City of Farmington Hills Employees' Retirement System – Basic Retirement Benefits

Actuarial Valuation Report as of June 30, 2024

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800.521.0498 | P: 248.799.9000 | www.grsconsulting.com

October 22, 2024

Retirement Board
City of Farmington Hills
Employees' Retirement System
31555 W. Eleven Mile Road
Farmington Hills, Michigan 48336

Re: City of Farmington Hills Employees' Retirement System Actuarial Valuation as of June 30, 2024 Actuarial Disclosures

Ladies and Gentlemen:

The results of the June 30, 2024 Annual Actuarial Valuation of the City of Farmington Hills Employees' Retirement System (System) are presented in this report.

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

The purposes of the valuation are to measure the System's funding progress and to determine the employer contribution for the fiscal year beginning July 1, 2025. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The employer contribution in this report is determined using the actuarial assumptions and methods disclosed in Section D of this report. This report includes risk metrics on pages Appendix-1 and Appendix-2 but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. This report also includes a discussion of the required Low-Default-Risk Obligation Measure (LDROM) on page Appendix-3. Additional assessment of risks was outside the scope of this assignment. We encourage a review and assessment of investment and other significant risks which may have a material effect on the System's financial condition.

We have assessed that the contribution rate calculated under the current funding policy is a reasonable Actuarially Determined Employer Contribution (ADEC), and it is consistent with the plan accumulating adequate assets to make benefit payments when due.

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

The findings in this report are based on data and other information through June 30, 2024. The valuation was based upon information furnished by the System, concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the System.

This report was prepared using assumptions adopted by the Board. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. The combined effect of the assumptions is expected to have no significant bias (i.e., not significantly optimistic or pessimistic). All actuarial assumptions and methods used in the valuation follow the guidance in the applicable Actuarial Standards of Practice. Additional information about the actuarial assumptions is included in Section D of this report.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge, this report is accurate, complete and fairly presents the actuarial position of the City of Farmington Hills Employees' Retirement System as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices and with the Actuarial Standards of Practice issued by the Actuarial Standards Board and applicable State statutes. James D. Anderson and Mark Buis are Members of the American Academy of Actuaries (MAAA). These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

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

Respectfully submitted,
Gabriel, Roeder, Smith & Company

James D. Anderson

James D. Anderson, FSA, EA, FCA, MAAA

Mark Buis

Mark Buis, FSA, EA, FCA, MAAA

JDA/MB

C0481

SECTION A

EXECUTIVE SUMMARY

Executive Summary

1. Required Employer Contributions - Fiscal Year Beginning July 1, 2025

The required City contributions for each employment division are as follows:

	Required Employer Contribution	
Division	% of Payroll	$ Based on Projected Payroll
General	28.67%	$ 4,454,988
Court	34.75	536,228
Police	42.89	4,897,960
Fire	27.69	1,837,508

2. Contribution Comparison

The table below compares the results of this valuation with the results of the 2023 actuarial valuation of the System.

Required Contributions by Indicated Valuation Date		
Division	6/30/2023	6/30/2024
General	$ 3,633,209	$ 4,454,988
Court	411,130	536,228
Police	4,177,004	4,897,960
Fire	1,568,862	1,837,508
Total	$ 9,790,205	$ 11,726,684

3. 2024 Funding Position

This year valuation assets represent 70% of accrued liabilities compared to last year's valuation where the funded percent was 73%. If the market value of assets was used in the development of the System's funded percent, the System would be 69% funded as of June 30, 2024.

4. Reasons for Change

There are three general reasons why contribution rates change from one valuation to the next.

1) The first is a change in the benefits or eligibility conditions of the Plan. There were no benefit changes reported to the actuary during 2024.
2) The second is a change in the valuation assumptions or methods used to predict future occurrences. This is discussed on the following page.
3) The third is the difference during the year between the System's actual experience and what the assumptions predicted. This is discussed on the following page.

Executive Summary

5. Changes in Assumptions or Methods

Assumptions were changed based on the adoption of the findings of the experience study covering the period July 1, 2018 through June 30, 2023. The combined impact of the changes in assumptions increased the actuarial accrued liabilities by approximately $5.7 million and increased the employer contribution requirements by approximately $740 thousand. The new actuarial assumptions are described in Section D of this report.

6. 2024 Plan Experience

System experience for the year ending June 30, 2024 was unfavorable overall.

During the 2023-2024 plan year, the rate of investment return on System assets was higher than long-term expectations on a market value basis, and the rate of investment return on valuation assets (i.e., a smoothed market value basis) was slightly higher than the long-term expectations. The market smoothing techniques used in this valuation recognize both current and prior investment experience. The recognized rate of investment return for the year on valuation assets was 7.22%, higher than the assumed investment return of 7.00%. Additional information related to the investment experience is shown on pages C-4 and C-5 of this report.

As a whole, demographic experience for the year was unfavorable. Sources of negative demographic experience include: retiree mortality (all groups), larger than assumed pay increases (all groups), the inclusion of prior eligibility service with other organizations (all groups), and higher than anticipated incidence of retirement (all groups). This unfavorable demographic experience contributed to the increase in actuarial accrued liability and in computed City contributions to the System.

