DUKES COUNTY CONTRIBUTORY RETIREMENT SYSTEM

ACTUARIAL VALUATION
as of
January 1, 2024

KMS Actuaries, LLC
52 Hunt Road
Kingston, NH 03848

August, 2024

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August 13, 2024

Dukes County Contributory Retirement Board
9 Airport Road
Suite 1
Vineyard Haven, MA 02568

Dear Board Members:

We are pleased to present the enclosed report providing the results of our actuarial valuation of the Dukes County Contributory Retirement System as of January 1, 2024. Our valuation was performed in accordance with the provisions contained in Chapter 32 of the Massachusetts General Laws, "M.G.L.", as of January 1, 2024. Disclosures under GASB Statement No. 67, Financial Reporting for Pension Plans (GASB 67) and GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68) are provided in a separate report.

The principal results of our valuation are summarized in Section 2. The Summary of Plan Provisions and Actuarial Assumptions and Methods are shown in Sections 5 and 6, respectively. Section 7 summarizes the demographic profile of active members, retired plan members and beneficiaries and disabled plan members. Asset information and actuarial liabilities are presented in Section 2. The development of the required appropriations pursuant to Chapter 32 of the M.G.L. is shown in Section 3, including a 30-year forecast of the required appropriations and projected cash flows. Section 4 includes a summary of valuation information for PERAC as well as information relating to the primary risks to the System and an assessment of those risks.

This valuation is based upon member data provided by the Dukes County Contributory Retirement Board and asset information reported to the Public Employee Retirement Administration Commission (PERAC) by the Retirement Board. Although we did not audit the data used in the valuation, we believe that the information is complete and reliable.

Liabilities presented in this report are based on a long-term investment return rate assumption of 7%, net of investment expense, compounded annually.

This report was completed in accordance with generally accepted actuarial standards and procedures, and conforms to the Code of Professional Conduct of the American Academy of Actuaries. The actuarial assumptions used in the determination of costs are reasonably related to the experience of the System and to reasonable expectations, and represent our best estimate of anticipated long-term experience under the System.

Future actuarial valuation results may differ significantly from the current results presented in this report. Examples of potential sources of volatility include plan experience differing from that anticipated by the economic or demographic assumptions, the effect of new entrants, changes in economic or demographic assumptions, the effect of law changes and the delayed effect of smoothing techniques. The potential range of future measurements was not assessed as it was outside the scope of the project.

Our valuation follows generally accepted actuarial methods and we perform such tests as we consider necessary to assure the accuracy of the results. The amounts presented in this report have been appropriately determined according to the actuarial assumptions and methods stated herein.

This report is intended for the sole use of the Dukes County Contributory Retirement Board and may only be provided to other parties in its entirety, unless expressly authorized by KMS Actuaries. Further, it is intended to provide information to comply with the stated purpose of the report. It may not be appropriate for other purposes.

KMS Actuaries is completely independent of the Dukes County Contributory Retirement System and any of its officers or key personnel. None of the actuaries signing this report or anyone closely associated with them has a relationship with the Dukes County Contributory Retirement System, other than as consulting actuary for this assignment, that would impair our independence.

The undersigned credentialed actuaries agree that the analysis, assumptions and results are overall reasonable. They are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinion contained herein. They are available to answer any questions with regard to this report.

Respectfully submitted,

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SECTION 1 - EXECUTIVE SUMMARY

Background

We have completed the Actuarial Valuation of the Dukes County Contributory Retirement System as of January 1, 2024. This valuation is based upon census data provided by the Retirement Board and asset information reported to the Public Employee Retirement Administration Commission (PERAC) by the Dukes County Contributory Retirement Board. Information for the prior valuation completed as of January 1, 2022 was obtained from the valuation report prepared by KMS Actuaries, LLC.

Primary Purpose

This report was prepared for the Retirement Board for the purposes described below:

- Measure and disclose the financial condition of the System as of the valuation date,
- Indicate trends, both historical and prospective, in the financial progress of the System,
- Identify, assess and disclose material risks of the System and
- Develop System appropriations.

Massachusetts General Laws

The valuation was prepared in accordance with Chapter 32 of the Massachusetts General Laws ("M.G.L."). The results are based on the active, inactive and retired members and beneficiaries as of December 31, 2023, the assets as of December 31, 2023 and assumptions regarding investment returns, salary increases, mortality, turnover, disability and retirement.

The valuation does not take into consideration:

- Changes in the law after the valuation date,
- Transfers between retirement systems pursuant to Section 3(8)(c) of Chapter 32,
- State-mandated benefits and
- Cost-of-living increases granted to members in pay status between 1982 and 1997.

GASB Statement Numbers 67 and 68

In June 2012, the GASB approved two related Statements that significantly changed the way pension plans and governments account and report pension liabilities. Effective for plans with fiscal years beginning after June 15, 2013, GASB Statement No. 67, Financial Reporting for Pension Plans, replaced the requirements of Statement No. 25 and effective for employers with fiscal years beginning after June 15, 2014, GASB Statement No. 68, Accounting and Financial Reporting for Pensions, replaced the requirements of Statement No. 27.

The pension standards reflect changes from those previously in place regarding how governments calculate total pension liability and pension expense. Further, the standards contain requirements for disclosing information in the notes to financial statements and presenting required supplementary information following the notes.

The required disclosures and notes under GASB Statement Number 67 and 68 for the fiscal year ending December 31, 2023 are provided in a separate report.

Assets

This valuation is based upon asset information reported to the Public Employee Retirement Administration Commission (PERAC) by the Dukes County Contributory Retirement Board. The market value of assets decreased from $247,403,411 as of December 31, 2021 to $236,373,262 as of December 31, 2023. During the plan years ended 2022 and 2023, the market value rates of return were -13.86% and 14.44%, respectively.

The actuarial value of assets increased from $217,908,723 as of January 1, 2022 to $246,302,494 as of January 1, 2024. During the plan years ended 2022 and 2023, the rates of return on the actuarial value of assets were 6.70% and 7.55%, respectively.

Changes Since the Last Valuation

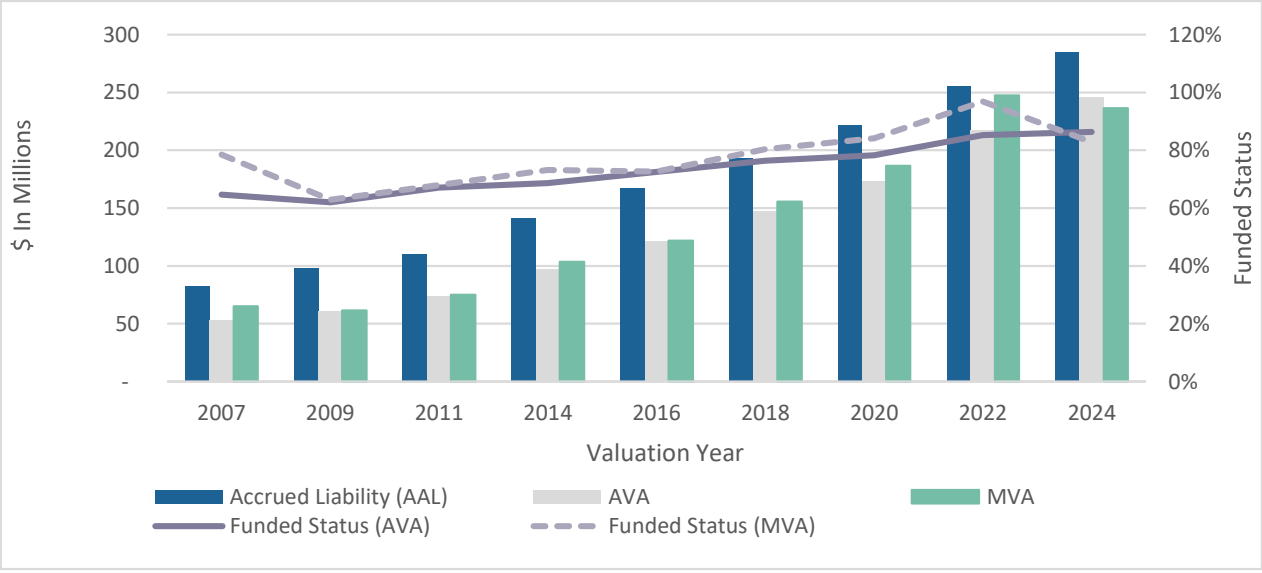
During the two years since the last valuation, the total unfunded actuarial accrued liability of the System was expected to decrease from $37,606,324 as of January 1, 2022 to $29,165,291 as of January 1, 2024, for a total decrease of $8,441,033. The actual unfunded actuarial accrued liability, before any assumption or plan changes, was $39,047,732, resulting in an actuarial loss of $9,882,441. The actuarial loss was primarily due to an asset gain of approximately $565,000 and a demographic experience loss of approximately $10,447,000. The details of the gain and loss analysis are provided in Section 2, Actuarial Experience.

Change in Funded Status

The System's funded status, which is the Actuarial Value of Assets divided by the Actuarial Liabilities, increased from 85.3% as of January 1, 2022 to 86.3% as of January 1, 2024.

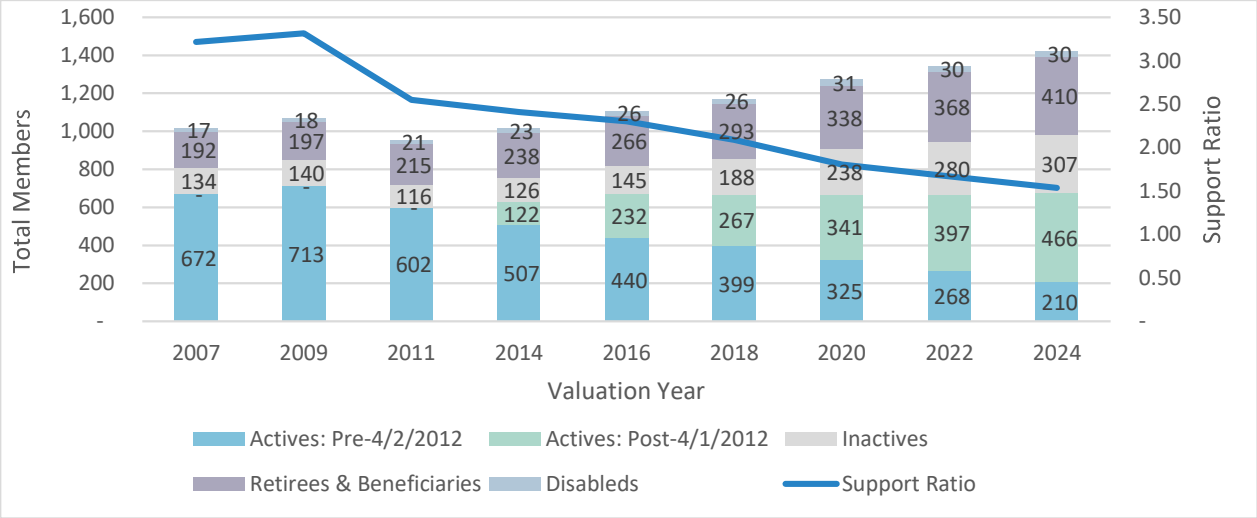
Historical Trends

Below are the accrued liabilities, asset values (actuarial and market) and funded status for each of the last 9 valuations. The purple solid line reflects the funded status on an actuarial value of assets (AVA) basis and the purple dotted line reflects the funded status on a market value (MVA) basis. Blue bars indicate actuarial accrued liabilities, grey bars indicate actuarial value of assets and green bars indicate market value of assets.



Historical Trends (continued)

Below are the membership counts for each of the last 9 valuations. The blue line reflects the support ratio, which is the number of active members divided by the number of retirees.



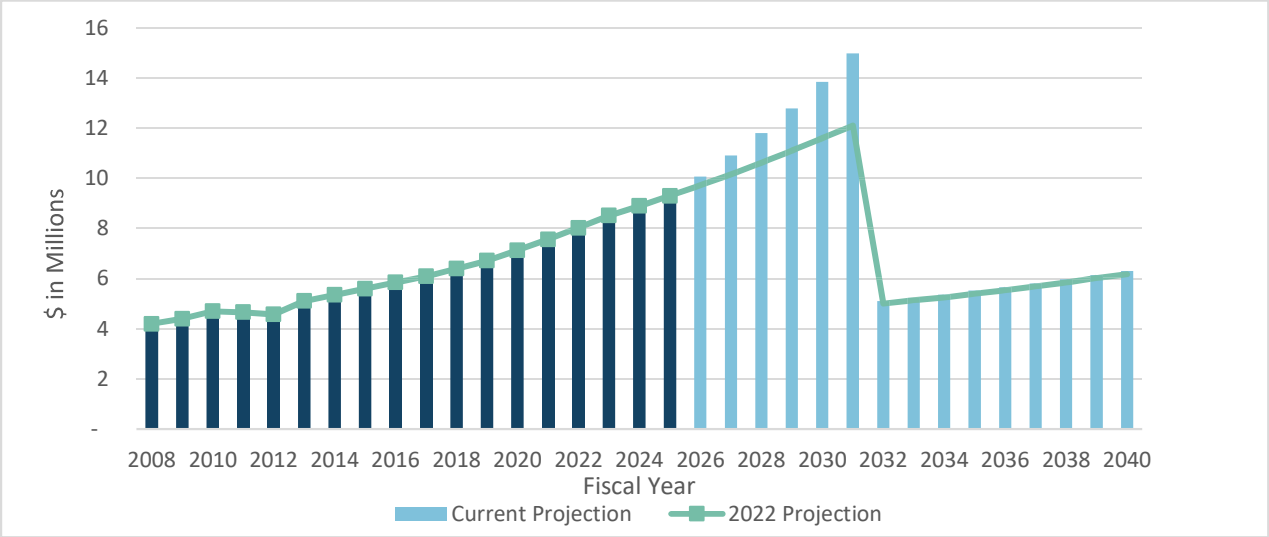
Appropriations

The funding appropriation for each year is computed as the sum of the normal cost, net 3(8)(c) transfers and an amortization payment to pay off the Unfunded Actuarial Liability, adjusted for semi-annual payments of the appropriation made July 1 and January 1. The appropriation calculated as of the January 1, 2024 valuation is $10,275,736, and is made up of a normal cost payment of $3,722,737, net 3(8)(c) transfers of $380,263, and an amortization payment of $6,172,736. The amortization method is an increasing amortization of the unfunded actuarial accrued liability at 4% over 7 years and is expected to fully pay the unfunded actuarial accrued liability by the year 2031. The development of the appropriation as of January 1, 2024 is presented in Section 3, Annual Appropriations.

For fiscal year 2025, we show the actual appropriation developed under the previous funding schedule and reported on the PERAC "Required Fiscal Year 2025 Appropriation" letter dated December 5, 2023 of $9,302,109. For fiscal year 2026, we developed an annual appropriation of $10,072,325, which is made up of a normal cost of $3,956,135 and net 3(8)(c) transfers of $400,000 and payment toward the unfunded actuarial accrued liability of $5,716,190. The unfunded actuarial accrued liability is expected to be fully paid by 2031. The Board adopted a schedule that limits the annual increase in appropriation to 8.28%. The current funding schedule is shown in Section 3, Exhibit 3.1.

