BUCK
A Gallagher Company

State of Alaska Teachers' Retirement System

Actuarial Valuation Report
as of June 30, 2023

May 2024

May 3, 2024

State of Alaska
The Alaska Retirement Management Board
The Department of Revenue, Treasury Division
The Department of Administration, Division of Retirement and Benefits
P.O. Box 110203
Juneau, AK 99811-0203

Certification of Actuarial Valuation

Dear Members of The Alaska Retirement Management Board, The Department of Revenue, and The Department of Administration:

This report summarizes the annual actuarial valuation results of the State of Alaska Teachers' Retirement System (TRS) as of June 30, 2023 performed by Buck Global, LLC (Buck).

The actuarial valuation is based on financial information provided in the financial statements audited by KPMG LLP, member data provided by the Division of Retirement and Benefits, and medical enrollment data provided by the healthcare claims administrator (Aetna), as summarized in this report. The benefits considered are those delineated in Alaska statutes effective June 30, 2023. The actuary did not verify the data submitted, but did perform tests for consistency and reasonableness.

All costs, liabilities, and other factors under TRS were determined in accordance with generally accepted actuarial principles and procedures. An actuarial cost method is used to measure the actuarial liabilities which we believe is reasonable. Buck is solely responsible for the actuarial data and actuarial results presented in this report. This report fully and fairly discloses the actuarial position of TRS as of June 30, 2023.

TRS is funded by Employer, State, and Member Contributions in accordance with the funding policy adopted by the Alaska Retirement Management Board (Board) and as required by Alaska state statutes. The calculations of the Employer and State Contributions are reasonable actuarially determined contributions as defined in Actuarial Standard of Practice No. 4 (ASOP 4), and are consistent with the requirements set out in Alaska Statutes 37.10.220(a)(8). The funding objective for TRS is to pay required contributions that remain level as a percent of total TRS compensation. The Board has also established a funding policy objective that the required contributions be sufficient to pay the Normal Costs of active plan members, plan expenses, and amortize the Unfunded Actuarial Accrued Liability (UAAL) as a level percentage of total TRS compensation over a closed 25-year period as required by Alaska state statutes. The closed 25-year period was originally established effective June 30, 2014. Effective June 30, 2018, the Board adopted a 25-year layered UAAL amortization method as described in Section 5.2. The UAAL amortization continues to be on a level percent of pay basis. The compensation used to determine required contributions is the total compensation of all active members in TRS, including those hired after July 1, 2006 who are members of the Defined Contribution Retirement (DCR) Plan. This objective is currently being met and is projected to continue to be met. Absent future gains/losses, actuarially determined contributions are expected to remain level as a percent of pay and the funded status of the pension trust is expected to increase to 100% in FY51 (based on the projections in Section 3.6B of this report). The funded status of the healthcare trust is expected to remain at or above 100%.

The Board and staff of the State of Alaska may use this report for the review of the operations of TRS. Use of this report for any other purpose or by anyone other than the Board or staff of the State of Alaska may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. Because of the risk of misinterpretation of actuarial results, Buck recommends requesting its advanced review of any statement to be based on information contained in this report. Buck will accept no liability for any such statement made without its prior review.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the actuarial assumptions, changes in assumptions, changes expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. In particular, retiree group benefits models necessarily rely on the use of approximations and estimates and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. An analysis of the potential range of such future differences is beyond the scope of this valuation.

In our opinion, the actuarial assumptions used are reasonable, taking into account the experience of the plan and reasonable long-term expectations, and represent our best estimate of the anticipated long-term experience under the plan. In our professional judgment, the combined effect of the assumptions is expected to have no significant bias. The actuary performs an analysis of plan experience periodically and recommends changes if, in the opinion of the actuary, assumption changes are needed to more accurately reflect expected future experience. The last full experience analysis was performed for the period July 1, 2017 to June 30, 2021. Based on that experience study, the Board adopted new assumptions effective beginning with the June 30, 2022 valuation to better reflect expected future experience. Based on our annual analysis of recent claims experience, changes were made to the healthcare per capita claims cost rates effective June 30, 2023 to better reflect expected future healthcare experience. A summary of the actuarial assumptions and methods used in this actuarial valuation is shown in Sections 5.2 and 5.3. We certify that the assumptions and methods used for funding purposes, as described in Sections 5.2 and 5.3 of this report, meet the requirements of all applicable Actuarial Standards of Practice.

Actuarial Standards of Practice No. 27 (ASOP 27) and No. 35 (ASOP 35) require the actuary to disclose the information and analysis used to support the actuary's determination that the assumptions selected by the plan sponsor do not significantly conflict with those that, in the actuary's professional judgment, are reasonable for the purpose of the measurement. Buck provides advice on reasonable assumptions when performing periodic experience studies. The Board selects the assumptions used, and the signing actuaries review the assumptions annually through discussions with the Board staff and analysis of actuarial experience.

In the case of the Board's selected expected return on assets, the signing actuaries have used economic information provided by Buck's Investment Consulting and Financial Risk Management practices. Buck's Capital Market Assumptions provide relevant expected returns, standard deviations, and correlations. Projected returns are then developed for the portfolio using the GEMS® Economic Scenario Generator from Conning. This sophisticated model uses a multifactor approach to create internally consistent, realistic economic scenarios for all asset classes that reflect the current economic environment as a starting point. Equity returns include stochastic volatility with jumps to reflect extreme, infrequent events. However, such scenarios do not typically impact the 5th through 95th percentiles of projected returns. Corporate bond yields are generated by adding credit spreads to the corresponding zero-coupon Treasury yields. The credit spreads are driven by several factors, including equity returns, and also contain a shock process to allow the model to generate such scenarios as the 2008 Financial Crisis. GEMS® does not, however, model specific risks such as war, pandemics, political risks, severe economic dislocations occurring with greater frequency or severity than predicted by the model, or the risk that relationships among macroeconomic variables may differ from

those of the past. From these scenarios, a probabilistic model of expected returns is created, reflecting the duration of investment and the approximate allocation of assets in the portfolio to various asset classes. Under current calibrations, GEMS® will tend to show higher expected returns for longer durations and a greater divergence between arithmetic and geometric average returns at higher standard deviations of portfolio return.

Based on their analysis, including consistency with other assumptions used in the valuation, the percentiles generated by the GEMS® model described above, and review of actuarial gain/loss analysis, the signing actuaries believe the assumptions, in their professional judgment, do not significantly conflict with what are reasonable for the purpose of the measurement.

ACFR Information

We have prepared the following information in this report for the Actuarial Section and Statistical Section of the ACFR: (i) member data tables in Section 4; (ii) analysis of financial experience in Section 1.6; (iii) summary of actuarial assumptions in Section 5.3; and (iv) historical information in Section 7.

Governmental Accounting Standards Board (GASB) Statement No. 67 (GASB 67) was effective for TRS beginning with fiscal year ending June 30, 2014, and Statement No. 74 (GASB 74) was effective for TRS beginning with fiscal year ending June 30, 2017. Please see our separate GASB 67 and GASB 74 reports for other information needed for the ACFR.

Risk Information

Actuarial Standard of Practice No. 51 (ASOP 51) applies to actuaries performing funding calculations related to a pension plan. ASOP 51 does not apply to actuaries performing services in connection with other post-employment benefits, such as medical benefits. Accordingly, ASOP 51 does not apply to the healthcare portion of TRS. See Section 6 of this report for further details regarding ASOP 51. Section 6 also contains information on the Low-Default-Risk Obligation Measure (LDROM) now required to be disclosed under Actuarial Standard of Practice No. 4 (ASOP 4).

Use of Models

Actuarial Standard of Practice No. 56 (ASOP 56) provides guidance to actuaries performing actuarial services that involve designing, developing, selecting, modifying, using, reviewing, or evaluating models. In addition to the GEMS® model disclosed above, Buck uses third-party software to perform annual actuarial valuations and projections. The model is intended to calculate the liabilities associated with the provisions of the plan using data and assumptions as of the measurement date under the funding methods specified in this report. The output from the third-party vendor software is used as input to internally developed models that apply applicable funding methods and policies to the derived liabilities and other inputs, such as plan assets and contributions, to generate many of the exhibits found in this report.

Buck maintains an extensive review process in which the results of the liability calculations are checked using detailed sample life output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other funding outputs and the internal models are similarly reviewed in detail and at a higher level for accuracy, reasonability, and consistency with prior results. Buck also reviews the third-party model when significant changes are made to the software. This review is performed by experts within Buck who are familiar with applicable funding methods, as well as the manner in which the model generates its output. If significant changes are made to the internal models, extra checking and review are completed. Significant changes to the internal models that are applicable to multiple clients are generally

developed, checked, and reviewed by multiple experts within Buck who are familiar with the details of the required changes.

Additional models used in valuing health benefits are described later in the report.

COVID-19

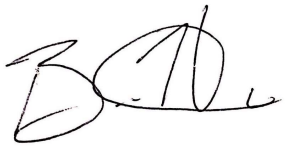
The potential impact of the ongoing COVID-19 pandemic on costs and liabilities was considered and no adjustments were made in setting the FY24 per capita claims cost assumption. Please see Section 5.2 for further details.

This report was prepared under the overall direction of David Kershner, who meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. He is a Fellow of the Society of Actuaries, an Enrolled Actuary, a Member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries.

We are available to discuss this report with you at your convenience. David can be reached at 602-803-6174 and Brett can be reached at 260-423-1072.

Respectfully submitted,

David J. Kershner, FSA, EA, MAAA, FCA
Principal
Buck, A Gallagher Company



Brett Hunter, ASA, EA, MAAA
Senior Consultant
Buck, A Gallagher Company

The undersigned actuary is responsible for all assumptions related to the average annual per capita health claims cost and the health care cost trend rates, and hereby affirms his qualification to render opinions in such matters in accordance with the Qualification Standards of the American Academy of Actuaries.

Robert Besenhofer, ASA, MAAA, FCA
Director
Buck, A Gallagher Company

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Executive Summary

Overview

The State of Alaska Teachers' Retirement System (TRS) provides pension and postemployment healthcare benefits to teachers and other eligible participants. The Commissioner of the Department of Administration is responsible for administering the plan. The Alaska Retirement Management Board has fiduciary responsibility over the assets of the plan. This report presents the results of the actuarial valuation of TRS as of the valuation date of June 30, 2023.

Purpose

An actuarial valuation is performed on the plan annually as of the end of the fiscal year. The main purposes of the actuarial valuation detailed in this report are:

1. To determine the Employer/State contribution necessary to meet the Board's funding policy for the plan;
2. To disclose the funding assets and liability measures as of the valuation date;
3. To review the current funded status of the plan and assess the funded status as an appropriate measure for determining future actuarially determined contributions;
4. To compare actual and expected experience under the plan during the last fiscal year; and
5. To report trends in contributions, assets, liabilities, and funded status over the last several years.

