

# Vermont Municipal Employees' Retirement System

**Actuarial Valuation and Review as of June 30, 2024**



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**Segal**



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October 23, 2024

Board of Trustees  
Vermont Municipal Employees' Retirement System  
Montpelier, Vermont 05609

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2024, of the Vermont Municipal Employees' Retirement System (VMERS). It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the actuarially determined contribution (ADC) rate for fiscal 2025.

This report has been prepared in accordance with generally accepted actuarial principles and practices for the exclusive use and benefit of the Board of Trustees, based upon information provided by the staff of the Office of the State Treasurer and the System's other service providers.

Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report, and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

The measurements shown in this actuarial valuation may not be applicable for other purposes. 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; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

Board of Trustees  
Vermont Municipal Employees' Retirement System  
October 23, 2024

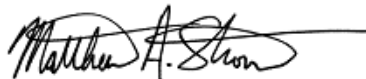
The actuarial calculations were directed under the supervision of Matthew A. Strom, FSA, MAAA, EA. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in this actuarial valuation is complete and accurate. The investment return and inflation assumptions were selected by the Vermont Pension Investment Commission (VPIC). The remaining actuarial assumptions used in this actuarial valuation were selected by the Board based upon our analysis and recommendations. In my opinion, the assumptions are reasonable and take into account the experience of the System and reasonable expectations. In addition, in my opinion, the combined effect of these assumptions is expected to have no significant bias.

Segal makes no representation or warranty as to the future status of the System and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The Board is encouraged to discuss any issues raised in this report with the System's legal, tax and other advisors before taking, or refraining from taking, any action.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal

A handwritten signature in black ink that reads "Matthew A. Strom". The signature is written in a cursive style with a horizontal line extending to the right from the end of the name.

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Matthew A. Strom, FSA, MAAA, EA  
Senior Vice President and Actuary

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# Section 1: Actuarial Valuation Summary

## Purpose and basis

This report was prepared by Segal to present a valuation of the System as of June 30, 2024, pursuant to section 5062 of Title 24, Chapter 125, Vermont Statutes Annotated, relating to the Vermont Municipal Employees' Retirement System. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits.

The contribution requirements presented in this report are based on:

- The benefit provisions of the System, as administered by the Board;
- The characteristics of covered active members, inactive members, deferred members, and retired members and beneficiaries as of June 30, 2024, provided by the Office of the State Treasurer;
- The unaudited assets of the System as of June 30, 2024, provided by the Office of the State Treasurer;
- Economic assumptions regarding future salary increases, inflation, and investment earnings;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc.; and
- The funding policy adopted by the Board of Trustees.

Certain disclosure information required by GASB Statements No. 67 and 68 as of June 30, 2024, for the System is provided in separate reports.

## Section 1: Actuarial Valuation Summary

### Valuation highlights

- Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the unfunded actuarial accrued liability and the principal balance. The funding policy outlined in the Vermont State Pension Code and adhered to by the Board meets this standard. Section 5064, subsection (c)(4), of Title 24, Chapter 125, Vermont Statutes Annotated calls for the calculation of an accrued liability contribution rate to be calculated for each membership group, based on the actuarial assumptions and methodology adopted by the Retirement Board. Actuarially determined contribution rates are determined as a percent of payroll and calculated such that the rate for each membership group is sufficient to fully fund that group's actuarial accrued liability by June 30, 2038. These actuarially determined contribution rates determined by the funding policy are compared to the statutory contribution rates as a measure of adequacy, and the contribution rates for both employers and members are updated from time to time, as necessary, to ensure proper funding of the System.
- Actual contributions made during the fiscal year ending June 30, 2024, of \$33.2 million were 66.2% of the actuarially determined contribution (ADC). In the prior fiscal year, actual contributions were 65.7% of the prior year ADC. Each year that actual employer contributions are less than the actuarially determined amounts generates contribution losses that must be funded by additional contributions in the future.
- The average funding policy contribution rate for the fiscal year ending June 30, 2026, is 7.50%. Compared to the projected fiscal 2026 actuarially determined contribution rate of 12.12%<sup>1</sup>, there is a contribution rate shortfall of 4.63% in aggregate. Each group has a contribution deficiency. At the November 17, 2020, Board meeting, the Board voted unanimously to authorize employer contribution rate increases of 0.50% each year for a period of four years, beginning July 1, 2022. In 2022, the Legislature passed H.740, which effectively split the Board-authorized increases evenly between members and employers by including an increase in the employee rate of 0.25% for each group for four years, beginning July 1, 2022. Details can be found in Section 2, "Actuarially determined contribution by group".
- The actuarial loss of \$37.4 million, or 2.7% of actuarial accrued liability, is due to an investment loss of \$2.7 million, or 0.2% of actuarial accrued liability, and a loss from sources other than investments of \$34.6 million, or 2.5% of the actuarial accrued liability. This loss was primarily due to: actual 2025 COLAs were greater than assumed; members retired earlier than expected; and actual salary and/or service increases were greater than assumed.
- The rate of return on the market value of assets was 10.1% for the year ending June 30, 2024. The return on the actuarial value of assets was 6.7% for the same period due to the recognition of prior years' investment gains and losses. This resulted in an actuarial loss when measured against the assumed rate of return of 7.0%. This actuarial investment loss increased the employer

<sup>1</sup> The actuarially determined contribution rate is projected to the next fiscal year by taking the rate for the current fiscal year (12.37%) and adjusting for the scheduled member contribution rate increase of 0.25% effective July 1, 2025.

## Section 1: Actuarial Valuation Summary

contribution rate by 0.1% of pay. Given the low fixed income interest rate environment, target asset allocation and expectations of future investment returns for various asset classes, we advise the Board to continue to monitor actual and anticipated investment returns relative to the assumed long-term rate of return on investments of 7.0%.

- The actuarial value of assets is 100.7% of the market value of assets. The investment experience in the past years has only been partially recognized in the actuarial value of assets. As the deferred net loss is recognized in future years, the cost of the System is likely to increase unless the net loss is offset by future experience. The recognition of the deferred net market loss of \$6.9 million will also have an impact on the future funded ratio. If the net deferred loss was recognized immediately in the actuarial value of assets, the ADC would increase from 12.4% to about 12.5% of projected payroll.

### Changes from prior valuation

- The funded ratio (the ratio of the actuarial value of assets to actuarial accrued liability) is 74.0%, compared to the prior year funded ratio of 75.1%. This ratio is one measure of funding status, and its history is a measure of funding progress. Using the market value of assets, the funded ratio is 73.5%, compared to 72.3% as of the prior valuation date. These measurements are not necessarily appropriate for assessing the sufficiency of the plan assets to cover the estimated cost of settling the System's benefit obligation or the need for or the amount of future contributions.
- The actuarially determined contribution for the upcoming year (fiscal year ending June 30, 2025) is \$57.2 million. The actuarially determined contribution as a percentage of payroll increased from 12.14% of payroll to 12.37% of payroll. The actuarially determined contribution is equal to the System's employer normal cost, plus the amount necessary to amortize the unfunded actuarial accrued liability as of June 30, 2024, over a period ending on June 30, 2038, assuming that the amortization period will remain closed and that the amortization payment will increase annually at the rate of 3% over the preceding year.
- The unfunded actuarial accrued liability is \$356.0 million, which is an increase of \$41.5 million since the prior valuation.
- At the May 2024, Board meeting, the Board voted unanimously to authorize employer contribution rate increases of 0.25% each year for a period of four years, beginning July 1, 2026. Also in May 2024, the Legislature passed H.883, which included an increase in the member rate of 0.25% for each group for four years, beginning July 1, 2026. If the remaining four 0.25% contribution rate increases for the fiscal years ending June 30, 2027, through June 30, 2030, for employers and members were applied immediately, the contribution rate shortfall for fiscal year ending June 30, 2026, would effectively reduce from 4.63% to 2.63%. Details can be found in Section 2, "Actuarially determined contribution by group".
- Effective for the June 30, 2024, actuarial valuation, the Vermont Pension Investment Commission unanimously approved changing the asset smoothing methodology for the System. Specifically, the method used to determine the actuarial value of assets was updated to the following: the amount of the assets for valuation purposes equals the preliminary asset value plus 20% of the



## Section 1: Actuarial Valuation Summary

difference between market and preliminary asset values. The preliminary asset value is equal to the previous year's asset value (for valuation purposes) adjusted for contributions less benefit payments and expenses plus expected investment income. If necessary, a further adjustment is made to ensure that the valuation assets are within 20% of the market value. Applying the new asset smoothing methodology in this actuarial valuation resulted in a \$1.0 million change in unfunded actuarial accrued liability.

### Risk

- It is important to note that this actuarial valuation is based on plan assets as of June 30, 2024. The System's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.
- Since the actuarial valuation results are dependent on a given set of assumptions, there is a risk that emerging results may differ significantly as actual experience proves to be different from the assumptions. We have included a brief discussion of some risks that may affect the System in Section 2, "Risk".

### GASB

- This report constitutes an actuarial valuation for the purpose of determining the actuarially determined contribution under the System's funding policy and measuring the progress of that funding policy. The Net Pension Liability (NPL) and pension expense under Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68, for inclusion in the System's and employer's financial statements as of June 30, 2024, will be provided separately. The accounting disclosures will utilize different methodologies from those employed in the funding valuation, as required by the GASB. However, the ADC in this valuation is expected to be used as the ADC for GASB financial reporting.

## Section 1: Actuarial Valuation Summary

### Summary of key valuation results

Valuation Result	Current	Prior
	July 1, 2024	July 1, 2023
<b>Contributions for fiscal year beginning</b>		
• Average funding policy contribution rate	7.25%	6.94%
• Actuarially determined employer contributions as a percent of payroll	12.37%	12.14%
• Contribution rate excess/(shortfall)	-5.13%	-5.20%
<b>Actuarial cost method measures for plan year beginning</b>		
• Unfunded liability to be amortized through June 30, 2038	\$355,974,797	\$314,507,491
• Normal contribution rates		
– Employee normal contribution rate	7.140%	6.822%
– Employer normal contribution rate	5.166%	5.377%
– Total normal contribution rate	12.306%	12.199%
<b>Actuarial accrued liability for plan year beginning</b>		
• Total actuarial accrued liability	\$1,371,375,192	\$1,260,908,766
• Employer normal cost dollars	23,870,089	22,217,403
• Employer normal cost rate	5.166%	5.377%
<b>Assets for plan year beginning</b>		
• Market value of assets (MVA)	\$1,008,504,817	\$912,113,032
• Actuarial value of assets (AVA)	1,015,400,395	946,401,275
• Actuarial value of assets as a percentage of market value of assets	100.68%	103.76%

## Section 1: Actuarial Valuation Summary

Valuation Result	Current	Prior
Funded status for plan year beginning	July 1, 2024	July 1, 2023
• Unfunded actuarial accrued liability on market value of assets	\$362,870,375	\$348,795,734
• Funded percentage on MVA basis	73.54%	72.34%
• Unfunded actuarial accrued liability on actuarial value of assets	\$355,974,797	\$314,507,491
• Funded percentage on AVA basis	74.04%	75.06%
• Remaining amortization period (years)	14	15
Key assumptions		
• Net investment return	7.00%	7.00%
• Inflation rate	2.30%	2.30%
Demographic data for plan year beginning		
• Number of retired members and beneficiaries	4,638	4,431
• Number of deferred members as reported by the System	1,160	1,095
• Number of inactive members as reported by the System	5,020	4,544
• Number of active members	8,692	8,393
• Total payroll	\$438,455,931	\$392,231,749
• Average payroll	50,444	46,733
• Total monthly benefits for all retired members and beneficiaries	4,741,469	4,388,927
• Average monthly benefit for all retired members and beneficiaries	1,022	991

## Section 1: Actuarial Valuation Summary

### Summary of key June 30, 2024, valuation results by group

Valuation Result	Group A	Group B	Group C	Group D	Total
<b>Contributions</b>					
• Current funding policy rate <sup>1</sup>	5.500%	7.000%	8.750%	11.350%	7.246%
• Actuarially determined rate	8.042%	12.060%	17.971%	15.874%	12.372%
• Excess/(shortfall)	-2.542%	-5.060%	-9.221%	-4.524%	-5.126%
<b>Actuarial cost method measures</b>					
• Unfunded actuarial accrued liability	\$48,564,623	\$174,691,897	\$99,313,297	\$33,404,980	\$355,974,797
<b>Normal contribution rates</b>					
– Employee rate	4.000%	6.375%	11.500%	12.850%	7.140%
– Employer rate	4.000%	5.173%	6.293%	6.368%	5.166%
– Total rate	8.000%	11.548%	17.793%	19.218%	12.306%
<b>Actuarial accrued liability</b>					
• Total actuarial accrued liability	\$253,244,043	\$688,508,575	\$318,960,216	\$110,662,358	\$1,371,375,192
• Employer normal cost dollars	4,496,015	12,274,570	5,006,264	2,093,240	23,870,089
• Employer normal cost rate	4.000%	5.173%	6.293%	6.368%	5.166%
<b>Assets</b>					
• Market value of assets	\$203,289,443	\$510,327,352	\$218,155,298	\$76,732,724	\$1,008,504,817
• Actuarial value of assets	204,679,420	513,816,678	219,646,919	77,257,378	1,015,400,395

<sup>1</sup> Current funding policy rates are as of July 1, 2024.