7. Retiree Reserve Balance

In each valuation, we develop the value of anticipated future benefit payments to retired members and their beneficiaries. We then compare this liability to the reported assets in the Retirement Reserve Fund. The liability amounts and the reported reserves are shown below:

	General/Court	Police	Fire	Total
Retiree Liability	$74,735,619	$70,420,834	$21,289,041	$166,445,494
Retiree Reserve	65,842,363	58,339,478	17,490,008	141,671,849
Shortfall / (Surplus)	8,893,256	12,081,356	3,799,033	24,773,645

8. Limitations of Funded Status Measurements

Unless otherwise indicated, a funded status measurement presented in this report is based on the actuarial accrued liability and the actuarial value of assets. Unless otherwise indicated, with respect to any funded status measurement presented in this report:

- The measurement is inappropriate for assessing the sufficiency of System assets to cover the estimated cost of settling the System's benefit obligations.
- The measurement is inappropriate for assessing the need for or the amount of future employer contributions.
- The measurement will produce a different result if the market value of System assets is used instead of the actuarial value of System assets.

SECTION B

VALUATION RESULTS

Financial Objective

The financial objective of the Retirement System is to establish and receive contributions, expressed as a percentage of active member payroll (for open groups), which will remain approximately level from year to year and will not have to be increased for future generations of citizens. The contributions, when combined with present assets and future investment income, will be sufficient to meet the financial obligations of the fund to present and future retirees and beneficiaries. Your annual actuarial valuations determine how well the objective is being met.

The contribution requirements for the fiscal year beginning July 1, 2025 are presented on the following page.

General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected Plan Contributions and Funded Status

Given the plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the plan earning 7.00% on the actuarial value of assets), it is expected that:

(1) The employer normal cost as a percentage of pay for each group is expected to remain approximately level;
(2) The unfunded actuarial accrued liabilities will be fully amortized after 19 years; and
(3) The funded status of the plan will increase gradually towards a 100% funded ratio.

Contributions to Provide Benefits
for the Fiscal Year Beginning July 1, 2025
Member and Employer Portions

	% of Active Payroll			
Contributions for	**General**	**Court**	**Police**	**Fire**
Normal cost of benefits:				
Age and service	16.22%	18.19%	19.81%	19.21%
Disability	0.08	0.08	0.17	0.17
Death before retirement	0.30	0.29	0.46	0.46
Pension Medical Opt Out	0.01	0.01	0.02	0.01
Total	16.61	18.57	20.46	19.85
Member contributions				
Total	4.50	4.50	4.50	4.50
Future refunds	0.79	0.35	0.40	0.37
Available for pensions	3.71	4.15	4.10	4.13
Administrative expenses	0.69	0.69	0.69	0.69
Employer normal cost	13.59	15.11	17.05	16.41
Unfunded accrued liability payment	15.08	19.64	25.84	11.28
Computed employer contribution	28.67%	34.75%	42.89%	27.69%

Unfunded accrued liabilities were amortized over 15 years for the General and Court groups and over 19 years for the Police and Fire groups. A closed, level percent of payroll amortization method was used due to the open nature of these groups.

Determination of Unfunded Accrued Liability
as of June 30, 2024

		General	Court	Police	Fire	Total
A.	Accrued Liability					
	1. For retirees and beneficiaries	$67,159,016	$ 7,576,603	$70,420,834	$21,289,041	$166,445,494
	2. For vested terminated members	1,054,012	216,455	1,850,925	0	3,121,392
	3. For present active members					
	a. Value of expected future benefit payments	50,549,207	6,525,004	62,210,454	31,949,971	151,234,636
	b. Value of future normal costs	20,140,682	2,249,911	23,674,637	14,895,862	60,961,092
	c. Active member liability: (a) - (b)	30,408,525	4,275,093	38,535,817	17,054,109	90,273,544
	4. Total	98,621,553	12,068,151	110,807,576	38,343,150	259,840,430
B.	Valuation Assets	72,216,508	8,672,891	71,668,590	28,359,557	180,917,546
C.	Unfunded Accrued Liability (A.4) - (B)	26,405,045	3,395,260	39,138,986	9,983,593	78,922,884
D.	Funding Ratio: (B) / (A.4)	73%	72%	65%	74%	70%

Development of Experience Gain/(Loss)
Period Ended June 30, 2024

Actual experience will never (except by coincidence) exactly match assumed experience. It is hoped that gains and losses will cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the experience gain (loss) is shown below:

	All Groups Combined
(1) UAAL* at start of period	$ 66,176,895
(2) Normal cost for period	6,212,344
(3) Actual contributions	8,972,255
(4) Interest accrual on (1), (2) and (3)	4,535,785
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	67,952,769
(6) Change in plan provisions	0
(7) Change in actuarial assumptions/methods	5,676,971
(8) Expected UAAL after changes: (5) + (6) + (7)	73,629,740
(9) Actual UAAL at end of period	78,922,884
(10) Total gain/(loss): (8) - (9)	(5,293,144)
As percent of AAL at the start of the period	(2.17%)
(11) Investment gain/(loss)	375,591
As percent of AAL at the start of the period	0.15%
(12) Non-Investment gain/(loss): (10) - (11)	(5,668,735)
As percent of AAL at the start of the period	(2.32%)