The actuarial valuation provides a "snapshot" of the funded position of TRS based on the plan provisions, membership data, assets, and actuarial methods and assumptions as of the valuation date.

Actuarial projections are also performed to provide a long-term view of the expected future funded status and contribution patterns (see Section 3). The future funded status and contribution patterns would be different than those shown in Section 3 if future experience does not match the actuarial assumptions used in the projections.

Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements.

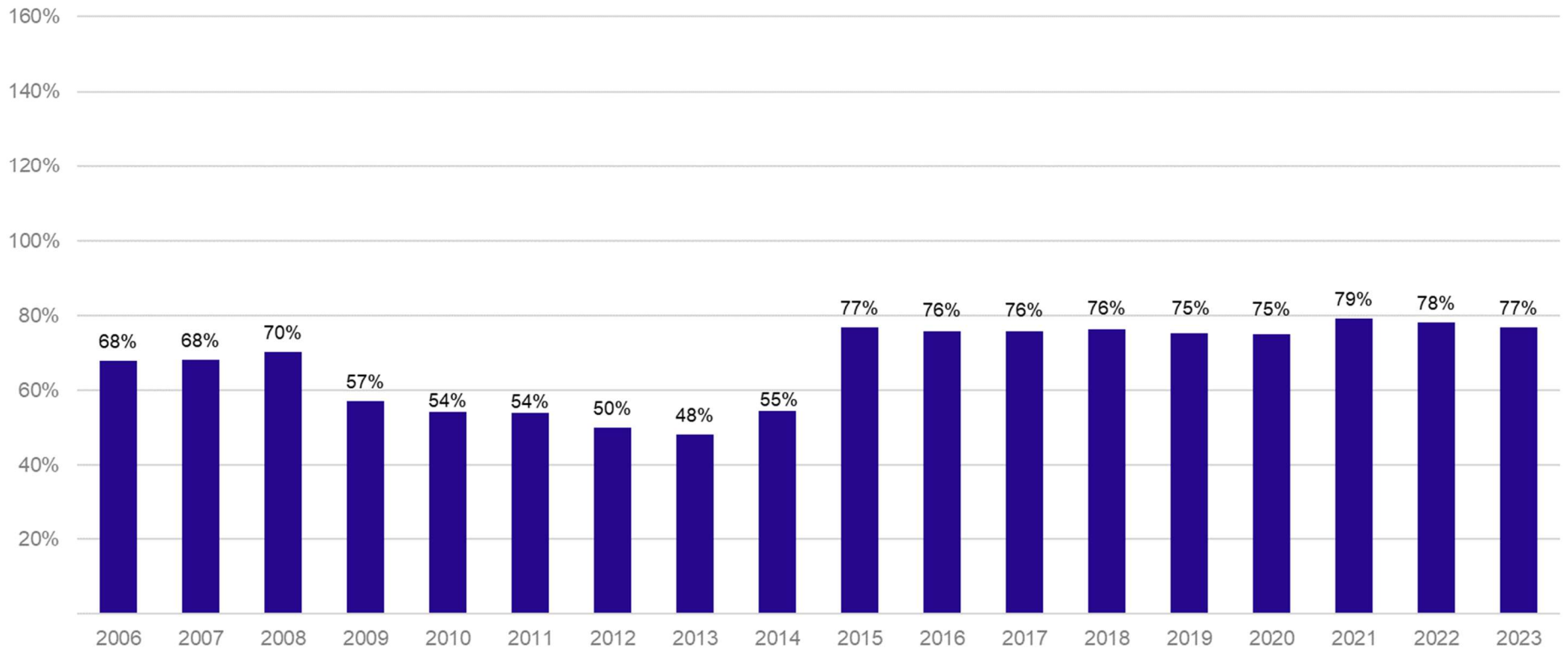
Funded Status

Where presented, references to "funded ratio" and "unfunded actuarial accrued liability" typically are measured on an actuarial value of assets basis. It should be noted that the same measurements using market value of assets would result in different funded ratios and unfunded accrued liabilities. Moreover, the funded ratio presented is appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the plan if the plan were to settle (i.e. purchase annuities) for a portion or all of its liabilities.

Funded Status as of June 30 ($'s in 000's)		2022	2023
Pension			
a.	Actuarial Accrued Liability	$ 7,804,046	$ 8,036,685
b.	Valuation Assets	6,100,204	6,171,460
c.	Unfunded Actuarial Accrued Liability, (a) - (b)	$ 1,703,842	$ 1,865,225
d.	Funded Ratio based on Valuation Assets, (b) ÷ (a)	78.2%	76.8%
e.	Fair Value of Assets	$ 6,026,651	$ 6,099,520
f.	Funded Ratio based on Fair Value of Assets, (e) ÷ (a)	77.2%	75.9%
Healthcare			
a.	Actuarial Accrued Liability	$ 2,442,577	$ 2,617,821
b.	Valuation Assets	3,437,216	3,547,973
c.	Unfunded Actuarial Accrued Liability, (a) - (b)	$ (994,639)	$ (930,152)
d.	Funded Ratio based on Valuation Assets, (b) ÷ (a)	140.7%	135.5%
e.	Fair Value of Assets	$ 3,392,211	$ 3,506,595
f.	Funded Ratio based on Fair Value of Assets, (e) ÷ (a)	138.9%	134.0%

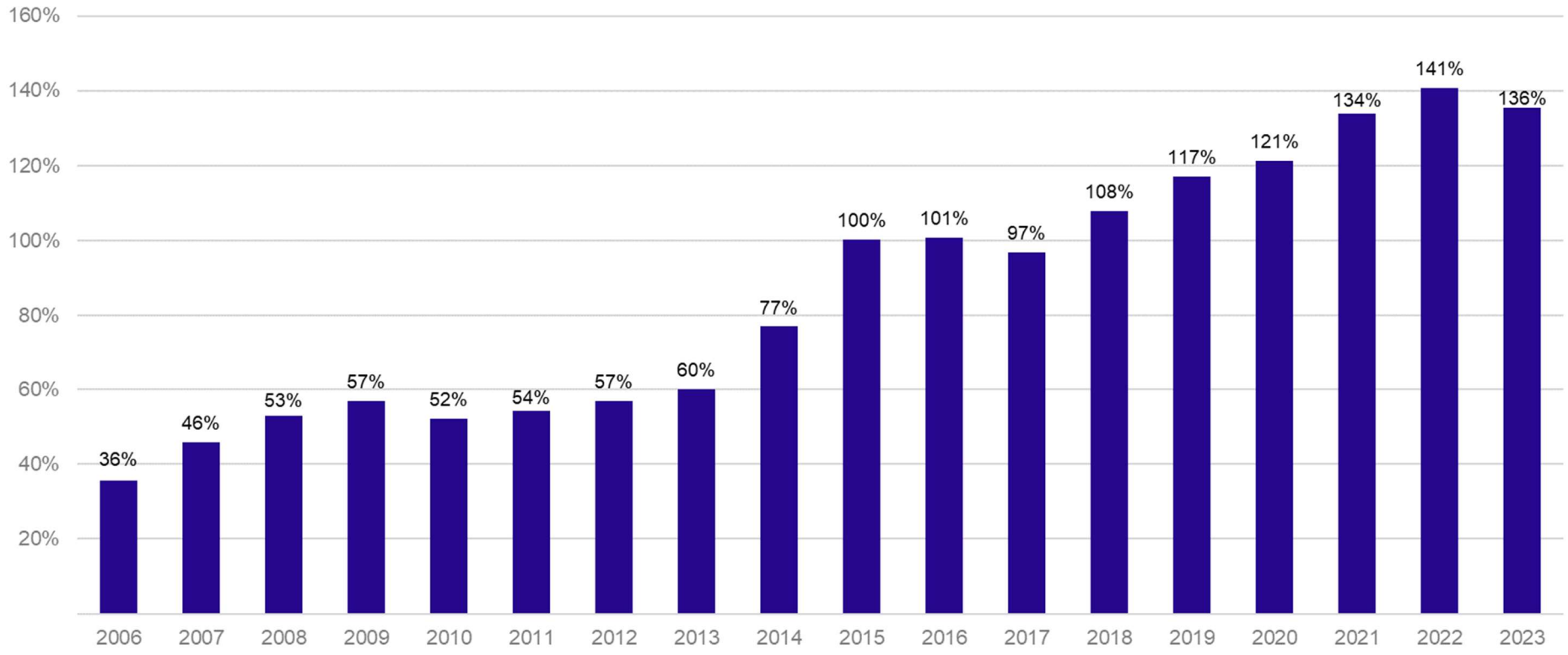
Funded Ratio History (Based on Valuation Assets)

Pension (2006 and later)



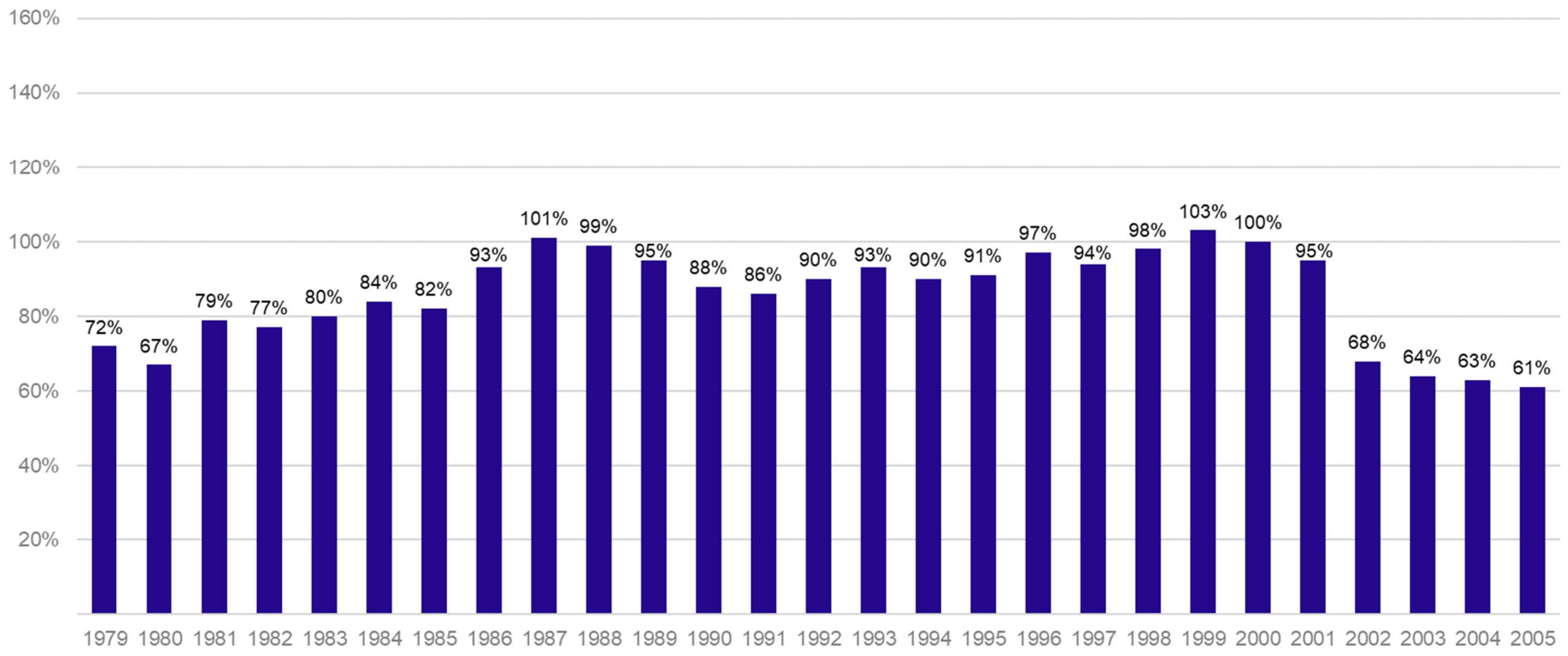
Funded Ratio History (Based on Valuation Assets)

Healthcare (2006 and later)



Funded Ratio History (Based on Valuation Assets)

Total (1979 – 2005) *



* Prior to 2006, assets and liabilities were provided in aggregate only (Pension and Healthcare combined).