## Section 1: Actuarial Valuation Summary

Valuation Result	Group A	Group B	Group C	Group D	Total
<b>Funded status</b>					
• Unfunded liability on MVA basis	\$49,954,600	\$178,181,223	\$100,804,918	\$33,929,634	\$362,870,375
• Funded percentage on MVA basis	80.27%	74.12%	68.40%	69.34%	73.54%
• Unfunded liability on AVA basis	\$48,564,623	\$174,691,897	\$99,313,297	\$33,404,980	\$355,974,797
• Funded percentage on AVA basis	80.82%	74.63%	68.86%	69.81%	74.04%
<b>Demographic data</b>					
• Retired members and beneficiaries	1,667	2,289	583	99	4,638
• Deferred members as reported by the System	605	482	53	20	1,160
• Inactive members as reported by the System	2,011	2,632	300	77	5,020
• Active members	2,730	4,567	1,036	359	8,692
• Total payroll	\$106,624,538	\$225,144,580	\$75,469,919	\$31,216,893	\$438,455,931
• Average payroll	39,057	49,298	72,847	86,955	50,444

## Section 1: Actuarial Valuation Summary

### Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Input Item	Description
<b>Plan provisions</b>	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
<b>Member information</b>	An actuarial valuation for a plan is based on data provided to the actuary by the System. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
<b>Financial information</b>	Part of the cost of a plan will be paid from existing assets — the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the System. A snapshot as of a single date may not be an appropriate value for determining a single year's contribution requirement, especially in volatile markets. Plan sponsors often use an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
<b>Actuarial assumptions</b>	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of participants in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

## Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

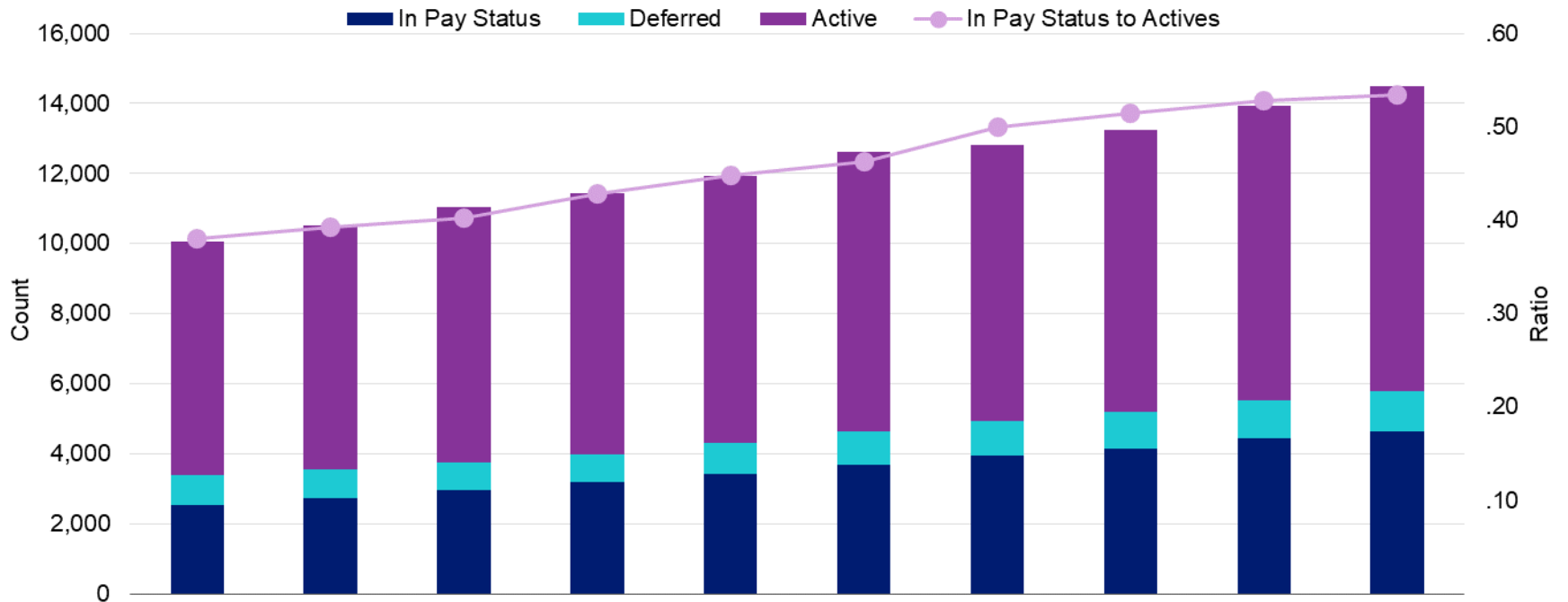
- The actuarial valuation is prepared at the request of the System. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- If the System is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice and is not acting as a fiduciary to the System. The valuation is based on Segal's understanding of applicable guidance in these areas and of the System's provisions, but they may be subject to alternative interpretations. The System should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the System upon delivery and review. Trustees should notify Segal immediately of any questions or concerns about the final content.

# Section 2: Actuarial Valuation Results

## Member information

- This section presents a summary of significant statistical data on covered members.

Member Population as of June 30



Legend	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
In Pay Status	2,539	2,734	2,942	3,189	3,415	3,693	3,938	4,149	4,431	4,638
Deferred <sup>1</sup>	837	811	797	798	896	927	998	1,048	1,095	1,160
Active	6,685	6,966	7,302	7,452	7,630	7,987	7,879	8,059	8,393	8,692
Ratio	0.38	0.39	0.40	0.43	0.45	0.46	0.50	0.51	0.53	0.53

<sup>1</sup> Excludes inactive members as reported by the System.



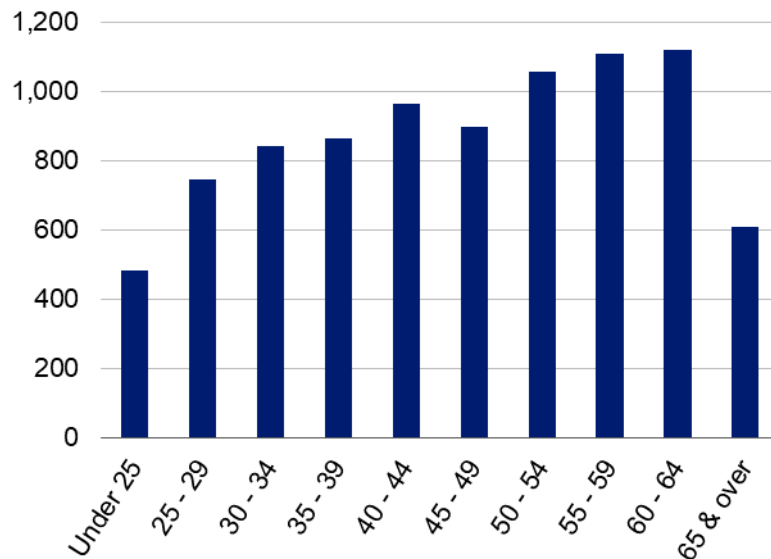
## Section 2: Actuarial Valuation Results

### Active members

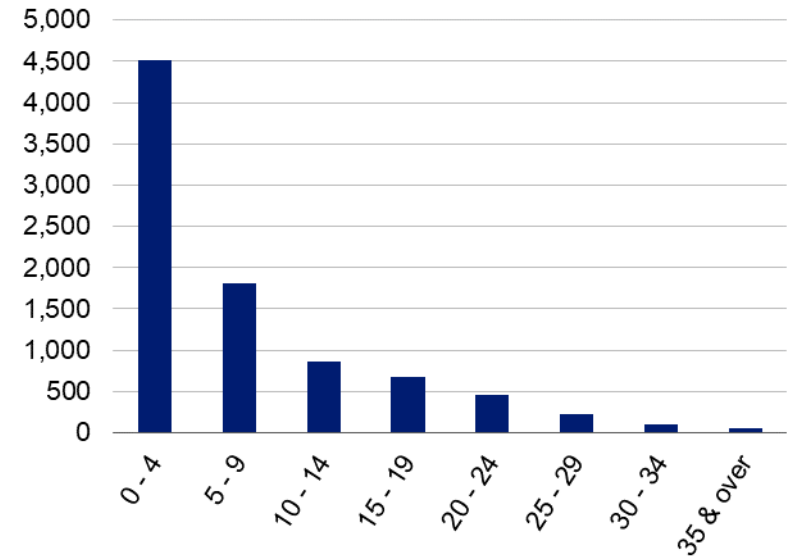
As of June 30	2024	2023	Change
Active members	8,692	8,393	3.6%
Average age	46.7	47.0	-0.3
Average years of credited service	7.6	7.8	-0.2
Average payroll	\$50,444	\$46,733	7.9%

Distribution of Active Members as of June 30, 2024

Actives by Age



Actives by Years of Service



## Section 2: Actuarial Valuation Results

### Inactive and deferred members

- In this year's valuation, there were 5,020 inactive members as reported by the System. A member is reported as inactive if they have withdrawn from active employment within the three-year period preceding the valuation date, or if they withdrew prior to the three-year period preceding the valuation date, but do not have a vested right to a deferred or immediate vested benefit and have not taken a refund of their employee contributions.
- In addition, there were 1,160 deferred members as reported by the System. A member is reported as deferred if they have withdrawn from active employment prior to the three-year period preceding the valuation date and have a vested right to a deferred or immediate vested benefit.

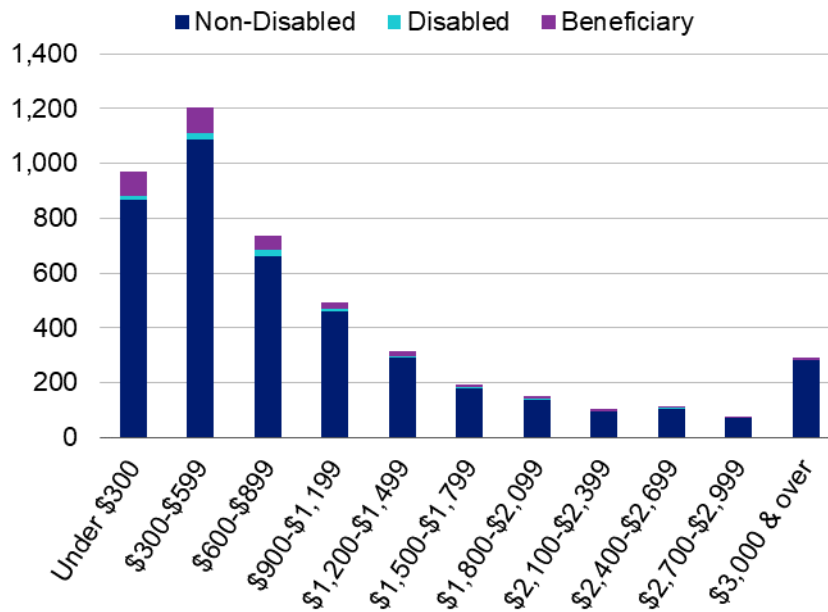
## Section 2: Actuarial Valuation Results

### Retired members and beneficiaries

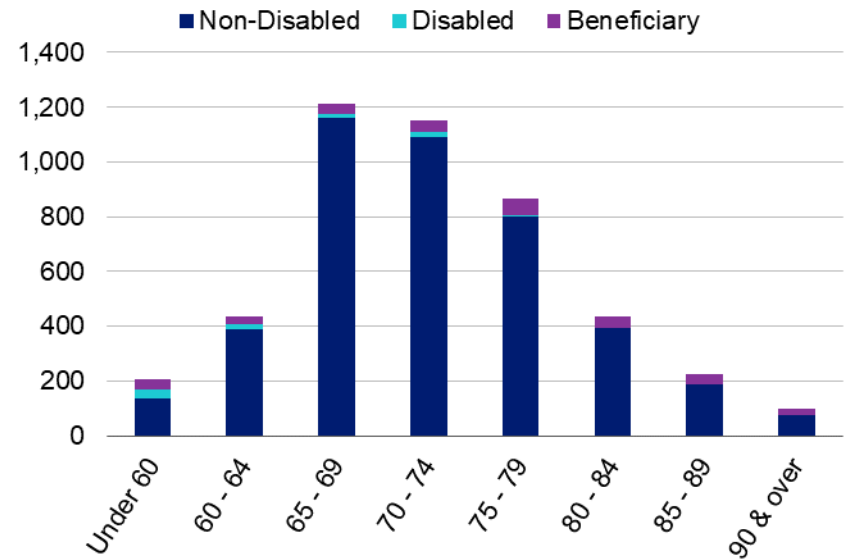
As of June 30	2024	2023	Change
Retired members (including disability)	4,325	4,132	4.7%
Average age	72.4	72.1	0.3
Average amount	\$1,041	\$1,010	3.1%
Beneficiaries	313	299	4.7%
Total monthly amount	\$4,741,469	\$4,388,927	8.0%

Distribution of Retired Members and Beneficiaries as of June 30, 2024

By Type and Monthly Amount



By Type and Age



## Section 2: Actuarial Valuation Results

### Historical plan population

Member Data Statistics: 2015 – 2024  
Active Members versus Retired Members<sup>1</sup>

Year Ended June 30	Active Members Count	Active Members Average Age	Active Members Average Service	Retired Members Count	Retired Members Average Age	Retired Members Average Monthly Amount
2015	6,685	48.7	9.1	2,329	71.3	\$718
2016	6,966	48.5	9.0	2,523	71.4	738
2017	7,302	48.4	8.8	2,731	71.4	773
2018	7,452	48.3	8.6	2,962	71.3	828
2019	7,630	48.0	8.5	3,173	71.4	855
2020	7,987	47.9	8.3	3,435	71.6	891
2021	7,879	47.7	8.4	3,670	71.8	916
2022	8,059	47.3	8.1	3,864	71.9	955
2023	8,393	47.0	7.8	4,132	72.1	1,010
2024	8,692	46.7	7.6	4,325	72.4	1,041

<sup>1</sup> Not including beneficiaries.

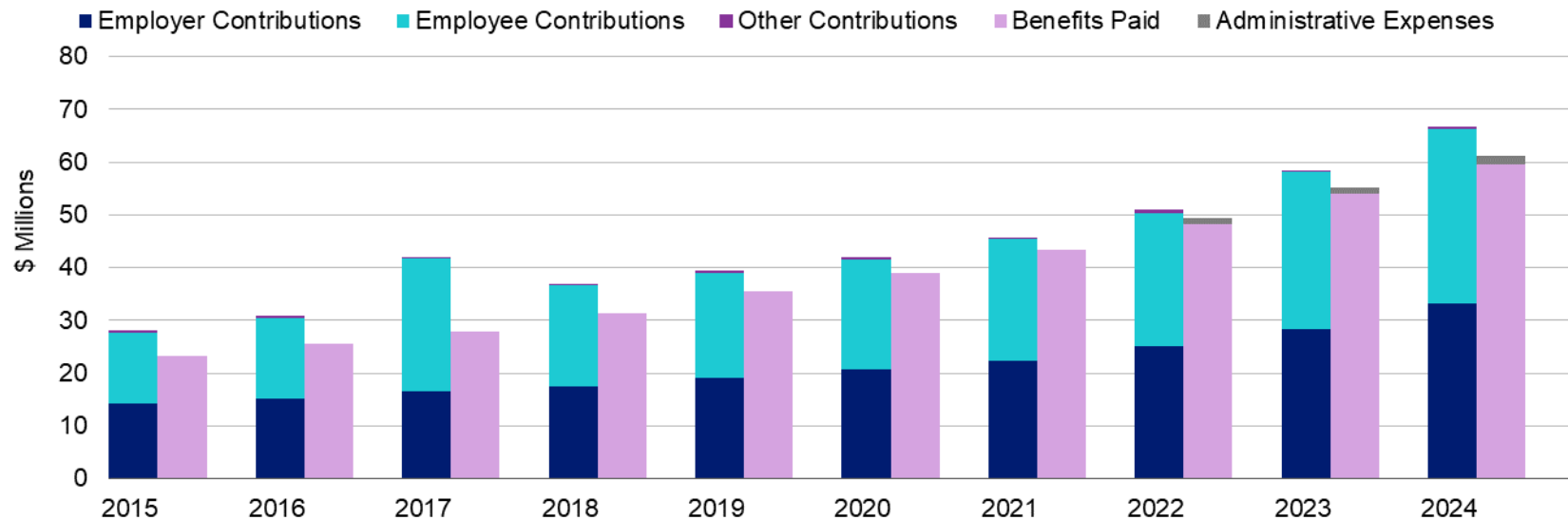
## Section 2: Actuarial Valuation Results

### Financial information

Retirement plan funding anticipates that, over the long term, both contributions and investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments. Retirement plan assets change as a result of the net impact of these income and expense components. Employer and member contributions have exceeded benefits for the most recent period shown. Benefits were 0.89 times employer and member contributions.

Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits C, D and E.