Appropriations (continued)

The chart below shows the historical (navy bars) and projected (blue bars) annual appropriations compared to the projected amounts shown in the prior valuation and funding schedule (green line).



Plan Provisions

All Plan provisions used in this valuation are the same as those used in the prior valuation and are summarized in Section 5, Summary of Plan Provisions.

Actuarial Assumptions and Methods

The administrative expense assumption increased from $550,000 to $600,000. All other assumptions and methods are the same as the prior valuation. The Actuarial Assumptions and Methods utilized in this valuation are detailed in Section 6, Actuarial Assumptions and Methods.

Census Data

As of January 1, 2024, there are 676 active members who may be eligible for benefits in the future, 410 retirees and beneficiaries, 307 inactives and 30 disabled retirees. Summaries of the active, retired and disabled employees are included in Section 7, Plan Member Information. We have examined the data for reasonableness and consistency in accordance with ASOP 23.

5% Local COLA Option

On November 16, 2022, Governor Baker signed Chapter 269 of the Acts of 2022 into law. This act provides the local retirement systems with the option to increase the Cost of Living Adjustment ("COLA") for Fiscal Year 2023 to up to 5 percent on the base amount specified pursuant to G.L. c. 32, § 103. The approval of the increase must occur prior to July 1, 2023 and will take effect as of July 1, 2022.

The Retirement Board Advisory Council approved the additional COLA on April 13, 2023, therefore the increased benefits are included in the measurement of the Actuarial Accrued Liability reported by the Plan at January 1, 2024. The impact of the additional COLA was an increase in the Actuarial Accrued Liability of $891,846.

SECTION 1 - EXECUTIVE SUMMARY

A summary of principal valuation results from the current valuation and the prior valuation follows.

Valuation Date	January 1, 2024	January 1, 2022	% Change
Census Data			
Active Members	676	665	1.7%
Valuation Salary	$52,639,428	$46,309,045	13.7%
Average Salary	$77,869	$69,638	11.8%
Retired Members and Beneficiaries	410	368	11.4%
Total Annual Retirement Allowance	$13,360,180	$10,922,649	22.3%
Average Annual Retirement Allowance	$32,586	$29,681	9.8%
Disabled Members	30	30	0.0%
Total Annual Retirement Allowance	$1,451,887	$1,396,748	3.9%
Average Annual Retirement Allowance	$48,396	$46,558	3.9%
Inactive Members	307	280	9.6%
Annuity Savings Fund	$4,337,247	$3,520,131	23.2%
Funded Status			
Actuarial Accrued Liability (AAL)	$285,350,226	$255,515,047	11.7%
Market Value of Assets (MVA)	$236,373,262	$247,403,411	(4.5%)
Unfunded Accrued Liability on MVA	$48,976,964	$8,111,636	503.8%
Funded Status on MVA	82.8%	96.8%	(14.5%)
Actuarial Value of Assets (AVA)	$246,302,494	$217,908,723	13.0%
Unfunded Accrued Liability on AVA	$39,047,732	$37,606,324	3.8%
Funded Status on AVA	86.3%	85.3%	1.2%
Appropriations			
Fiscal Year 2024	N/A	$8,900,688	N/A
Fiscal Year 2025	$9,302,109	$9,302,109	0.0%
Fiscal Year 2026	$10,072,325	$9,721,635	3.6%
Fiscal Year 2027	$10,906,311	$10,160,080	7.3%

SECTION 2 - PRINCIPAL VALUATION RESULTS

Market Value of Assets

Asset information is reported annually to the Public Employee Retirement Administration Commission by the Dukes County Contributory Retirement Board. The Market Value of Assets for the three most recent calendar years are as follows:

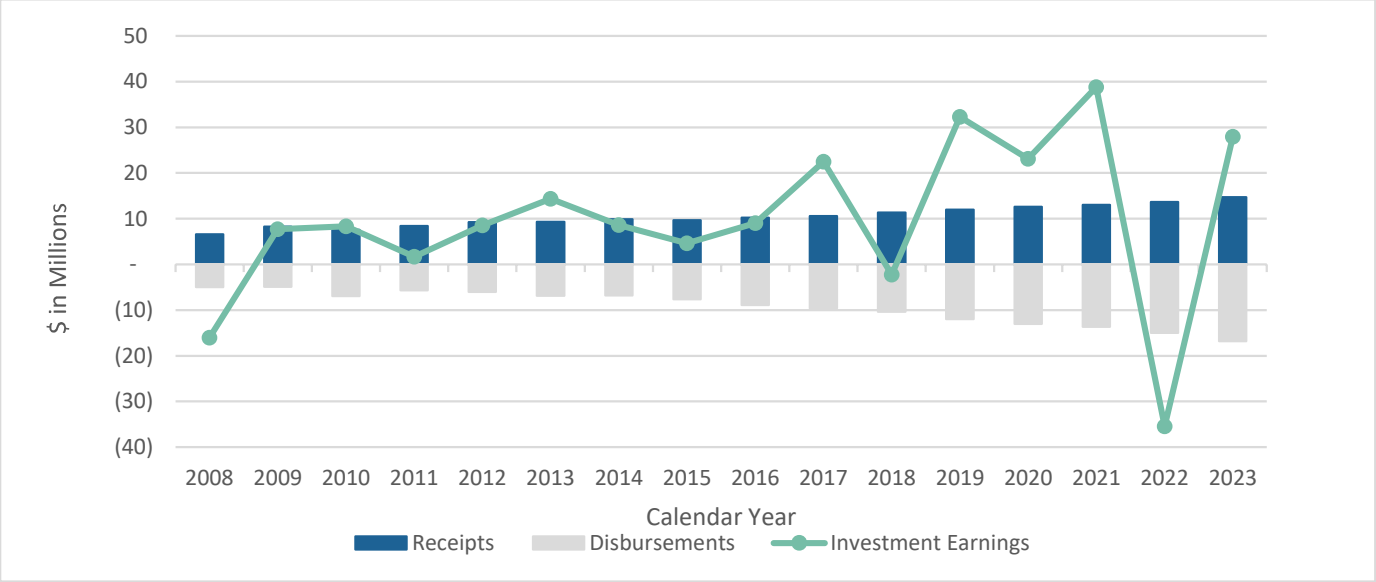
Calendar Year	2023	2022	2021
Trust Fund Composition at Year-End			
Cash	$6,738,032	$5,670,308	$26,119,125
Short-Term Investments	0	0	0
Fixed Income Securities	19,669,873	18,653,187	0
Equities	64,795,245	54,680,920	75,538,139
Pooled Short Term Funds	0	0	0
Pooled Domestic Equity Funds	21,796,923	18,173,538	21,315,692
Pooled International Equity Funds	10,884,940	9,271,444	11,192,700
Pooled Global Equity Funds	0	0	0
Pooled Domestic Fixed Income Funds	0	0	0
Pooled International Fixed Income Funds	0	0	0
Pooled Global Fixed Income Funds	0	0	0
Pooled Alternative Investments	1,071,286	970,333	952,140
Pooled Real Estate Funds	20,429,556	21,790,252	20,365,010
Pooled Domestic Balanced Funds	0	0	0
Pooled International Balanced Funds	0	0	0
Hedge Funds	0	0	0
PRIT Cash	0	0	0
PRIT Fund	90,098,008	81,099,163	91,575,044
Interest Due & Accrued	177,704	21,815	0
Prepaid Expenses	0	0	0
Accounts Receivable	816,622	496,422	508,655
Land	0	0	0
Buildings	0	0	0
Accumulated Depreciation - Buildings	0	0	0
Accounts Payable	(104,927)	(212,755)	(163,094)
Total Market Value of Assets	**$236,373,262**	**$210,614,627**	**$247,403,411**

SECTION 2 - PRINCIPAL VALUATION RESULTS

Market Value of Assets

Calendar Year	2023	2022	2021
Funds			
Annuity Savings Fund	$42,541,544	$41,303,078	$40,497,846
Annuity Reserve Fund	15,953,262	15,208,724	14,116,474
Special Military Service Fund	30,318	30,287	30,257
Pension Fund	(2,843,640)	163,115	2,389,319
Expense Fund	0	0	0
Pension Reserve Fund	180,691,778	153,909,423	190,369,515
Total Market Value of Assets	**$236,373,262**	**$210,614,627**	**$247,403,411**
Asset Activity			
Market Value as of Beginning of Year	$210,614,627	$247,403,411	$209,220,128
Contributions and Receipts	14,694,354	13,626,899	13,008,757
Benefit Payments and Expenses	(16,844,250)	(15,000,089)	(13,647,186)
Investment Return	27,908,531	(35,415,594)	38,821,712
Total Market Value of Assets	**$236,373,262**	**$210,614,627**	**$247,403,411**
Rate of Return	14.44%	-13.86%	19.32%

Below are the receipts and disbursements during the last 16 years. The green line reflects investment earnings, which vacillate as investment markets fluctuate. Blue bars indicate contributions, from employees and employers, and grey bars show benefit payments and administrative expenses.



SECTION 2 - PRINCIPAL VALUATION RESULTS

Actuarial Value of Assets

The Actuarial Value of Assets is the market value of assets as of the valuation date adjusted to phase in investment gains and losses over a 5-year period, further constrained to be within 20% of the market value of assets. Investment gains and losses are the excess or deficiency of the expected returns over the actual returns.

Valuation Date	January 1, 2024	January 1, 2023	January 1, 2022
1. Expected Market Value of Assets			
a. Market Value of Assets as of prior January 1	$210,614,627	$247,403,411	$209,220,128
b. Prior Year Contributions and Receipts	14,694,354	13,626,899	13,008,757
c. Prior Year Benefit Payments and Expenses	(16,844,250)	(15,000,089)	(13,647,186)
d. Expected Investment Return Rate	7.00%	7.00%	7.50%
e. Expected Investment Return	14,667,778	17,270,177	15,667,569
f. Expected Market Value of Assets	$223,132,509	$263,300,398	$224,249,268
2. Prior Year Gain/(Loss)			
a. Market Value of Assets as of January 1	$236,373,262	$210,614,627	$247,403,411
b. Expected Market Value of Assets	223,132,509	263,300,398	224,249,268
c. Prior Year Gain /(Loss)	$13,240,753	($52,685,771)	$23,154,143

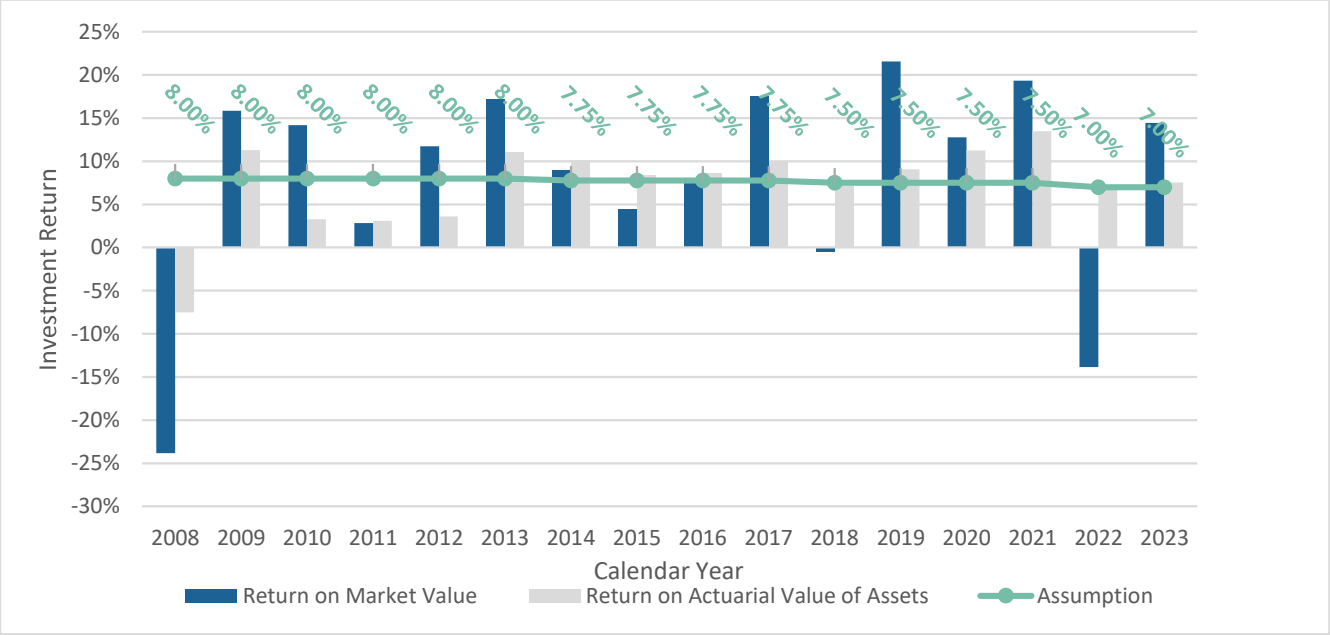
3. Phase-In of Asset Gains and Losses

	Calendar Year	Gain / (Loss)	Unrecognized Gain / (Loss)	Unrecognized Gain / (Loss)	Unrecognized Gain / (Loss)
a.	2023	$13,240,753	$10,592,602	$0	$0
b.	2022	(52,685,771)	(31,611,463)	(42,148,617)	0
c.	2021	23,154,143	9,261,657	13,892,486	18,523,314
d.	2020	9,139,861	1,827,972	3,655,944	5,483,917
e.	2019	20,681,258	0	4,136,252	8,272,503
f.	2018	(13,925,232)	0	0	(2,785,046)
g.	Total Deferred Gains/(Losses)		($9,929,232)	($20,463,935)	$29,494,688

Actuarial Value of Assets

Valuation Date	January 1, 2024	January 1, 2023	January 1, 2022
4. Actuarial Value of Assets			
a. Market Value of Assets	$236,373,262	$210,614,627	$247,403,411
b. Deferred Gains/(Losses)	(9,929,232)	(20,463,935)	29,494,688
c. Market Value of Assets Less Deferred Gains/(Losses)	$246,302,494	$231,078,562	$217,908,723
d. 80% of Market Value of Assets	189,098,610	168,491,702	197,922,729
e. 120% of Market Value of Assets	283,647,914	252,737,552	296,884,093
f. Actuarial Value of Assets, c., but not less than d. and not greater than e.	$246,302,494	$231,078,562	$217,908,723
g. Ratio of Actuarial Value of Assets to Market Value of Assets	104.2%	109.7%	88.1%
5. Rate of Return on Actuarial Value of Assets for Prior Calendar Year	7.55%	6.70%	13.48%

Below are the investment returns during the last 16 years. The green line reflects the investment return actuarial assumption. Blue bars indicate investment return rates on market value of assets, and grey bars show investment return rates on actuarial value of assets.