The key reasons for the change in the funded status are explained below. The funded status for healthcare benefits is not necessarily an appropriate measure to confirm that assets are sufficient to settle health plan obligations as there are no available financial instruments for purchase. Future experience is likely to vary from assumptions so there is potential for actuarial gains or losses.

1. Investment Experience

The asset valuation method recognizes 20% of the investment gain or loss each year, for a period of five years. The FY23 investment return based on fair value of assets was approximately 7.6% compared to the expected investment return of 7.25% (net of investment expenses). This resulted in a market asset gain of approximately $16 million (pension) and $13 million (healthcare). Due to the recognition of investment gains and losses over a 5-year period, the FY23 investment return based on actuarial value of assets was approximately 7.4%, which resulted in an actuarial asset gain of approximately $9 million (pension) and $6 million (healthcare).

2. Salary Increases

Salary increases for continuing active members during FY23 were less than expected based on the valuation assumptions, resulting in a liability gain of approximately $18 million.

3. Demographic Experience

Section 4 provides statistics on active and inactive members. The number of active members decreased 9.6% from 3,023 at June 30, 2022 to 2,734 at June 30, 2023 due to active members exiting the plan during the year (due to retirement, termination, death, and disability) and the closure of the plan to new entrants as of July 1, 2006. The average age of active members increased from 52.57 to 52.95 and average credited service increased from 20.85 to 21.18 years.

The number of benefit recipients increased 0.9% from 14,126 to 14,255, and their average age increased from 72.60 to 73.10. The number of vested terminated participants increased 4.7% from 729 to 763. Their average age increased from 53.22 to 53.70.

The overall effect of the demographic experience during FY23 was a liability gain of approximately $4 million (pension) and a liability loss of approximately $17[1] million (healthcare).

4. COLA / PRPA Experience

The cost-of-living increases (COLA) for benefit recipients during FY23 were less than expected based on the valuation assumptions, resulting in a liability gain of approximately $3 million. However, the CPI-based postretirement pension adjustments (PRPA) were more than expected, resulting in a liability loss of approximately $189 million.

5. Retiree Medical Claims Experience

As described in Section 5.2, recent medical claims experience and changes in healthcare enrollment data provided to us for the June 30, 2023 valuation generated a liability loss of approximately $127 million. Healthcare benefits paid during FY23 were less than expected, which generated a liability gain of approximately $0.1 million. The EGWP subsidy received by the plan during FY23 was approximately $20 million; the expected EGWP subsidy for FY23 was approximately $20 million.

[1] Includes the effects of changes in dependent coverage elections and Medicare Part B only experience.

6. Changes in Methods Since the Prior Valuation

There were no changes in actuarial methods since the prior valuation.

7. Changes in Assumptions Since the Prior Valuation

Healthcare claim costs are updated annually as described in Section 5.2. The amounts included in the Normal Cost for administrative expenses were updated based on the last two years of actual administrative expenses paid from plan assets. There were no other changes in actuarial assumptions since the prior valuation.

8. Changes in Benefit Provisions Since the Prior Valuation

There have been no changes in benefit provisions valued since the prior valuation.

Comparative Summary of Contribution Rates

		Actual FY 2025	Estimated FY 2026
Pension			
a.	Normal Cost Rate Net of Member Contributions	2.21%	2.05%
b.	Past Service Cost Rate	19.02%	20.82%
c.	Total Employer/State Contribution Rate, (a) + (b), not less than (a)[1]	21.23%	22.87%
Healthcare			
a.	Normal Cost Rate	2.10%	2.07%
b.	Past Service Cost Rate	(10.26%)	(10.22%)
c.	Total Employer/State Contribution Rate, (a) + (b), not less than (a)[1]	2.10%	2.07%
Total			
a.	Normal Cost Rate Net of Member Contributions	4.31%	4.12%
b.	Past Service Cost Rate	19.02%	20.82%
c.	Total Employer/State Contribution Rate, (a) + (b)[1]	23.33%	24.94%
d.	Board Adopted Total Employer/State Contribution Rate	21.30%[2]	TBD
e.	Defined Contribution Retirement (DCR) Rate Paid by Employers	7.29%	7.65%
f.	Board Adopted Total Rate, Including DCR Rate Paid by Employers, (d) + (e)	28.59%	TBD

Contribution rates are based on total (DB and DCR) payroll. The contribution rates shown above for FY26 are estimated assuming no actuarial gains/losses during FY24 and FY25. Actual FY26 contribution rates will be adopted by the Board in September 2024 reflecting FY24 asset experience.

Contribution rates include Employer contribution rates as limited by Alaska state statutes and the Additional State Contribution required under SB 125.

[1] Beginning with the June 30, 2014 valuation, contribution rates for FY17 and beyond are determined using new methodology in accordance with 2014 legislation under HB 385 and SB 119, 2014 Alaska Laws, which changed the amortization methodology to a closed 25-year period as a level percentage of pay, and eliminated the time lag on the contribution rate calculation by using a 2-year "roll-forward" approach assuming 0% population growth. Investment gains and losses are recognized over a 5-year period beginning in FY15. Beginning with the June 30, 2018 valuation, the UAAL amortization was changed as described in Section 5.2.

[2] The FY25 contribution rates adopted by the Board in September 2023 were 21.30% for Pension and 0.00% for Healthcare. The FY25 adopted rates reflect a single 25-year amortization base that was established June 30, 2014.

Summary of Actuarial Accrued Liability Gain/(Loss) and Other Changes During the Year

The following table summarizes the sources of change in the total Employer/State contribution rate as of June 30, 2022 and June 30, 2023 based on DB and DCR payroll combined:

	Pension	Healthcare
1. Total Employer/State Contribution Rate as of June 30, 2022	21.00%	2.56%
2. Change due to:		
a. Health Claims Experience	N/A	0.11%
b. Salary Increases	(0.15%)	N/A
c. Investment Experience	(0.08%)	0.00%
d. Demographic Experience and Miscellaneous[1]	2.09%	(0.11%)
e. Actual vs Expected Contributions	0.14%	0.00%
f. Assumption/Method Changes	0.00%	0.00%
g. Plan Changes	0.00%	0.00%
h. Total Change, (a) + (b) + (c) + (d) + (e) + (f) + (g)	2.00%	0.00%
3. Total Employer/State Contribution Rate as of June 30, 2023, (1) + (2)(h)	23.00%	2.56%

The following table shows the FY23 gain/(loss) on actuarial accrued liability as of June 30, 2023 ($'s in 000's):

	Pension	Healthcare
Retirement Experience	$ 10,236	$ (16,924)
Termination Experience	(7,548)	(1,845)
Disability Experience	104	179
Active Mortality Experience	1,685	1,100
Inactive Mortality Experience	(474)	3,044
Salary Increases	17,683	N/A
Rehires (Net of Rehire Load)	7	(92)
Metcalfe Transfers[2]	(16,471)	(9,787)
COLA Increases	2,647	N/A
PRPA Increases	(189,020)	N/A
Benefit Payments Different than Expected	11,368	91
Per Capita Claims Cost	N/A	(126,535)
Medicare Part B Only Experience	N/A	(999)
Changes in Dependent Coverage Elections	N/A	(2,034)
Programming Changes[3]	840	32,254
Miscellaneous[4]	(9,778)	(225)
Total	$ (178,721)	$ (121,773)

[1] Includes the effects of census data changes between the two valuations.
[2] As of June 30, 2023, 73 members have transferred from the DCR plan to the DB plan under the 2021 Alaska Supreme Court Metcalfe decision (65 transfers in FY23, 8 transfers in FY22).
[3] Includes adjustment to the percent married assumption applied to spousal death benefits due to occupational causes (pension), adjustment to the COLA amount valued for Tier 2 disabled retirees under age 65 (pension), and removal of deferred participants who are also valued as a covered spouse of a retired participant (healthcare).
[4] Includes the effects of various data changes that are typical when new census data is received for the annual valuation, as well as other items that do not fit neatly into any of the other categories.

The rehire gain/(loss) amount shown on the previous page is the difference between (i) the increase in Actuarial Accrued Liability at June 30, 2023 due to rehires during the most recent plan year, and (ii) the load that was added to the June 30, 2022 Normal Cost based on the rehire load assumption used in the June 30, 2022 valuation. The development of the FY23 rehire gain/(loss) amount is shown in the table below ($'s in 000's):

		Pension	Healthcare
1.	Increase/(Decrease) in Actuarial Accrued Liability at June 30, 2023 due to Rehires	$ 5,049	$ 130
2.	June 30, 2022 Normal Cost Rehire Load, with interest to June 30, 2023	$ 5,056	$ 38
3.	Rehire Gain/(Loss), (2) - (1)	$ 7	$ (92)

Section 1: Actuarial Funding Results

Section 1.1: Actuarial Liabilities and Normal Cost ($'s in 000's)

As of June 30, 2023	Present Value of Projected Benefits	Actuarial Accrued (Past Service) Liability
Active Members		
Retirement Benefits	$ 1,717,507	$ 1,572,556
Termination Benefits	16,703	(1,775)
Disability Benefits	1,058	(2,035)
Death Benefits	7,065	6,014
Return of Contributions	1,601	(25,976)
Medical and Prescription Drug Benefits	785,014	676,395
Medicare Part D Subsidy	(85,837)	(74,297)
Indebtedness	(23,467)	(23,467)
Subtotal	$ 2,419,644	$ 2,127,415
Inactive Members		
Not Vested	$ 38,521	$ 38,521
Vested Terminations		
- Retirement Benefits	203,610	203,610
- Medical and Prescription Drug Benefits	266,796	266,796
- Medicare Part D Subsidy	(30,260)	(30,260)
- Indebtedness	(5,328)	(5,328)
Retirees & Beneficiaries		
- Retirement Benefits	6,274,565	6,274,565
- Medical and Prescription Drug Benefits	2,110,884	2,110,884
- Medicare Part D Subsidy	(331,697)	(331,697)
Subtotal	$ 8,527,091	$ 8,527,091
Total	**$ 10,946,735**	**$ 10,654,506**
Total Pension	**$ 8,231,835**	**$ 8,036,685**
Total Medical, Net of Part D Subsidy	**$ 2,714,900**	**$ 2,617,821**
Total Medical, Gross of Part D Subsidy	**$ 3,162,694**	**$ 3,054,075**