Comparison of Contributions to Benefits Paid  
for Years Ended June 30, 2015 – 2024



## Section 2: Actuarial Valuation Results

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Vermont Pension Investment Commission has approved an asset valuation method that gradually adjusts to market value. Effective for the June 30, 2024, actuarial valuation, the Vermont Pension Investment Commission unanimously approved changing the asset smoothing methodology for the System. Specifically, the method used to determine the actuarial value of assets was updated to the following: the amount of the assets for valuation purposes equals the preliminary asset value plus 20% of the difference between market and preliminary asset values. The preliminary asset value is equal to the previous year's asset value (for valuation purposes) adjusted for contributions less benefit payments and expenses plus expected investment income. If necessary, a further adjustment is made to ensure that the valuation assets are within 20% of the market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. A characteristic of the asset valuation method is that, over time, it is more likely to produce an actuarial value of assets that is less than the market value of assets. The asset method provides a degree of conservatism to increase the likelihood that benefits are funded. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

### Determination of Actuarial Value of Assets for Year Ended June 30, 2024

Step	Amount
1. Actuarial value of assets, June 30, 2023	\$946,401,275
2. Net new money <sup>1</sup> , including expected investment income (7.00%)	70,723,014
3. Preliminary asset value: (1) + (2)	1,017,124,289
4. Smoothing adjustment	
a. Market value, June 30, 2024	\$1,008,504,817
b. Preliminary asset value: (3)	1,017,124,289
c. Unrecognized appreciation: (4a) – (4b)	-8,619,472
d. Adjustment percentage	20%
e. Total smoothing adjustment: (4c) x (4d)	-1,723,894
5. Preliminary actuarial value of assets as of June 30, 2024: (3) + (4e)	\$1,015,400,395
6. Adjustment to be within 20% corridor	0
<b>7. Final actuarial value of assets as of June 30, 2024: (5) + (6)</b>	<b>\$1,015,400,395</b>
8. Actuarial value as a percentage of market value: (7) ÷ (4a)	100.68%

<sup>1</sup> Net new money is comprised of contributions, interest, and dividends, less benefit payments and expenses.

## Section 2: Actuarial Valuation Results

The following table presents an allocation of total valuation assets to each member group. The amounts shown for reallocation of surplus for members transferring among groups were derived by estimation of the contributions made on behalf of these members in their prior groups and accumulation of these amounts with interest at the historical rates of return calculated for the System.

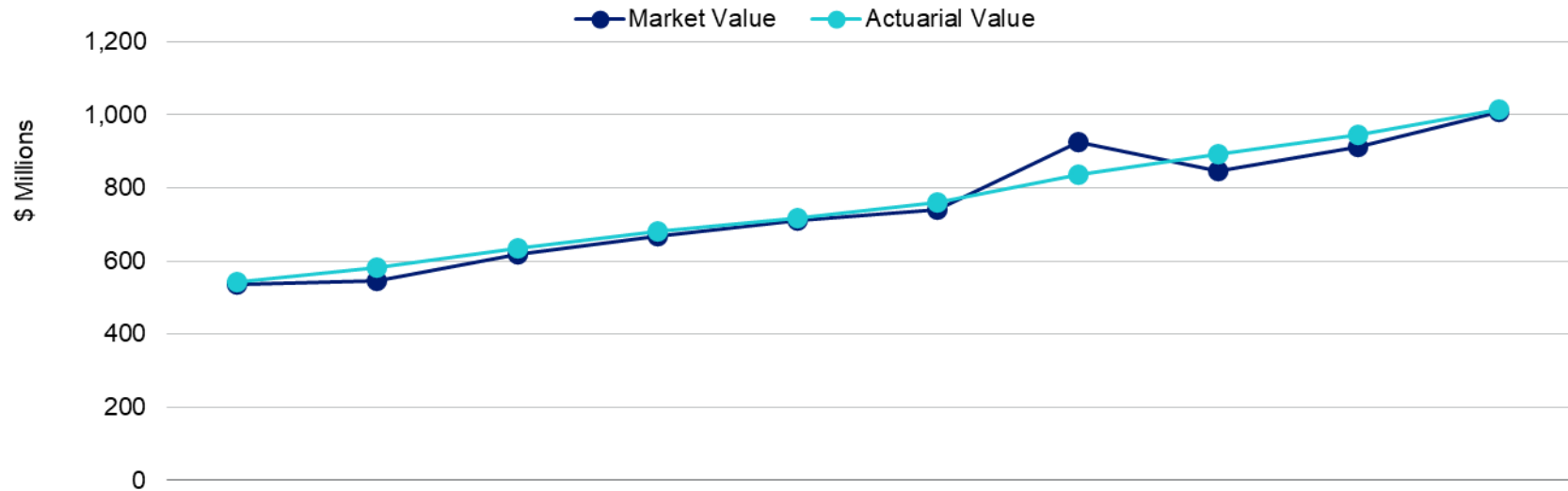
### Allocation of Actuarial Value of Assets as of June 30, 2024

	Group A	Group B	Group C	Group D	Total
<b>Valuation assets as of June 30, 2023</b>	<b>\$193,385,545</b>	<b>\$481,478,234</b>	<b>\$207,607,337</b>	<b>\$63,930,159</b>	<b>\$946,401,275</b>
Income	12,929,214	32,341,992	13,955,897	4,447,143	63,674,246
Contributions	10,543,807	31,833,127	16,215,835	7,662,308	66,255,077
Benefit payments	-11,371,894	-29,374,712	-14,844,806	-2,783,065	-58,374,477
Expenses	-554,405	-1,380,321	-595,177	-183,278	-2,713,181
Net transfers	-172,424	-429,290	-185,105	-57,001	-843,820
Surplus reallocation for transferring members	-285,021	-1,161,747	-2,726,707	4,173,475	0
Change in asset smoothing method	204,598	509,395	219,645	67,637	1,001,275
<b>Valuation assets as of June 30, 2024</b>	<b>\$204,679,420</b>	<b>\$513,816,678</b>	<b>\$219,646,919</b>	<b>\$77,257,378</b>	<b>\$1,015,400,395</b>

## Section 2: Actuarial Valuation Results

### Asset history for years ended June 30

Actuarial Value of Assets versus Market Value of Assets



Legend	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Actuarial value <sup>1</sup>	\$543.8	\$581.6	\$634.7	\$680.0	\$718.3	\$761.5	\$837.1	\$893.2	\$946.4	\$1,015.4
Market value <sup>1</sup>	535.9	547.0	619.5	667.8	709.5	740.1	926.0	846.0	912.1	1,008.5
Ratio	1.01	1.06	1.02	1.02	1.01	1.03	0.90	1.06	1.04	1.01

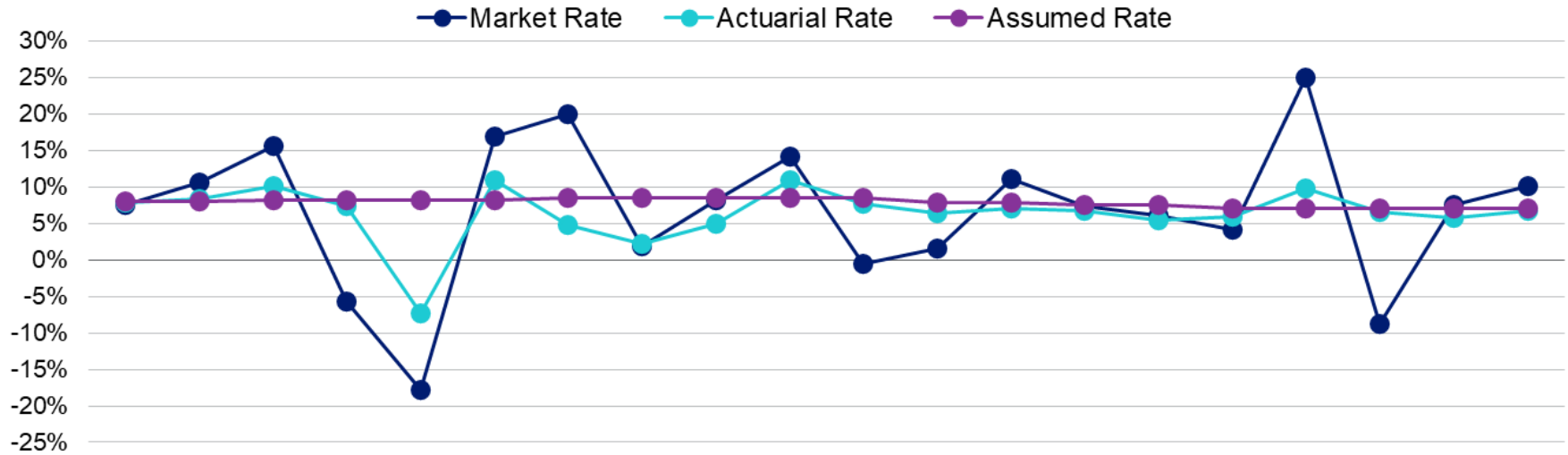
<sup>1</sup> In \$ millions



## Section 2: Actuarial Valuation Results

### Historical investment returns

Market and Actuarial Rates of Return versus Assumed Rate for Years Ended June 30



Legend	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Market rate	7.5%	10.6%	15.7%	-5.7%	-17.9%	17.0%	19.9%	1.9%	8.2%	14.1%	-0.5%	1.3%	11.1%	7.3%	6.0%	4.2%	25.1%	-8.7%	7.6%	10.1%
Actuarial rate	7.8%	8.4%	10.1%	7.4%	-7.3%	10.9%	4.8%	2.2%	5.0%	10.9%	7.8%	6.1%	7.1%	6.7%	5.4%	5.9%	9.9%	6.7%	5.8%	6.7%
Assumed rate	8.0%	8.0%	8.25%	8.25%	8.25%	8.25%	8.5%	8.5%	8.5%	8.5%	8.5%	7.95%	7.95%	7.5%	7.5%	7.0%	7.0%	7.0%	7.0%	7.0%

Average Rates of Return	Market Value	Actuarial Value
Most recent five-year average return:	7.05%	6.94%
Most recent ten-year average return:	6.29%	6.80%
Most recent fifteen-year average return:	7.43%	6.78%
Most recent twenty-year average return:	6.51%	6.49%

## Section 2: Actuarial Valuation Results

### Actuarial experience

To calculate the actuarially determined contribution (ADC), assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Assumptions should consider experience and should be based on reasonable expectations for the future. Each year actual experience is compared to that projected by the assumptions. Differences are reflected in the actuarial valuation. If overall experience is more favorable than anticipated (an actuarial gain), the ADC will decrease relative to the previous year. On the other hand, the ADC will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single years' experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The net experience loss is \$37,358,227, which includes \$2,725,169 from investment losses and \$34,633,058 in net losses from all other sources. The net experience variation from individual sources other than investments was 2.5% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

#### Actuarial Experience for Year Ended June 30, 2024

	Assumption	Amount
1.	Net gain/(loss) from investments <sup>1</sup>	-\$2,725,169
2.	Gain/(loss) from administrative expenses	381,649
3.	Net gain/(loss) from other experience	-35,014,707
4.	<b>Net experience gain/(loss): 1 + 2 + 3</b>	<b>-\$37,358,227</b>

<sup>1</sup> Details on next page

## Section 2: Actuarial Valuation Results

### Investment experience

Actuarial planning is long term. The obligations of a pension plan are expected to continue for the lifetime of all its participants.

The assumed long-term rate of return of 7.00% considers past experience, the asset allocation policy of the System and future expectations.

#### Investment Experience Year Ended (YE) – June 30, 2024 versus June 30, 2023

Item	YE 2024 Market Value	YE 2024 Actuarial Value	YE 2023 Market Value	YE 2023 Actuarial Value
1. Net investment income	\$92,068,186	\$63,674,246	\$64,329,994	\$51,373,435
2. Average value of assets	914,274,832	948,563,075	846,881,255	894,126,057
3. Rate of return: (1) ÷ (2)	10.07%	6.71%	7.60%	5.75%
4. Assumed rate of return	7.00%	7.00%	7.00%	7.00%
5. Expected investment income: (2) x (4)	\$63,999,238	\$66,399,415	\$59,281,688	\$62,588,824
<b>6. Net investment gain/(loss): (1) – (5)</b>	<b>\$28,068,948</b>	<b>-\$2,725,169</b>	<b>\$5,048,306</b>	<b>-\$11,215,389</b>

## Section 2: Actuarial Valuation Results

### Non-investment experience

#### Administrative expenses

Administrative expenses for the year ended June 30, 2024, totaled \$1,554,429, as compared to the assumption of \$1,859,405. This resulted in an experience gain of \$381,649 for the year, including an adjustment for interest.

#### Other experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- Mortality experience (more or fewer than expected deaths)
- The extent of turnover among members
- Retirement experience (earlier or later than projected)
- The number of disability retirements (more or fewer than projected)
- Salary and service increases (greater or smaller than projected)
- Actual COLAs paid (more or less than assumed)

The net loss from this other experience for the year ended June 30, 2024 amounted to \$35,014,707, which is 2.6% of the actuarial accrued liability.

## Section 2: Actuarial Valuation Results

### Liability Changes Due to Demographic Experience for Year Ended June 30

Liability Change	2024	2023	2022	2021	2020	Average
Net turnover	\$768,439	-\$1,402,050	\$8,419,883	-\$1,910,229	-\$6,643,287	-\$153,449
Retirement	-4,516,152	-7,724,194	-3,610,731	-2,674,401	-4,895,347	-4,684,165
Mortality	-1,776,937	-1,784,365	216,665	515,840	-3,822,241	-1,330,208
Disability retirements	-621,917	-252,483	-52,895	-192,529	-108,472	-245,659
Salary/service increases	-16,593,792	-10,849,123	-10,247,586	1,670,345	5,013,461	-6,201,339
COLA experience <sup>1</sup>	-5,238,190	813,080	-7,223,911	-4,281,130	3,060,227	-2,573,985
Miscellaneous <sup>2</sup>	-7,036,158	-7,445,107	-5,611,146	407,804	-2,305,236	-4,397,969
<b>Total</b>	<b>-\$35,014,707</b>	<b>-\$28,644,242</b>	<b>-\$18,109,721</b>	<b>-\$6,464,300</b>	<b>-\$9,700,895</b>	<b>-\$19,586,773</b>

## Actuarial assumptions and methods

Effective for the June 30, 2024, actuarial valuation, the Vermont Pension Investment Commission unanimously approved changing the asset smoothing methodology for the System. Specifically, the method used to determine the actuarial value of assets was updated to the following: the amount of the assets for valuation purposes equals the preliminary asset value plus 20% of the difference between market and preliminary asset values. The preliminary asset value is equal to the previous year's asset value (for valuation purposes) adjusted for contributions less benefit payments and expenses plus expected investment income. If necessary, a further adjustment is made to ensure that the valuation assets are within 20% of the market value. Details on actuarial assumptions and methods are in Section 4, Exhibit F.

## Plan provisions

At the May 2024, Board meeting, the Board voted unanimously to authorize employer contribution rate increases of 0.25% each year for a period of four years, beginning July 1, 2026. Also in May 2024, the Legislature passed H.883, which included an increase in the member rate of 0.25% for each group for four years, beginning July 1, 2026. A summary of plan provisions is in Section 4, Exhibit G.

<sup>1</sup> COLA experience loss for 2024 is due to actual 2025 COLAs being greater than expected (1.90% actual vs 1.10% expected for Group A, 1.90% actual vs 1.20% expected for Groups B, C, and D).