SECTION 2 - PRINCIPAL VALUATION RESULTS

Actuarial Liabilities

The **Actuarial Present Value of Future Benefits** is the present value of the cost to finance all benefits payable in the future, discounted to reflect the probability of payment and the time value of money. Below is the Actuarial Present Value of Future Benefits from the current valuation and the prior valuation:

Valuation Date	January 1, 2024	January 1, 2022
Actives	$199,460,746	$185,481,271
Retired Members and Beneficiaries	141,539,544	117,005,427
Disabled Members	16,821,079	16,858,409
Inactive Members	4,337,247	3,520,131
Total Present Value of Future Benefits	**$362,158,616**	**$322,865,238**

The **Actuarial Accrued Liability** is the portion of the Actuarial Present Value of Future Benefits which is allocated to all periods prior to a valuation year and therefore is not provided for by future Normal Costs. Below is the Actuarial Accrued Liability from the current valuation and the prior valuation:

Valuation Date	January 1, 2024	January 1, 2022
Actives	$122,652,356	$118,131,080
Retired Members and Beneficiaries	141,539,544	117,005,427
Disabled Members	16,821,079	16,858,409
Inactive Members	4,337,247	3,520,131
Total Actuarial Accrued Liability	**$285,350,226**	**$255,515,047**

The **Unfunded Actuarial Accrued Liability** is the difference between the Actuarial Accrued Liability and the Actuarial Value of Assets as of the valuation date. The **Funded Status** is the Actuarial Value of Assets divided by the Actuarial Accrued Liability and is a point-in-time measurement of the amount of assets set aside to cover actuarial accrued liabilities. Below is the Unfunded Actuarial Accrued Liability and Funded Status from the current valuation and the prior valuation:

Valuation Date	January 1, 2024	January 1, 2022
Unfunded Actuarial Accrued Liability		
a. Actuarial Accrued Liability	$285,350,226	$255,515,047
b. Actuarial Value of Assets	246,302,494	217,908,723
c. Unfunded Actuarial Accrued Liability (a. - b.)	$39,047,732	$37,606,324
d. Funded Status (b. divided by a.)	86.3%	85.3%

SECTION 2 - PRINCIPAL VALUATION RESULTS

Actuarial Liabilities

The **Normal Cost** is the portion of the Actuarial Present Value of Future Benefits which is allocated to a valuation year. Only active employees who have not reached Normal Retirement Age incur a Normal Cost. Below is the Normal Cost from the current valuation and the prior valuation:

Valuation Date	January 1, 2024	January 1, 2022
Total Normal Cost	$8,420,041	$7,510,835
As of Percentage of Salary	16.0%	16.2%
Employee Normal Cost	$5,267,699	$4,569,485
As of Percentage of Salary	10.0%	9.9%
Administrative Expenses	$570,395	$522,862
As a Percentage of Salary	1.1%	1.1%
Net Employer Normal Cost	$3,722,737	$3,464,212
As a Percentage of Salary	7.1%	7.5%

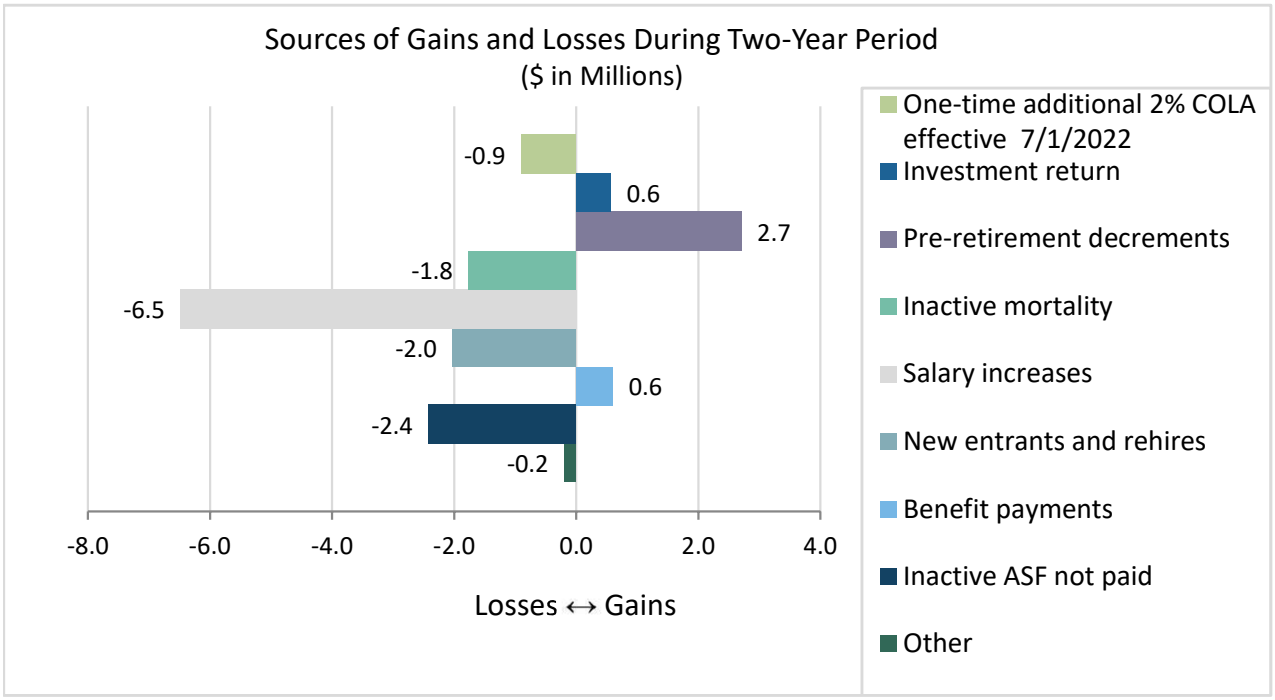
Actuarial Experience

In performing the actuarial valuation, various assumptions are made regarding mortality, retirement, disability and withdrawal rates as well as salary increases and investment returns. A comparison of the results of the current valuation and the prior valuation is made to determine how closely actual experience relates to expected. During the two years since the last valuation, the total unfunded actuarial accrued liability of the System was expected to decrease by $8,441,033. Below is the development of the Actuarial Loss for the current 2-year period:

Calendar Year Ending		December 31, 2023	December 31, 2022
Expected Unfunded Actuarial Accrued Liability			
1.	Unfunded Actuarial Accrued Liability, Beginning of Year	$34,171,520	$37,606,324
2.	Normal Cost, Beginning of Year	7,299,459	7,510,835
3.	Total Contributions	14,694,354	13,626,899
4.	Interest (full year on 1. and 2., one-half year on 3.)	2,388,666	2,681,260
5.	Expected Unfunded Actuarial Accrued Liability	$29,165,291	$34,171,520
6.	Unfunded Actuarial Accrued Liability (before changes)	39,047,732	
7.	(Gain)/Loss (6. - 5.)	$9,882,441	
Asset Gain/(Loss)			
1.	Actuarial Value of Assets, Beginning of Year	$231,078,562	$217,908,723
2.	Contributions and Receipts	14,694,354	13,626,899
3.	Benefit Payments and Expenses	(16,844,250)	(15,000,089)
4.	Assumed Rate of Return (prior valuation)	7.00%	7.00%
5.	Expected Return	16,100,253	15,205,549
6.	Actuarial Value of Assets, End of Year	$246,302,494	$231,078,562
7.	Actual Return	17,373,828	14,543,029
8.	Actual Rate of Return	7.55%	6.70%
9.	Asset Gain/(Loss) (7. - 5.)	1,273,575	(662,520)
10.	Total Asset Gain/(Loss), 2-Year Period	$564,679	

Actuarial Experience

Below are the various sources of gains and losses over the 2-year period. The asset gain during the period was $564,679, and the total demographic loss during the period was $10,447,120, which totals to an overall loss of $9,882,441.



Unfunded Actuarial Accrued Liability

1.	Changes due to:	
	a. Asset Gain	($564,679)
	b. Demographic Experience Loss	10,447,120
	c. Total Loss Prior to Changes	9,882,441
	d. Plan Change	-
	e. Assumption and Method Changes	-
	Total	-
	f. Total Increase (including changes)	9,882,441
2.	Unfunded Actuarial Accrued Liability, End of Year	$39,047,732

SECTION 3 - CHAPTER 32 OF M.G.L. APPROPRIATIONS

Annual Appropriations

The Annual Appropriation is determined in accordance with the requirements set forth in Sections 22D and 22F of Chapter 32 of the Massachusetts General Laws ("M.G.L."). The appropriation is comprised of the annual employer normal cost and amortization payments to pay the unfunded actuarial accrued liability. Below are the details of the annual appropriations for the current and prior valuations, adjusted for semi-annual payments made July 1 and January 1. The appropriations shown are based on the results of the valuation and do not account for any adjustments made to appropriations in the selected funding schedule.

	Valuation Date	January 1, 2024	January 1, 2022
1.	Early Retirement Incentive Plan (2002)		
	Fully Funded Year	2028	2028
	Investment Return Rate	7.00%	7.00%
	Balance as of Valuation Date	$771,389	$1,035,301
	Amortization Amount	$199,739	$182,907
	Increasing Rate	4.50%	4.50%
	Remaining Payment Period from Valuation Date	4	6
2.	Early Retirement Incentive Plan (2003)		
	Fully Funded Year	2028	2028
	Investment Return Rate	7.00%	7.00%
	Balance as of Valuation Date	$266,306	$357,417
	Amortization Amount	$68,956	$63,145
	Increasing Rate	4.50%	4.50%
	Remaining Payment Period from Valuation Date	4	6
3.	Unfunded Actuarial Accrued Liability		
	Fully Funded Year	2031	2031
	Investment Return Rate	7.00%	7.00%
	Balance as of Valuation Date	$38,010,037	$36,213,606
	Amortization Amount	$5,904,041	$4,496,358
	Increasing Rate	4.00%	4.00%
	Remaining Payment Period from Valuation Date	7	9
4.	Total Amortization Payments	$6,172,736	$4,742,410
5.	Normal Cost	$3,722,737	$3,464,212
6.	Net 3(8)(c) Transfers	$380,263	$380,263
7.	Total Appropriation as of January 1	$10,275,736	$8,586,885
8.	Adjusted for Semi-Annual Payments as of July 1 and January 1	**$10,809,078**	**$9,032,570**

SECTION 3 - CHAPTER 32 OF M.G.L. APPROPRIATIONS

Exhibit 3.1 - 30-Year Forecast of Annual Appropriations

Fiscal Year Ending	Employer Normal Cost	Amortization Payment of UAL	Amortization Payment of ERI 2002	Amortization Payment of ERI 2003	Net 3(8)(c) Transfers	Total Employer Cost	Increase over Prior Year	Unfunded Actuarial Accrued Liability
2025	$3,915,958	$4,703,510	$210,106	$72,535	$400,000	$9,302,109		$39,047,732
2026	3,956,135	5,420,830	219,561	75,799	400,000	10,072,325	8.28%	36,709,141
2027	4,088,247	6,109,414	229,441	79,209	400,000	10,906,311	8.28%	33,464,250
2028	4,196,120	6,890,694	239,767	82,774	400,000	11,809,355	8.28%	29,278,267
2029	4,323,050	8,064,120	-	-	400,000	12,787,170	8.28%	23,990,414
2030	4,439,993	9,005,955	-	-	400,000	13,845,948	8.28%	17,466,888
2031	4,560,135	10,023,243	-	-	400,000	14,983,378	8.21%	9,528,676
2032	4,709,516	-	-	-	400,000	5,109,516	-65.90%	-
2033	4,836,852	-	-	-	400,000	5,236,852	2.49%	-
2034	4,964,163	-	-	-	400,000	5,364,163	2.43%	-
2035	5,122,436	-	-	-	400,000	5,522,436	2.95%	-
2036	5,257,883	-	-	-	400,000	5,657,883	2.45%	-
2037	5,411,843	-	-	-	400,000	5,811,843	2.72%	-
2038	5,570,710	-	-	-	400,000	5,970,710	2.73%	-
2039	5,743,361	-	-	-	400,000	6,143,361	2.89%	-
2040	5,908,362	-	-	-	400,000	6,308,362	2.69%	-
2041	6,066,061	-	-	-	400,000	6,466,061	2.50%	-
2042	6,257,674	-	-	-	400,000	6,657,674	2.96%	-
2043	6,442,456	-	-	-	400,000	6,842,456	2.78%	-
2044	6,651,284	-	-	-	400,000	7,051,284	3.05%	-
2045	6,866,410	-	-	-	400,000	7,266,410	3.05%	-
2046	7,099,496	-	-	-	400,000	7,499,496	3.21%	-
2047	7,311,766	-	-	-	400,000	7,711,766	2.83%	-
2048	7,545,792	-	-	-	400,000	7,945,792	3.03%	-
2049	7,796,007	-	-	-	400,000	8,196,007	3.15%	-
2050	8,053,259	-	-	-	400,000	8,453,259	3.14%	-
2051	8,350,307	-	-	-	400,000	8,750,307	3.51%	-
2052	8,565,406	-	-	-	400,000	8,965,406	2.46%	-
2053	8,834,582	-	-	-	400,000	9,234,582	3.00%	-
2054	9,118,132	-	-	-	400,000	9,518,132	3.07%	-

Exhibit 3.2 - 30-Year Forecast of Cash Flow

Calendar Year	Market Value of Assets, BOY	Benefit Payments	Employee Contributions	Employer Contributions	Investment Return	Market Value of Assets, EOY
2024	$236,373,262	$20,772,336	$5,267,699	$8,843,124	$16,806,854	$246,518,603
2025	246,518,603	17,325,964	5,521,694	9,575,335	17,706,685	261,996,353
2026	261,996,353	18,284,093	5,697,785	10,368,172	18,824,418	278,602,635
2027	278,602,635	19,212,020	5,906,725	11,226,657	20,029,100	296,553,097
2028	296,553,097	20,078,771	6,107,672	12,156,225	21,334,433	316,072,656
2029	316,072,656	20,998,093	6,328,565	13,162,761	22,754,545	337,320,434
2030	337,320,434	21,881,331	6,557,209	14,244,068	24,302,673	360,543,053
2031	360,543,053	22,806,643	6,769,200	4,857,402	25,253,643	374,616,655
2032	374,616,655	23,573,000	7,013,653	4,978,455	26,237,558	389,273,321
2033	389,273,321	24,321,896	7,270,009	5,099,484	27,263,731	404,584,649
2034	404,584,649	25,143,043	7,509,195	5,249,948	28,334,059	420,534,808
2035	420,534,808	26,274,480	7,782,746	5,378,711	29,439,132	436,860,917
2036	436,860,917	27,456,832	8,051,771	5,525,075	30,569,654	453,550,585
2037	453,550,585	28,692,389	8,329,632	5,676,103	31,724,709	470,588,640
2038	470,588,640	29,983,547	8,608,328	5,840,235	32,903,180	487,956,836
2039	487,956,836	31,332,807	8,908,689	5,997,094	34,103,735	505,633,547
2040	505,633,547	32,742,783	9,230,850	6,147,012	35,324,801	523,593,427
2041	523,593,427	34,216,208	9,536,113	6,329,171	36,564,542	541,807,045
2042	541,807,045	35,755,937	9,863,712	6,504,835	37,820,834	560,240,489
2043	560,240,489	37,364,954	10,184,807	6,703,359	39,091,232	578,854,933
2044	578,854,933	39,046,377	10,516,803	6,907,870	40,372,949	597,606,178
2045	597,606,178	40,803,464	10,849,161	7,129,455	41,662,814	616,444,144
2046	616,444,144	42,639,620	11,219,310	7,331,252	42,957,243	635,312,329
2047	635,312,329	44,558,403	11,587,367	7,553,730	44,252,196	654,147,219
2048	654,147,219	46,563,531	11,959,225	7,791,599	45,543,139	672,877,651
2049	672,877,651	48,658,890	12,344,209	8,036,158	46,825,000	691,424,128
2050	691,424,128	50,848,540	12,711,821	8,318,549	48,092,116	709,698,074
2051	709,698,074	53,136,724	13,178,464	8,523,034	49,338,185	727,601,033
2052	727,601,033	55,527,877	13,615,509	8,778,929	50,556,207	745,023,801
2053	745,023,801	58,026,631	14,061,411	9,048,488	51,738,427	761,845,496