As of June 30, 2023	Present Value of Projected Benefits	Actuarial Accrued (Past Service) Liability
By Tier		
Tier 1		
- Pension	$ 4,418,019	$ 4,413,956
- Medical, Net of Part D Subsidy	1,077,000	1,075,198
Tier 2		
- Pension	3,813,816	3,622,729
- Medical, Net of Part D Subsidy	1,637,900	1,542,623
Total	**$ 10,946,735**	**$ 10,654,506**

As of June 30, 2023	Normal Cost
Active Members	
Retirement Benefits	$ 26,659
Termination Benefits	3,394
Disability Benefits	563
Death Benefits	203
Return of Contributions	5,133
Medical and Prescription Drug Benefits	19,398
Medicare Part D Subsidy	(2,098)
Rehire Assumption (Pension)	4,314
Rehire Assumption (Medical)	35
Administrative Expenses (Pension)	3,558
Administrative Expenses (Medical)	1,956
Total	**$ 63,115**
Total Pension	**$ 43,824**
Total Medical, Net of Part D Subsidy	**$ 19,291**
Total Medical, Gross of Part D Subsidy	**$ 21,389**
By Tier	
Tier 1	
- Pension	$ 1,507
- Medical, Net of Part D Subsidy	582
Tier 2	
- Pension	42,317
- Medical, Net of Part D Subsidy	18,709
Total	**$ 63,115**

Section 1.2: Actuarial Contributions as of June 30, 2023 ($'s in 000's)

Normal Cost Rate	Pension	Healthcare
1. Total Normal Cost	$ 43,824	$ 19,291
2. DB Rate Payroll Projected for FY24	276,417	276,417
3. DCR Rate Payroll Projected for FY24	477,857	477,857
4. Total Rate Payroll Projected for FY24	754,274	754,274
5. Normal Cost Rate		
a. Based on DB Rate Payroll, (1) ÷ (2)	15.85%	6.98%
b. Based on Total Rate Payroll, (1) ÷ (4)	5.81%	2.56%
6. Average Member Contribution Rate[1]	3.17%	0.00%
7. Employer Normal Cost, (5)(b) - (6)	2.64%	2.56%

Past Service Rate	Pension	Healthcare
1. Actuarial Accrued Liability	$ 8,036,685	$ 2,617,821
2. Valuation Assets	6,171,460	3,547,973
3. Unfunded Actuarial Accrued Liability, (1) - (2)	$ 1,865,225	$ (930,152)
4. Funded Ratio, (2) ÷ (1)	76.8%	135.5%
5. Past Service Cost Amortization Payment	153,583	(64,990)
6. Total Rate Payroll Projected for FY24	754,274	754,274
7. Past Service Rate, (5) ÷ (6)	20.36%	(8.62%)
Total Employer / State Contribution Rate, not less than Normal Cost Rate	**23.00%**	**2.56%**
Normal Cost Rate by Tier (Total Employer and Member)[2]		
Tier 1	16.85%	6.51%
Tier 2	15.82%	6.99%

[1] Assumes no member contributions from members in the DCR plan, 9.65% contributions for Tier 1 members who elected supplemental coverage, and 8.65% for the remaining members.

[2] Rates determined considering the payroll for members in each tier. DCR payroll is excluded from these calculations.

Schedule of Past Service Cost Amortizations - Pension ($'s in 000's)

Layer	Amortization Period		Balances		
	Date Created	Years Remaining	Initial	Outstanding	Beginning-of-Year Payment
Initial Amount	6/30/2018	16	$ 1,720,344	$ 1,650,618	$ 139,540
Change in Assumptions	6/30/2018	20	14,346	14,407	1,050
FY19 Loss	6/30/2019	21	94,314	95,000	6,716
FY20 Loss	6/30/2020	22	44,395	44,754	3,076
FY21 Gain	6/30/2021	23	(285,576)	(287,559)	(19,247)
Change in Assumptions	6/30/2022	24	144,033	144,618	9,444
FY22 Loss	6/30/2022	24	17,525	17,597	1,149
FY23 Loss	6/30/2023	25	185,790	185,790	11,855
Total				**$ 1,865,225**	**$ 153,583**

Schedule of Past Service Cost Amortizations - Healthcare ($'s in 000's)

Layer	Amortization Period		Balances		
	Date Created	Years Remaining	Initial	Outstanding	Beginning-of-Year Payment
Initial Amount	6/30/2018	16	$ (48,285)	$ (46,329)	$ (3,917)
Change in Assumptions/Methods/EGWP	6/30/2018	20	(166,274)	(166,998)	(12,171)
FY19 Gain	6/30/2019	21	(213,757)	(215,312)	(15,222)
FY20 Gain	6/30/2020	22	(101,507)	(102,327)	(7,032)
Medical/Prescription Drug Plan Changes	6/30/2021	23	(21,763)	(21,914)	(1,467)
FY21 Gain	6/30/2021	23	(273,877)	(275,777)	(18,458)
Change in Assumptions	6/30/2022	24	20,542	20,625	1,347
FY22 Gain	6/30/2022	24	(185,832)	(186,587)	(12,184)
FY23 Loss	6/30/2023	25	64,467	64,467	4,114
Total				**$ (930,152)**	**$ (64,990)**

Section 1.3: Roll-Forward Contribution Rate Calculation for FY26 ($'s in 000's)

	Pension	Healthcare
1. Liability Roll Forward		
a. Actuarial Accrued Liability as of June 30, 2023	**$ 8,036,685**	**$ 2,617,821**
b. Normal Cost	40,266	17,335
c. Interest on (a) and (b) at 7.25%	585,579	191,049
d. Estimated Benefit Payments	(585,684)	(153,237)
e. Interest on (d) at 7.25%, adjusted for timing	(26,436)	(5,507)
f. Expected Actuarial Accrued Liability as of June 30, 2024	**$ 8,050,410**	**$ 2,667,461**
g. Projected Normal Cost	36,130	15,787
h. Interest on (f) and (g) at 7.25%	586,274	194,535
i. Estimated Benefit Payments	(602,632)	(161,186)
j. Interest on (i) at 7.25%, adjusted for timing	(26,097)	(6,068)
k. Expected Actuarial Accrued Liability as of June 30, 2025	**$ 8,044,085**	**$ 2,710,529**
2. Asset Roll Forward		
a. Actuarial Value of Assets as of June 30, 2023	**$ 6,171,460**	**$ 3,547,973**
b. Interest on (a) at 7.25%	447,431	257,228
c. Employee Contributions	26,892	0
d. Employer Contributions	41,711	0
e. State Assistance Contributions	98,766	0
f. Interest on (c) thru (e) at 7.25%, adjusted for timing*	9,604	0
g. Estimated Benefit Payments	(585,684)	(153,237)
h. Administrative Expenses	(3,558)	(1,956)
i. Interest on (g) and (h) at 7.25%, adjusted for timing	(26,563)	(5,577)
j. AVA Adjustments	25,542	13,722
k. Expected Actuarial Value of Assets as of June 30, 2024	**$ 6,205,601**	**$ 3,658,153**
l. Interest on (k) at 7.25%	449,906	265,216
m. Employee Contributions	24,840	0
n. Employer Contributions	40,031	0
o. State Assistance Contributions**	123,358	0
p. Interest on (m) thru (o) at 7.25%, adjusted for timing*	11,254	0
q. Estimated Benefit Payments	(602,632)	(161,186)
r. Administrative Expenses	(3,210)	(1,782)
s. Interest on (q) and (r) at 7.25%, adjusted for timing	(26,211)	(6,131)
t. AVA Adjustments	59,675	30,984
u. Expected Actuarial Value of Assets as of June 30, 2025	**$ 6,282,612**	**$ 3,785,254**
3. Expected Unfunded Actuarial Accrued Liability as of June 30, 2025, 1(k) - 2(u)	**$ 1,761,473**	**$ (1,074,725)**

* Employee and Employer Contributions are paid throughout the year. State Assistance Contributions are assumed to be paid on July 1, 2023 for FY24, and July 1, 2024 for FY25.

** The FY25 State Assistance Contribution is expected to be contributed 100% to pension.

	Pension	Healthcare
4. Expected Annual Rate Payroll for FY26		
a. Defined Benefit Members	$ 224,658	$ 224,658
b. Defined Contribution Retirement Members	542,354	542,354
c. Total Rate Payroll	**$ 767,012**	**$ 767,012**
5. Expected FY26 Contribution Rate Calculation		
a. Projected Normal Cost for FY26	$ 35,114	$ 15,907
b. Projected Normal Cost Rate for FY26	4.58%	2.07%
c. Expected Member Contribution Rate for FY26	(2.53%)	0.00%
d. Expected Employer Normal Cost Rate for FY26	**2.05%**	**2.07%**
e. Expected Unfunded Liability as of June 30, 2025	$ 1,761,473	$ (1,074,725)
f. FY26 Layered Amortization of Expected Unfunded Liability	159,728	(78,355)
g. Expected Past Service Cost Contribution Rate for FY26	**20.82%**	**(10.22%)**
h. Expected Total Contribution Rate for FY26, not less than Normal Cost Rate	**22.87%**	**2.07%**

The components of the expected FY26 amortization amounts are shown below (totals may not add due to rounding):

Expected FY26 Schedule of Past Service Cost Amortizations - Pension ($'s in 000's)

Layer	Amortization Period		Balances		Beginning-of-Year Payment for FY26
	Date Created	Years Remaining at 6/30/25	Initial	Outstanding at 6/30/25	
Initial Amount	6/30/2018	14	$ 1,720,344	$ 1,584,355	$ 147,320
Change in Assumptions	6/30/2018	18	14,346	14,206	1,109
FY19 Loss	6/30/2019	19	94,314	94,148	7,091
FY20 Loss	6/30/2020	20	44,395	44,552	3,247
FY21 Gain	6/30/2021	21	(285,576)	(287,418)	(20,320)
Change in Assumptions	6/30/2022	22	144,033	145,078	9,970
FY22 Loss	6/30/2022	22	17,525	17,652	1,213
FY23 Loss	6/30/2023	23	185,790	187,005	12,516
Expected FY24 Loss	6/30/2024	24	9,073	9,110	595
Expected FY25 Gain	6/30/2025	25	(47,215)	(47,215)	(3,013)
Total				**$ 1,761,473**	**$ 159,728**