* *Unfunded Actuarial Accrued Liabilities.*

SECTION C

SUMMARY OF BENEFIT PROVISIONS

Brief Summary of Basic Benefit Provisions
(June 30, 2024)

Normal Retirement (No reduction for age)						
			FAC[1] Times Sum of			
Group	Eligibility	Age Change	Up To 25 Years	Over 25 Years	Maximum Benefit[2]	Member Contributions
TPOAM (f.k.a. AFSCME)	60 & 8 or Sum of Age & Service equals 80 (minimum age 55)	None	2.80 %	1.00 %	75 %	4.50%
Teamsters, Exempt, and Court[3]	60 & 8 or Sum of Age & Service equals 80 (minimum age 55)	None	2.80	1.00	80	4.50%
Dispatchers (Group D)	60 & 8 or Sum of Age & Service equals 80 (minimum age 55)	Until Age 67 At Age 67	2.80 2.375	1.00 1.00	75 70	4.50%
Executive	60 & 8 or Sum of Age & Service equals 80 (minimum age 55)	None	3.00	1.00	80	4.50%
Police Command	50 & 25 or 30 years of service with 25 years as Police Officer	None	3.00	1.00	80	4.50%
Fire and Police Patrol	25 & Out	None	2.80	1.00	75	4.50%

Early Retirement (Computed as regular retirement with an age reduction factor used.)		
Group	Eligibility	Reduction
Teamsters and Dispatchers	57 & 8	1/2 of 1% for each month by which retirement precedes age 60
TPOAM, Executive, Exempt, and Court	57 & 8	2/10 of 1% for each month by which retirement precedes age 60
Police Command	50 & 15 <50 & 25	2/10 of 1% for each month by which retirement precedes age 55 6/10 of 1% for each month by which retirement precedes age 50
Police Patrol	50 & 20	2.08/10 of 1% for each month by which retirement precedes age 55
Fire	50 & 20	2/10 of 1% for each month by which retirement precedes age 55

(1) *Type of Final Average Compensation (FAC): highest 3 consecutive years out of last 10. FAC includes longevity pay for civilian members and longevity and holiday pay for Police, Fire and Dispatch members.*

(2) *Maximum benefit is computed as a percent of FAC.*

(3) *Three Court employees are covered by the Executive group benefit structure as of the valuation date.*

Brief Summary of Basic Benefit Provisions
(June 30, 2024)

Eligibility	Amount
Deferred Retirement	
General: 8 or more years of service. Benefit begins at age 60. Police and Fire: 15 or more years of service. Benefit generally begins at age 55.	Computed as a regular or early retirement but based upon service and final average compensation at termination date.
Non-Duty Death	
10 or more years of service, or age 57 with 8 years of service.	Computed as a regular retirement but actuarially reduced in accordance with a 100% joint and survivor option.
Duty Death	
No age or service requirements.	Surviving spouse pension computed as a duty disability retirement.
Duty Disability	
No age or service requirements.	General: 40% of compensation at time of disability, plus 10% of compensation (not to exceed 25% of total) for each unmarried child under age 18. Other disability payments offset. Police and Fire: 66-2/3% of final compensation.

Defined Benefit Plan Eligibility

The System is “open” to all employees. See Ordinance No. C-3-2023 for the excluded positions.

Other

Eligible Retiree Health Care (RHC) Plan members who also participate in this plan may elect to receive a monthly pension medical opt out benefit ranging from $200-$400 per month and paid from the pension trust. This medical opt out benefit is paid in lieu of traditional RHC plan benefits.

Brief Summary of Basic Benefit Provisions
(June 30, 2024)

Annuity Withdrawal Interest Rate

The interest rate basis used to determine the reduction in retirement allowance for annuity withdrawal purposes is described below:

General and Court

Effective Dates	Court	TPOAM	Non-TPOAM
For retirements that begin on or after July 1, 2023:	1.5%	2.5%	1.5%
For retirements that begin on or after July 1, 2024:	2.1%	2.5%	2.1%
For retirements that begin on or after July 1, 2025:	2.7%	2.7%	2.7%
For retirements that begin on or after July 1, 2026:	3.3%	3.3%	3.3%
For retirements that begin on or after July 1, 2027:	3.9%	3.9%	3.9%
For retirements that begin on or after July 1, 2028:	4.5%	4.5%	4.5%
For retirements that begin on or after July 1, 2029:	5.1%	5.1%	5.1%
For retirements that begin on or after July 1, 2030:	5.7%	5.7%	5.7%
For retirements that begin on or after July 1, 2031:	6.0%	6.0%	6.0%

Police

		Command Promoted	
Effective Dates	Patrol	Prior to January 1, 2024[1]	On or after January 1, 2024
For retirements that begin on or after July 1, 2023:	Varies monthly	2.0%	6.0%
For retirements that begin on or after July 1, 2024:	2.1%	2.0%	6.0%
For retirements that begin on or after July 1, 2025:	2.7%	2.0%	6.0%
For retirements that begin on or after July 1, 2026:	3.3%	2.0%	6.0%
For retirements that begin on or after July 1, 2027:	3.9%	2.0%	6.0%
For retirements that begin on or after July 1, 2028:	4.5%	2.0%	6.0%
For retirements that begin on or after July 1, 2029:	5.1%	2.0%	6.0%
For retirements that begin on or after July 1, 2030:	5.7%	2.0%	6.0%
For retirements that begin on or after July 1, 2031:	6.0%	2.0%	6.0%