Forecast Notes

Exhibit 3.1:

- The Total Normal Cost is assumed to increase 3.25% per year and the Employee Normal Cost is assumed to increase at a rate that reflects a total payroll increase of 3.25% per year and incorporates new entrants sufficient to maintain constant active membership.
- The Unfunded Actuarial Accrued Liability ("UAL") is computed as of January 1 of each year assuming no future gains or losses.
- The Amortization Payment of UAL is an increasing payment at 4% paid over 7 years through 2031.
- The Amortization Payment of the Early Retirement Incentive Plan (2002) is an increasing payment at 4.5% paid over 4 year(s) through 2028.
- The Amortization Payment of the Early Retirement Incentive Plan (2003) is an increasing payment at 4.5% paid over 4 year(s) through 2028.
- Net 3(8)(c) transfers are a level dollar amount based on the net transfers expected to be paid by the Dukes County Contributory Retirement Board during the current year offset by the amount received during the same period.
- Total Employer Cost is the sum of the Employer Normal Cost, net 3(8)(c) transfers and the Amortization of the UAL, all computed as of January 1 of each year and adjusted for semi-annual payments made on July 1 and January 1.
- For fiscal year 2025, we show the actual appropriation developed under the previous funding schedule of $9,302,109. For fiscal years 2026 and later, the Board has selected a funding schedule that fully amortizes the unfunded actuarial accrued liability by 2031, with annual employer costs limited to increases of 8.28% over the prior year.
- The funding schedule adopted by the Board results in amortization payments for every year up to and including the full funded date that are greater than the interest computed on the outstanding UAL from the prior year. This amortization method fully amortizes the UAL within a reasonable time period and reduces the UAL by a reasonable amount within a sufficiently short period.

Exhibit 3.2:

- Expected benefit payments include payments expected to be made to retired members, beneficiaries, disabled members and active members expected to retire. In addition, expected benefit payments include distribution of the annuity savings fund attributed to inactive members.
- Benefit payments exclude cost-of-living increases granted to members in pay status between 1982 and 1997. In addition, benefit payments are as expected for the first ten years of the forecast, then increase by the greater of 4.5% per year thereafter or the expected future payments for the current population projected by our computer model.
- Calendar year cash flow entries are developed as of each January 1.

SECTION 4 - DISCLOSURES

4.1 - GASB 67 and GASB 68 Disclosures

In June 2012, the GASB approved two related Statements that significantly changed the way pension plans and governments account and report pension liabilities. Effective for plans with fiscal years beginning after June 15, 2013, GASB Statement No. 67, *Financial Reporting for Pension Plans* , replaced the requirements of Statement No. 25 and effective for employers with fiscal years beginning after June 15, 2014, GASB Statement No. 68, *Accounting and Financial Reporting for Pensions* , replaced the requirements of Statement No. 27.

The pension standards reflect changes from those previously in place regarding how governments calculate total pension liability and pension expense. Further, the standards contain requirements for disclosing information in the notes to financial statements and presenting required supplementary information following the notes.

GASB 67 requires defined benefit pension plans, such as the Dukes County Contributory Retirement System, to present a statement of fiduciary net position (pension plan assets) and a statement of changes in fiduciary net position. Further, the statement requires that notes to financial statements include descriptive information such as the types of benefits provided, the classes of plan members covered and the composition of the pension plan's retirement board. Finally, GASB 67 requires pension plans to present in required supplementary information the sources of the changes in the net pension liability and information about the actuarially determined contributions compared with the actual contributions made to the plan and related ratios.

GASB 67 and GASB 68 require projected benefit payments be discounted to their actuarial present value using the single rate that reflects:

(1) a long-term expected rate of return on pension plan investments *to the extent that the pension plan's assets are sufficient to pay benefits and pension plan assets are expected to be invested using a strategy to achieve that return* and

(2) a tax-exempt, high-quality municipal bond rate *to the extent that the conditions for use of the long-term expected rate of return are not met.*

GASB 68 establishes standards for measuring and recognizing liabilities, deferred outflows of resources, deferred inflows of resources and pension expense by state and local governments.

The effective date for GASB 67 is for plan years beginning after June 15, 2013, which is the fiscal year ending December 31, 2014 for the Dukes County Contributory Retirement System. The effective date for GASB 68 is for employers' fiscal years beginning after June 15, 2014. The GASB report, submitted under separate cover and prepared as of December 31, 2023 (the measurement date), presents information to assist the Dukes County Contributory Retirement Board in providing the required information under GASB 68 to participating employers.

SECTION 4 - DISCLOSURES

4.2 - PERAC Disclosure Information

The most recent actuarial valuation of the System was prepared by KMS Actuaries, LLC as of January 1, 2024.

Normal Cost - Employees	$5,267,699	10.0% of payroll
Normal Cost - Employers	$3,722,737	7.1% of payroll
Actuarial Liability - Active Members	$122,652,356	43% of total AAL
Actuarial Liability - Retired and Inactive Members	162,697,870	57% of total AAL
Total Actuarial Liability (AAL)	$285,350,226	
System Assets	$246,302,494	
Unfunded Actuarial Accrued Liability	$39,047,732	
Funded Status	86.3%	

Principal actuarial assumptions used in the valuation:

Investment Return	7.00%
Rate of Salary Increase	Based on service, 6% graded down to 4.25% for Group 1
	Based on service, 7% graded down to 4.75% for Group 4

4.3 - Risk Measures

The Dukes County Contributory Retirement System is subject to certain risks that could affect the plan's future financial condition. Here we identify the primary risks to the System, provide some background information about those risks, and provide an assessment of those risks in accordance with Actuarial Standards of Practice (ASOP) 51.

Risk is the potential of actual future measurements deviating from expected future measurements resulting from actual future experience deviating from actuarially assumed experience. Examples of potential risks that may be reasonably anticipated to significantly affect the future financial condition of the plan include the following:

- **Investment Risk** - the potential that investment returns will be different than expected.
- **Asset/Liability Mismatch Risk** - the potential that changes in asset values are not matched by changes in the value of liabilities.
- **Interest Rate Risk** - the potential that interest rates will be different than expected.
- **Longevity and Other Demographic Risks** - the potential that mortality or other demographic experience will be different than expected.
- **Contribution Risk** - the potential of actual future contributions deviating from expected future contributions. For example, that actual contributions are not made in accordance with the plan's funding policy, that other anticipated payments to the plan are not made, or that material changes occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base.
- **Benefit Change Risk** - the potential for the provisions of the System to be changed such that the benefits and liabilities are changed materially.
- **Assumption Change Risk** - the potential for the environment to change such that future valuation assumptions are adjusted to be different than the current assumptions.

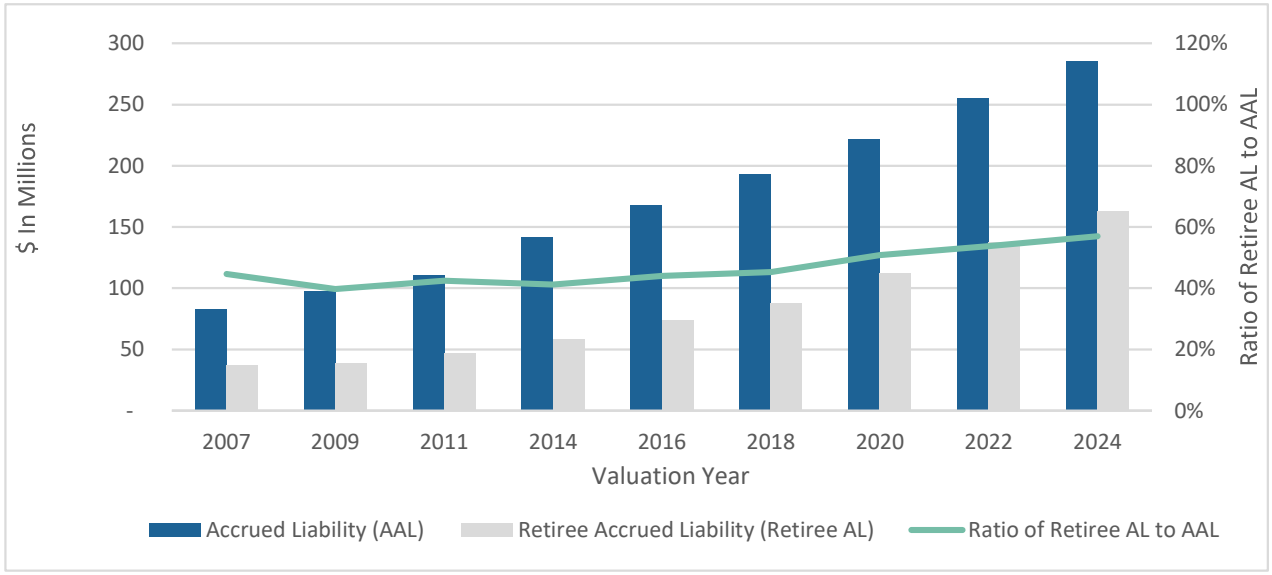
We have provided several risk measures in this section that we believe are most significant for the plan. However, we believe that a more rigorous assessment of risk would be beneficial to the Board to understand the risks identified above, such as:

- Scenario Test - a process for assessing the impact of one possible event, or several simultaneous or sequentially occurring possible events, on a plan's financial condition.
- Sensitivity Test - a process for assessing the impact of a change in an actuarial assumption on an actuarial measurement.
- Stochastic Modeling - a process for generating numerous potential outcomes by allowing for random variations in one or more inputs over time for the purpose of assessing the distribution of those outcomes.
- Stress Test - a process for assessing the impact of adverse changes in one or relatively few factors affecting a plan's financial condition.

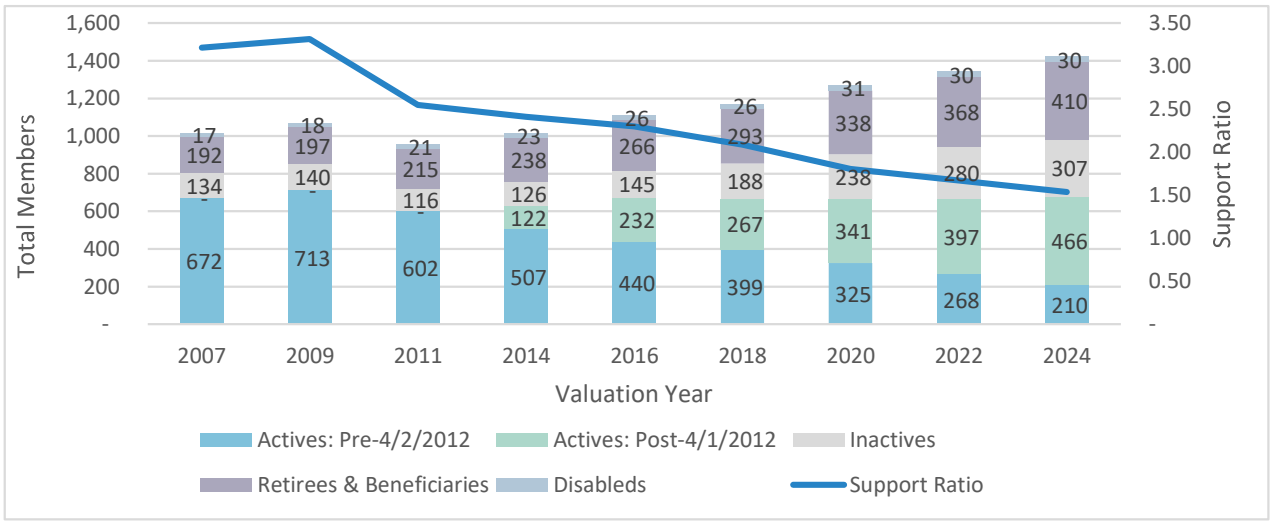
4.3 - Risk Measures

Maturity Measures

As retirement systems mature they become much more sensitive to risks. This is because a higher proportion of the actuarial liability is attributable to participants who are no longer active. Plan maturity measures are helpful in understanding the risks associated with a plan. One such maturity measure is the ratio of the system's retiree liability to its total liabiity. A retirement system in its infancy will have a very low ratio of retiree liability to total liability. As the system matures, the ratio starts increasing. A mature plan will often have a ratio above 60%. For the Dukes County Contributory Retirement System and other retirement systems in the United States these ratios have been steadily increasing in recent years.



Another maturity measure is the ratio of actives to retirees, or support ratio. A retirement system in its infancy will have a very high ratio of active to retired members. As the system matures, and members retire, the support ratio starts declining. A mature system will often have a support ratio near or below one.