Expected FY26 Schedule of Past Service Cost Amortizations - Healthcare ($'s in 000's)

Layer	Amortization Period		Balances		Beginning-of-Year Payment for FY26
	Date Created	Years Remaining at 6/30/25	Initial	Outstanding at 6/30/25	
Initial Amount	6/30/2018	14	$ (48,285)	$ (44,469)	$ (4,135)
Change in Assumptions/Methods/EGWP	6/30/2018	18	(166,274)	(164,678)	(12,850)
FY19 Gain	6/30/2019	19	(213,757)	(213,380)	(16,071)
FY20 Gain	6/30/2020	20	(101,507)	(101,864)	(7,424)
Medical/Prescription Drug Plan Changes	6/30/2021	21	(21,763)	(21,903)	(1,548)
FY21 Gain	6/30/2021	21	(273,877)	(275,642)	(19,487)
Change in Assumptions	6/30/2022	22	20,542	20,691	1,422
FY22 Gain	6/30/2022	22	(185,832)	(187,181)	(12,864)
FY23 Loss	6/30/2023	23	64,467	64,888	4,343
Expected FY24 Gain	6/30/2024	24	(62,807)	(63,062)	(4,118)
Expected FY25 Gain	6/30/2025	25	(88,125)	(88,125)	(5,623)
Total				**$ (1,074,725)**	**$ (78,355)**

Section 1.4: Actuarial Gain/(Loss) for FY23 ($'s in 000's)

	Pension	Healthcare
1. Expected Actuarial Accrued Liability		
a. Actuarial Accrued Liability as of June 30, 2022	$ 7,804,046	$ 2,442,577
b. Normal Cost	44,003	17,514
c. Interest on (a) and (b) at 7.25%	568,984	178,357
d. Employer Group Waiver Plan	0	20,499
e. Benefit Payments	(536,866)	(158,002)
f. Refund of Contributions	(1,404)	0
g. Interest on (d) thru (f) at 7.25%, adjusted for timing	(20,799)	(4,897)
h. Assumptions/Methods Changes	0	0
i. Expected Actuarial Accrued Liability as of June 30, 2023 (a) + (b) + (c) + (d) + (e) + (f) + (g) + (h)	$ 7,857,964	$ 2,496,048
2. Actual Actuarial Accrued Liability as of June 30, 2023	8,036,685	2,617,821
3. Liability Gain/(Loss), (1)(i) - (2)	**$ (178,721)**	**$ (121,773)**
4. Expected Actuarial Asset Value		
a. Actuarial Value of Assets as of June 30, 2022	$ 6,100,204	$ 3,437,216
b. Interest on (a) at 7.25%	442,265	249,198
c. Employee Contributions	31,835	0
d. Employer Contributions	50,129	92
e. State Assistance Contributions	91,029	0
f. Employer Group Waiver Plan	0	20,499
g. Interest on (c) thru (f) at 7.25%, adjusted for timing	9,519	733
h. Benefit Payments	(536,866)	(158,002)
i. Refund of Contributions	(1,404)	0
j. Administrative Expenses	(3,310)	(1,867)
k. Interest on (h) thru (j) at 7.25%, adjusted for timing	(20,917)	(5,694)
l. Expected Actuarial Asset Value as of June 30, 2023 (a) + (b) + (c) + (d) + (e) + (f) + (g) + (h) + (i) + (j) + (k)	$ 6,162,484	$ 3,542,175
5. Actual Actuarial Asset Value as of June 30, 2023	6,171,460	3,547,973
6. Actuarial Asset Value Gain/(Loss), (5) - (4)(l)	**$ 8,976**	**$ 5,798**
7. Total Actuarial Gain/(Loss), (3) + (6)	**$ (169,745)**	**$ (115,975)**
8. Contribution Gain/(Loss)	**$ (16,506)**	**$ 51,361**
9. Administrative Expense Gain/(Loss)	**$ 461**	**$ 147**
10. FY23 Gain/(Loss), (7) + (8) + (9)	**$ (185,790)**	**$ (64,467)**

Section 1.5: Development of Change in Unfunded Liability During FY23 ($'s in 000's)

	Pension	Healthcare
1. 2022 Unfunded Liability	$ 1,703,842	$ (994,639)
a. Interest on Unfunded Liability at 7.25%	$ 123,529	$ (72,111)
b. Normal Cost	44,003	17,514
c. Employee Contributions	(31,835)	0
d. Employer Contributions	(50,129)	(92)
e. State Assistance Contributions	(91,029)	0
f. Administrative Expenses	3,310	1,867
g. Interest on (b) thru (f) at 7.25%, adjusted for timing	(6,211)	1,334
h. Assumptions/Methods Changes	0	0
i. Expected Change in Unfunded Liability During FY23 (a) + (b) + (c) + (d) + (e) + (f) + (g) + (h)	$ (8,362)	$ (51,488)
2. Expected 2023 Unfunded Liability, (1) + (1)(i)	$ 1,695,480	$ (1,046,127)
a. Liability (Gain)/Loss During FY23	$ 178,721	$ 121,773
b. Actuarial Assets (Gain)/Loss During FY23	(8,976)	(5,798)
c. Total Actuarial (Gain)/Loss During FY23	$ 169,745	$ 115,975
3. Actual 2023 Unfunded Liability, (2) + (2)(c)	$ 1,865,225	$ (930,152)

Section 1.6: Analysis of Financial Experience

Pension
Change in Employer / State Contribution Rate as of Valuation Date
Due to (Gains) and Losses in Actuarial Accrued Liabilities During the Last Five Fiscal Years
Resulting from Differences Between Assumed Experience and Actual Experience

	Change in Employer / State Contribution Rate During Fiscal Year				
	Pension				
Type of (Gain) or Loss	**2019**	**2020**	**2021**	**2022**	**2023**
1. Health Claims	N/A	N/A	N/A	N/A	N/A
2. Salary Experience	(0.06%)	(0.06%)	0.25%	0.26%	(0.15%)
3. Investment Experience	0.93%	0.83%	(1.95%)	(0.63%)	(0.08%)
4. Demographic Experience and Miscellaneous	0.75%	(0.28%)	(0.68%)	0.91%	2.09%
5. Actual vs Expected Contributions	(0.15%)	(0.17%)	(0.03%)	(0.25%)	0.14%
6. (Gain) or Loss During Year From Experience, (1) + (2) + (3) + (4) + (5)	1.47%	0.32%	(2.41%)	0.29%	2.00%
7. Assumptions / Method Changes	0.00%	0.00%	0.00%	1.39%	0.00%
8. Plan Changes	0.00%	0.00%	0.00%	0.00%	0.00%
9. Composite (Gain) or Loss During Year, (6) + (7) + (8)	1.47%	0.32%	(2.41%)	1.68%	2.00%
10. Beginning Total Employer / State Contribution Rate	19.94%	21.41%	21.73%	19.32%	21.00%
11. Ending Valuation Year Employer / State Contribution Rate, (9) + (10)	21.41%	21.73%	19.32%	21.00%	23.00%
12. Fiscal Year Rates Adopted by ARMB					
a. Fiscal Year Employer / State Contribution Rate	22.51%	17.90%	18.49%	21.30%	22.87% *
b. Fiscal Year for which Rate Applies	FY22	FY23	FY24	FY25	FY26

* Expected rate. Actual rate to be determined

Healthcare
Change in Employer / State Contribution Rate as of Valuation Date
Due to (Gains) and Losses in Actuarial Accrued Liabilities During the Last Five Fiscal Years
Resulting from Differences Between Assumed Experience and Actual Experience

	Change in Employer / State Contribution Rate During Fiscal Year				
	Healthcare				
Type of (Gain) or Loss	**2019**	**2020**	**2021**	**2022**	**2023**
1. Health Claims	(2.51%)	(0.95%)	(0.11%)	(0.11%)	0.11%
2. Salary Experience	N/A	N/A	N/A	N/A	N/A
3. Investment Experience	0.45%	0.38%	0.00%	0.00%	0.00%
4. Demographic Experience and Miscellaneous	1.60%	0.49%	(0.23%)	(0.21%)	(0.11%)
5. Actual vs Expected Contributions	(0.02%)	(0.19%)	0.00%	0.00%	0.00%
6. (Gain) or Loss During Year From Experience, (1) + (2) + (3) + (4) + (5)	(0.48%)	(0.27%)	(0.34%)	(0.32%)	0.00%
7. Assumptions / Method Changes	0.00%	0.00%	0.00%	(0.06%)	0.00%
8. Plan Changes	0.00%	0.00%	(0.02%)	0.00%	0.00%
9. Composite (Gain) or Loss During Year, (6) + (7) + (8)	(0.48%)	(0.27%)	(0.36%)	(0.38%)	0.00%
10. Beginning Total Employer / State Contribution Rate	4.05%	3.57%	3.30%	2.94%	2.56%
11. Ending Valuation Year Employer / State Contribution Rate, (9) + (10)	3.57%	3.30%	2.94%	2.56%	2.56%
12. Fiscal Year Rates Adopted by ARMB					
a. Fiscal Year Employer / State Contribution Rate	2.98%	0.00%	0.00%	0.00%	2.07% *
b. Fiscal Year for which Rate Applies	FY22	FY23	FY24	FY25	FY26

* Expected rate. Actual rate to be determined

Section 1.7: History of Unfunded Liability and Funded Ratio ($'s in 000's)

Pension

Valuation Date	Total Actuarial Accrued Liability	Valuation Assets	Assets as a Percent of Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)
June 30, 2006	$ 4,859,336	$ 3,296,934	67.8%	$ 1,562,402
June 30, 2007	5,043,448	3,441,867	68.2%	1,601,581
June 30, 2008	5,231,654	3,670,086	70.2%	1,561,568
June 30, 2009	5,463,987	3,115,719	57.0%	2,348,268
June 30, 2010	6,006,981	3,259,868	54.3%	2,747,113
June 30, 2011	6,196,104	3,345,949	54.0%	2,850,155
June 30, 2012	6,399,777	3,194,994	49.9%	3,204,783
June 30, 2013	6,589,553	3,170,313	48.1%	3,419,240
June 30, 2014	6,921,362	3,771,139	54.5%	3,150,223
June 30, 2015	7,051,724	5,422,651	76.9%	1,629,073
June 30, 2016	7,159,788	5,428,687	75.8%	1,731,101
June 30, 2017	7,217,525	5,476,835	75.9%	1,740,690
June 30, 2018	7,276,290	5,541,600	76.2%	1,734,690
June 30, 2019	7,388,020	5,563,931	75.3%	1,824,089
June 30, 2020	7,447,036	5,587,064	75.0%	1,859,972
June 30, 2021	7,471,887	5,910,369	79.1%	1,561,518
June 30, 2022	7,804,046	6,100,204	78.2%	1,703,842
June 30, 2023	8,036,685	6,171,460	76.8%	1,865,225