[1] *2.0% or the interest rate established by the Pension Board of Trustees, whichever is lower.*

Fire

Effective Dates	Tier 1[1]	Tier 2[2]
For retirements that begin on or after July 1, 2023:	2.0%	6.0%
For retirements that begin on or after July 1, 2033:	6.0%	6.0%

[1] *2.0% or the interest rate established by the Pension Board of Trustees, whichever is lower.*
[2] *Hired on or after July 1, 2008.*

Reported Financial Information (Market Value)
for Year Ending June 30, 2024

Revenues and Disbursements

Revenues:		
a. Member contributions	$ 1,464,293	
b. Employer contributions	7,507,962	
c. Interest and dividends	2,602,779	
d. Gain/(Loss) on sale of investments	13,263,173	
e. Miscellaneous Investment Income	278	
f. Total		$ 24,838,485
Disbursements:		
a. Refunds of member contributions	18,169	
b. Benefits paid	18,193,885	
c. Investment Expenses	1,867,748	
d. Administrative Expenses	170,027	
e. Other	0	
f. Total		20,249,829
Reserve Increase		
Total revenues minus total disbursements		
net increase in plan assets		$ 4,588,656

Assets and Reserves

Investments		**Reserve Accounts**	
a. Cash and Short Term	$ 5,277,181	a. Member contributions	$ 18,234,510
b. Receivables	74,883	b. Reserve for benefits now being paid	141,671,849
c. Fixed Income	26,667,633	c. Reserve for future benefits	18,801,947
d. Equities	114,454,777	d. Reserve for undistributed income	0
e. Real Estate	22,794,955		
f. Other Assets	9,707,288		
g. Accounts Payable	(268,411)		
Total Net Assets	$178,708,306	**Total**	$178,708,306

Development of Valuation Assets

Valuation Date June 30:	2022	2023	2024	2025	2026	2027	2028
1. Beginning of Year Assets							
a) Market Value	$ 192,896,621	$ 166,165,470	$ 174,119,650				
b) Valuation Assets	170,359,640	172,178,208	177,832,827				
c) Audit Adjustment	0	0	0				
2. End of Year Market Value Net Assets	166,165,470	174,119,650	178,708,306				
3. Net Additions to Market Value							
a) Net Contributions and Other Income	8,079,968	11,518,990	8,972,255				
b) Net Investment Income	(18,238,404)	13,143,264	13,998,482				
c) Benefit Payments and Refunds *	(16,572,715)	(16,708,074)	(18,382,081)				
d) Total Additions to Market Value	(26,731,151)	7,954,180	4,588,656				
4. Average Valuation Assets	166,113,267	169,583,666	173,127,914				
5. Expected Income at Valuation Rate	11,627,929	11,870,857	12,118,954				
6. Gain (Loss) = (3b) - (5)	(29,866,333)	1,272,407	1,879,528				
7. Phased-In Recognition of Investment Return							
a) Current Year: 0.2 x (6)	(5,973,267)	254,481	375,906				
b) First Prior Year	7,470,226	(5,973,267)	254,481	$ 375,906			
c) Second Prior Year	(1,751,755)	7,470,226	(5,973,267)	254,481	$ 375,906		
d) Third Prior Year	(1,026,835)	(1,751,755)	7,470,226	(5,973,267)	254,481	$ 375,906	
e) Fourth Prior Year	(34,983)	(1,026,839)	(1,751,755)	7,470,225	(5,973,265)	254,483	$ 375,904
f) Total Recognized Investment Gain/(Loss)	(1,316,614)	(1,027,154)	375,591	2,127,345	(5,342,878)	630,389	375,904
8. Change in Valuation Assets							
(3a) + (3c) + (5) + (7f)	1,818,568	5,654,619	3,084,719				
9. End of Year Valuation Assets							
a) Preliminary End of Year Valuation Assets	172,178,208	177,832,827	180,917,546				
b) Corridor Percent	20%	20%	20%				
c) Upper Corridor Limit	199,398,564	208,943,580	214,449,967				
d) Lower Corridor Limit	132,932,376	139,295,720	142,966,645				
e) End of Year Valuation Assets	172,178,208	177,832,827	180,917,546				
10. Recognized Rate of Return	6.21%	6.39%	7.22%				
11. Market Rate of Return	(9.67%)	8.04%	8.26%				

* *Includes administrative expenses.*

Retired and Inactive Members

Data as of June 30, 2024

	Total Number	Annual Benefits*	Average Age
Benefit Recipients	410	$14,835,500	69.1
Deferred Vested Members	14	$ 382,470	49.0