4.3 - Risk Measures

Volatility Indices

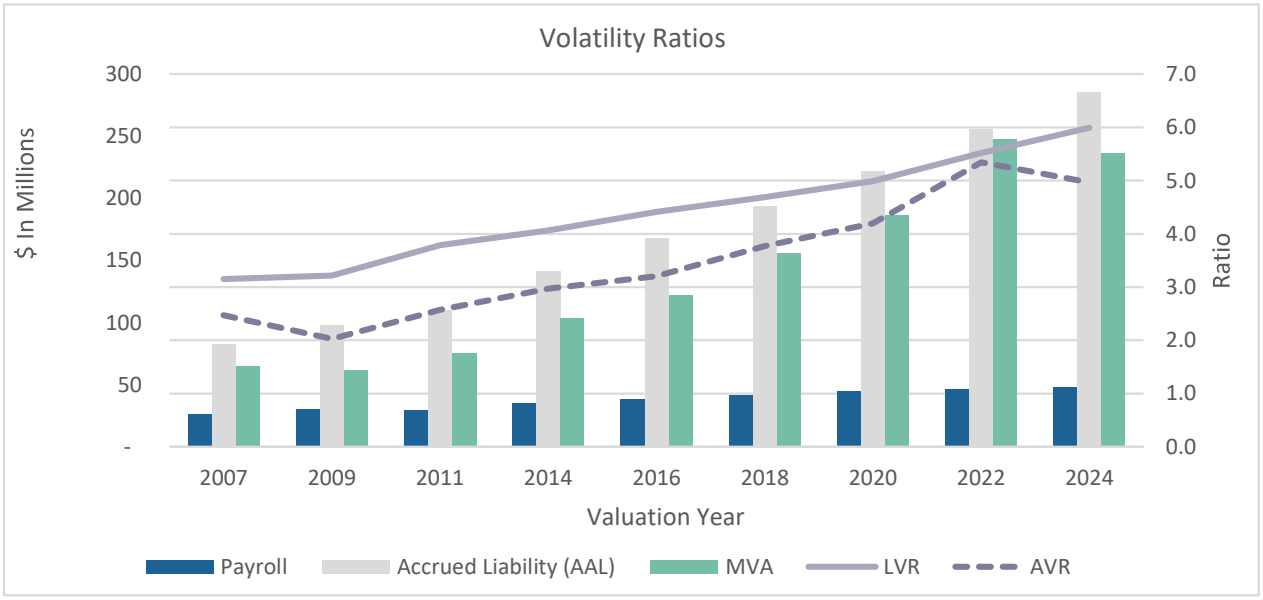
Volatility indices are measures of the relative sensitivity of employer contributions to changes in assets or liabilities. Below we present two such indices - the Asset Volatility Ratio (AVR) and the Liability Volatility Ratio (LVR):

Asset Volatility Ratio (AVR)

The Asset Volatility Ratio (AVR) is the ratio of the Market Value of Assets (MVA) to Payroll. Systems with a higher AVR experience more volatile employer contributions (as a percentage of payroll) due to investment return. This ratio indicates a measure of the system's current contribution volatility. The AVR increases over time but generally tends to stabilize as the system matures.

Liability Volatility Ratio (LVR)

The Liability Volatility Ratio (LVR) is the ratio of the Actuarial Accrued Liability (AAL) to Payroll. Systems with a higher LVR experience more volatile employer contributions (as a percentage of payroll) due to the investment return assumption and changes in liability. This ratio indicates a longer-term potential for contribution volatility. The AVR, described above, will tend to move close to the LVR as the system matures.

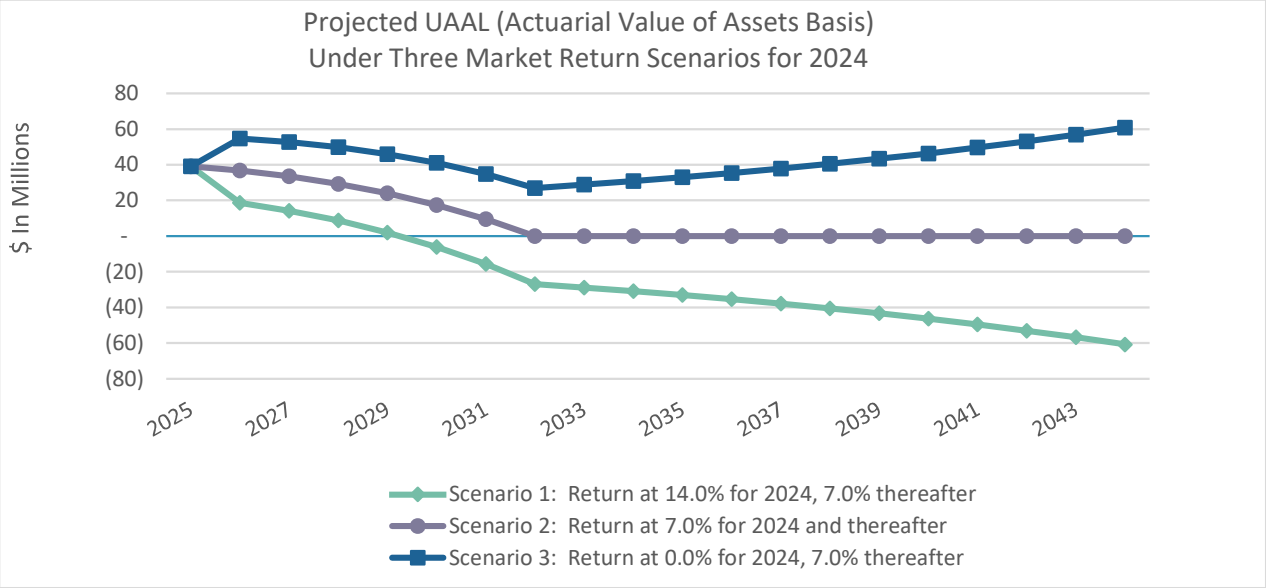


SECTION 4 - DISCLOSURES

4.3 - Risk Measures

Market Return Scenarios

Below we illustrate the projected effect on funding levels of a single year of investment return above or below the assumed investment return. Scenario 1 assumes a one-year return of 2 times the assumed return and the expected return thereafter, Scenario 2 assumes assets earn the expected return every year and Scenario 3 assumes a one-year return of 0% and the expected return thereafter.



Sensitivity Analysis

The following presents the Actuarial Accrued Liability and Funded Status calculated using the investment return rate of 7%, as well as what the Actuarial Accrued Liability and Funded Status would be if it were calculated using an investment return rate 1-percentage point lower (6%) or 1-percentage point higher (8%) than the assumed investment return rate:

	1% Decrease (6.0%)	Current Investment Return Rate (7.0%)	1% Increase (8.0%)
Actuarial Accrued Liability	$318,304,990	$285,350,226	$257,519,416
% Change	12%		-10%
Actuarial Value of Assets	$246,302,494	$246,302,494	$246,302,494
Unfunded Actuarial Accrued Liability	72,002,496	39,047,732	11,216,922
% Change	84%	N/A	-71%
Funded Status	77.4%	86.3%	95.6%

4.3 - Risk Measures

Low-Default Risk Obligation Measure (LDROM)

The retirement plan invests in a diversified portfolio of stocks, bonds, real estate, and other assets with the objective of maximizing investment returns at a reasonable level of risk. The potential for investment returns to be different than expected is a key risk for the plan. Reducing the plan's investment risk by investing solely in bonds, however, would also likely reduce the plan's investment returns thereby increasing the amount of contributions needed over the long term. The Low-Default Risk Obligation Measure (LDROM) represents what the funding liability would be if the plan invested its assets solely in a portfolio of high-quality bonds whose cash flows approximately match future benefit payments. Consequently, the difference between the plan's Actuarial Accrued Liability and the LDROM can be thought of as representing the expected taxpayer savings from investing in the plan's diversified portfolio compared to investing only in high quality bonds.

The following presents the LDROM and Funded Status calculated using the LDROM investment return rate of 4.76%:

LDROM	$368,117,001
Actuarial Value of Assets	$246,302,494
Funded Status	66.91%

The LDROM investment return rate is based on the FTSE Pension Liability Index published as of December 31, 2023. The index represents the single discount rate that would produce the same present value as calculated by discounting a standardized set of liabilities using the Pension Discount Curve, which is a set of yields on hypothetical AA zero coupon bonds whose maturities range from 6 months up to 30 years.

The actuarial valuation reports the funded status and develops appropriations based on the expected return of the plan's investment portfolio. If instead, the plan switched to investing exclusively in high quality bonds, the LDROM illustrates that reported funded status would be lower (which also implies that the Actuarially Determined Contributions would be higher), perhaps significantly. Unnecessarily high appropriation requirements in the near term may not be affordable and could imperil plan sustainability and benefit security.

4.3 - Risk Measures

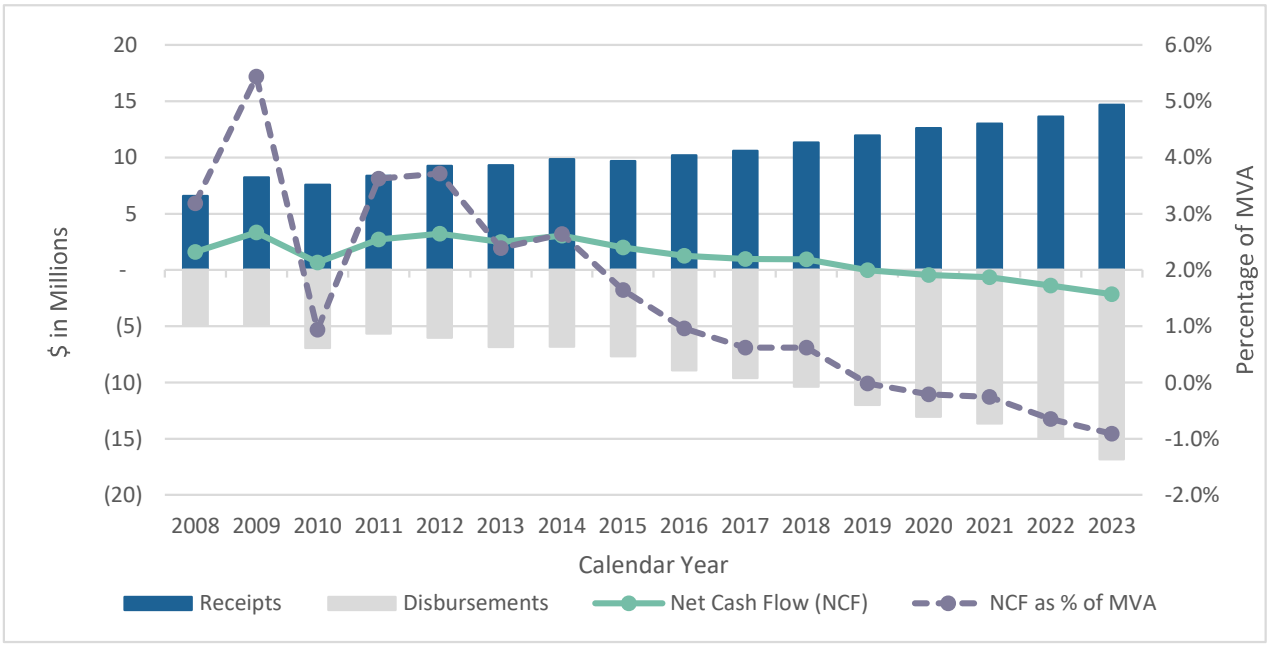
Duration

Duration is another measure that is used to describe how the present value of a cash flow series changes when small changes are made to the underlying interest rates. The duration of the Dukes County Contributory Retirement System is 11, and this represents an approximate percentage change in the Actuarial Accrued Liability for each 1% change to the investment return rate.

Net Cash Flow (NCF)

Net cash flow (NCF) during a year is the difference between contributions, both employer and employee, paid into the System and benefit payments and expenses paid from the System. If the level of benefit payments plus expenses is greater than contributions, then the System has negative NCF. Mature plans generally have a negative NCF as the number of retirees grows. When a System has negative NCF, then additional cash from existing assets are needed to pay the pension benefits.

Historical NCF since 2008 is shown in the next graph. Blue bars indicate contributions, from employees and employers, and grey bars show benefit payments and administrative expenses. The NCF is represented by the green line. The dashed purple line (which corresponds to the right-hand axis) provides the NCF as a percentage of the Market Value of Assets. As of December 31, 2023, the NCF was negative $2.15 million, which represents -0.91% of the Market Value of Assets. The NCF falls within the range of -0.91% to 5.4% of total assets over the 16-year period.



SECTION 5 - SUMMARY OF PLAN PROVISIONS

Administration

There are 104 contributory retirement systems for public employees in Massachusetts. Each system is governed by a retirement board and all boards, although operating independently, are governed by Chapter 32 of the Massachusetts General Laws, Chapter 34B, Section 19 and other applicable statutes. This law in general provides uniform benefits, uniform contribution requirements and a uniform accounting and funds structure for all systems.

Participation

Participation is mandatory for all full-time employees. Eligibility with respect to part-time, provisional, temporary, seasonal or intermittent employment is governed by regulations promulgated by the local retirement board, and approved by PERAC. Membership is optional for certain elected officials.

Membership Groups

There are four membership groups in the Retirement System:

Group 1	General employees, including clerical, administrative, technical and all other employees not otherwise classified.
Group 2	Certain specified hazardous duty positions.
Group 3	State police officers and inspectors.
Group 4	Local police officers, firefighters and other specified hazardous positions.

For members in more than one group, participation will be proportional.

Member Contributions

Member contributions vary depending on the most recent date of membership:

Prior to 1975	5% of Salary
1975 – 1983	7% of Salary
1984 – June 30, 1996	8% of Salary
July 1, 1996 – present	9% of Salary
1979 – present	An additional 2% of Salary in excess of $30,000.
Group 1 members hired on or after April 2, 2012	6% of Salary with 30 or more years of creditable service.

Rate of Interest

Interest on regular deductions made after January 1, 1984 is a rate established by PERAC in consultation with the Commissioner of Banks. The rate is obtained from the average rates paid on individual savings accounts by a representative sample of at least ten financial institutions.

Retirement Age

The mandatory retirement age for some Group 2 and Group 4 members is age 65. Most Group 2 and Group 4 members may remain in service after reaching age 65. Group 4 members who are employed in certain public safety positions are required to retire at age 65. There is no mandatory retirement age for members in Group 1.

Salary

Gross regular compensation. This does not include bonuses, overtime, severance pay, unused sick leave credit or other similar compensation. For employees who became members after January 1, 2011, regular compensation is limited to 64% of the federal limit found in 26 U.S.C. §401(a)(17). For 2024, the limit is 64% of $345,000, or $220,800.

Average Salary

Membership before April 2, 2012

- Average annual rate of regular compensation received during the three consecutive years that produce the highest average, or, if greater, during the last three years (whether or not consecutive) preceding retirement.

Membership on or after April 2, 2012

- Average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement.

Creditable Service

The period during which a member contributes to the retirement system plus certain periods of military service and "purchased" service.

Benefit Rate

The benefit rate varies with the member's retirement age, Group, membership date and years of creditable service at retirement. Each year a member retires prior to the age at which the 2.5% maximum benefit rate applies, a reduction is applied to each year of age under the maximum age. The maximum age and reduction for each Group and membership date is as follows:

	Group 1	Group 2	Group 4
2.5% for Membership before April 2, 2012:			
Maximum age:	65	60	55
Reduction:	0.1%	0.1%	0.1%
2.5% for Membership on or after April 2, 2012 (less than 30 years of service):			
Maximum age:	67	62	57
Reduction:	0.15%	0.15%	0.15%
2.5% for Membership on or after April 2, 2012 (30+ years of service):			
Maximum age:	67	62	57
Reduction:	0.125%	0.125%	0.125%

Superannuation Retirement	Eligibility if membership before April 2, 2012	♦ completion of 20 years of Creditable Service, or ♦ attainment of age 55 if hired prior to 1978, or ♦ attainment of age 55 with 10 years of Creditable Service, if hired after 1978.
	Eligibility if membership on or after April 2, 2012	♦ attainment of age 60 with 10 years of Creditable Service if classified in Group 1 ♦ attainment of age 55 with 10 years of Creditable Service if classified in Group 2 ♦ attainment of age 55 if classified in Group 4
	Benefit Amount	Product of the member's Benefit Rate, Average Salary and Creditable Service.
	Maximum Benefit	80% of the member's Average Salary.
	Veteran's Benefit	Additional benefit of $15 per year of Creditable Service, up to a maximum of $300.
Deferred Vested	Eligibility	♦ completion of ten or more years of Creditable Service. ♦ elected officials hired prior to 1978, completion of six years of Creditable Service.
	Benefit Amount	Accrued benefit payable commencing at age 55, or the completion of 20 years of Creditable Service, or may be deferred until later at the participant's option.
Withdrawal of Contributions		Contributions may be withdrawn upon termination of employment. ♦ Members hired on or after January 1, 1984 who terminate with less than ten years of Creditable Service receive contributions plus interest on the Annuity Savings Account at an annual rate of 3%. ♦ All other withdrawals receive contributions plus 100% of the regular interest that has accrued to the Annuity Savings Account.