Healthcare

Valuation Date	Total Actuarial Accrued Liability	Valuation Assets	Assets as a Percent of Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)
June 30, 2006	$ 2,370,515	$ 844,766	35.6%	$ 1,525,749
June 30, 2007	2,145,955	982,532	45.8%	1,163,423
June 30, 2008	2,387,524	1,266,890	53.1%	1,120,634
June 30, 2009	2,383,527	1,357,239	56.9%	1,026,288
June 30, 2010	2,840,807	1,479,260	52.1%	1,361,547
June 30, 2011	2,932,691	1,591,988	54.3%	1,340,703
June 30, 2012	2,946,667	1,674,160	56.8%	1,272,507
June 30, 2013	3,002,554	1,803,763	60.1%	1,198,791
June 30, 2014	2,919,670	2,248,135	77.0%	671,535
June 30, 2015	2,677,393	2,686,272	100.3%	(8,879)
June 30, 2016	2,747,836	2,771,704	100.9%	(23,868)
June 30, 2017	2,927,093	2,836,802	96.9%	90,291
June 30, 2018	2,684,150	2,898,709	108.0%	(214,559)
June 30, 2019	2,518,644	2,947,562	117.0%	(428,918)
June 30, 2020	2,489,675	3,021,283	121.4%	(531,608)
June 30, 2021	2,439,603	3,267,737	133.9%	(828,134)
June 30, 2022	2,442,577	3,437,216	140.7%	(994,639)
June 30, 2023	2,617,821	3,547,973	135.5%	(930,152)

Section 2: Plan Assets

Section 2.1: Summary of Fair Value of Assets ($'s in 000's)

As of June 30, 2023	Pension	Healthcare	Allocation Percent
Cash and Short-Term Investments			
- Cash and Cash Equivalents	$ 71,429	$ 33,681	1.1%
- Subtotal	$ 71,429	$ 33,681	1.1%
Fixed Income Investments			
- Domestic Fixed Income Pool	$ 1,109,941	$ 642,873	18.2%
- International Fixed Income Pool	0	0	0.0%
- Alternative Fixed Income Pool	166,899	96,667	2.7%
- High Yield Pool	0	0	0.0%
- Treasury Inflation Protection Pool	0	0	0.0%
- Emerging Debt Pool	0	0	0.0%
- Subtotal	$ 1,276,840	$ 739,540	20.9%
Equity Investments			
- Domestic Equity Pool	$ 1,509,258	$ 874,155	24.8%
- International Equity Pool	858,878	497,458	14.1%
- Private Equity Pool	990,268	573,558	16.3%
- Emerging Markets Equity Pool	187,866	108,811	3.1%
- Alternative Equity Strategies	329,248	190,699	5.4%
- Subtotal	$ 3,875,518	$ 2,244,681	63.7%
Other Investments			
- Real Estate Pool	$ 414,574	$ 239,204	6.8%
- Other Investments Pool	459,563	266,177	7.5%
- Absolute Return Pool	0	0	0.0%
- Other Assets	0	318	0.0%
- Subtotal	$ 874,137	$ 505,699	14.3%
Total Cash and Investments	$ 6,097,924	$ 3,523,601	100.0%
Net Accrued Receivables	1,596	(17,006)	
Net Assets	$ 6,099,520	$ 3,506,595	

Section 2.2: Changes in Fair Value of Assets During FY23 ($'s in 000's)

Fiscal Year 2023	Pension	Healthcare
1. Fair Value of Assets as of June 30, 2022	$ 6,026,651	$ 3,392,211
2. Additions:		
a. Employee Contributions	$ 31,835	$ 0
b. Employer Contributions	50,129	92
c. State Assistance Contributions	91,029	0
d. Interest and Dividend Income	95,086	54,453
e. Net Appreciation / Depreciation in Fair Value of Investments	362,776	208,241
f. Employer Group Waiver Plan	0	20,499
g. Other	31	173
h. Total Additions	$ 630,886	$ 283,458
3. Deductions:		
a. Medical Benefits	$ 0	$ 158,002
b. Retirement Benefits	536,866	0
c. Refund of Contributions	1,404	0
d. Investment Expenses	16,437	9,205
e. Administrative Expenses	3,310	1,867
f. Total Deductions	$ 558,017	$ 169,074
4. Fair Value of Assets as of June 30, 2023	$ 6,099,520	$ 3,506,595
5. Approximate Fair Value Investment Return Rate during FY23 Net of Investment Expenses	7.6%	7.6%

Section 2.3: Development of Actuarial Value of Assets ($'s in 000's)

The actuarial value of asset was set equal to the fair value as of June 30, 2014 and the 20% corridor was eliminated. Investment gains and losses after June 30, 2014 are recognized 20% per year over 5 years.

	Pension	Healthcare
1. Deferral of Investment Gain / (Loss) for FY23		
a. Fair Value of Assets as of June 30, 2022	$ 6,026,651	$ 3,392,211
b. Contributions	172,993	92
c. Employer Group Waiver Plan	0	20,499
d. Benefit Payments	538,270	158,002
e. Administrative Expenses	3,310	1,867
f. Actual Investment Return (net of investment expenses)	441,456	253,662
g. Expected Return Rate (net of investment expenses)	7.25%	7.25%
h. Expected Return, Weighted for Timing	425,534	240,975
i. Investment Gain / (Loss) for the Year, (f) - (h)	15,922	12,687
2. Actuarial Value as of June 30, 2023		
a. Fair Value as of June 30, 2023	$ 6,099,520	$ 3,506,595
b. Deferred Investment Gain / (Loss)	(71,940)	(41,378)
c. Actuarial Value as of June 30, 2023, (a) - (b)	6,171,460	3,547,973
3. Ratio of Actuarial Value of Assets to Fair Value of Assets	101.2%	101.2%
4. Approximate Actuarial Value Investment Return Rate during FY23 Net of Investment Expenses	7.4%	7.4%

The tables below show the development of the gains/(losses) to be recognized in the current year ($'s in 000's):

Pension				
Fiscal Year Ending	Asset Gain / (Loss)	Gain / (Loss) Recognized in Prior Years	Gain / (Loss) Recognized This Year	Gain / (Loss) Deferred to Future Years
June 30, 2019	$ (82,246)	$ (65,797)	$ (16,449)	$ 0
June 30, 2020	(181,816)	(109,089)	(36,363)	(36,364)
June 30, 2021	1,200,625	480,250	240,125	480,250
June 30, 2022	(880,940)	(176,188)	(176,188)	(528,564)
June 30, 2023	15,922	0	3,184	12,738
Total	**$ 71,545**	**$ 129,176**	**$ 14,309**	**$ (71,940)**

Healthcare				
Fiscal Year Ending	Asset Gain / (Loss)	Gain / (Loss) Recognized in Prior Years	Gain / (Loss) Recognized This Year	Gain / (Loss) Deferred to Future Years
June 30, 2019	$ (38,309)	$ (30,647)	$ (7,662)	$ 0
June 30, 2020	(92,367)	(55,420)	(18,473)	(18,474)
June 30, 2021	655,144	262,058	131,029	262,057
June 30, 2022	(491,853)	(98,371)	(98,371)	(295,111)
June 30, 2023	12,687	0	2,537	10,150
Total	**$ 45,302**	**$ 77,620**	**$ 9,060**	**$ (41,378)**

Section 2.4: Historical Asset Rates of Return

	Actuarial Value		Fair Value	
Year Ending	Annual	Cumulative	Annual	Cumulative
June 30, 2005	9.1%	9.1%	8.5%	8.5%
June 30, 2006	9.6%	9.3%	11.4%	9.9%
June 30, 2007	11.9%	10.2%	18.5%	12.7%
June 30, 2008	10.2%	10.2%	(3.0%)	8.6%
June 30, 2009	(7.9%)	6.3%	(21.0%)	1.9%
June 30, 2010	8.1%	6.6%	10.6%	3.3%
June 30, 2011	6.9%	6.6%	20.5%	5.6%
June 30, 2012	0.7%	5.9%	0.2%	4.9%
June 30, 2013	3.7%	5.6%	12.2%	5.7%
June 30, 2014	22.7%	7.2%	18.2%	6.9%
June 30, 2015	7.2%	7.2%	3.2%	6.5%
June 30, 2016	5.1%	7.1%	(0.7%)	5.9%
June 30, 2017	5.6%	6.9%	12.9%	6.4%
June 30, 2018	6.2%	6.9%	8.2%	6.6%
June 30, 2019	5.5%	6.8%	5.9%	6.5%
June 30, 2020	5.8%	6.7%	4.1%	6.4%
June 30, 2021	11.6%	7.0%	30.1%	7.6%
June 30, 2022	8.7%	7.1%	(6.0%)	6.8%
June 30, 2023	7.4%	7.1%	7.6%	6.9%

Rates of return are shown based on combined assets for Pension and Healthcare.

Cumulative returns are since fiscal year ending June 30, 2005.

Section 3: Projections

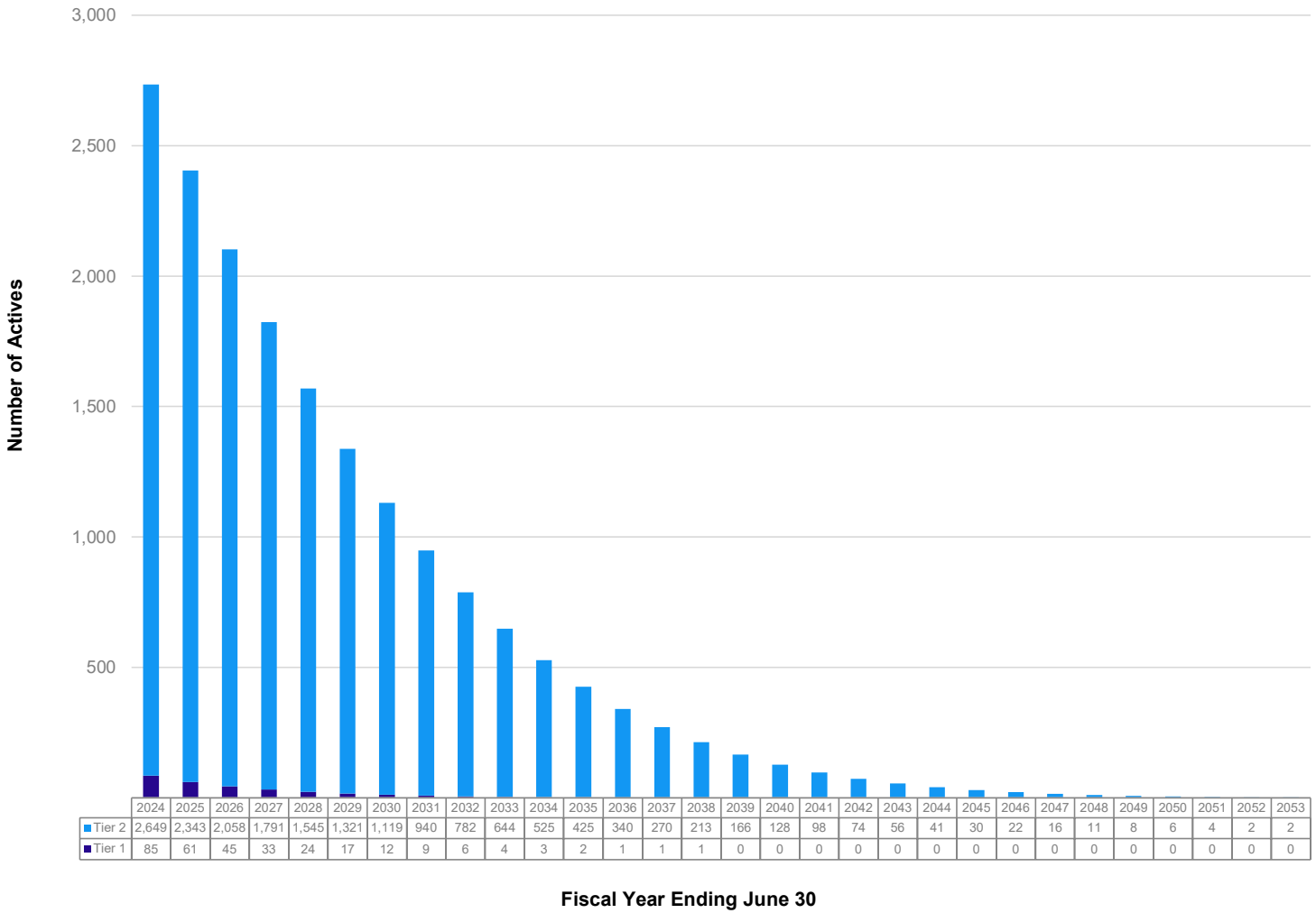
Section 3.1: Projection Assumptions and Methods