<sup>2</sup> Miscellaneous gains and losses are comprised of all demographic gains and losses that are not individually listed in the table above. Some of the largest attributing items typically include data updates, show-up/drop-off records (records that were not previously valued, or records that were previously valued that are no longer being valued), and actual timing of cash flows being different than assumed.

## Section 2: Actuarial Valuation Results

### Development of unfunded actuarial accrued liability

#### Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2024

Item	Amount
1. Unfunded actuarial accrued liability at beginning of year	\$314,507,491
2. Normal cost at beginning of year	48,731,210
3. Total contributions	-66,712,623
4. Interest on 1, 2 & 3	23,091,767
5. Expected unfunded actuarial accrued liability: (1) + (2) + (3) + (4)	\$319,617,845
6. Changes due to:	
a. Net experience (gain)/loss	\$37,358,227
b. Assumptions	0
c. Funding method	0
d. Asset method	-1,001,275
e. Plan provisions	0
f. Total changes	36,356,952
<b>7. Unfunded actuarial accrued liability at end of year: (5) + (6f)</b>	<b>\$355,974,797</b>

## Section 2: Actuarial Valuation Results

### Actuarially determined contribution

The current funding policy is intended to result in predictable employer contributions that eliminate the unfunded actuarial accrued liability within 14 years, thereby providing benefit security to plan participants while balancing the needs of current and future contributors to the plan. The actuarially determined contribution is equal to the employer normal cost payment and a payment on the unfunded actuarial accrued liability. As of July 1, 2024, the actuarially determined contribution for fiscal year ending June 30, 2025, is \$57,168,666, or 12.372% of payroll.

The statute governing the System specifies the funding policy used to calculate the actuarially determined contribution based on a closed amortization period ending on June 30, 2038, assuming that the amortization amount will increase annually at the rate of 3% over the preceding year. As of July 1, 2024, there are 14 years remaining on this schedule.

The contribution requirement as of July 1, 2024, is based on the data previously described, the actuarial assumptions and plan provisions described in Section 4, including all changes affecting future costs adopted at the time of the actuarial valuation, actuarial gains and losses, and changes in the actuarial assumptions.

#### Actuarially Determined Contribution Requirement

Contribution	2024 Amount	2024 Percent of Projected Payroll <sup>1</sup>	2023 Amount	2023 Percent of Projected Payroll <sup>1</sup>
1. Total normal cost, adjusted for timing <sup>2</sup>	\$54,785,075	11.856%	\$48,548,551	11.749%
2. Administrative expenses	2,079,434	0.450%	1,859,405	0.450%
3. Expected employee contributions	-32,994,420	-7.140%	-28,190,553	-6.822%
4. Employer normal cost: (1) + (2) + (3)	\$23,870,089	5.166%	\$22,217,403	5.377%
5. Actuarial accrued liability	1,371,375,192		1,260,908,766	
6. Actuarial value of assets	1,015,400,395		946,401,275	
7. Unfunded/(overfunded) actuarial accrued liability: (5) - (6)	\$355,974,797		\$314,507,491	
8. Payment on unfunded/(overfunded) actuarial accrued liability, adjusted for timing <sup>2</sup>	33,298,577	7.206%	27,937,630	6.761%
<b>9. Actuarially determined contribution requirement: (4) + (8)</b>	<b>\$57,168,666</b>	<b>12.372%</b>	<b>\$50,155,033</b>	<b>12.138%</b>
10. Projected payroll	462,096,390		413,201,090	

<sup>1</sup> Amounts may not add due to rounding.

<sup>2</sup> Contributions are assumed to be paid at the middle of the year.

## Section 2: Actuarial Valuation Results

### Actuarially determined contribution by group

The following table shows a comparison of the projected Actuarially Determined Contribution for the fiscal year ending June 30, 2026, to the projected funding policy rates for the same period, by group.

#### Actuarially Determined Contribution by Group for Fiscal Year Ending June 30, 2026

Contribution	Group A	Group B	Group C	Group D	Total
1. Normal contributions:					
a. Member <sup>1</sup>	4.250%	6.625%	11.750%	13.100%	7.390%
b. Employer	3.750%	4.923%	6.043%	6.118%	4.916%
<b>c. Total</b>	<b>8.000%</b>	<b>11.548%</b>	<b>17.793%</b>	<b>19.218%</b>	<b>12.306%</b>
2. Payment on unfunded liability through June 30, 2038	4.042%	6.887%	11.678%	9.506%	7.206%
3. Actuarially determined contribution rate: (1b) + (2)	7.792%	11.810%	17.721%	15.624%	12.122%
4. Current funding policy contribution rate	5.750%	7.250%	9.000%	11.600%	7.496%
<b>5. Contribution excess/(shortfall): (4) – (3)</b>	<b>-2.042%</b>	<b>-4.560%</b>	<b>-8.721%</b>	<b>-4.024%</b>	<b>-4.626%</b>

We recommend that the Board set future contribution rates to ultimately target the rates specified in item 3 in the table above. At the November 17, 2020, Board meeting, the Board voted unanimously to authorize employer contribution rate increases of 0.50% each year for a period of four years, beginning July 1, 2022. In 2022, the Legislature passed H.740, which effectively split the Board-authorized increases evenly between members and employers by including an increase in the employee rate of 0.25% for each group for four years, beginning July 1, 2022. At the May 2024, Board meeting, the Board voted unanimously to authorize employer contribution rate increases of 0.25% each year for a period of four years, beginning July 1, 2026. Also in May 2024, the Legislature passed H.883, which included an increase in the member rate of 0.25% for each group for four years, beginning July 1, 2026.

The difference between the current funding policy rate and the actuarially determined contribution rate is a shortfall of 4.626% of payroll in the aggregate. If the remaining four 0.25% contribution rate increases for employers and members were applied immediately, the contribution shortfall would effectively reduce to 2.626%.

<sup>1</sup> Includes one 0.25% member contribution rate increase per group, as defined in H.740.



## Section 2: Actuarial Valuation Results

### Amortization schedule for unfunded actuarial accrued liability

A schedule of projected future unfunded actuarial accrued liability amortization payments, which, if made, would amortize the unfunded actuarial accrued liability by 2038, is shown below. Because the current funding policy rates are lower than the actuarially determined contribution rates, we have projected the funded percentage based on the funding policy rates. As shown below, the funded percentage increases through 2038, where the projected funded percentage is 85.00%.

#### Unfunded Liability Amortization Schedule

As of July 1	Balance	Amortization Payment (Year Following)	Projected Funded Percentage if Contributions are Based on Current Contribution Rates <sup>1</sup>
2024	\$355,974,797	\$33,298,577	74.04%
2025	346,448,716	34,297,535	74.51%
2026	335,222,481	35,326,461	75.02%
2027	322,146,080	36,386,254	75.63%
2028	307,058,071	37,477,842	76.36%
2029	289,784,754	38,602,177	77.20%
2030	270,139,285	39,760,243	78.14%
2031	247,920,720	40,953,050	79.06%
2032	222,913,006	42,181,641	79.94%
2033	194,883,887	43,447,091	80.81%
2034	163,583,739	44,750,503	81.66%
2035	128,744,320	46,093,019	82.49%
2036	90,077,433	47,475,809	83.33%
2037	47,273,495	48,900,083	84.17%
2038	0	0	85.00%

<sup>1</sup> At the November 17, 2020, Board meeting, the Board voted unanimously to authorize employer contribution rate increases of 0.50% each year for a period of four years, beginning July 1, 2022. In 2022, the Legislature passed H.740, which effectively split the Board-authorized increases evenly between members and employers by including an increase in the employee rate of 0.25% for each group for four years, beginning July 1, 2022. At the May 2024, Board meeting, the Board voted unanimously to authorize employer contribution rate increases of 0.25% each year for a period of four years, beginning July 1, 2026. Also in May 2024, the Legislature passed H.883, which included an increase in the member rate of 0.25% for each group for four years, beginning July 1, 2026. The funded percentages shown in the table above assume that the Actuarial Value of Assets earns 7% per year in each future year and do not reflect the \$6.9 million of deferred net investment losses as of the June 30, 2024, valuation date. For comparison, the projected funded percentage in 2038 based on the Market Value of Assets is 84.36%.

## Section 2: Actuarial Valuation Results

### History of employer contributions

History of Employer Contributions: 2016 – 2025  
Actuarially Determined Contribution (ADC) versus Actual Employer Contribution (AEC)

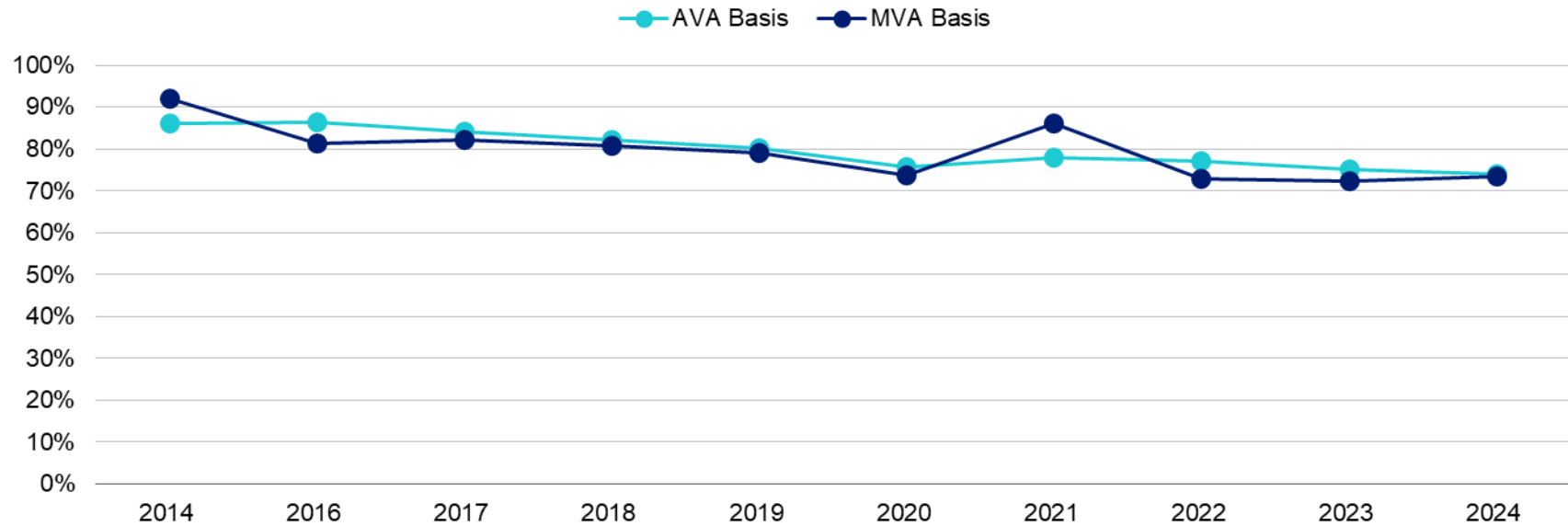
Year Ended June 30	ADC Amount	ADC Percentage of Projected Payroll	AEC Amount	AEC Percentage of Projected Payroll	Percent Contributed
2016 <sup>1</sup>	\$15,235,742	N/A	\$15,235,742	N/A	100.00%
2017	12,895,672	4.64%	16,481,881	5.93%	127.81%
2018	15,066,601	5.22%	17,519,690	6.07%	116.28%
2019	17,263,214	5.67%	19,202,981	6.31%	111.24%
2020	22,618,468	7.04%	20,680,856	6.44%	91.43%
2021	36,722,301	10.67%	22,297,570	6.48%	60.72%
2022	39,451,313	11.31%	25,217,676	7.23%	63.92%
2023	43,343,569	11.60%	28,456,017	7.62%	65.65%
2024	50,155,033	12.14%	33,179,786	8.03%	66.15%
2025	57,168,666	12.37%	—	—	—

<sup>1</sup> While no formal actuarial valuation was produced for the fiscal year ended June 30, 2015, contribution rates for the year were developed by the actuary.

## Section 2: Actuarial Valuation Results

### History of funded percentage

A history of the most recent years of funded percentage as of June 30th is shown below.



\* No formal actuarial valuation was produced for the fiscal year ended June 30, 2015. Therefore, no funded percentage is shown as of June 30, 2015.

## Section 2: Actuarial Valuation Results

### Low-Default-Risk Obligation Measure (LDRM)

In December 2021, the Actuarial Standards Board issued a revision of Actuarial Standard of Practice No. 4 (ASOP 4) Measuring Pension Obligations and Determining Pension Plan Costs or Contributions. One of the revisions to ASOP 4 requires the disclosure of a Low-Default-Risk Obligation Measure (LDRM) when performing a funding valuation. The LDRM presented in this report is calculated using the same methodology and assumptions used to determine the Actuarial Accrued Liability (AAL) used for funding, except for the discount rate. The LDRM is required to be calculated using “a discount rate...derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future.”

The LDRM is a calculation assuming a plan’s assets are invested in an all-bond portfolio, generally lowering expected long-term investment returns. The discount rate selected and used for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index Rate, published at the end of each week. The last published rate in December of the measurement period, by The Bond Buyer ([www.bondbuyer.com](http://www.bondbuyer.com)), is 3.93% for use effective June 30, 2024. This is the rate used to determine the discount rate for valuing reported public pension plan liabilities in accordance with Governmental Accounting Standards when plan assets are projected to be insufficient to make projected benefit payments, and the 20-year period reasonably approximates the duration of plan liabilities. The LDRM is not used to determine a plan’s funded status or Actuarially Determined Contribution. The plan’s expected return on assets, currently 7.00%, is used for these calculations.

As of June 30, 2024, the LDRM for the system is \$2.06 billion. The difference between the plan’s AAL of \$1.37 billion and the LDRM, or \$0.69 billion, can be thought of as the increase in the AAL if the entire portfolio were invested in low-default-risk securities. Alternatively, this difference could also be viewed as representing the expected savings from investing in the plan’s diversified portfolio compared to investing only in low-default-risk securities.

ASOP 4 requires commentary to help the intended user understand the significance of the LDRM with respect to the funded status of the plan, plan contributions, and the security of participant benefits. In general, if plan assets were invested exclusively in low-default-risk securities, the funded status would be lower and the Actuarially Determined Contribution would be higher. While investing in a portfolio with low-default-risk securities may be more likely to reduce investment volatility and the volatility of employer contributions, it also may be more likely to result in higher employer contributions or lower benefits.

## Section 2: Actuarial Valuation Results

### Risk

The actuarial valuation results are dependent on a single set of assumptions; however, there is a risk that emerging results may differ significantly as actual experience proves to be different from the current assumptions.

- Economic and Other Related Risks. Potential implications for the System due to the following economic effects (that were not reflected as of the valuation date) include:
  - Volatile financial markets and investment returns lower than assumed
  - High inflationary environment impacting salary increases and COLAs
- Investment Risk (the risk that returns will be different than expected)

If the actual return on market value for the prior plan year were 1% different (either higher or lower), the unfunded actuarial liability would change by 2.57%, or about \$9,142,748, disregarding the asset smoothing method.