Ordinary Disability Retirement	Eligibility	Non-job related disability after completion of ten years of Creditable Service.
	Benefit Amount for Group 1 membership before April 2, 2012 or Group 2 or Group 4	Superannuation benefit determined if the member is age 55, up to a maximum of 80% of Average Salary over three years. If the member is a veteran, 50% of final rate of salary (final year) plus an annuity based on the accumulated member contributions plus credited interest, up to a maximum of 80% of Average Salary over five years.
	Benefit Amount for Group 1 membership on or after April 2, 2012	Superannuation benefit determined if the member is age 60, up to a maximum of 80% of Average Salary over three years. If the member is a veteran, 50% of final rate of salary (final year) plus an annuity based on the accumulated member contributions plus credited interest, up to a maximum of 80% of Average Salary over five years.
Accidental Disability Retirement	Eligibility	Disabled as a result of an accident in the performance of duties. There is no minimum age or service requirement.
	Benefit Amount	72% of Salary plus an annuity based on accumulated member contributions plus credited interest.
	Maximum Benefit	100% of Salary if hired before January 1, 1988, otherwise 75% of Salary.
	Veteran's Benefit	Additional allowance of $15 per year of Creditable Service, up to a maximum of $300.
	Supplemental Dependent Allowance	Additional allowance of $1,092.60 per year for each child until age 18 (or age 22 if a full-time student).
Non-Occupational Death	Eligibility	For members with at least two years of creditable service who die while in active service, but not due to occupational injury.
	Benefit Amount	Benefit as if Option C had been elected. Minimum benefit of $250 per month for surviving spouse, $120 per month for first child and $90 per month for each additional child.

Accidental Death	Eligibility	For members who die as a result of an occupational injury.
	Benefit Amount	72% of Salary plus an annuity based on accumulated member contributions plus credited interest.
	Maximum Benefit	100% of Salary if hired before January 1, 1988, otherwise 75% of Salary.
	Veteran's Benefit	Additional allowance of $15 per year of creditable service, up to a maximum of $300.
	Supplemental Dependent Allowance	Additional allowance of $1,092.60 per year for each child until age 18 (or age 22 if a full-time student).

Cost-of-Living Adjustment (COLA)

In accordance with the adoption of Chapter 17 of the Acts of 1997, the granting of a Cost-of-Living Adjustment will be determined by an annual vote by the Retirement Board. The amount of increase will be based upon the Consumer Price Index, limited to a maximum of 3.0%, beginning on July 1. All retirees, disabled retirees and beneficiaries who have been receiving benefit payments for at least one year as of July 1 are eligible for the adjustment. The maximum amount of pension benefit subject to a COLA is $15,000. A one-time additional 2% COLA was approved on the $14,000 COLA base effective July 1, 2022.

All COLAs granted to members after 1981 and prior to July 1, 1998 are deemed to be an obligation of the Commonwealth of Massachusetts and are not the liability of the Retirement System.

Optional Forms of Payment

A member may elect to receive his or her retirement allowance, payable in monthly installments, in one of three forms of payment:

- Option A – Total annual allowance commencing at retirement and terminating at member's death.

- Option B – A reduced annual allowance commencing at retirement with death benefit equal to excess of member contributions plus credited interest to retirement over annuity benefit paid to member.

- Option C – A reduced annual allowance commencing at retirement with 66⅔% of benefit continued to designated beneficiary upon death of member. For members who retired on or after January 12, 1988, if the beneficiary pre-deceases the retiree, the benefit payable increases based on the factor used to determine the Option C benefit at retirement. For members who retired prior to January 12, 1988, if the System has accepted Section 288 of Chapter 194 of the Acts of 1998 and the beneficiary pre-deceases the retiree, the benefit payable increases based on the factor used to determine the Option C benefit at retirement.

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Valuation Date

January 1, 2024

Investment Return Rate

7.00% per year.

The investment return assumption is a long-term assumption based on capital market expectations by asset class, historical returns and professional judgment. We considered analysis prepared by PRIM's investment advisor using a building block approach and using the target asset allocation, expected returns by asset class and risk analysis to determine a long-term expected average annual rate of return.

Low-Default Risk Obligation Measure (LDROM) Investment Return Rate

4.76% per year.

The LDROM investment return rate is based on the FTSE Pension Liability Index published as of December 31, 2023. The index represents the single discount rate that would produce the same present value as calculated by discounting a standardized set of liabilities using the Pension Discount Curve, which is a set of yields on hypothetical AA zero coupon bonds whose maturities range from 6 months up to 30 years.

Annuity Savings Fund Interest Rate

2.00% per year

Amortization Method

Unfunded Actuarial Accrued Liability (UAL):

Increasing dollar amount at 4% to reduce the Unfunded Actuarial Accrued Liability to zero on or before June 30, 2031.

Early Retirement Incentive Program (ERI) for 2002:

Increasing dollar amount at 4.5% to reduce the Unfunded Actuarial Accrued Liability attributable to the 2002 ERI to zero on or before June 30, 2028.

Early Retirement Incentive Programs (ERI) for 2003:

Increasing dollar amount at 4.5% to reduce the Unfunded Actuarial Accrued Liability attributable to the 2003 ERI to zero on or before June 30, 2028.

Output Smoothing Method

Total appropriation increases are limited to 8.28% per year.

Salary Scale

The assumed annual rates for salary increases including longevity are illustrated by the following rates:

Years of Service	Groups 1 and 2	Group 4
0	6.00%	7.00%
1	5.50%	6.50%
2	5.50%	6.00%
3	5.25%	5.75%
4	5.25%	5.25%
5	4.75%	5.25%
6	4.75%	4.75%
7	4.50%	4.75%
8	4.50%	4.75%
9+	4.25%	4.75%

Salary Scale, continued

The salary scale assumption is a long-term estimate derived from historical data, current and recent market expectations and professional judgment.

Cost-of-Living Allowance

Cost-of-Living Allowances (COLA) are assumed to be 3% of the pension amount, capped at $450 per year.

Inflation

2.5% per year, based on current economic data, analyses from economists and other experts, and professional judgment.

Payroll Growth

3.25% per year, based on historical data, current and recent market expectations and professional judgment.

Mortality Rates

RP-2014 Blue Collar Mortality Table with full generational mortality improvement using Scale MP-2020. For disabled members, RP-2014 Blue Collar Mortality Table set forward one year with full generational mortality improvement using Scale MP-2020.

General Employees: 55% of deaths are job-related.
Police and Fire: 90% of deaths are job-related.

PERAC completed a local system retiree mortality study in 2019 and selected the RP-2014 Blue Collar Mortality Table with full generational mortality improvement using Scale MP-2018 and subsequently updated the mortality improvement scale to MP-2020 in 2022. The underlying tables with generational mortality improvement selected reasonably reflect the mortality experience of the System as of the valuation date based on historical and current demographic data as well as professional judgement.

Turnover Rates

Illustrative turnover rates are shown below:

Creditable Service	Groups 1 and 2	Group 4
0	0.1500	0.0150
10	0.0540	0.0150
20	0.0200	0.0000
30	0.0000	0.0000

Disability Rates

Illustrative disability rates are shown below:

Attained Age	Groups 1 and 2	Group 4
20	0.0001	0.0010
30	0.0003	0.0030
40	0.0010	0.0030
50	0.0019	0.0125
60	0.0028	0.0085

General Employees: 55% of disabilities are accidental and 45% are ordinary.
Police and Fire: 90% of disabilities are accidental and 10% are ordinary.

Retirement Rates

Illustrative retirement rates are shown below:

Attained Age	Groups 1 and 2		Group 4
	Male	Female	Male & Female
50	0.0100	0.0150	0.0200
51	0.0100	0.0150	0.0200
52	0.0100	0.0200	0.0200
53	0.0100	0.0250	0.0500
54	0.0200	0.0250	0.0750
55	0.0200	0.0550	0.1500
56	0.0250	0.0650	0.1000
57	0.0250	0.0650	0.1000
58	0.0500	0.0650	0.1000
59	0.0650	0.0650	0.1500
60	0.1200	0.0500	0.2000
61	0.2000	0.1300	0.2000
62	0.3000	0.1500	0.2500
63	0.2500	0.1250	0.2500
64	0.2200	0.1800	0.3000
65	0.4000	0.1500	1.0000
66	0.2500	0.2000	1.0000
67	0.2500	0.2000	1.0000
68	0.3000	0.2500	1.0000
69	0.3000	0.2000	1.0000
70	1.0000	1.0000	1.0000

The turnover, disability and retirement rates are based on PERAC's most recent experience analysis of local retirement systems which reviewed age, gender and job group. The assumptions reflect this analysis as well as professional judgment.

SECTION 6 - ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Cost Method

Individual Entry Age Normal.

Actuarial Asset Method

The Actuarial Value of Assets is the market value of assets as of the valuation date reduced by the sum of:

a) 80% of gains and losses of the prior year,
b) 60% of gains and losses of the second prior year,
c) 40% of gains and losses of the third prior year, and
d) 20% of gains and losses of the fourth prior year.

Investment gains and losses are determined by the excess or deficiency of the expected return over the actual return on the market value. The actuarial valuation of assets is further constrained to be not less than 80% or more than 120% of market value.

Census Data

Census data as of the valuation date were submitted by the Retirement Board.

Asset Data

Asset information is reported annually to the Public Employee Retirement Administration Commission by the Dukes County Contributory Retirement Board.

Dependents

80% of all members will be survived by a spouse. Age assumption for spouses is that males are assumed to be three years older than females.

Net Section 3(8)(c) Transfers

Reimbursements paid to and received from other retirement systems for that portion of a retiree's pension that is based on service earned in another retirement system. Net 3(8)(c) transfers are assumed to be $400,000 per year.

Administrative Expenses

For Fiscal Year 2025, the administrative expenses were assumed to be $600,000 and are anticipated to increase 3.25% per year.

The administrative expense assumption is based on information relating to the System's administrative expenses provided by the Retirement Board.

Use of ProVal®

KMS Actuaries has used ProVal® to develop the liabilities, normal costs and projected benefit payments in this report. We have a lease agreement with WinTech, the developer of ProVal®, and have relied on their system to perform these calculations. The actuaries signing this report and the KMS staff members who were involved in preparing it have a clear understanding of ProVal® and have used it only for its intended purpose. We have reviewed the output produced by ProVal® for reasonableness and we are not aware of any material inconsistencies, limitations or known weaknesses that would affect this report.

SECTION 7 - PLAN MEMBER INFORMATION

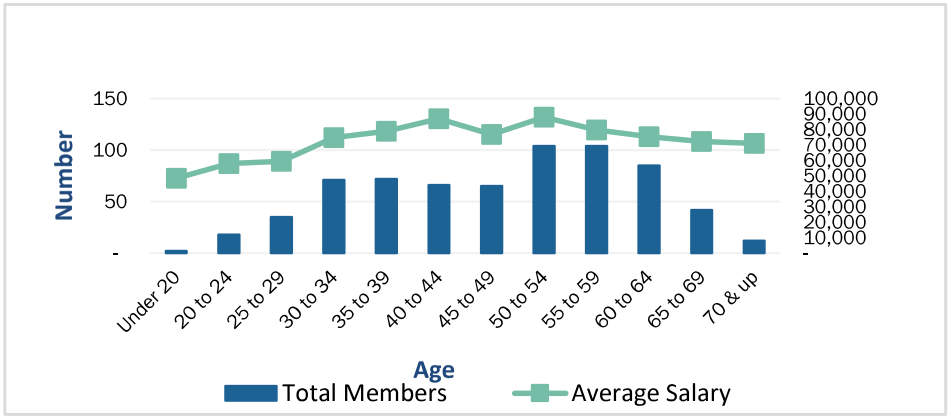
Exhibit 7.1 - Summary of Census Data as of January 1, 2024

Census data as of December 31, 2023 was provided to us by the Retirement Board. We performed edits on the data to ensure that it is reasonable and complete and made certain assumptions regarding any missing or invalid data so that results are not materially affected. Presented on the following pages are summaries of the demographic profile of active members (Exhibit 7.2) and retired plan members and beneficiaries and disabled plan members (Exhibit 7.3). Below, we present a comparison of the census data from the current and prior valuations:

Valuation Date	January 1, 2024	January 1, 2022	% Change
Census Data			
Active Members	676	665	1.7%
Average Age	48.5	49.0	(1.0%)
Average Service	9.4	10.1	(7.2%)
Valuation Salary	$52,639,428	$46,309,045	13.7%
Average Salary	$77,869	$69,638	11.8%
Retired Members and Beneficiaries	410	368	11.4%
Average Age	72.3	71.9	0.6%
Total Annual Retirement Allowance	$13,360,180	$10,922,649	22.3%
Average Annual Retirement Allowance	$32,586	$29,681	9.8%
State Reimbursed COLAs	$2,609	$2,296	13.6%
Total System-Funded Retirement Allowance	$13,357,571	$10,920,353	22.3%
Disabled Members	30	30	0.0%
Average Age	66.0	63.6	3.7%
Total Annual Retirement Allowance	$1,451,887	$1,396,748	3.9%
Average Annual Retirement Allowance	$48,396	$46,558	3.9%
State Reimbursed COLAs	$83	$83	0.0%
Total System-Funded Retirement Allowance	$1,451,804	$1,396,665	3.9%
Inactive Members	307	280	9.6%
Annuity Savings Fund	$4,337,247	$3,520,131	23.2%

