024 Plan Year – Other Actuarial Information

Event	Deadline / Information	Latest Date
<i>Annual Funding Notice</i>	120 days after the end of the plan year	10/28/2023 Complete
<i>Schedule MB (Form 5500)</i>	Last day of the 7 th month following the end of the Plan Year (2½ month extension available)	1/31/2024 (w/o ext) 4/15/2024 (with ext)
<i>ERISA 104(d) Notice</i>	30 days after due date Form 5500 filing	2/29/2024 (w/o ext) 5/15/2024 (with ext)
<i>PBGC Premium Filing</i>	15 th day of the 10 th full calendar month in the Plan Year	4/15/2024
<i>Actuarial Valuation</i>		Preliminary Complete
<i>Review of Actuarial Assumptions</i>	In conjunction with the actuarial valuation	N/A

Actuarial Certification

We have prepared this actuarial report for use by the **Industry & Local 338 Pension Plan** (the “Plan”). This report has been prepared solely for the benefit of the Plan, and it is not complete without the accompanying discussion with a representative of Horizon Actuarial Services, LLC. This report should not be distributed to others not affiliated with the Plan or relied upon by any other person without prior written consent from Horizon Actuarial Services, LLC.

In preparing this report, we have relied on all the information and data provided by the Plan, including plan provisions and asset information, as being complete and accurate. We have not independently verified the accuracy or completeness of the data or information provided, but we have reviewed the data for reasonableness to the extent that we believe appropriate based on the purpose for which it has been used.

The analysis summarized in this report involves actuarial calculations that require assumptions about future events. These calculations are performed using actuarial models, the intended purpose of which is the estimation and projection of the Plan’s liabilities, assets, zone status, and other related information summarized herein. We believe that the assumptions and methods used in this report are reasonable individually and in the aggregate, and are appropriate for the purposes for which they have been used. However, other assumptions and methods could also be reasonable and could generate materially different results. We have relied on the input of experts in developing certain assumptions, such as mortality and the valuation interest rate.

Because it is not possible or practical to model all aspects of a situation, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events. We may also exclude factors or data that are immaterial in our judgment. Future events and actual experience will vary from the assumptions we have used, and calculations prepared with actual data will vary from estimates or summaries used for modeling purposes. Actual future results will differ from our projections. As these differences arise, contributions and/or benefits may need to be adjusted to take these changes into account.

We have not performed a detailed analysis of the potential range of future results in this report, but various reports provided throughout the year include information regarding the significant risks inherent in the Plan. A more detailed assessment of the risks – including additional scenario tests, sensitivity tests, stress tests, and stochastic modeling – would allow the Trustees to better understand how deviations from the assumptions may affect the Plan.

In our opinion, all methods, assumptions, and calculations are in accordance with the applicable provisions of the Internal Revenue Code and ERISA, and the procedures followed and presentation of results conform with generally accepted actuarial principles and practices. The undersigned consultants of Horizon Actuarial Services, LLC with actuarial credentials meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. There is no relationship between the Plan and Horizon Actuarial Services, LLC that affects our objectivity.



Mary Ann Dunleavy, ASA, EA, MAAA
Actuary and Managing Consultant



Peter Bernstein, FSA, EA, MAAA
Consulting Actuary