Since the System's assets are much larger than contributions, investment performance may create volatility in the actuarially determined contribution requirements. For example, for the prior plan year, if the actual return on market value were 1% different, the actuarially determined contribution would increase or decrease by \$826,783, disregarding the asset smoothing method.

The market value rate of return over the last 20 years has ranged from a low of -17.88% to a high of 25.07%.

- Longevity Risk (the risk that mortality experience will be different than expected)

The actuarial valuation includes an expectation of future improvement in life expectancy. Emerging plan experience that does not match these expectations will result in either an increase or decrease in the actuarially determined contribution.
- Contribution Risk (the risk that actual contributions will be different from actuarially determined contribution)

The actuarially determined contribution rates determined by the funding policy are compared to the statutory contribution rates as a measure of adequacy, and the contribution rates for both employers and members are updated from time to time, as necessary, to ensure proper funding of the System. As long as the statutory contribution rates result in a contribution shortfall, there is contribution risk for the System.
- Demographic Risk (the risk that participant experience will be different than assumed)

Examples of this risk include:

  - Actual retirements occurring earlier or later than assumed. The value of retirement plan benefits is sensitive to the rate of benefit accruals and any early retirement subsidies that apply.
  - More or less active participant turnover than assumed.
  - Salary increases more or less than assumed.

## Section 2: Actuarial Valuation Results

- There are external factors including legislative or financial reporting changes that could impact the System’s funding and disclosure requirements. While we do not assume any changes in such external factors, it is important to understand that they could have significant consequences for the System.
- Actual Experience Over the Last Five Years

Past experience can help demonstrate the sensitivity of key results to the System’s actual experience. Over the past five years:

- The non-investment gain(loss) for a year has ranged from a loss of \$34.6 million to a loss of \$6.5 million.

Plan Year Ended	Investment Gain/(Loss)	Administrative Expense Gain/(Loss)	All Other Gains and (Losses)
2020	-\$11,255,517	N/A	-\$9,700,895
2021	21,858,431	N/A	-6,464,300
2022	-2,912,871	\$145,431	-18,109,721
2023	-11,215,389	251,510	-28,644,242
2024	-2,725,169	381,649	-35,014,707

- The funded percentage on the actuarial value of assets has ranged from a low of 74.04% to a high of 86.52% over the past ten years.

### Maturity Measures

- As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the System’s asset allocation is aligned to meet emerging pension liabilities.
- Currently the System has an in-pay-status member to active member ratio of 0.53.
- For the prior year, benefits and administrative expenses paid were \$5.5 million less than contributions received. As the System matures and benefits paid exceed contributions received, cash will be needed from the investment portfolio to meet benefit payments.

## Section 2: Actuarial Valuation Results

### Actuarial balance sheet

An overview of the System’s funding is given by an Actuarial Balance Sheet. In this approach, first the amount and timing of all future payments that will be made by the System for current members is determined. Then these payments are discounted at the valuation interest rate to the date of the valuation, thereby determining the present value, referred to as the “liability” of the System.

Second, this liability is compared to the assets. The “assets” for this purpose include the net amount of assets already accumulated by the System, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments for the unfunded actuarial accrued liability.

#### Actuarial Balance Sheet

Item	Year Ended June 30, 2024	Year Ended June 30, 2023
<b>Liabilities</b>		
Present value of benefits for retired members and beneficiaries	\$640,043,958	\$589,654,207
Present value of benefits for inactive former members	102,685,230	92,593,422
Present value of benefits for active members	1,010,623,065	916,856,815
<b>Total liabilities</b>	<b>\$1,753,352,253</b>	<b>\$1,599,104,444</b>
<b>Current and future assets</b>		
Total valuation value of assets	\$1,015,400,395	\$946,401,275
Present value of future contributions by members	286,289,946	233,390,591
Present value of future employer contributions for:		
• Entry age cost	95,687,115	104,805,087
• Unfunded actuarial accrued liability	355,974,797	314,507,491
<b>Total of current and future assets</b>	<b>\$1,753,352,253</b>	<b>\$1,599,104,444</b>

# Section 3: Supplemental Information

## Exhibit A: Table of plan demographics

Category	Year Ended June 30, 2024	Year Ended June 30, 2023	Change From Prior Year
<b>Active members in valuation:</b>			
• Number	8,692	8,393	3.6%
• Average age	46.7	47.0	-0.3
• Average years of credited service	7.6	7.8	-0.2
• Total payroll	\$438,455,931	\$392,231,749	11.8%
• Average payroll	50,444	46,733	7.9%
• Total active vested members	4,178	4,140	0.9%
<b>Inactive members:</b>			
• Number of deferreds as reported by the System	1,160	1,095	5.9%
• Number of inactives as reported by the System	5,020	4,544	10.5%
<b>Retired members:</b>			
• Number in pay status	4,239	4,044	4.8%
• Average age	72.6	72.3	0.3
• Average monthly benefit	\$1,043	\$1,012	3.1%
<b>Disabled members:</b>			
• Number in pay status	86	88	-2.3%
• Average age	63.2	63.4	-0.2
• Average monthly benefit	\$934	\$915	2.1%



## Section 3: Supplemental Information

Category	Year Ended June 30, 2024	Year Ended June 30, 2023	Change From Prior Year
<b>Beneficiaries:</b>			
• Number in pay status	313	299	4.7%
• Average age	73.1	73.8	-0.7
• Average monthly benefit	\$763	\$728	4.8%

## Section 3: Supplemental Information

### Exhibit B: Reconciliation of member data

	Active Members	Deferreds	Inactives	Disability Retirees	Retired Members	Beneficiaries	Total
<b>Number as of July 1, 2023</b>	<b>8,393</b>	<b>1,095</b>	<b>4,544</b>	<b>88</b>	<b>4,044</b>	<b>299</b>	<b>18,463</b>
New members	1,470	N/A	342	2	7	N/A	1,821
Inactives as reported by the System	-1,017	0	1,017	N/A	N/A	N/A	0
Deferreds as reported by the System	N/A	143	-143	N/A	N/A	N/A	0
Retirements	-194	-46	-28	N/A	268	N/A	0
New disabilities	-5	0	0	5	0	N/A	0
Return to work from disability	0	N/A	N/A	0	N/A	N/A	0
Died with beneficiary	-2	0	-1	-3	-20	26	0
Died without beneficiary	-9	-3	-7	-7	-61	-18	-105
Refund of contributions	-106	-16	-541	0	0	0	-663
Rehire	162	-13	-149	N/A	0	N/A	0
Certain period expired	N/A	N/A	0	0	0	0	0
Data adjustments	0	0	-14	1	1	6	-6
<b>Number as of July 1, 2024</b>	<b>8,692</b>	<b>1,160</b>	<b>5,020</b>	<b>86</b>	<b>4,239</b>	<b>313</b>	<b>19,510</b>

## Section 3: Supplemental Information

### Exhibit C: Summary statement of income and expenses on a market value basis

Year Ended June 30, 2024 versus Year Ended June 30, 2023

Item	Income and Expenses	Assets as of YE 2024	Income and Expenses	Assets as of YE 2023
<b>Net assets at market value at the beginning of the year</b>		<b>\$912,113,032</b>		<b>\$845,979,471</b>
<b>Contribution and other income:</b>				
• Employer contributions	\$33,179,786		\$28,456,017	
• Member contributions	33,075,291		29,695,944	
• Administrative expenses	-1,554,429		-1,302,636	
<b>• Net contribution income</b>		<b>\$64,700,648</b>		<b>\$56,849,325</b>
<b>• Net other income and transfers in from other Funds</b>		<b>\$457,546</b>		<b>\$90,901</b>
<b>Investment income:</b>				
• Interest, dividends and other income	\$10,321,634		\$7,928,640	
• Asset appreciation	81,746,552		56,401,354	
• Investment fees	-1,158,752		-1,234,811	
<b>• Net investment income</b>		<b>\$90,909,434</b>		<b>\$63,095,183</b>
<b>• Total income available for benefits</b>		<b>\$156,067,628</b>		<b>\$120,035,409</b>
<b>Benefit payments:</b>				
• Retirement benefits	-\$54,398,002		-\$49,180,570	
• Refunds of contributions	-3,218,720		-2,541,299	
• Death claims	-757,755		-597,113	
• Transfers to other pension trust funds	-1,301,366		-1,582,866	
<b>• Net benefit payments</b>		<b>-\$59,675,843</b>		<b>-\$53,901,848</b>
<b>Change in reserve for future benefits</b>		<b>\$96,391,785</b>		<b>\$66,133,561</b>
<b>Net assets at market value at the end of the year</b>		<b>\$1,008,504,817</b>		<b>\$912,113,032</b>

## Section 3: Supplemental Information

### Exhibit D: Summary statement of plan assets

Year Ended June 30, 2024 versus Year Ended June 30, 2023

Item	Investments	Assets as of YE 2024	Investments	Assets as of YE 2023
<b>Cash and accounts receivable</b>				
• Cash equivalents		\$42,992,595		\$15,462,004
• Total accounts receivable		32,121,559		26,183,303
• Prepaid expenses		48,817		45,045
• Capital assets, net of depreciation		34,183		119,924
<b>Investments:</b>				
• Fixed Income	\$221,094,848		\$42,756,326	
• Equities	26,204,153		26,359,227	
• Mutual and commingled funds	410,996,668		588,552,646	
• Real estate and venture capital	330,580,132		236,391,293	
• <b>Total investments at market value</b>		<b>\$988,875,801</b>		<b>\$894,059,492</b>
<b>Total assets</b>		<b>\$1,064,072,955</b>		<b>\$935,869,768</b>
<b>Accounts payable</b>				
• Total accounts payable		-\$55,568,138		-\$23,756,736
<b>Net assets at market value</b>		<b>\$1,008,504,817</b>		<b>\$912,113,032</b>
<b>Net assets at actuarial value</b>		<b>\$1,015,400,395</b>		<b>\$946,401,275</b>

## Section 3: Supplemental Information

### Exhibit E: Development of the fund through June 30, 2024

Year Ended June 30	Employer Contributions	Member Contributions	Net Other Income	Net Investment Return <sup>1</sup>	Admin. Expenses	Benefit Payments <sup>2</sup>	Market Value of Assets at Year-End	Actuarial Value of Assets at Year-End	Actuarial Value as a Percent of Market Value
2015	\$14,136,067	\$13,587,975	\$384,009	-\$2,358,518	-\$1,056,094	-\$23,315,174	\$535,903,742	\$543,768,156	101.47%
2016	15,235,742	15,226,948	351,434	6,776,933	-890,802	-25,588,884	547,015,114	581,611,235	106.32%
2017	16,481,881	25,210,413	149,556	59,486,928	-1,030,159	-27,803,390	619,510,342	634,690,493	102.45%
2018	17,519,690	19,166,537	271,783	43,889,050	-1,064,034	-31,444,463	667,848,905	680,005,147	101.82%
2019	19,202,981	19,777,956	450,746	38,740,356	-1,158,070	-35,397,043	709,465,831	718,337,020	101.25%
2020	20,680,856	20,771,304	459,660	29,113,786	-1,354,418	-39,084,124	740,052,895	761,505,976	102.90%
2021	22,297,570	23,074,402	365,222	184,850,097	-1,248,638	-43,357,218	926,034,330	837,095,639	90.40%
2022	25,217,676	25,025,242	650,984	-81,507,765	-1,302,589	-48,138,407	845,979,471	893,224,273	105.58%
2023	28,456,017	29,695,944	90,901	63,095,183	-1,302,636	-53,901,848	912,113,032	946,401,275	103.76%
2024	33,179,786	33,075,291	457,546	90,909,434	-1,554,429	-59,675,843	1,008,504,817	1,015,400,395	100.68%

<sup>1</sup> On a market basis, net of investment fees.

<sup>2</sup> Includes "transfers to other pension trust funds".

# Section 4: Actuarial Valuation Basis

## Exhibit F: Actuarial assumptions, methods and models

### Rationale for assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the Actuarial Experience Review dated September 18, 2023 (as prepared by Segal) and in the Economic Experience Study (as prepared by the Gabriel Roeder Smith actuarial consulting firm) adopted by the Vermont Pension Investment Commission during their meeting on July 25, 2023.

### Inflation

2.30%

### Investment return

7.00%

The investment return assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes, as well as the System's target asset allocation.

## Section 4: Actuarial Valuation Basis

### Salary increases

Salary increases include an assumed inflation rate of 2.30%.

Service	Annual Rate of Salary Increase (%)
0	6.21
5	5.69
10	5.06
15	4.80
20	4.67
25	4.46
30	4.26
35	4.13
37+	4.07

### Cost-of-living adjustments (COLA)

Assumed to occur on January 1 following one year of retirement at the rate of 1.10% per annum for Group A members and 1.20% per annum for Groups B, C and D members (beginning at Normal Retirement eligibility age for members who elect reduced early retirement, at age 62 for members of Groups A, B, and D who receive a disability retirement benefit, and at age 55 for members of Group C who receive a disability retirement benefit). The January 1, 2025, COLA is expected to be 1.90% for Group A and 1.90% for Groups B, C, and D.

## Section 4: Actuarial Valuation Basis

### Mortality rates

#### Pre-retirement

- **Groups A/B**

- 60% PubG-2010 General Employee Amount-Weighted Below-Median and 40% of PubG-2010 General Employee Amount-Weighted, with generational projection using Scale MP-2021.

- **Group C**

- PubG-2010 General Employee Amount-Weighted, with generational projection using scale MP-2021.

- **Group D**

- PubS-2010 Public Safety Employee Amount-Weighted Below-Median, with generational projection using scale MP-2021.

#### Healthy post-retirement - retirees

- **Groups A/B**

- PubG-2010 General Healthy Retiree Amount-Weighted Below Median Table with credibility adjustments of 90% and 87% for the Male and Female tables, respectively, with generational projection using scale MP-2021.

- **Group C**

- PubG-2010 General Healthy Retiree Amount-Weighted Table, with generational projection using scale MP-2021.

- **Group D**

- PubS-2010 Public Safety Retiree Amount-Weighted Below-Median Table, with generational projection using scale MP-2021.

#### Healthy post-retirement - beneficiaries

- **All Groups**

- Pub-2010 Contingent Survivor Amount-Weighted Below-Median Table, with generational projection using scale MP-2021.



## Section 4: Actuarial Valuation Basis

### **Mortality rates (continued)**

#### **Disabled post-retirement**

- **Groups A/B/C**
  - PubNS-2010 Non-Safety Disabled Retiree Amount-Weighted Table with generational projection using Scale MP-2021.
- **Group D**
  - PubS-2010 Safety Disabled Retiree Amount-Weighted Table with generational projection using Scale MP-2021.