Exhibit 7.2 - Active Members by Age and Years of Service as of January 1, 2024

Attained Age	Years of Service 0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total	Total Salary	Average Salary
Under 20	2	-	-	-	-	-	-	-	-	2	96,711	48,355
20 to 24	18	-	-	-	-	-	-	-	-	18	1,042,300	57,906
25 to 29	32	3	-	-	-	-	-	-	-	35	2,077,881	59,368
30 to 34	38	29	4	-	-	-	-	-	-	71	5,305,467	74,725
35 to 39	29	23	14	6	-	-	-	-	-	72	5,677,569	78,855
40 to 44	30	17	9	7	3	-	-	-	-	66	5,736,101	86,911
45 to 49	25	18	6	10	5	1	-	-	-	65	4,992,184	76,803
50 to 54	34	20	11	14	12	10	3	-	-	104	9,152,580	88,006
55 to 59	31	18	17	15	11	5	5	2	-	104	8,278,149	79,598
60 to 64	22	19	10	9	10	6	4	5	-	85	6,400,443	75,299
65 to 69	10	9	6	4	10	2	-	1	-	42	3,029,053	72,120
70 & up	4	3	1	1	1	2	-	-	-	12	850,990	70,916
Total	275	159	78	66	52	26	12	8	-	676	52,639,428	77,869
Average Salary	61,273	73,502	84,812	96,269	103,945	121,360	133,810	120,900	-			
					Average Age:		48.5	Average Service:		9.4		



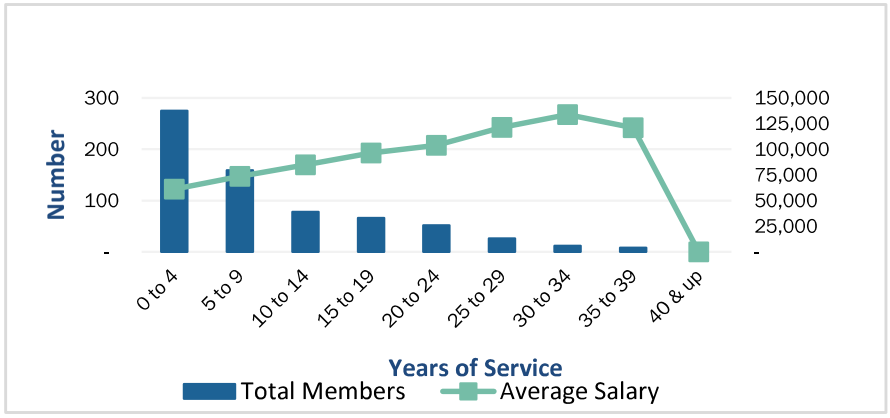
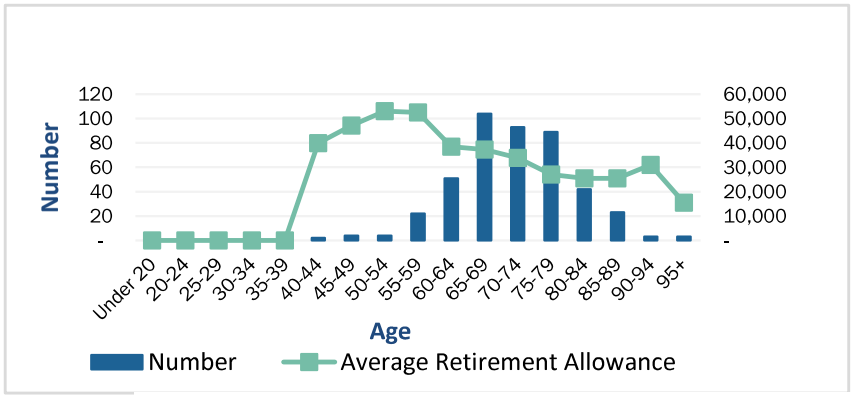
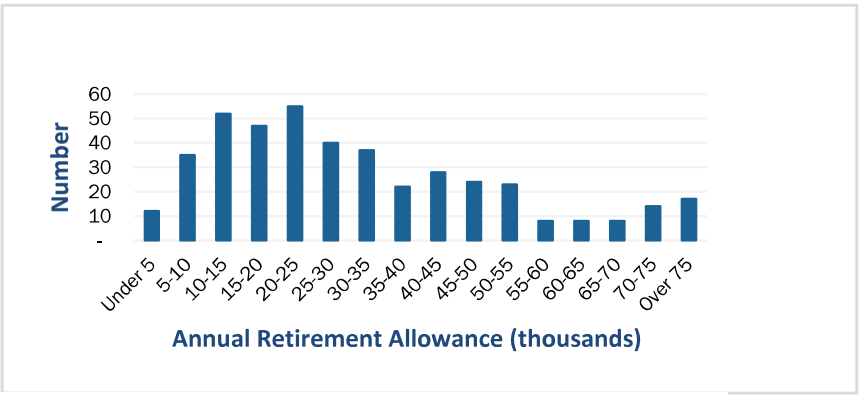


Exhibit 7.3 - Annual Retirement Allowances as of January 1, 2024

Attained Age	Service Retirements			Disability Retirements			Beneficiaries		
	Number	Annual Retirement Allowance	Average Retirement Allowance	Number	Annual Retirement Allowance	Average Retirement Allowance	Number	Annual Retirement Allowance	Average Retirement Allowance
Under 20	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	2	79,856	39,928	0	0	0
45-49	2	100,325	50,163	2	88,327	44,164	0	0	0
50-54	3	186,670	62,223	0	0	0	1	25,331	25,331
55-59	19	1,112,445	58,550	0	0	0	3	42,096	14,032
60-64	42	1,451,662	34,563	7	405,301	57,900	2	101,907	50,954
65-69	90	3,319,452	36,883	8	432,881	54,110	6	124,139	20,690
70-74	78	2,696,268	34,568	8	359,547	44,943	7	87,405	12,486
75-79	78	2,166,090	27,770	2	57,463	28,732	9	182,003	20,223
80-84	37	988,229	26,709	1	28,512	28,512	4	51,792	12,948
85-89	19	504,870	26,572	0	0	0	4	80,282	20,071
90-94	3	92,827	30,942	0	0	0	0	0	0
95+	2	25,241	12,621	0	0	0	1	21,146	21,146
Total	**373**	**12,644,079**	**33,898**	**30**	**1,451,887**	**48,396**	**37**	**716,101**	**19,354**
Average Age	**72.1**			**66.0**			**74.4**		





SECTION 8 - GLOSSARY OF TERMS

Actuarial Accrued Liability – That portion of the Actuarial Present Value of pension plan benefits which is not provided by future Normal Costs or employee contributions. It is the portion of the Actuarial Present Value attributable to service rendered as of the Valuation Date.

Actuarial Assumptions – Assumptions, based upon past experience or standard tables, used to predict the occurrence of future events affecting the commencement, amount and duration of pension benefits, such as: changes in compensation, mortality, withdrawal, disablement and retirement; rates of investment earnings and asset appreciation or depreciation; and any other relevant items.

Actuarial Cost Method (or Funding Method) – A procedure for allocating the Actuarial Present Value of all past and future pension plan benefits to the current year (Normal Cost) and the past (Actuarial Accrued Liability).

Actuarial Gain or Loss (or Experience Gain or Loss) – A measure of the difference between actual experience and that expected based upon the set of Actuarial Assumptions, during the period between the valuation date and the most recent immediately preceding valuation date.

Actuarial Present Value – The dollar value on the valuation date of all benefits expected to be paid to current members based upon the Actuarial Assumptions and the terms of the Plan.

Actuarial Standard of Practice – Standards set by the Actuarial Standards Board for appropriate actuarial practice in the United States. These Standards describe the procedures an actuary should follow when performing actuarial services and identify what the actuary should disclose when communicating the results of those services.

Actuarial Valuation – The measurement of relevant pension obligations and, when applicable, the determination of periodic costs or actuarially determined contributions.

Amortization Payment – That portion of the pension plan appropriation which represents payments made to pay interest on and the reduction of the Unfunded Accrued Liability.

Annual Statement – The statement submitted by the local retirement board to PERAC each year that describes the asset holdings and Fund balances as of December 31 and the transactions during the calendar year that affected the financial condition of the retirement system.

Annuity Reserve Fund – The fund into which total accumulated Member Contributions, including interest, is transferred at the time a member retires, and from which annuity payments are made.

Annuity Savings Fund – The fund in which Member Contributions plus interest credited are held for active members and for former members who have not withdrawn their contributions and are not yet receiving a benefit (inactive members).

Assets – The total value of the investments held by the Plan trust that are for the payment of promised benefits. Employer appropriations and Member Contributions, as well as investment earnings, are added to the Plan trust. Benefit payments and other disbursements are withdrawn from the Plan trust. For valuation purposes, assets are usually measured at market value.

SECTION 8 - GLOSSARY OF TERMS

Cost of Benefits – The estimated payment from the pension system for benefits for the fiscal year.

Expense Fund – The fund into which the appropriation for administrative expenses is paid and from which all such expenses are paid.

Funded Ratio – The Actuarial Value of Assets expressed as a percentage of the Actuarial Accrued Liability.

Funding Schedule – The schedule based upon the most recently approved actuarial valuation which sets forth the amount which would be appropriated to the pension system in accordance with Section 22D and Section 22F of M.G.L. Chapter 32.

GASB – Governmental Accounting Standards Board.

LDROM – Low-Default Risk Obligation Measure.

Normal Cost – Total Normal Cost is that portion of the Actuarial Present Value of pension plan benefits which is expected to accrue in the current fiscal year. The Employee Normal Cost is the amount of the expected Member Contributions for the current fiscal year. The Employer Normal Cost is the difference between the Total Normal Cost and the Employee Normal Cost.

Output Smoothing Method – A method to reduce volatility of the results of a contribution allocation procedure. Output smoothing methods include 1) phasing in the impact of assumption changes on contributions, 2) blending a prior valuation with a subsequent valuation to determine contributions, or 3) placing a corridor around changes in the dollar amount, contribution rate, or percentage change in contributions from year to year.

Pension Fund – The fund into which appropriation amounts as determined by PERAC are paid and from which pension benefits are paid.

Pension Reserve Fund – The fund which shall be credited with all amounts set aside by a system for the purpose of establishing a reserve to meet future pension liabilities. These amounts would include excess interest earnings.

Present Value of Future Benefits – The actuarial present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value of money and the probabilities of payment.

Special Fund for Military Service Credit – The fund which is credited with amounts paid by the retirement board equal to the amount which would have been contributed by a member during a military leave of absence as if the member had remained in active service of the retirement board. In the event of retirement or a non-job related death, such amount is transferred to the Annuity Reserve Fund. In the event of termination prior to retirement or death, such amount shall be transferred to the Pension Fund.

Total Pension Liability – The portion of the Actuarial Present Value attributable to past service in accordance with the Entry Age cost method as stipulated by GASB Statement Number 67 (GASB 67).

Unfunded Actuarial Accrued Liability – The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.

SECTION 9 - MEMBER UNIT APPROPRIATION

Unit Name	FY2026 Appropriation (Actuarial Allocation Method) Normal Cost	Amortization of UAL	2002 ERI	2003 ERI	Net 3(8(c) Transfers	Total FY2026 Appropriation	FY2025 Appropriation	Increase over 2025	Payment on 7/1/2025
Up-Island School	103,525	184,421	3,685	-	14,628	306,259	296,064		301,165
Dukes County	288,726	313,444	32,173	5,810	26,803	666,956	613,790		655,863
Tisbury	716,239	1,001,701	56,386	-	82,708	1,857,034	1,706,777		1,826,148
Edgartown	744,508	1,316,083	40,891	26,641	101,277	2,229,400	2,170,542		2,192,323
Oak Bluffs	666,687	932,290	27,252	11,564	67,996	1,705,789	1,495,278		1,677,419
West Tisbury	309,770	372,655	14,945	7,242	27,416	732,028	702,468		719,853
Chilmark	344,687	327,248	18,885	10,000	17,802	718,622	619,767		706,670
Aquinnah	136,103	126,471	-	-	4,182	266,756	234,255		262,319
Gosnold	34,039	36,604	-	-	1,437	72,080	61,395		70,881
MV Transit Authority	13,155	48,173	-	-	1,012	62,340	60,718		61,303
MV Regional School	402,886	407,827	25,344	-	31,477	867,534	807,336		853,105
MV Landbank	29,486	95,685	-	7,326	3,868	136,365	125,544		134,097
MV Refuse	50,349	86,160	-	-	5,478	141,987	119,560		139,626
MV Commission	82,584	115,161	-	7,216	6,848	211,809	190,994		208,286
OB Water Dept	25,660	66,649	-	-	5,057	97,366	97,621		95,747
Retirement System	7,731	(9,742)	-	-	2,011	-	-		-
Total	3,956,135	5,420,830	219,561	75,799	400,000	10,072,325	9,302,109	8.28%	9,904,805

SECTION 9 - MEMBER UNIT APPROPRIATION

Unit Name	FY2027 Appropriation (Actuarial Allocation Method) Normal Cost	Amortization of UAL	2002 ERI	2003 ERI	Net 3(8(c) Transfers	Total FY2027 Appropriation	FY2026 Appropriation	Increase over 2026	Payment on 7/1/2026
Up-Island School	106,982	207,827	3,851	-	13,352	332,012	306,259		326,490
Dukes County	298,368	353,175	33,621	6,072	23,281	714,517	666,956		702,633
Tisbury	740,157	1,128,757	58,922	-	72,801	2,000,637	1,857,034		1,967,363
Edgartown	769,369	1,483,111	42,731	27,840	96,349	2,419,400	2,229,400		2,379,161
Oak Bluffs	688,951	1,050,591	28,479	12,084	67,772	1,847,877	1,705,789		1,817,144
West Tisbury	320,115	419,930	15,617	7,568	27,682	790,912	732,028		777,758
Chilmark	356,198	368,770	19,735	10,449	24,389	779,541	718,622		766,576
Aquinnah	140,648	142,533	-	-	9,315	292,496	266,756		287,631
Gosnold	35,176	41,253	-	-	2,664	79,093	72,080		77,778
MV Transit Authority	13,594	54,305	-	-	3,412	71,311	62,340		70,125
MV Regional School	416,340	459,535	26,485	-	30,179	932,539	867,534		917,029
MV Landbank	30,470	107,854	-	7,656	7,031	153,011	136,365		150,466
MV Refuse	52,031	97,100	-	-	6,150	155,281	141,987		152,698
MV Commission	85,342	129,782	-	7,540	8,604	231,268	211,809		227,422
OB Water Dept	26,517	75,112	-	-	4,787	106,416	97,366		104,646
Retirement System	7,989	(10,221)	-	-	2,232	-	-		-
Total	4,088,247	6,109,414	229,441	79,209	400,000	10,906,311	10,072,325	8.28%	10,724,920