* *Excludes pension medical opt out payments.*

Active Members

Comparative Schedule

Valuation Date	Active Members: General	Court	Police	Fire	Totals	Valuation Payroll	Average: Age	Service	Pay	% Inc.
2010	181	**	105	41	327	$21,749,242	45.0 yrs.	13.8 yrs.	$66,511	3.1%
2011	148	27	102	41	318	21,236,510	45.8	14.9	66,781	0.4
2012	133	26	102	40	301	20,415,113	45.7	15.1	67,824	1.6
2013	123	26	105	45	299	19,898,614	45.0	14.6	66,551	(1.9)
2014	111	25	105	47	288	19,549,678	45.1	14.9	67,881	2.0
2015	108	24	103	48	283	20,047,647	45.7	15.3	70,840	4.4
2016	101	23	102	51	277	20,046,105	45.8	15.5	72,369	2.2
2017	94	23	101	51	269	20,089,578	46.2	15.8	74,682	3.2
2018	84	23	101	51	259	19,941,526	46.0	15.9	76,994	3.1
2019	77	21	104	58	260	20,521,228	45.3	15.7	78,928	2.5
2020	68	20	101	58	247	20,404,488	45.3	15.9	82,609	4.7
2021	59	18	105	59	241	20,294,306	44.3	15.2	84,209	1.9
2022	52	14	104	58	228	19,832,675	43.6	14.6	86,985	3.3
2023	201	21	111	60	393	31,307,511	43.3	10.2	79,663	(8.4)
2024	203	22	110	67	402	33,120,716	42.5	9.4	82,390	3.4

** *Included with General division prior to the June 30, 2011 valuation.*

Active Members by Age and Years of Service

Age	Years of Service on Valuation Date: 0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals: No.	Valuation Payroll
20-24	17							17	$ 1,030,847
25-29	45	8						53	4,066,120
30-34	34	19	2					55	4,306,010
35-39	16	13	19	3				51	4,286,193
40-44	13	12	13	20	5			63	5,535,189
45-49	12	2	7	7	11	3		42	4,010,123
50-54	9	6	3	6	8	11	1	44	4,225,511
55-59	9	7	6	3	5	3	1	34	2,835,672
60	3		2	1				6	449,519
61	2	1			1			4	237,207
62	1	2	1	1	1			6	419,002
63		1	1		1			3	218,062
64	2	2	1					5	263,038
65	2	1	1	1	1			6	333,732
66		1		1				2	107,248
67		1		1				2	143,264
68		1			1			2	131,166
69							1	1	50,296
70					1		1	2	208,131
71									
72				1				1	71,839
73									
74							1	1	100,441
75	1							1	44,053
76			1					1	48,053
77									
78									
79									
Totals	**166**	**77**	**57**	**45**	**35**	**17**	**5**	**402**	**$33,120,716**

Service amounts on this page refer to vesting service attributable to employment with the City of Farmington Hills only.

SECTION D

SUMMARY OF VALUATION METHODS AND ASSUMPTIONS

Valuation Methods

Actuarial Cost Method: Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

(i) The annual normal costs for each individual active member, payable from the hire date to the date of retirement, are sufficient to accumulate to the value of the member's benefit earned; and
(ii) Each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Asset Valuation Method: The actuarial value equals:

(a) Actuarial value of assets from the previous valuation, plus
(b) employer and member contributions since the last valuation, minus
(c) benefit payments and refunds since the last valuation, plus
(d) estimated investment income at the assumed investment return, plus
(e) portion of gain (loss) recognized in the current valuation.

For this purpose, gain (loss) is defined as the excess during the period of the investment return on the market value of assets over the expected investment income. 20% of the difference is recognized over a five-year period in the actuarial value of assets. The actuarial value of assets is not permitted to deviate from the market value of assets by more than 20%.

The Funding Value of Assets is allocated between groups based on actual group experience and investment income such that each group's return equals the return for the System in total.

Amortization of Unfunded Actuarial Accrued Liabilities: Unfunded actuarial accrued liabilities (UAAL) were amortized by level percent-of-payroll contributions over 19 years for the Police and Fire groups and 15 years for the General and Court groups. The period is reduced with each annual actuarial valuation. Active member payroll was assumed to increase 3.0% for the purpose of determining the level-percent contributions.

In conjunction with the Experience Study covering the period July 1, 2018 through June 30, 2023, the Retirement Board adopted the continuation of the current amortization methodology until each respective amortization period reaches 15 years. Once a 15-year amortization period is reached (June 30, 2024 for General and Court groups and June 30, 2028 for the Police and Fire groups), layered amortization will be implemented. The initial UAAL will wind down until it is fully amortized. For each subsequent valuation, any new UAAL created by gains/losses, assumption changes, and/or plan changes for that valuation will be amortized over a new, closed 15-year period.

Actuarial Assumptions Used for the Valuation

Assumption rationale: Assumptions are based upon a five-year Experience Study for the period July 1, 2018 through June 30, 2023, in a report dated June 24, 2024.

***Investment return* (net of investment expenses):**
7.00% per year compounded annually. This rate consists of a real rate of return of 4.00% a year plus a long-term assumed rate of wage inflation of 3.00% per year. This assumption is used to equate the value of payments due at different points in time.

Approximate rates of investment return, for the purpose of comparisons with assumed rates, are shown below. Actual increases in average active member pay are also shown for comparative purposes.

	Period Ended June 30,				
	2024	**2023**	**2022**	**2021**	**2020**
Rate of Investment Return (Recognized on Valuation Assets)	7.2%	6.4%	6.2%	10.7%	4.3%

These rates of return should not be used for measurement of an investment advisor's performance or for comparisons with other systems.