The tables with the generational projection to the ages of members as of the measurement date reasonably reflect the mortality experience of the System as of the measurement date. The mortality rates were based on historical and current demographic data, adjusted to reflect health characteristics of the underlying groups and estimated future experience and professional judgment. The mortality tables were then adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

## Section 4: Actuarial Valuation Basis

### Separation from service before retirement (due to withdrawal and disability)

Representative values of the assumed annual rates of withdrawal and disability are as follows:

Service	Groups A/B
	Withdrawal Rate (%) Male/Female
0-2	18.50
3	16.50
4	14.50
5	12.50
6	10.50
7	8.50
8	8.30
9	8.10
10	7.90
11	7.70
12	7.50
13	7.20
14	6.90
15	6.60
16	6.30
17-22	6.00
23	5.80
24	5.60
25	5.40
26	5.20
27+	5.00

## Section 4: Actuarial Valuation Basis

### Separation from service before retirement (due to withdrawal and disability) (continued)

Service	Groups C/D
	Withdrawal Rate (%) Male/Female
0-2	16.00
3	14.20
4	12.40
5	10.60
6	8.80
7	7.00
8	6.30
9	5.60
10	4.90
11	4.20
12+	3.50

## Section 4: Actuarial Valuation Basis

### Separation from service before retirement (due to withdrawal and disability) (continued)

Age	Groups A/B Disability Rate (%) <sup>1</sup>		Groups C/D Disability Rate (%) <sup>1</sup>	
	Male	Female	Male	Female
25	0.0190	0.0060	0.0120	0.0030
30	0.0250	0.0080	0.0150	0.0030
35	0.0320	0.0100	0.0200	0.0040
40	0.0570	0.0180	0.0350	0.0080
45	0.0950	0.0300	0.0580	0.0130
50	0.1710	0.0540	0.1040	0.0230
55	0.3420	0.1080	0.2070	0.0450
60	0.5990	0.1890	0.3620	0.0790
65	0.5990	0.1890	0.3620	0.0790

<sup>1</sup> Disability rates stop after age 55 with 5 or more years of service for Group B, C and D members and after age 55 with 35 or more years of service for Group A members.

## Section 4: Actuarial Valuation Basis

### Retirement rates

Age	Group A Male	Group A Female	Group B Male	Group B Female	Group C Male/Female	Group D Male/Female
50	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%
51	0.00	0.00	0.00	0.00	0.00	10.00
52	0.00	0.00	0.00	0.00	0.00	10.00
53	0.00	0.00	0.00	0.00	0.00	10.00
54	0.00	0.00	0.00	0.00	0.00	10.00
55	1.00	2.00	4.00	3.00	22.50	25.00
56	1.00	4.00	4.00	3.00	7.50	25.00
57	2.00	4.00	4.00	3.00	7.50	25.00
58	2.00	4.00	4.00	3.00	12.50	25.00
59	6.00	5.00	4.00	4.00	12.50	25.00
60	7.00	5.00	4.00	4.00	12.50	5.00
61	7.00	6.00	10.00	10.00	7.50	5.00
62	15.00	8.00	20.00	12.50	20.00	5.00
63	15.00	10.00	20.00	12.50	12.50	5.00
64	25.00	17.50	22.50	20.00	20.00	5.00
65	25.00	17.50	25.00	30.00	40.00	100.00
66	25.00	20.00	25.00	30.00	40.00	100.00
67	25.00	20.00	25.00	17.50	30.00	100.00
68	25.00	22.50	25.00	20.00	30.00	100.00
69	25.00	25.00	25.00	25.00	30.00	100.00
70	100.00	100.00	100.00	100.00	100.00	100.00

Rates shown are for members with 5 or more years of service (unless otherwise indicated). For members with less than 5 years of service, 0% is assumed.

## Section 4: Actuarial Valuation Basis

### **Inactive members as reported by the system**

**Not Vested:** Valuation liability equals 100% of accumulated contributions.

**Vested:** Valuation liability is based on accrued benefit and members are assumed to retire 10% of the time each year from their Early Retirement Age until their Normal Retirement Age, then 100% of the time at their Normal Retirement age, with a deferred vested benefit.

### **Deferred members as reported by the system**

Assumed to retire 10% of the time each year from their Early Retirement Age until their Normal Retirement Age, then 100% of the time at their Normal Retirement age, with a deferred vested benefit.

### **Unknown data for members**

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

### **Future administrative expenses**

0.45% of projected payroll.

### **Percent married**

85% of male members and 50% of female members are assumed to be married.

### **Age of spouse**

Females are assumed to be three years younger than males.

## Section 4: Actuarial Valuation Basis

### Benefit election

- **Non-Group D**
  - All members are assumed to elect the single life annuity option with a refund of contributions guarantee.
- **Group D**
  - Single members are assumed to elect the single life annuity. Married members are assumed to elect the 70% joint & survivor option.

### Actuarial value of assets

The amount of the assets for valuation purposes equals the preliminary asset value plus 20% of the difference between market and preliminary asset values. The preliminary asset value is equal to the previous year's asset value (for valuation purposes) adjusted for contributions less benefit payments and expenses plus expected investment income. If necessary, a further adjustment is made to ensure that the valuation assets are within 20% of the market value.

### Actuarial cost method

Entry Age Actuarial Cost Method. Entry Age is the age at date of employment or, if date is unknown, current age minus years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary, with Normal Cost determined using the plan of benefits applicable to each member. (Adopted effective June 30, 2020)

### Models

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Deterministic cost projections are based on a proprietary forecasting model. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the direction of the supervising actuary.

## Section 4: Actuarial Valuation Basis

### **Justification for change in actuarial assumptions/methods**

Effective for the June 30, 2024, actuarial valuation, the Vermont Pension Investment Commission unanimously approved changing the asset smoothing methodology for the System. Specifically, the method used to determine the actuarial value of assets was updated to the following: the amount of the assets for valuation purposes equals the preliminary asset value plus 20% of the difference between market and preliminary asset values. The preliminary asset value is equal to the previous year's asset value (for valuation purposes) adjusted for contributions less benefit payments and expenses plus expected investment income. If necessary, a further adjustment is made to ensure that the valuation assets are within 20% of the market value.



## Section 4: Actuarial Valuation Basis

### Exhibit G: Summary of plan provisions

This exhibit summarizes the major provisions of the System included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

#### Effective date

July 1, 1975

#### Creditable service

Service as a member plus purchased service.

#### Average final compensation (AFC)

- **Group A**
  - Average annual compensation during highest 5 consecutive years.
- **Groups B/C**
  - Average annual compensation during highest 3 consecutive years.
- **Group D**
  - Average annual compensation during highest 2 consecutive years.

#### Normal retirement eligibility

- **Group A**
  - Earlier of age 65 with 5 years of service or age 55 with 35 years of service.
- **Group B**
  - Earlier of age 62 with 5 years of service or age 55 with 30 years of service.
- **Groups C/D**
  - Age 55 with 5 years of service.

## Section 4: Actuarial Valuation Basis

### Normal retirement amount

- **Group A**
  - 1.4% of AFC times service.
- **Group B**
  - 1.7% of AFC times service as a Group B member plus percentage earned as a Group A member times AFC.
- **Group C**
  - 2.5% of AFC times service as a Group C member plus percentage earned as a Group A or B member times AFC.
- **Group D**
  - 2.5% of AFC times service as a Group D member plus percentage earned as a Group A, B or C member times AFC.

Maximum benefit is 60% of AFC for Groups A and B and 50% of AFC for Groups C and D. The above amounts include the portion of the allowance provided by member contributions.

### Early retirement eligibility

- **Groups A/B**
  - Age 55 with 5 years of service.
- **Group C**
  - None.
- **Group D**
  - Age 50 with 20 years of service.

### Early retirement amount

Normal retirement allowance based on service and AFC at early retirement, reduced by 6% for each year commencement precedes Normal Retirement Age for Group A and B members; payable without reduction to Group D members.

## Section 4: Actuarial Valuation Basis

### Vesting

- **All groups**
  - 5 years of service. Allowance beginning at normal retirement age based on AFC and service at termination. The AFC is to be adjusted annually by one-half of the percentage change in the Consumer Price Index, subject to the limits on “Post-Retirement Adjustments” described below.

### Disability retirement eligibility

- **All groups**
  - 5 years of service and disability as determined by the Retirement Board.

### Disability retirement amount

- **All groups**
  - Immediate allowance based on AFC and service to date of disability. Children’s benefit of 10% of AFC payable to up to three minor children (or children up to age 23 if enrolled in full-time studies) of a disabled Group D member.

### Death benefit eligibility for active and deferred members

- **All groups**
  - Death after 5 years of service.

### Death benefit amount for active and deferred members

- **Groups A/B/C**
  - Reduced early retirement allowance under 100% survivor option commencing immediately or, if greater, survivor’s benefit under disability allowance computed as of date of death.
- **Group D**
  - 70% of the unreduced accrued benefit, plus children’s benefit.

## Section 4: Actuarial Valuation Basis

### Post-retirement adjustments

- **Group A**

- Allowances in pay status for at least one year increased on each January 1 by one-half of the percentage increase in Consumer Price Index, but not more than 2%. If receiving an Early Retirement benefit, no increases until after reaching attaining Normal Retirement eligibility. If receiving a Disability Retirement benefit, no increases until after attaining age 62.

- **Groups B/C/D**

- Allowances in payment for at least one year increased on each January 1 by one-half of the percentage increase in Consumer Price Index, but not more than 3%. If receiving an Early Retirement benefit, no increases until after reaching attaining Normal Retirement eligibility. If receiving a Disability Retirement benefit, no increases until after attaining age 62 (age 55 for Group C).

### Retirement stipend

\$25 per month payable at the option of the Retirement Board.

### Optional benefit and death after retirement

- **Groups A/B/C**

- A lifetime allowance or actuarially equivalent 50% or 100% joint and survivor allowance with refund of contribution guarantee.

- **Group D**

- A lifetime allowance or 70% contingent annuitant option with no reduction.

### Refund of contributions

Upon termination, if the member so elects, or if no other benefit is payable, the member's accumulated contributions with interest are refunded.

## Section 4: Actuarial Valuation Basis

### Member contribution rates

Effective	Group A	Group B	Group C	Group D
July 1, 2024	4.00%	6.375%	11.50%	12.85%
July 1, 2025	4.25%	6.625%	11.75%	13.10%
July 1, 2026	4.50%	6.875%	12.00%	13.35%
July 1, 2027	4.75%	7.125%	12.25%	13.60%
July 1, 2028	5.00%	7.375%	12.50%	13.85%
July 1, 2029	5.25%	7.625%	12.75%	14.10%

### Employer contribution rates

Effective	Group A	Group B	Group C	Group D
July 1, 2024	5.50%	7.00%	8.75%	11.35%
July 1, 2025	5.75%	7.25%	9.00%	11.60%
July 1, 2026	6.00%	7.50%	9.25%	11.85%
July 1, 2027	6.25%	7.75%	9.50%	12.10%
July 1, 2028	6.50%	8.00%	9.75%	12.35%
July 1, 2029	6.75%	8.25%	10.00%	12.60%

### Changes in plan provisions

At the May 2024, Board meeting, the Board voted unanimously to authorize employer contribution rate increases of 0.25% each year for a period of four years, beginning July 1, 2026. Also in May 2024, the Legislature passed H.883, which included an increase in the member rate of 0.25% for each group for four years, beginning July 1, 2026.

# Section 5: Additional Summary Tables of Member Data

**Table 1A: Members in active service as of June 30, 2024, by age, years of service, and average payroll – all employee groups**

Age	Years of Credited Service								
	Total	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 & over
Under 25	485	482	3	—	—	—	—	—	—
	\$33,439	\$33,288	\$57,725	—	—	—	—	—	—
25 - 29	744	650	92	2	—	—	—	—	—
	\$45,020	\$42,778	\$60,175	\$76,501	—	—	—	—	—
30 - 34	845	616	184	44	1	—	—	—	—
	\$48,457	\$42,135	\$62,756	\$76,319	\$86,464	—	—	—	—
35 - 39	863	540	206	87	29	1	—	—	—
	\$50,898	\$41,489	\$60,171	\$80,776	\$70,060	\$66,034	—	—	—
40 - 44	963	537	220	111	73	22	—	—	—
	\$52,292	\$41,586	\$55,991	\$69,827	\$87,109	\$72,616	—	—	—
45 - 49	899	414	263	105	65	44	8	—	—
	\$53,538	\$42,565	\$55,824	\$66,831	\$76,255	\$75,784	\$64,788	—	—
50 - 54	1,057	395	281	132	132	77	30	9	1
	\$55,551	\$46,433	\$52,753	\$59,978	\$68,481	\$67,369	\$90,554	\$70,719	\$55,856
55 - 59	1,110	379	217	142	170	91	74	28	9
	\$54,193	\$43,381	\$53,864	\$58,955	\$64,258	\$51,910	\$68,765	\$82,739	\$66,653
60 - 64	1,117	311	229	155	136	153	70	33	30
	\$52,195	\$42,897	\$50,550	\$62,135	\$55,226	\$53,021	\$55,963	\$62,049	\$72,195
65 & over	609	196	115	82	64	69	38	29	16
	\$46,323	\$38,071	\$49,566	\$46,512	\$51,424	\$44,123	\$53,557	\$56,238	\$77,047
<b>Total</b>	<b>8,692</b>	<b>4,520</b>	<b>1,810</b>	<b>860</b>	<b>670</b>	<b>457</b>	<b>220</b>	<b>99</b>	<b>56</b>
	<b>\$50,444</b>	<b>\$41,538</b>	<b>\$55,491</b>	<b>\$64,000</b>	<b>\$65,969</b>	<b>\$57,037</b>	<b>\$64,891</b>	<b>\$66,987</b>	<b>\$72,399</b>

## Section 5: Additional Summary Tables of Member Data

### Table 1B: Members in active service as of June 30, 2024, by age, years of service, and average payroll – Group A

Age	Years of Credited Service								
	Total	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 & over
Under 25	138	137	1	—	—	—	—	—	—
	\$25,338	\$25,212	\$42,631	—	—	—	—	—	—
25 - 29	211	195	16	—	—	—	—	—	—
	\$31,891	\$30,918	\$43,747	—	—	—	—	—	—
30 - 34	249	195	51	3	—	—	—	—	—
	\$34,348	\$32,568	\$41,029	\$36,452	—	—	—	—	—
35 - 39	274	198	57	14	5	—	—	—	—
	\$37,928	\$35,129	\$44,485	\$48,163	\$45,351	—	—	—	—
40 - 44	318	207	63	33	10	5	—	—	—
	\$39,872	\$35,864	\$46,482	\$50,212	\$47,776	\$38,453	—	—	—
45 - 49	281	139	84	30	15	11	2	—	—
	\$41,457	\$35,571	\$44,430	\$52,173	\$52,457	\$46,141	\$56,612	—	—
50 - 54	300	121	85	37	27	22	4	4	—
	\$42,115	\$37,828	\$45,186	\$42,447	\$40,851	\$45,610	\$77,427	\$57,488	—
55 - 59	334	117	63	41	49	37	15	8	4
	\$43,325	\$39,332	\$44,831	\$47,813	\$41,781	\$43,434	\$47,197	\$61,049	\$58,307
60 - 64	373	109	78	47	40	55	27	8	9
	\$43,351	\$37,822	\$43,628	\$51,561	\$42,560	\$42,524	\$47,153	\$43,225	\$62,326
65 & over	252	80	47	34	28	32	12	15	4
	\$39,088	\$33,063	\$42,541	\$41,034	\$41,428	\$39,606	\$42,754	\$45,307	\$47,655
<b>Total</b>	<b>2,730</b>	<b>1,498</b>	<b>545</b>	<b>239</b>	<b>174</b>	<b>162</b>	<b>60</b>	<b>35</b>	<b>17</b>
	<b>\$39,057</b>	<b>\$34,115</b>	<b>\$44,218</b>	<b>\$47,511</b>	<b>\$43,127</b>	<b>\$42,695</b>	<b>\$48,618</b>	<b>\$49,821</b>	<b>\$57,928</b>