SECTION 10 - RESULTS BY MEMBER UNIT

Member Unit		Up-Island School	Dukes County	Tisbury	Edgartown	Oak Bluffs	West Tisbury
Summary of Member Data							
	Active Members	34	30	86	103	83	29
	Average Age	48.0	50.1	51.3	48.4	49.6	54.0
Groups 1 & 2	Average Service	7.2	7.8	9.9	9.6	8.3	10.1
	Salary	1,865,881	2,669,314	5,998,828	7,450,416	5,340,036	2,408,703
	Average Salary	54,879	88,977	69,754	72,334	64,338	83,059
	Active Members	0	9	24	25	25	11
	Average Age	0.0	41.9	38.1	41.9	40.4	36.4
Group 4	Average Service	0.0	8.3	8.2	13.4	12.6	8.3
	Salary	0	744,425	2,500,112	3,335,629	2,966,722	1,307,582
	Average Salary	0	82,714	104,171	133,425	118,669	118,871
	Retired Members and Beneficiaries	22	24	86	90	65	25
	Annual Pensions	437,919	789,601	2,869,770	3,346,591	2,045,024	1,015,207
	Average Age	71.3	73.3	72.2	71.5	72.4	70.2
	Average Pension	19,905	32,900	33,369	37,184	31,462	40,608
	Disabled Members	2	5	5	6	10	0
	Annual Pensions	103,748	202,915	192,918	403,756	472,867	0
	Average Age	64.5	64.1	64.9	68.7	64.3	0.0
	Average Pension	51,874	40,583	38,584	67,293	47,287	0
	Inactive Members	45	14	44	50	64	9
	Annuity Savings Fund	304,335	263,300	776,145	672,745	984,229	166,846

SECTION 10 - RESULTS BY MEMBER UNIT

Member Unit	Up-Island School	Dukes County	Tisbury	Edgartown	Oak Bluffs	West Tisbury
Actuarial Accrued Liability - January 1, 2024						
Active Employees	3,191,251	6,598,958	19,331,175	27,353,780	19,480,844	8,670,577
Retired Members and Beneficiaries	4,695,856	7,840,953	30,114,643	35,702,951	21,986,507	10,903,570
Disabled Members	1,240,336	2,403,114	2,134,326	4,694,604	5,640,127	0
Inactive Members	304,335	263,300	776,145	672,745	984,227	166,846
Total	9,431,778	17,106,325	52,356,289	68,424,080	48,091,705	19,740,993
Actuarial Value of Plan Assets - January 1, 2024						
Actuarial Value of Assets	8,141,120	14,765,471	45,191,780	59,060,833	41,510,767	17,039,607
Unfunded Actuarial Accrued Liability						
Unfunded Actuarial Accrued Liability	1,277,712	2,207,407	6,966,408	9,125,983	6,444,565	2,623,436
ERI 2002	12,946	113,033	198,101	143,665	95,746	52,506
ERI 2003	0	20,414	0	93,599	40,627	25,444
Total	1,290,658	2,340,854	7,164,509	9,363,247	6,580,938	2,701,386
Normal Cost - January 1, 2024						
Total Normal Cost	263,795	584,226	1,428,765	1,657,785	1,371,641	606,731
Administrative Expenses	17,870	39,577	96,788	112,304	92,918	41,102
Total Normal Cost	281,665	623,803	1,525,553	1,770,089	1,464,559	647,833
Employee Normal Cost	(184,248)	(352,111)	(851,570)	(1,069,504)	(837,204)	(356,338)
Employer Normal Cost	97,417	271,692	673,983	700,585	627,355	291,495
Employer Normal Cost as % of Salary	5.22%	7.96%	7.93%	6.50%	7.55%	7.84%

SECTION 10 - RESULTS BY MEMBER UNIT

Member Unit	Up-Island School	Dukes County	Tisbury	Edgartown	Oak Bluffs	West Tisbury
2025 Appropriation						
Non-ERI Appropriation	292,538	577,443	1,652,820	2,105,917	1,458,133	681,237
ERI 2002	3,526	30,787	53,957	39,131	26,079	14,301
ERI 2003	0	5,560	0	25,494	11,066	6,930
Total Appropriation	296,064	613,790	1,706,777	2,170,542	1,495,278	702,468
2026 Appropriation						
Employer Normal Cost	103,525	288,726	716,239	744,508	666,687	309,770
Amortization Payment of UAL	183,075	310,513	993,540	1,306,285	924,794	369,438
ERI 2002	3,685	32,173	56,386	40,891	27,252	14,945
ERI 2003	0	5,810	0	26,641	11,564	7,242
Net 3(8)(c) Transfers	14,628	26,803	82,708	101,277	67,996	27,416
Total Appropriation (before adjustment)	304,913	664,025	1,848,873	2,219,602	1,698,293	728,811
Adjusted Appropriation	1,346	2,931	8,161	9,798	7,496	3,217
Total Appropriation	306,259	666,956	1,857,034	2,229,400	1,705,789	732,028
2026 Appropriation Increase over 2025	3.44%	8.66%	8.80%	2.71%	14.08%	4.21%
2027 Appropriation						
Employer Normal Cost	106,982	298,368	740,157	769,369	688,951	320,115
Amortization Payment of UAL	206,331	349,956	1,119,745	1,472,213	1,042,267	416,367
ERI 2002	3,851	33,621	58,922	42,731	28,479	15,617
ERI 2003	0	6,072	0	27,840	12,084	7,568
Net 3(8)(c) Transfers	13,352	23,281	72,801	96,349	67,772	27,682
Total Appropriation (before adjustment)	330,516	711,298	1,991,625	2,408,502	1,839,553	787,349
Adjusted Appropriation	1,496	3,219	9,012	10,898	8,324	3,563
Total Appropriation	332,012	714,517	2,000,637	2,419,400	1,847,877	790,912
2027 Appropriation Increase over 2026	8.89%	7.60%	8.21%	9.00%	8.81%	8.52%

SECTION 10 - RESULTS BY MEMBER UNIT

Member Unit		Chilmark	Aquinnah	Gosnold	MV Transit Authority	MV Regional School
Summary of Member Data						
Groups 1 & 2	Active Members	25	12	5	7	104
	Average Age	53.6	54.0	63.0	48.9	48.9
	Average Service	11.4	10.1	18.1	13.1	6.3
	Salary	1,926,887	802,621	341,484	631,112	6,179,274
	Average Salary	77,075	66,885	68,297	90,159	59,416
Group 4	Active Members	13	4	0	0	0
	Average Age	44.3	53.8	0.0	0.0	0.0
	Average Service	11.1	25.3	0.0	0.0	0.0
	Salary	1,529,805	575,064	0	0	0
	Average Salary	117,677	143,766	0	0	0
	Retired Members and Beneficiaries	23	6	5	1	42
	Annual Pensions	659,204	154,844	53,218	37,463	1,089,919
	Average Age	73.4	75.1	80.2	74.9	72.5
	Average Pension	28,661	25,807	10,644	37,463	25,950
	Disabled Members	0	0	0	0	2
	Annual Pensions	0	0	0	0	75,683
	Average Age	0.0	0.0	0.0	0.0	75.1
	Average Pension	0	0	0	0	37,841
	Inactive Members	6	4	1	6	59
	Annuity Savings Fund	244,586	89,333	637	110,788	568,390

SECTION 10 - RESULTS BY MEMBER UNIT

Member Unit	Chilmark	Aquinnah	Gosnold	MV Transit Authority	MV Regional School
Actuarial Accrued Liability - January 1, 2024					
Active Employees	9,993,912	4,898,191	1,415,245	1,925,880	8,955,199
Retired Members and Beneficiaries	7,301,292	1,526,246	447,184	348,970	11,522,124
Disabled Members	0	0	0	0	708,572
Inactive Members	244,586	89,333	637	110,788	568,390
Total	17,539,790	6,513,770	1,863,066	2,385,638	21,754,285
Actuarial Value of Plan Assets - January 1, 2024					
Actuarial Value of Assets	15,139,620	5,622,416	1,608,121	2,059,184	18,777,398
Unfunded Actuarial Accrued Liability					
Unfunded Actuarial Accrued Liability	2,298,689	891,354	254,945	326,454	2,887,844
ERI 2002	66,349	0	0	0	89,043
ERI 2003	35,132	0	0	0	0
Total	2,400,170	891,354	254,945	326,454	2,976,887
Normal Cost - January 1, 2024					
Total Normal Cost	638,867	250,580	62,369	72,678	921,567
Administrative Expenses	43,278	16,975	4,225	4,923	62,429
Total Normal Cost	682,145	267,555	66,594	77,601	983,996
Employee Normal Cost	(357,793)	(139,482)	(34,563)	(65,222)	(604,879)
Employer Normal Cost	324,352	128,073	32,031	12,379	379,117
Employer Normal Cost as % of Salary	9.38%	9.30%	9.38%	1.96%	6.14%

SECTION 10 - RESULTS BY MEMBER UNIT

Member Unit	Chilmark	Aquinnah	Gosnold	MV Transit Authority	MV Regional School
2025 Appropriation					
Non-ERI Appropriation	592,126	234,255	61,395	60,718	783,083
ERI 2002	18,072	0	0	0	24,253
ERI 2003	9,569	0	0	0	0
Total Appropriation	619,767	234,255	61,395	60,718	807,336
2026 Appropriation					
Employer Normal Cost	344,687	136,103	34,039	13,155	402,886
Amortization Payment of UAL	324,090	125,299	36,287	47,899	404,014
ERI 2002	18,885	0	0	0	25,344
ERI 2003	10,000	0	0	0	0
Net 3(8)(c) Transfers	17,802	4,182	1,437	1,012	31,477
Total Appropriation (before adjustment)	715,464	265,584	71,763	62,066	863,721
Adjusted Appropriation	3,158	1,172	317	274	3,813
Total Appropriation	718,622	266,756	72,080	62,340	867,534
2026 Appropriation Increase over 2025	15.95%	13.87%	17.40%	2.67%	7.46%
2027 Appropriation					
Employer Normal Cost	356,198	140,648	35,176	13,594	416,340
Amortization Payment of UAL	365,258	141,215	40,897	53,984	455,334
ERI 2002	19,735	0	0	0	26,485
ERI 2003	10,449	0	0	0	0
Net 3(8)(c) Transfers	24,389	9,315	2,664	3,412	30,179
Total Appropriation (before adjustment)	776,029	291,178	78,737	70,990	928,338
Adjusted Appropriation	3,512	1,318	356	321	4,201
Total Appropriation	779,541	292,496	79,093	71,311	932,539
2027 Appropriation Increase over 2026	8.96%	10.13%	10.21%	14.90%	7.97%

SECTION 10 - RESULTS BY MEMBER UNIT

		MV Landbank	MV Refuse	MV Commission	OB Water Dept	Retirement System	Total
Summary of Member Data							
	Active Members	11	11	13	9	3	565
	Average Age	45.6	50.8	52.7	48.3	46.9	50.0
Groups 1 & 2	Average Service	12.8	10.0	11.5	11.2	13.9	9.0
	Salary	1,063,168	808,063	1,266,540	627,727	300,035	39,680,089
	Average Salary	96,652	73,460	97,426	69,747	100,012	70,230
	Active Members	0	0	0	0	0	111
	Average Age	0.0	0.0	0.0	0.0	0.0	40.9
Group 4	Average Service	0.0	0.0	0.0	0.0	0.0	11.3
	Salary	0	0	0	0	0	12,959,339
	Average Salary	0	0	0	0	0	116,751
	Retired Members and Beneficiaries	3	5	7	4	2	410
	Annual Pensions	143,233	202,866	253,576	187,267	74,478	13,360,180
	Average Age	69.3	72.0	75.9	73.5	79.7	72.3
	Average Pension	47,744	40,573	36,225	46,817	37,239	32,585
	Disabled Members	0	0	0	0	0	30
	Annual Pensions	0	0	0	0	0	1,451,893
	Average Age	0.0	0.0	0.0	0.0	0.0	66.0
	Average Pension	0	0	0	0	0	48,396
	Inactive Members	0	2	1	2	0	307
	Annuity Savings Fund	0	28,885	124,215	2,815	0	4,337,247

SECTION 10 - RESULTS BY MEMBER UNIT

	MV Landbank	MV Refuse	MV Commission	OB Water Dept	Retirement System	Total
Actuarial Accrued Liability - January 1, 2024						
Active Employees	3,273,641	2,005,044	3,188,851	1,310,537	1,059,271	122,652,358
Retired Members and Beneficiaries	1,642,989	2,266,537	2,703,777	2,034,353	501,592	141,539,548
Disabled Members	0	0	0	0	0	16,821,085
Inactive Members	0	28,885	124,215	2,815	0	4,337,255
Total	4,916,630	4,300,466	6,016,843	3,347,705	1,560,863	285,350,246
Actuarial Value of Plan Assets - January 1, 2024						
Actuarial Value of Assets	4,243,831	3,711,984	5,193,490	2,889,600	1,347,272	246,302,494
Unfunded Actuarial Accrued Liability						
Unfunded Actuarial Accrued Liability	647,060	588,482	798,002	458,105	213,591	38,010,037
ERI 2002	0	0	0	0	0	771,389
ERI 2003	25,739	0	25,351	0	0	266,306
Total	672,799	588,482	823,353	458,105	213,591	39,047,732
Normal Cost - January 1, 2024						
Total Normal Cost	127,510	120,645	195,139	81,705	36,038	8,420,041
Administrative Expenses	8,638	8,173	13,219	5,535	2,441	570,395
Total Normal Cost	136,148	128,818	208,358	87,240	38,479	8,990,436
Employee Normal Cost	(108,402)	(81,439)	(130,646)	(63,094)	(31,204)	(5,267,699)
Employer Normal Cost	27,746	47,379	77,712	24,146	7,275	3,722,737
Employer Normal Cost as % of Salary	2.61%	5.86%	6.14%	3.85%	2.42%	7.07%

	MV Landbank	MV Refuse	MV Commission	OB Water Dept	Retirement System	Total
2025 Appropriation						
Non-ERI Appropriation	118,533	119,560	184,089	97,621	0	9,019,468
ERI 2002	0	0	0	0	0	210,106
ERI 2003	7,011	0	6,905	0	0	72,535
Total Appropriation	125,544	119,560	190,994	97,621	0	9,302,109
2026 Appropriation						
Employer Normal Cost	29,486	50,349	82,584	25,660	7,731	3,956,135
Amortization Payment of UAL	95,086	85,536	114,230	66,221	34,523	5,420,830
ERI 2002	0	0	0	0	0	219,561
ERI 2003	7,326	0	7,216	0	0	75,799
Net 3(8)(c) Transfers	3,868	5,478	6,848	5,057	2,011	400,000
Total Appropriation (before adjustment)	135,766	141,363	210,878	96,938	44,265	10,072,325
Adjusted Appropriation	599	624	931	428	(44,265)	0
Total Appropriation	136,365	141,987	211,809	97,366	0	10,072,325
2026 Appropriation Increase over 2025	8.62%	18.76%	10.90%	-0.26%	0.00%	8.28%
2027 Appropriation						
Employer Normal Cost	30,470	52,031	85,342	26,517	7,989	4,088,247
Amortization Payment of UAL	107,165	96,401	128,740	74,633	38,908	6,109,414
ERI 2002	0	0	0	0	0	229,441
ERI 2003	7,656	0	7,540	0	0	79,209
Net 3(8)(c) Transfers	7,031	6,150	8,604	4,787	2,232	400,000
Total Appropriation (before adjustment)	152,322	154,582	230,226	105,937	49,129	10,906,311
Adjusted Appropriation	689	699	1,042	479	(49,129)	0
Total Appropriation	153,011	155,281	231,268	106,416	0	10,906,311
2027 Appropriation Increase over 2026	12.70%	9.85%	9.67%	9.78%	0.00%	8.28%