Rate of price inflation: 2.50%

Pay projections: These assumptions are used to project current pays to those upon which benefits will be based.

Annual Rate of Pay Increase

Years of Service	General and Court Members		
	Base (Economic)	Merit & Longevity	Total
1 to 5	3.0%	4.0%	7.0%
6 to 10	3.0%	2.0%	5.0%
thereafter	3.0%	1.0%	4.0%

Years of Service	Police Members			Fire Members		
	Base (Economic)	Merit & Longevity	Total	Base (Economic)	Merit & Longevity	Total
1	3.0%	20.0%	23.0%	3.0%	17.0%	20.0%
2	3.0%	15.0%	18.0%	3.0%	12.0%	15.0%
3	3.0%	7.0%	10.0%	3.0%	12.0%	15.0%
thereafter	3.0%	1.0%	4.0%	3.0%	1.0%	4.0%

If the number of active members remains constant, the total active member payroll is expected to increase 3.0% annually, the base portion of the individual pay increase assumptions. This increasing payroll was recognized in amortizing unfunded actuarial accrued liabilities for all of the groups.

Actuarial Assumptions Used for the Valuation (Continued)

Changes actually experienced in pay have been as follows:

	Period Ended June 30,				
	2024	2023	2022	2021	2020
Average Increase in Pay@	8.0%	7.3%	6.2%	4.9%	4.6%

@ Excludes new hires and terminations.

The mortality tables (a risk assumption) used in this valuation are described below:

General and Court

- **Pre-Retirement**: The Pub-2010 Amount-Weighted, General, Employee, Male and Female tables, with future mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Healthy Post-Retirement**: The Pub-2010 Amount-Weighted, General, Healthy Retiree, Male and Female tables, with future mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Disability Retirement**: The Pub-2010 Amount-Weighted, General, Disabled Retiree, Male and Female tables, with future mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.

Police and Fire

- **Pre-Retirement**: The Pub-2010 Headcount-Weighted, Safety, Employee, Male and Female tables, with future mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Healthy Post-Retirement**: The Pub-2010 Headcount-Weighted, Safety, Healthy Retiree, Male and Female tables, with future mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Disability Retirement**: The Pub-2010 Headcount-Weighted, Safety, Disabled Retiree, Male and Female tables, with future mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.

Actuarial Assumptions Used for the Valuation (Continued)

General and Court

Sample Ages*	Healthy Pre-Retirement Future Life Expectancy (Years) Men	Women	Healthy Post-Retirement Future Life Expectancy (Years) Men	Women	Disabled Retirement Future Life Expectancy (Years) Men	Women
50	39.20	41.36	35.61	38.53	26.41	29.36
55	34.20	36.25	30.72	33.55	22.91	25.76
60	29.29	31.22	25.99	28.68	19.73	22.42
65	24.52	26.29	21.48	23.94	16.77	19.12
70	19.86	21.45	17.21	19.40	13.94	15.73
75	15.32	16.73	13.27	15.14	11.16	12.43
80	10.90	12.17	9.79	11.31	8.57	9.47

Police and Fire

Sample Ages*	Healthy Pre-Retirement Future Life Expectancy (Years) Men	Women	Healthy Post-Retirement Future Life Expectancy (Years) Men	Women	Disabled Retirement Future Life Expectancy (Years) Men	Women
50	37.85	40.60	34.57	37.20	32.91	34.73
55	32.78	35.51	29.61	32.14	28.18	29.83
60	27.80	30.49	24.79	27.30	23.66	25.28
65	22.96	25.53	20.30	22.72	19.47	21.04
70	18.31	20.66	16.08	18.41	15.57	16.97
75	13.90	15.99	12.25	14.41	12.00	13.21
80	9.78	11.62	8.91	10.85	8.86	10.03

* *Life expectancy in future years is determined by the fully generational MP-2021 projection scale. The sample values shown are for individuals with the indicated attained ages in 2024.*

75% of deaths are assumed to be non-duty for the General and Court groups, while 50% of deaths are assumed to be non-duty for the Police and Fire groups.

Actuarial Assumptions Used for the Valuation (Continued)

Rates of normal retirement: These rates are used to measure the probability of eligible members retiring during the next year.

Retirement Ages	Percent of Eligible Active Members Retiring General	Court	Police Command	Years of Service	Police Command
50			40%	25	
51			40	26	
52			40	27	
53			40	28	
54			40	29	
55	30%	20%	20	30	40%
56	25	15	15	31	40
57	25	15	15	32	40
58	25	15	15	33	40
59	25	15	15	34	40
60	25	20	100	35	100
61	25	25			
62	30	30			
63	20	20			
64	25	25			
65	25	25			
66	30	30			
67	30	30			
68	30	30			
69	30	30			
70	100	100			

Years of Service	Percent of Eligible Active Members Retiring Police Patrol	Fire
25	40%	30%
26	40	30
27	40	30
28	40	30
29	40	30
30	100	100

The incidence of retirement for firefighter members is assumed to be 100% at age 62.