## Section 5: Additional Summary Tables of Member Data

### Table 1C: Members in active service as of June 30, 2024, by age, years of service, and average payroll – Group B

Age	Total	Years of Credited Service							
		0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 & over
Under 25	242	241	1	—	—	—	—	—	—
	\$30,436	\$30,309	\$61,029	—	—	—	—	—	—
25 - 29	362	312	48	2	—	—	—	—	—
	\$41,441	\$39,816	\$50,540	\$76,501	—	—	—	—	—
30 - 34	400	301	76	23	—	—	—	—	—
	\$47,223	\$42,242	\$60,172	\$69,634	—	—	—	—	—
35 - 39	407	259	100	33	14	1	—	—	—
	\$46,030	\$37,912	\$56,600	\$68,685	\$65,882	\$66,034	—	—	—
40 - 44	484	278	119	49	29	9	—	—	—
	\$49,572	\$42,308	\$52,880	\$65,966	\$71,142	\$71,469	—	—	—
45 - 49	490	240	149	52	25	20	4	—	—
	\$53,220	\$44,256	\$57,819	\$65,984	\$75,398	\$67,168	\$45,544	—	—
50 - 54	575	220	163	68	67	38	14	4	1
	\$51,738	\$43,890	\$49,785	\$58,790	\$61,155	\$66,836	\$72,132	\$69,525	\$55,856
55 - 59	650	223	134	83	97	43	51	14	5
	\$54,256	\$41,838	\$54,015	\$60,352	\$64,283	\$52,303	\$73,162	\$79,047	\$73,330
60 - 64	641	175	133	87	79	88	35	24	20
	\$53,595	\$44,514	\$51,676	\$62,725	\$53,489	\$56,204	\$57,347	\$65,442	\$74,246
65 & over	316	105	58	44	29	34	23	12	11
	\$49,724	\$40,033	\$53,304	\$48,398	\$60,938	\$46,275	\$52,329	\$66,656	\$85,857
<b>Total</b>	<b>4,567</b>	<b>2,354</b>	<b>981</b>	<b>441</b>	<b>340</b>	<b>233</b>	<b>127</b>	<b>54</b>	<b>37</b>
	<b>\$49,298</b>	<b>\$40,621</b>	<b>\$53,971</b>	<b>\$61,855</b>	<b>\$62,342</b>	<b>\$57,342</b>	<b>\$64,047</b>	<b>\$69,541</b>	<b>\$77,077</b>



## Section 5: Additional Summary Tables of Member Data

### Table 1D: Members in active service as of June 30, 2024, by age, years of service, and average payroll – Group C

Age	Total	Years of Credited Service							
		0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 & over
Under 25	77	76	1	—	—	—	—	—	—
	\$49,438	\$49,174	\$69,514	—	—	—	—	—	—
25 - 29	110	93	17	—	—	—	—	—	—
	\$66,918	\$64,089	\$82,393	—	—	—	—	—	—
30 - 34	128	83	35	10	—	—	—	—	—
	\$65,371	\$54,720	\$84,514	\$86,778	—	—	—	—	—
35 - 39	133	60	38	27	8	—	—	—	—
	\$78,999	\$65,962	\$83,490	\$98,428	\$89,881	—	—	—	—
40 - 44	116	47	32	16	18	3	—	—	—
	\$78,534	\$60,512	\$77,381	\$92,904	\$113,848	\$84,639	—	—	—
45 - 49	93	30	24	20	14	4	1	—	—
	\$73,794	\$58,565	\$72,479	\$89,141	\$81,096	\$82,996	\$116,269	—	—
50 - 54	134	48	24	20	29	6	7	—	—
	\$84,017	\$72,408	\$86,347	\$77,315	\$101,479	\$77,666	\$107,898	—	—
55 - 59	107	32	20	16	20	8	6	5	—
	\$78,749	\$60,351	\$81,301	\$77,366	\$105,493	\$71,435	\$69,345	\$106,716	—
60 - 64	98	26	18	20	15	10	8	—	1
	\$73,426	\$50,484	\$72,223	\$81,390	\$91,385	\$82,747	\$79,643	—	\$120,000
65 & over	40	10	10	4	7	3	3	2	1
	\$64,369	\$54,095	\$60,904	\$72,325	\$52,002	\$67,926	\$106,191	\$75,706	\$97,701
<b>Total</b>	<b>1,036</b>	<b>505</b>	<b>219</b>	<b>133</b>	<b>111</b>	<b>34</b>	<b>25</b>	<b>7</b>	<b>2</b>
	<b>\$72,847</b>	<b>\$59,521</b>	<b>\$79,561</b>	<b>\$86,435</b>	<b>\$96,317</b>	<b>\$78,077</b>	<b>\$89,734</b>	<b>\$97,856</b>	<b>\$108,851</b>

## Section 5: Additional Summary Tables of Member Data

### Table 1E: Members in active service as of June 30, 2024, by age, years of service, and average payroll – Group D

Age	Years of Credited Service								
	Total	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 & over
Under 25	28	28	—	—	—	—	—	—	—
	\$55,322	\$55,322	—	—	—	—	—	—	—
25 - 29	61	50	11	—	—	—	—	—	—
	\$72,184	\$67,874	\$91,774	—	—	—	—	—	—
30 - 34	68	37	22	8	1	—	—	—	—
	\$75,541	\$63,446	\$87,433	\$97,414	\$86,464	—	—	—	—
35 - 39	49	23	11	13	2	—	—	—	—
	\$87,580	\$72,685	\$93,359	\$109,931	\$81,799	—	—	—	—
40 - 44	45	5	6	13	16	5	—	—	—
	\$101,660	\$60,391	\$103,463	\$105,772	\$110,550	\$101,629	—	—	—
45 - 49	35	5	6	3	11	9	1	—	—
	\$101,156	\$59,895	\$99,196	\$79,379	\$104,496	\$127,954	\$106,629	—	—
50 - 54	48	6	9	7	9	11	5	1	—
	\$105,732	\$105,430	\$88,368	\$114,652	\$99,580	\$107,115	\$128,354	\$128,419	—
55 - 59	19	7	—	2	4	3	2	1	—
	\$104,829	\$82,670	—	\$82,105	\$132,802	\$98,747	\$116,658	\$188,078	—
60 - 64	5	1	—	1	2	—	—	1	—
	\$116,364	\$116,083	—	\$122,617	\$105,961	—	—	\$131,200	—
65 & over	1	1	—	—	—	—	—	—	—
	\$72,579	\$72,579	—	—	—	—	—	—	—
<b>Total</b>	<b>359</b>	<b>163</b>	<b>65</b>	<b>47</b>	<b>45</b>	<b>28</b>	<b>8</b>	<b>3</b>	<b>—</b>
	<b>\$86,955</b>	<b>\$67,260</b>	<b>\$91,865</b>	<b>\$104,489</b>	<b>\$106,837</b>	<b>\$111,937</b>	<b>\$122,714</b>	<b>\$149,232</b>	<b>—</b>

## Section 5: Additional Summary Tables of Member Data

### Table 2A: Summary of retired member and beneficiary data by attained age – all employee groups

Allowance Level	Service Pensioner Count	Service Pensioner Annual Allowance Amount	Disability Pensioner Count	Disability Pensioner Annual Allowance Amount	Beneficiary Count	Beneficiary Annual Allowance Amount
≤ 35	0	\$0	2	\$18,846	6	\$49,264
36	0	0	1	18,185	1	5,172
37	0	0	0	0	1	7,260
38	0	0	0	0	0	0
39	0	0	0	0	2	9,699
40	0	0	0	0	1	3,324
41	0	0	0	0	0	0
42	0	0	0	0	1	1,999
43	0	0	0	0	0	0
44	0	0	0	0	0	0
45	0	0	1	8,892	1	7,425
46	0	0	0	0	1	4,741
47	0	0	2	22,173	1	2,593
48	0	0	0	0	2	5,523
49	0	0	3	63,013	1	6,747
50	3	114,594	1	40,468	3	5,892
51	0	0	0	0	2	23,443
52	1	54,748	4	33,753	1	21,256
53	1	2,541	3	52,732	0	0
54	4	139,954	0	0	3	34,791
55	16	357,714	5	41,747	0	0
56	29	754,834	1	5,484	4	35,644
57	21	498,711	1	35,367	3	19,735
58	24	727,547	4	62,973	1	11,225
59	39	777,068	4	62,951	3	16,616
60	37	796,907	0	0	2	40,605
61	50	901,205	4	26,661	4	100,298
62	68	972,701	3	16,293	11	107,228
63	112	2,156,272	5	97,624	6	79,417
64	124	2,126,404	4	38,657	6	77,075
65	184	2,855,068	3	30,369	2	18,896

## Section 5: Additional Summary Tables of Member Data

### Table 2A: Summary of retired member and beneficiary data by attained age – all employee groups (continued)

Allowance Level	Service Pensioner Count	Service Pensioner Annual Allowance Amount	Disability Pensioner Count	Disability Pensioner Annual Allowance Amount	Beneficiary Count	Beneficiary Annual Allowance Amount
66	221	\$2,982,283	4	\$21,515	7	\$61,668
67	251	3,635,838	3	10,677	7	60,976
68	226	3,046,935	4	43,905	11	178,866
69	282	3,676,917	0	0	12	181,249
70	274	3,603,080	5	45,163	9	78,578
71	218	2,388,056	4	67,979	6	46,159
72	208	2,609,141	1	3,977	8	58,846
73	205	2,331,662	3	18,185	15	142,990
74	188	1,983,772	2	9,261	8	84,578
75	207	2,034,571	1	14,440	6	67,824
76	175	1,782,654	1	4,388	15	129,203
77	165	1,661,022	1	13,546	16	105,458
78	123	1,357,849	0	0	13	97,687
79	129	1,184,776	1	7,347	11	90,646
80	87	747,719	2	13,181	11	94,184
81	94	936,414	0	0	6	26,135
82	91	811,135	0	0	8	132,629
83	65	538,006	0	0	7	35,260
84	56	521,601	1	4,758	9	56,012
85	56	447,526	1	4,905	12	108,912
86	36	249,924	0	0	8	63,831
87	37	339,416	1	4,014	7	74,768
88	31	270,290	0	0	5	53,912
89	26	199,642	0	0	4	20,470
90	17	144,118	0	0	6	44,827
91	13	81,131	0	0	6	41,847
92	9	39,673	0	0	5	13,737
93	16	105,890	0	0	1	4,853
94	3	11,576	0	0	2	6,689
≥ 95	17	109,581	0	0	3	7,068
<b>Total</b>	<b>4,239</b>	<b>\$53,068,468</b>	<b>86</b>	<b>\$963,431</b>	<b>313</b>	<b>\$2,865,729</b>

## Section 5: Additional Summary Tables of Member Data

### Table 2B: Summary of retired member and beneficiary data by attained age – Group A

Allowance Level	Service Pensioner Count	Service Pensioner Annual Allowance Amount	Disability Pensioner Count	Disability Pensioner Annual Allowance Amount	Beneficiary Count	Beneficiary Annual Allowance Amount
≤ 35	0	\$0	0	\$0	1	\$6,865
36	0	0	0	0	1	5,172
37	0	0	0	0	0	0
38	0	0	0	0	0	0
39	0	0	0	0	1	2,983
40	0	0	0	0	0	0
41	0	0	0	0	0	0
42	0	0	0	0	0	0
43	0	0	0	0	0	0
44	0	0	0	0	0	0
45	0	0	0	0	0	0
46	0	0	0	0	1	4,741
47	0	0	0	0	0	0
48	0	0	0	0	1	4,389
49	0	0	0	0	0	0
50	0	0	0	0	2	4,770
51	0	0	0	0	1	7,006
52	0	0	1	12,137	0	0
53	0	0	0	0	0	0
54	0	0	0	0	1	23,404
55	1	2,464	2	15,336	0	0
56	2	32,480	1	5,484	0	0
57	1	18,911	0	0	0	0
58	1	9,248	1	2,205	0	0
59	3	21,728	0	0	2	7,032
60	5	15,531	0	0	0	0
61	10	48,050	2	12,435	2	15,224
62	9	62,353	3	16,293	6	43,747
63	15	92,628	2	24,011	0	0
64	22	178,197	2	17,358	2	3,163
65	54	475,822	2	19,481	0	0

## Section 5: Additional Summary Tables of Member Data

### Table 2B: Summary of retired member and beneficiary data by attained age – Group A (continued)

Allowance Level	Service Pensioner Count	Service Pensioner Annual Allowance Amount	Disability Pensioner Count	Disability Pensioner Annual Allowance Amount	Beneficiary Count	Beneficiary Annual Allowance Amount
66	72	\$521,469	3	\$17,028	4	\$22,337
67	76	464,075	3	10,677	3	19,074
68	80	602,028	1	6,629	3	10,654
69	110	915,642	0	0	3	12,150
70	104	817,772	2	11,222	3	14,033
71	88	552,135	1	8,312	4	22,797
72	84	593,171	0	0	2	6,453
73	83	571,824	1	2,175	6	19,534
74	72	441,067	1	2,563	0	0
75	97	553,584	1	14,440	3	34,947
76	73	428,912	1	4,388	4	31,136
77	79	468,717	1	13,546	6	36,475
78	55	377,008	0	0	4	31,190
79	65	399,654	1	7,347	6	33,765
80	39	203,565	1	6,024	1	4,011
81	33	231,320	0	0	3	6,768
82	35	218,862	0	0	4	8,851
83	27	128,298	0	0	1	3,906
84	23	165,142	0	0	5	15,446
85	25	139,264	1	4,905	4	29,389
86	13	49,296	0	0	3	12,947
87	12	72,734	1	4,014	1	3,293
88	9	48,709	0	0	0	0
89	13	58,378	0	0	2	8,438
90	6	69,578	0	0	2	6,428
91	6	25,897	0	0	2	8,637
92	5	24,975	0	0	3	8,331
93	6	26,165	0	0	1	4,853
94	3	11,576	0	0	0	0
≥ 95	9	41,472	0	0	3	7,068
<b>Total</b>	<b>1,525</b>	<b>\$10,179,704</b>	<b>35</b>	<b>\$238,009</b>	<b>107</b>	<b>\$551,406</b>