Key Assumptions

- 7.25% investment return (net of investment expenses) on the Fair Value of Assets in all future years.
- The Actuarial Value of Assets was re-initialized to Fair Value as of June 30, 2014. The Actuarial Value of Assets after June 30, 2014 reflects the deferred gains and losses generated by the smoothing method. The current deferred amount is recognized in the first four years of the projections.
- Actuarial assumptions and methods as described in Section 5. Experience after June 30, 2023 is assumed to match the assumptions.
- The actuarially calculated contribution rate using a two-year roll-forward approach is adopted each year.
- Projections assume a 0% increase in the total active member population. All new members are expected to enter the DCR plan.
- Contribution rates are determined as a percent of total DB and DCR payroll.
- The DCR contribution rate determined as of June 30, 2023 is assumed to remain constant in all future years.
- The active rehire assumption shown in Section 5 is assumed to grade to zero on a uniform basis over 20 years.
- The Normal Cost is increased by the administrative expenses shown in Section 5. For future years, the percent increase is assumed to remain constant.
- Board-adopted contribution rates for FY24 and FY25 are reflected.
- The healthcare Normal Cost is assumed to be contributed to the healthcare trust in FY26 and beyond.
- The projections in Section 3.6B reflect adjusted Employer/State Contribution Rates in FY26 and beyond due to a ½ year interest adjustment to account for the monthly timing of Employer Contributions.

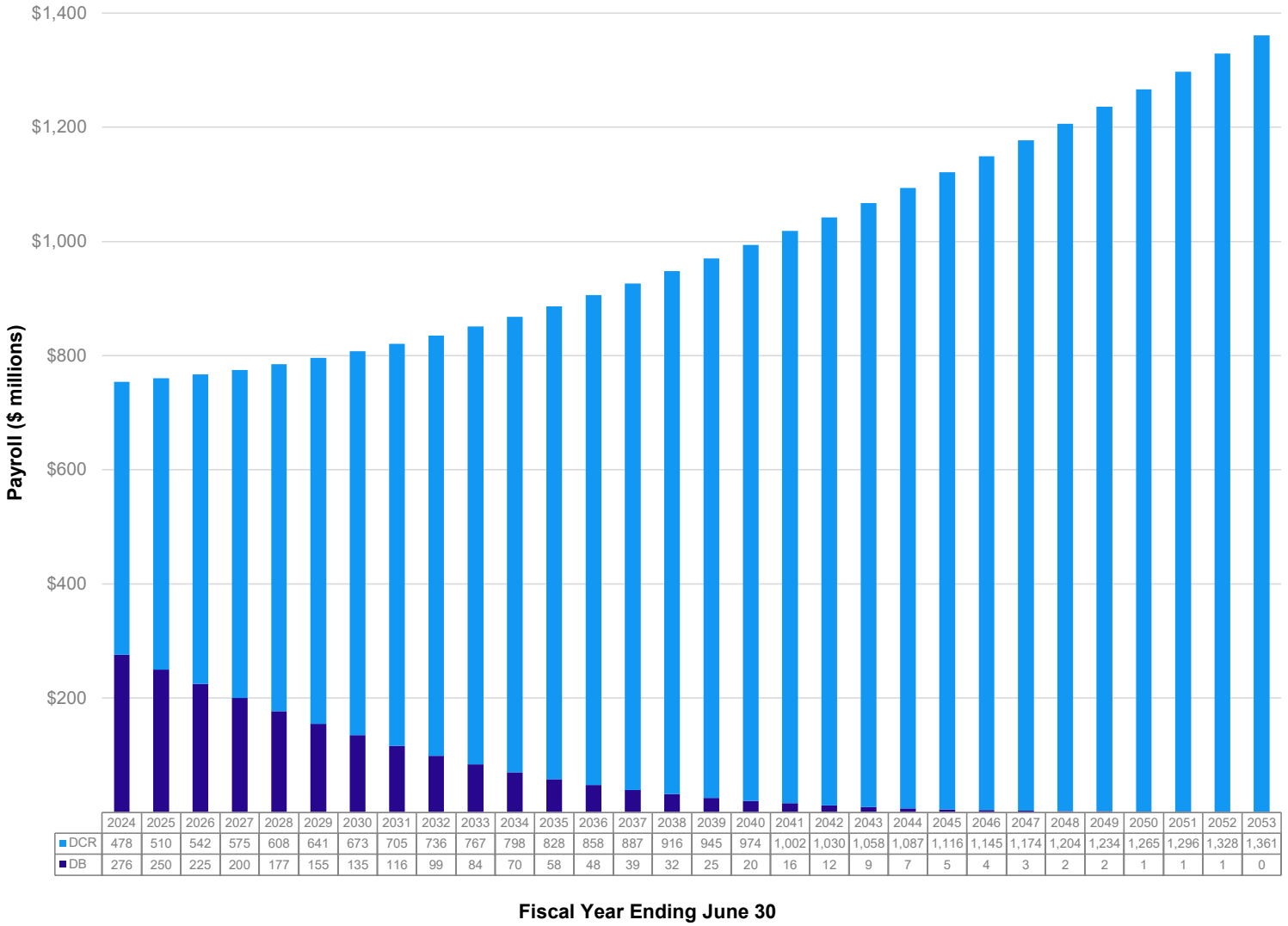
Section 3.2: Membership Projection

Projected Active Member Count



	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Tier 2	2,649	2,343	2,058	1,791	1,545	1,321	1,119	940	782	644	525	425	340	270	213	166	128	98	74	56	41	30	22	16	11	8	6	4	2	2
Tier 1	85	61	45	33	24	17	12	9	6	4	3	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

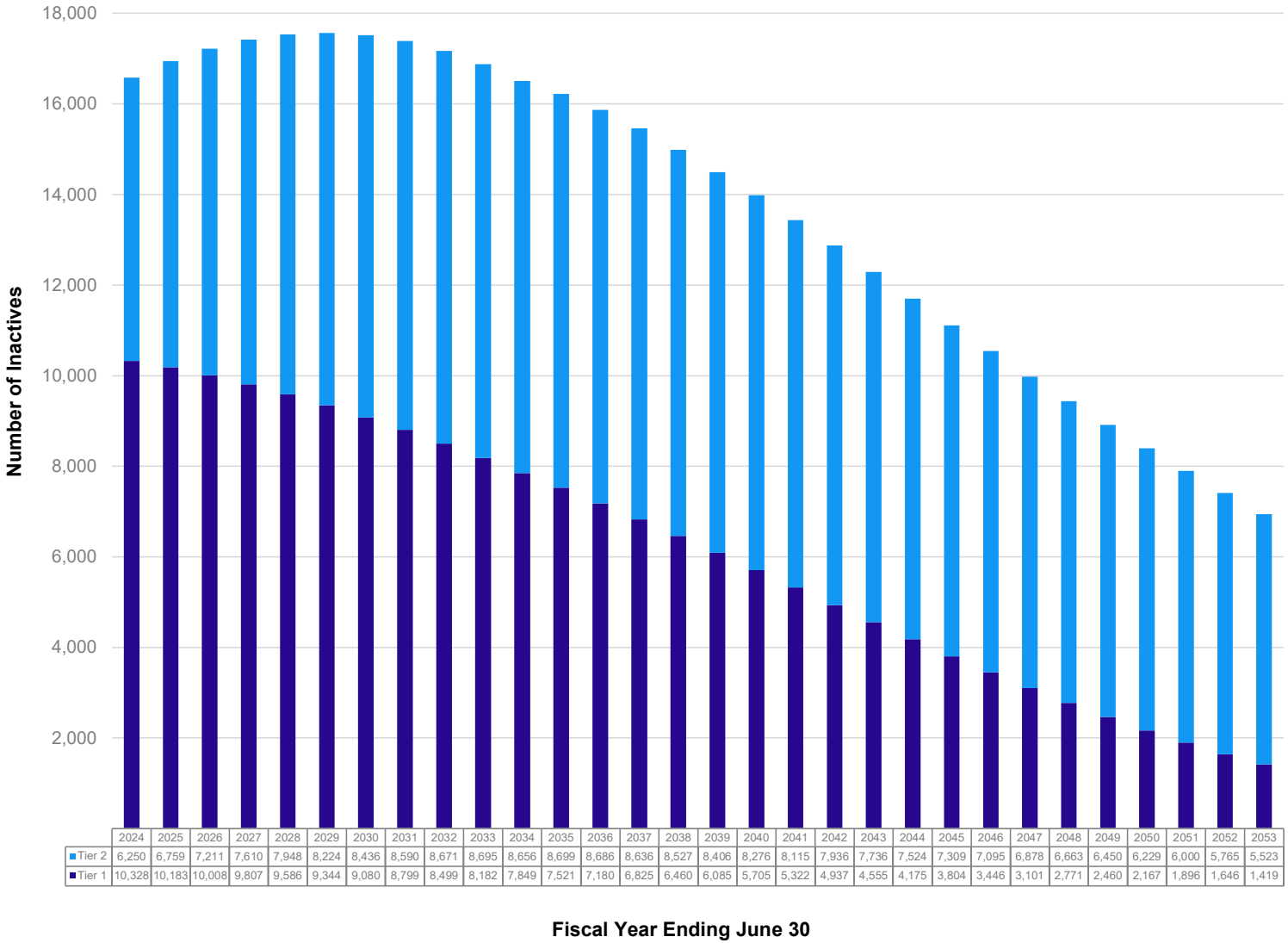
Projected DB and DCR Payroll



	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
DCR	478	510	542	575	608	641	673	705	736	767	798	828	858	887	916	945	974	1,002	1,030	1,058	1,087	1,116	1,145	1,174	1,204	1,234	1,265	1,296	1,328	1,361
DB	276	250	225	200	177	155	135	116	99	84	70	58	48	39	32	25	20	16	12	9	7	5	4	3	2	2	1	1	1	0