Actuarial Assumptions Used for the Valuation (Continued)

Rates of early retirement:

Retirement Ages	Percent of Eligible Active Members Retiring (Early Retirement) General & Court	Police & Fire
50		1%
51		1
52		1
53		1
54		1
55		1
56		1
57	1%	1
58	1	1
59	1	1

Rates of separation from active membership: The rates do not apply to members eligible for retirement and do not include separation on account of death or disability. This assumption measures the probabilities of members remaining in employment.

		% of Active Members Separating within Next Year			
Sample Ages	**Years of Service**	**General**	**Court**	**Police**	**Fire**
ALL	0	11.00%	12.00%	10.00%	7.00%
	1	10.00	12.00	8.00	5.00
	2	8.00	10.00	6.00	3.50
	3	8.00	9.00	4.00	3.50
	4	7.00	9.00	3.00	3.00
20	5 & Over	6.00	6.00	3.00	3.00
25		5.50	5.50	3.00	3.00
30		4.40	4.40	2.50	2.50
35		3.90	3.90	1.00	1.50
40		3.40	3.40	0.70	0.70
45		3.00	3.00	0.50	0.50
50		2.00	2.00	0.50	0.50
55		1.40	1.40	0.50	0.50
60		1.40	1.40	0.50	0.50

Actuarial Assumptions Used for the Valuation (Concluded)

Rates of disability: These rates represent the probabilities of active members becoming disabled.

Sample Ages	Number of Disabilities Per 100 Eligible Members
20	0.01
25	0.02
30	0.04
35	0.07
40	0.12
45	0.19
50	0.28
55	0.40
60	0.57

Load for administrative expenses: Administrative expenses used in the contribution determination are based on the average dollar amount over the last six years (a rolling period), ending on the valuation date one year preceding the current valuation date. The flat dollar portion of the administrative expense is then converted to a single percent of pay based on the projected fiscal year payroll for all groups.

Pension medical opt out payment election: Ten percent of eligible active RHC plan members are assumed to elect cash payments (the pension medical opt out payment).

Miscellaneous and Technical Assumptions

Benefit Service:	Exact fractional service is used to determine the amount of benefit payable.
Decrement Operation:	Disability and mortality decrements do not operate during the first five years of service. Disability also does not operate during retirement eligibility. General and Court employees are assumed to retire based on Tier 1 retiree medical eligibility.
Decrement Relativity:	Decrement rates are used directly from experience, without adjustment for multiple decrement table effects.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
Eligibility Service:	Effective with the June 30, 2024 funding actuarial valuation, the City of Farmington Hills began reporting service with non-Farmington Hills entities that participants could use for eligibility purposes. For purposes of the entry age actuarial cost method, the entry age is based upon a participant's age at employment with Farmington Hills.
Eligibility Testing:	Eligibility for benefits is determined using the age nearest birthday and the service nearest whole year on the date the decrement is assumed to occur.
Forfeiture Assumption:	General members who terminate close to retirement were assumed to elect a deferred retirement while those terminating with less service were assumed to elect a refund of their contributions in lieu of deferred retirement benefits. All non-General members were assumed to elect a deferred retirement benefit.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
Marriage Assumption:	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
Normal Form of Benefit:	The normal form of benefit is a straight life annuity.
Option Factors:	Factors for optional forms of payment (option factors) are based upon 7.0% interest, and: General & Court: Pub-2010 Amount-Weighted, General, Healthy Retiree, Male and Female tables, future mortality improvements projected to 2030 using scale MP-2021 (50% Male and 50% Female Unisex Blend). Police & Fire: Pub-2010 Headcount-Weighted, Safety, Healthy Retiree, Male and Female tables, future mortality improvements projected to 2030 using scale MP-2021 (90% Male and 10% Female Unisex Blend).
Pay Increase Timing:	Beginning of (Fiscal) year.
Service Credit Accruals:	It is assumed that members accrue one year of service credit per year.

Miscellaneous and Technical Assumptions (Concluded)

Annuity Withdrawal Loads: Active member liabilities were loaded to account for subsidized annuity withdrawal and promotions from the Police Patrol to Command units as follows:

General and Court

Effective Dates	Court	TPOAM	Non-TPOAM
For retirements that begin on or after July 1, 2023:	8.0%	7.0%	8.0%
For retirements that begin on or after July 1, 2024:	7.0%	7.0%	7.0%
For retirements that begin on or after July 1, 2025:	7.0%	7.0%	7.0%
For retirements that begin on or after July 1, 2026:	6.0%	6.0%	6.0%
For retirements that begin on or after July 1, 2027:	5.0%	5.0%	5.0%
For retirements that begin on or after July 1, 2028:	4.0%	4.0%	4.0%
For retirements that begin on or after July 1, 2029:	3.0%	3.0%	3.0%
For retirements that begin on or after July 1, 2030:	2.0%	2.0%	2.0%

Police

		Command Promoted	
Effective Dates	Patrol	Prior to January 1, 2024	On or after January 1, 2024
For retirements that begin on or after July 1, 2023:	10.0%	10.0%	3.0%
For retirements that begin on or after July 1, 2024:	10.0%	10.0%	3.0%
For retirements that begin on or after July 1, 2025:	9.0%	10.0%	3.0%
For retirements that begin on or after July 1, 2026:	8.0%	10.0%	3.0%
For retirements that begin on or after July 1, 2027:	7.0%	10.0%	3.0%
For retirements that begin on or after July 1, 2028:	6.0%	10.0%	3.0%
For retirements that begin on or after July 1, 2029:	5.0%	10.0%	3.0%
For retirements that begin on or after July 1, 2030:	4.0%	10.0%	3.0%
For retirements that begin on or after July 1, 2031:	3.0%	10.0%	3.0%