## Section 5: Additional Summary Tables of Member Data

### Table 2C: Summary of retired member and beneficiary data by attained age – Group B

Allowance Level	Service Pensioner Count	Service Pensioner Annual Allowance Amount	Disability Pensioner Count	Disability Pensioner Annual Allowance Amount	Beneficiary Count	Beneficiary Annual Allowance Amount
≤ 35	0	\$0	0	\$0	0	\$0
36	0	0	0	0	0	0
37	0	0	0	0	1	7,260
38	0	0	0	0	0	0
39	0	0	0	0	1	6,717
40	0	0	0	0	1	3,324
41	0	0	0	0	0	0
42	0	0	0	0	1	1,999
43	0	0	0	0	0	0
44	0	0	0	0	0	0
45	0	0	0	0	0	0
46	0	0	0	0	0	0
47	0	0	1	4,786	1	2,593
48	0	0	0	0	1	1,134
49	0	0	0	0	1	6,747
50	0	0	0	0	1	1,122
51	0	0	0	0	0	0
52	0	0	0	0	1	21,256
53	1	2,541	0	0	0	0
54	2	24,348	0	0	2	11,387
55	3	51,171	3	26,411	0	0
56	7	132,815	0	0	4	35,644
57	3	42,953	0	0	2	12,092
58	2	39,263	3	60,769	1	11,225
59	17	415,087	1	3,667	1	9,584
60	8	165,229	0	0	2	40,605
61	16	182,180	2	14,226	0	0
62	36	408,668	0	0	5	63,481
63	67	996,855	3	73,614	5	66,879
64	77	1,199,104	2	21,299	2	15,776
65	101	1,496,731	1	10,888	1	1,578

## Section 5: Additional Summary Tables of Member Data

### Table 2C: Summary of retired member and beneficiary data by attained age – Group B (continued)

Allowance Level	Service Pensioner Count	Service Pensioner Annual Allowance Amount	Disability Pensioner Count	Disability Pensioner Annual Allowance Amount	Beneficiary Count	Beneficiary Annual Allowance Amount
66	120	\$1,582,405	1	\$4,487	2	\$24,121
67	136	1,968,972	0	0	3	26,180
68	119	1,651,742	3	37,276	7	149,294
69	138	1,804,311	0	0	5	48,995
70	138	1,892,796	2	14,876	3	35,667
71	114	1,481,373	3	59,667	1	7,119
72	101	1,483,141	1	3,977	4	33,394
73	110	1,406,997	2	16,011	8	103,181
74	96	1,104,050	1	6,698	6	52,496
75	90	1,037,328	0	0	2	26,654
76	85	986,593	0	0	10	81,839
77	71	826,786	0	0	9	59,839
78	55	703,173	0	0	9	66,497
79	54	571,400	0	0	3	24,337
80	43	491,103	1	7,158	8	74,427
81	46	399,101	0	0	2	15,942
82	49	488,888	0	0	3	16,530
83	32	320,429	0	0	6	31,354
84	26	253,318	1	4,758	3	22,430
85	24	239,632	0	0	7	73,130
86	22	193,635	0	0	4	36,410
87	23	249,417	0	0	6	71,475
88	19	185,471	0	0	4	49,910
89	10	75,684	0	0	2	12,032
90	10	63,696	0	0	3	28,575
91	6	47,685	0	0	4	33,209
92	3	7,810	0	0	2	5,406
93	9	77,969	0	0	0	0
94	0	0	0	0	1	1,315
≥ 95	8	68,109	0	0	0	0
<b>Total</b>	<b>2,097</b>	<b>\$26,819,960</b>	<b>31</b>	<b>\$370,567</b>	<b>161</b>	<b>\$1,532,162</b>



## Section 5: Additional Summary Tables of Member Data

### Table 2D: Summary of retired member and beneficiary data by attained age – Group C

Allowance Level	Service Pensioner Count	Service Pensioner Annual Allowance Amount	Disability Pensioner Count	Disability Pensioner Annual Allowance Amount	Beneficiary Count	Beneficiary Annual Allowance Amount
≤ 35	0	\$0	1	\$18,772	0	\$0
36	0	0	0	0	0	0
37	0	0	0	0	0	0
38	0	0	0	0	0	0
39	0	0	0	0	0	0
40	0	0	0	0	0	0
41	0	0	0	0	0	0
42	0	0	0	0	0	0
43	0	0	0	0	0	0
44	0	0	0	0	0	0
45	0	0	1	8,892	1	7,425
46	0	0	0	0	0	0
47	0	0	1	17,387	0	0
48	0	0	0	0	0	0
49	0	0	1	33,780	0	0
50	1	1,427	0	0	0	0
51	0	0	0	0	1	16,437
52	0	0	2	11,191	0	0
53	0	0	1	2,993	0	0
54	0	0	0	0	0	0
55	10	261,543	0	0	0	0
56	13	402,406	0	0	0	0
57	15	382,258	1	35,367	1	7,643
58	20	672,899	0	0	0	0
59	13	251,038	2	30,417	0	0
60	18	478,787	0	0	0	0
61	13	386,910	0	0	2	85,075
62	15	313,227	0	0	0	0
63	26	945,940	0	0	1	12,539
64	22	610,323	0	0	2	58,136
65	24	735,634	0	0	1	17,318

## Section 5: Additional Summary Tables of Member Data

### Table 2D: Summary of retired member and beneficiary data by attained age – Group C (continued)

Allowance Level	Service Pensioner Count	Service Pensioner Annual Allowance Amount	Disability Pensioner Count	Disability Pensioner Annual Allowance Amount	Beneficiary Count	Beneficiary Annual Allowance Amount
66	25	\$711,607	0	\$0	1	\$15,210
67	32	958,491	0	0	1	15,721
68	25	743,715	0	0	1	18,918
69	32	838,473	0	0	3	112,503
70	31	847,845	0	0	2	11,742
71	15	328,321	0	0	1	16,242
72	22	501,148	0	0	2	18,999
73	11	283,738	0	0	1	20,275
74	20	438,655	0	0	2	32,082
75	20	443,659	0	0	1	6,223
76	16	308,712	0	0	1	16,228
77	15	365,519	0	0	1	9,144
78	12	261,641	0	0	0	0
79	10	213,722	0	0	2	32,544
80	5	53,052	0	0	1	3,984
81	15	305,993	0	0	1	3,425
82	7	103,385	0	0	1	107,248
83	6	89,279	0	0	0	0
84	7	103,141	0	0	1	18,135
85	7	68,630	0	0	1	6,393
86	1	6,993	0	0	1	14,474
87	2	17,265	0	0	0	0
88	3	36,110	0	0	1	4,002
89	3	65,580	0	0	0	0
90	1	10,844	0	0	1	9,825
91	1	7,549	0	0	0	0
92	1	6,888	0	0	0	0
93	1	1,755	0	0	0	0
94	0	0	0	0	1	5,374
≥ 95	0	0	0	0	0	0
<b>Total</b>	<b>536</b>	<b>\$13,564,099</b>	<b>10</b>	<b>\$158,799</b>	<b>37</b>	<b>\$703,263</b>

## Section 5: Additional Summary Tables of Member Data

### Table 2E: Summary of retired member and beneficiary data by attained age – Group D

Allowance Level	Service Pensioner Count	Service Pensioner Annual Allowance Amount	Disability Pensioner Count	Disability Pensioner Annual Allowance Amount	Beneficiary Count	Beneficiary Annual Allowance Amount
≤ 35	0	\$0	1	\$74	5	\$42,399
36	0	0	1	18,185	0	0
37	0	0	0	0	0	0
38	0	0	0	0	0	0
39	0	0	0	0	0	0
40	0	0	0	0	0	0
41	0	0	0	0	0	0
42	0	0	0	0	0	0
43	0	0	0	0	0	0
44	0	0	0	0	0	0
45	0	0	0	0	0	0
46	0	0	0	0	0	0
47	0	0	0	0	0	0
48	0	0	0	0	0	0
49	0	0	2	29,233	0	0
50	2	113,166	1	40,468	0	0
51	0	0	0	0	0	0
52	1	54,748	1	10,425	0	0
53	0	0	2	49,739	0	0
54	2	115,606	0	0	0	0
55	2	42,536	0	0	0	0
56	7	187,133	0	0	0	0
57	2	54,589	0	0	0	0
58	1	6,138	0	0	0	0
59	6	89,214	1	28,867	0	0
60	6	137,360	0	0	0	0
61	11	284,065	0	0	0	0
62	8	188,453	0	0	0	0
63	4	120,849	0	0	0	0
64	3	138,781	0	0	0	0
65	5	146,880	0	0	0	0

## Section 5: Additional Summary Tables of Member Data

### Table 2E: Summary of retired member and beneficiary data by attained age – Group D (continued)

Allowance Level	Service Pensioner Count	Service Pensioner Annual Allowance Amount	Disability Pensioner Count	Disability Pensioner Annual Allowance Amount	Beneficiary Count	Beneficiary Annual Allowance Amount
66	4	\$166,801	0	\$0	0	\$0
67	7	244,300	0	0	0	0
68	2	49,450	0	0	0	0
69	2	118,491	0	0	1	7,601
70	1	44,666	1	19,065	1	17,136
71	1	26,228	0	0	0	0
72	1	31,681	0	0	0	0
73	1	69,103	0	0	0	0
74	0	0	0	0	0	0
75	0	0	0	0	0	0
76	1	58,438	0	0	0	0
77	0	0	0	0	0	0
78	1	16,027	0	0	0	0
79	0	0	0	0	0	0
80	0	0	0	0	1	11,763
81	0	0	0	0	0	0
82	0	0	0	0	0	0
83	0	0	0	0	0	0
84	0	0	0	0	0	0
85	0	0	0	0	0	0
86	0	0	0	0	0	0
87	0	0	0	0	0	0
88	0	0	0	0	0	0
89	0	0	0	0	0	0
90	0	0	0	0	0	0
91	0	0	0	0	0	0
92	0	0	0	0	0	0
93	0	0	0	0	0	0
94	0	0	0	0	0	0
≥ 95	0	0	0	0	0	0
<b>Total</b>	<b>81</b>	<b>\$2,504,706</b>	<b>10</b>	<b>\$196,056</b>	<b>8</b>	<b>\$78,898</b>

## Section 5: Additional Summary Tables of Member Data

### Table 3: Summary of retired member and beneficiary data by year of retirement – all employee groups

Year of Retirement	Number	Annual Allowance	Average Annual Allowance
≤ 1970	0	\$0	\$0
1971	0	0	0
1972	0	0	0
1973	0	0	0
1974	0	0	0
1975	0	0	0
1976	0	0	0
1977	0	0	0
1978	0	0	0
1979	0	0	0
1980	1	1,839	1,839
1981	0	0	0
1982	1	855.96	855.96
1983	0	0	0
1984	0	0	0
1985	1	1,038	1,038
1986	0	0	0
1987	0	0	0
1988	0	0	0
1989	1	1,344	1,344
1990	3	16,666	5,555
1991	8	34,769	4,346
1992	5	30,738	6,148
1993	9	50,516	5,613
1994	13	85,895	6,607
1995	23	161,981	7,043
1996	16	108,051	6,753
1997	20	99,918	4,996
1998	29	202,560	6,985
1999	27	204,074	7,558
2000	27	195,623	7,245

## Section 5: Additional Summary Tables of Member Data

### Table 3: Summary of retired member and beneficiary data by year of retirement – all employee groups (continued)

Year of Retirement	Number	Annual Allowance	Average Annual Allowance
2001	35	\$244,872	\$6,996
2002	46	405,517	8,816
2003	52	427,561	8,222
2004	64	580,696	9,073
2005	71	650,473	9,162
2006	74	748,524	10,115
2007	113	969,559	8,580
2008	101	1,022,086	10,120
2009	111	925,189	8,335
2010	140	1,546,170	11,044
2011	157	1,896,147	12,077
2012	167	1,904,235	11,403
2013	194	2,405,793	12,401
2014	229	2,498,719	10,911
2015	222	2,643,240	11,906
2016	227	2,451,474	10,799
2017	305	4,077,638	13,369
2018	290	4,099,119	14,135
2019	328	4,176,889	12,734
2020	329	4,633,539	14,084
2021	335	4,481,278	13,377
2022	337	4,659,797	13,827
2023	353	5,184,980	14,688
2024	174	3,068,268	17,634
<b>Grand Total</b>	<b>4,638</b>	<b>\$56,897,628</b>	<b>\$12,268</b>

# Appendix A: Definition of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Term	Definition
Actuarial accrued liability for actives	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial accrued liability for retirees and beneficiaries	Actuarial Present Value of lifetime benefits to existing retirees and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial cost method	A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the actuarially determined contribution.
Actuarial gain or loss	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield actuarial liabilities that are larger than projected.
Actuarially equivalent	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial present value	<p>The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is:</p> <p>Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.)</p> <p>Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and</p> <p>Discounted according to an assumed rate (or rates) of return to reflect the time value of money.</p>

## Appendix A: Definition of Pension Terms

Term	Definition
Actuarial present value of future benefits	The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund of member contributions or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial valuation	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan, as well as Actuarially Determined Contributions.
Actuarial value of assets	The value of the Plan's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the Actuarially Determined Contribution.
Actuarially determined	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the Plan.
Actuarially determined contribution	The employer's contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The ADC consists of the Employer Normal Cost and the Amortization Payment.
Amortization method	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the Unfunded Actuarial Accrued Liability. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the Unfunded Actuarial Accrued Liability. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization payment	The portion of the pension plan contribution, or ADC, that is intended to pay off the Unfunded Actuarial Accrued Liability.
Assumptions or actuarial assumptions	The estimates upon which the cost of the Plan is calculated, including: <b>Investment return</b> — the rate of investment yield that the Plan will earn over the long-term future; <b>Mortality rates</b> — the rate or probability of death at a given age for employees and retirees; <b>Retirement rates</b> — the rate or probability of retirement at a given age or service; <b>Disability rates</b> — the rate or probability of disability retirement at a given age; <b>Withdrawal rates</b> — the rate or probability at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; <b>Salary increase rates</b> — the rates of salary increase due to inflation, real wage growth and merit and promotion increases.



## Appendix A: Definition of Pension Terms

Term	Definition
Closed amortization period	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 20 years, it is 19 years at the end of one year, 18 years at the end of two years, etc. See Open Amortization Period.
Decrements	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined benefit plan	A retirement plan in which benefits are defined by a formula based on the member's compensation, age and/or years of service.
Defined contribution plan	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
Employer normal cost	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Experience study	A periodic review and analysis of the actual experience of the Plan that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified based on recommendations from the Actuary.
Funded ratio	The ratio of the Actuarial Value of Assets (AVA) to the Actuarial Accrued Liability (AAL). Plans sometimes also calculate a market funded ratio, using the Market Value of Assets (MVA), rather than the AVA.
GASB 67 and GASB 68	Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.
Investment return	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Net Pension Liability (NPL)	The Net Pension Liability is equal to the Total Pension Liability minus the Plan Fiduciary Net Position.
Normal cost	The portion of the Actuarial Present Value of Future Benefits and expenses, if applicable, allocated to a valuation year by the Actuarial Cost Method. Any payment with respect to an Unfunded Actuarial Accrued Liability is not part of the Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of member contributions and employer Normal Cost unless otherwise specifically stated.
Open amortization period	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in each future year in determining the Amortization Period.

## Appendix A: Definition of Pension Terms

Term	Definition
Plan Fiduciary Net Position	Market value of assets.
Service costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Total Pension Liability (TPL)	The actuarial accrued liability under the entry age normal cost method and based on the blended discount rate as described in GASB 67 and 68.
Unfunded actuarial accrued liability	The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative, in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus or an Overfunded Actuarial Accrued Liability.
Valuation date or actuarial valuation date	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Benefits is determined. The expected benefits to be paid in the future are discounted to this date.

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