Fire

Effective Dates	Tier 1	Tier 2[1]
For retirements that begin on or after July 1, 2023:	13.0%	2.0%
For retirements that begin on or after July 1, 2033:	2.0%	2.0%

[1] *Hired on or after July 1, 2008.*

Glossary

Actuarial Accrued Liability – The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability." Under the actuarial cost method used the "AAL" differs somewhat from the value of future payments based on benefits earned as of the valuation date.

Accrued Service – The service credited under the plan that was rendered before the date of the actuarial valuation.

Actuarial Assumptions – Estimates of future plan experience with respect to rates of mortality, disability, retirement, investment income and salary increases. Decrement assumptions (rates of mortality, separation and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate appropriate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method – A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the normal costs to be paid in the future and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Equivalent – Benefits whose actuarial present values are equal.

Actuarial Present Value – The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Amortization – Paying of an interest-bearing liability by means of periodic contributions of interest and principal, as opposed to a lump sum payment.

Experience Gain (Loss) – A measure of the difference between actual experience and experience anticipated by a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

Normal Cost – The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." An amortization payment toward the unfunded actuarial accrued liability is in addition to the normal cost.

Reserve Account – An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liability – The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”

Valuation Assets – The value of current plan assets recognized for valuation purposes.

SECTION E

FINANCIAL DISCLOSURE INFORMATION

Retirement System
Schedule of Pension Plan Funding Progress

Actuarial Valuation Date	Actuarial Value of Pension Assets (a)	Pension Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a % of Covered Payroll UAAL / (c)
06/30/15@#	$ 148,299,323	$ 171,958,385	$ 23,659,062	86.2 %	$20,047,647	118.0 %
06/30/16	150,257,018	177,254,145	26,997,127	84.8	20,046,105	134.7
06/30/17#	155,325,541	185,538,016	30,212,475	83.7	20,089,578	150.4
06/30/18@	159,892,090	192,830,969	32,938,879	82.9	19,941,526	165.2
06/30/19@#	160,957,615	210,577,317	49,619,702	76.4	20,521,228	241.8
06/30/20	161,481,646	216,876,439	55,394,793	74.5	20,404,488	271.5
06/30/21	170,359,640	223,098,304	52,738,664	76.4	20,294,306	259.9
06/30/22	172,178,208	229,954,084	57,775,876	74.9	19,832,675	291.3
06/30/23@	177,832,827	244,009,722	66,176,895	72.9	31,307,511	211.4
06/30/24#	180,917,546	259,840,430	78,922,884	69.6	33,120,716	238.3

@ *Plan provision change.*
# *Certain assumptions or methods revised.*

Actuarial Cost Method	Individual Entry Age
Asset Valuation Method	Market Value with 5-Year Smoothing of Gains and Losses
Principal Actuarial Assumptions (last revised for the 12/31/2024 valuation):	
- Net Investment Return	7.00%
- Projected Salary Increases	
General and Court	4.0% to 7.0%
Police	4.0% to 23.0%
Fire	4.0% to 20.0%
- Post-Retirement Cost of Living Adjustments	None

APPENDIX

RISK MEASURES

Risk Commentary

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

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

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

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

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

Risk Commentary (Concluded)

Plan Maturity Measures

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

	2024	2023	2022	2021
Ratio of the market value of assets to payroll	5.40	5.56	8.38	9.50
Ratio of actuarial accrued liability to payroll	7.85	7.79	11.59	10.99
Ratio of actives to retirees and beneficiaries	0.98	1.02	0.62	0.67
Ratio of net cash flow to market value of assets (BOY)	-5.4%	-3.1%	-4.4%	-5.3%

Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 5.0 times the payroll, a return on assets 5% different than assumed would equal 25% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time. The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 10 times the payroll, a change in liability 2% other than assumed would equal 20% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

Ratio of Actives to Retirees and Beneficiaries

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

Ratio of Net Cash Flow to Market Value of Assets

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

Additional Risk Assessment

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

Low-Default-Risk Obligation Measure

Introduction

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

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

Comparing the Accrued Liabilities and the LDROM

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

The LDROM is meant to approximately represent the lump sum cost to a plan to purchase low-default-risk fixed income securities whose resulting cash flows essentially replicate in timing and amount the benefits earned (or the costs accrued) as of the measurement date. The LDROM is very dependent upon market interest rates at the time of the LDROM measurement. The lower the market interest rates, the higher the LDROM, and vice versa. The LDROM results presented in this report are based on the entry age actuarial cost method and discount rates based upon the June 2024 Treasury Yield Curve Spot Rates (end of month). The 1-, 5-, 10- and 30-year rates follow: 5.12%, 4.34%, 4.22% and 4.45%. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligation.

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

Accrued Liabilities and LDROM

Valuation Accrued Liabilities	LDROM
$259,840,430	$354,736,036