Fiscal Year Ending June 30

Projected Inactive Member Count

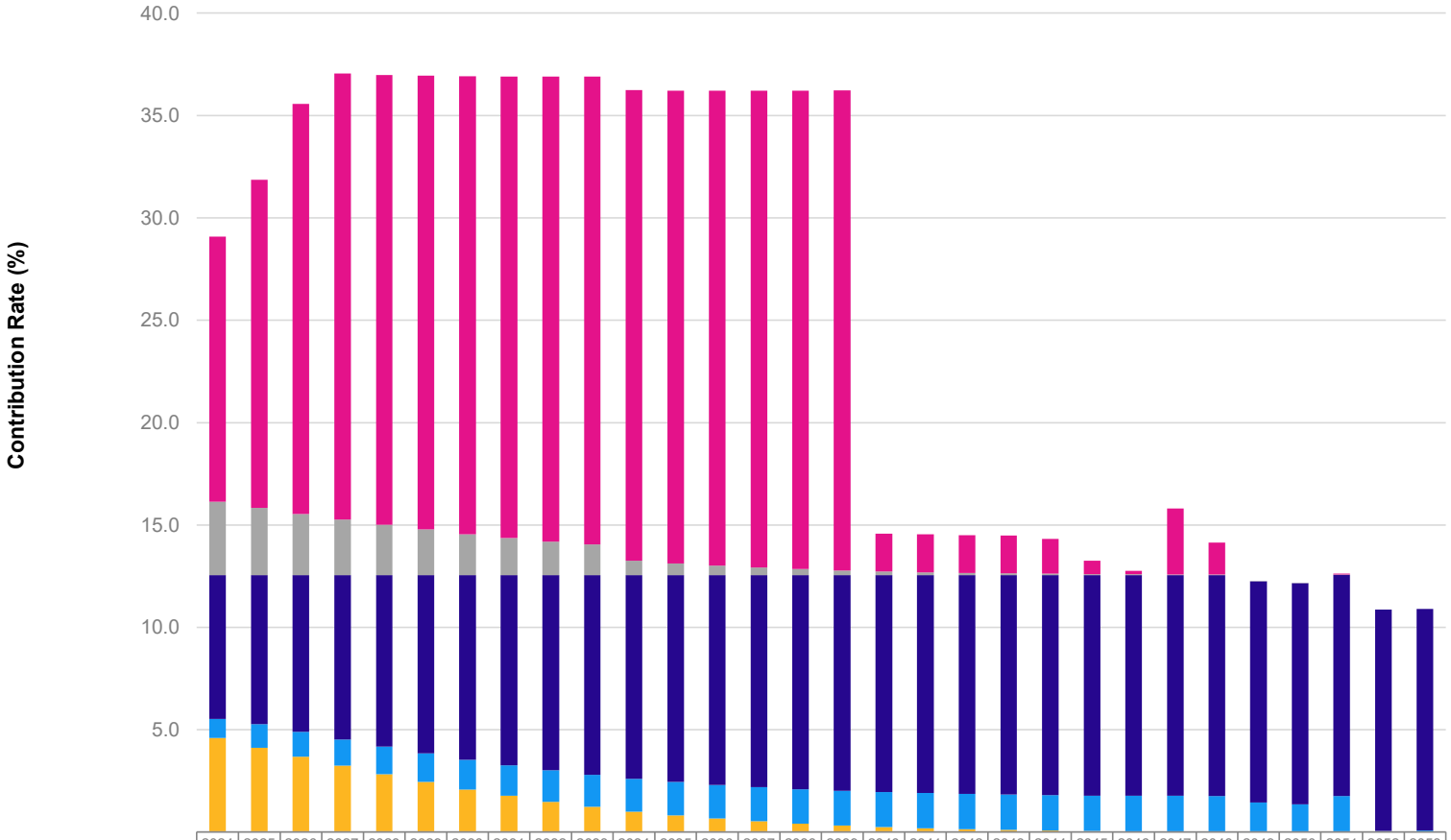


	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Tier 2	6,250	6,759	7,211	7,610	7,948	8,224	8,436	8,590	8,671	8,695	8,656	8,699	8,686	8,636	8,527	8,406	8,276	8,115	7,936	7,736	7,524	7,309	7,095	6,878	6,663	6,450	6,229	6,000	5,765	5,523
Tier 1	10,328	10,183	10,008	9,807	9,586	9,344	9,080	8,799	8,499	8,182	7,849	7,521	7,180	6,825	6,460	6,085	5,705	5,322	4,937	4,555	4,175	3,804	3,446	3,101	2,771	2,460	2,167	1,896	1,646	1,419

Fiscal Year Ending June 30

Section 3.3A: Projected Employer/State Contribution Rates

Based on Total DB and DCR Payroll



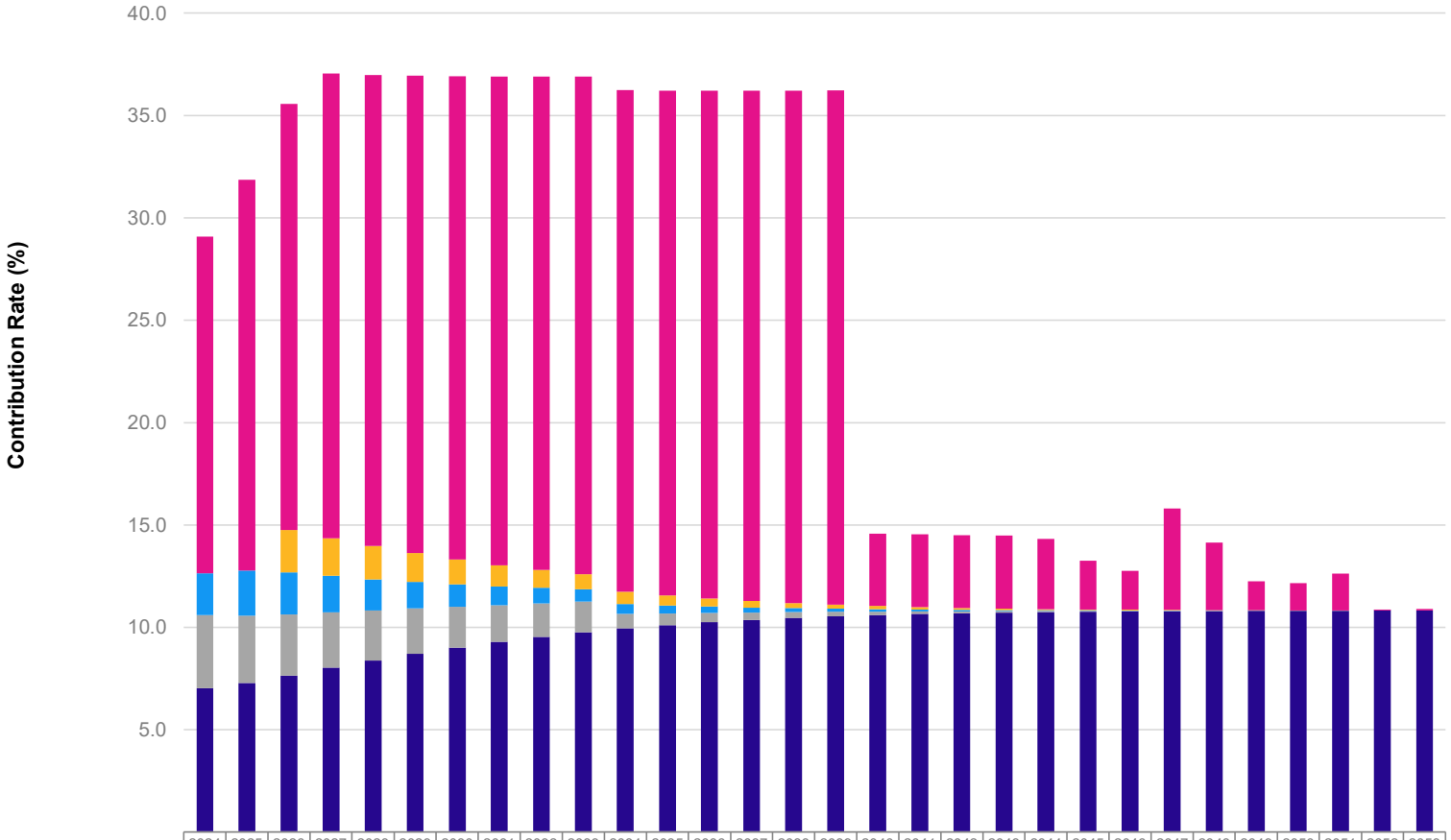
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
State Assistance	12.96	16.03	20.03	21.79	21.97	22.17	22.37	22.54	22.71	22.86	22.98	23.09	23.19	23.29	23.37	23.45	1.84	1.85	1.84	1.85	1.70	0.66	0.17	3.23	1.56	0.00	0.00	0.05	0.00	0.00
DB EE Contributions	3.57	3.27	2.98	2.70	2.45	2.22	1.99	1.80	1.64	1.49	0.70	0.57	0.46	0.36	0.29	0.22	0.17	0.13	0.10	0.08	0.06	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.00
DCR ER Contributions	7.03	7.29	7.65	8.03	8.38	8.71	9.02	9.29	9.54	9.76	9.95	10.11	10.25	10.36	10.46	10.54	10.60	10.65	10.69	10.72	10.75	10.77	10.78	10.79	10.80	10.81	10.81	10.81	10.82	10.82
DB ER Contributions on DCR Pay	0.93	1.14	1.23	1.29	1.35	1.40	1.45	1.49	1.53	1.56	1.60	1.63	1.65	1.67	1.68	1.69	1.71	1.72	1.72	1.73	1.73	1.73	1.74	1.74	1.74	1.42	1.34	1.75	0.05	0.08
DB ER Contributions on DB Pay	4.60	4.13	3.68	3.24	2.83	2.45	2.09	1.78	1.49	1.24	1.01	0.82	0.66	0.53	0.42	0.33	0.25	0.19	0.15	0.11	0.08	0.06	0.04	0.03	0.02	0.02	0.01	0.01	0.00	0.00

Fiscal Year Ending June 30

These projections reflect the DB contribution rates shown in Section 3.6A.

Section 3.3B: Components of Projected Total Contribution Rates

Based on Total DB and DCR Payroll

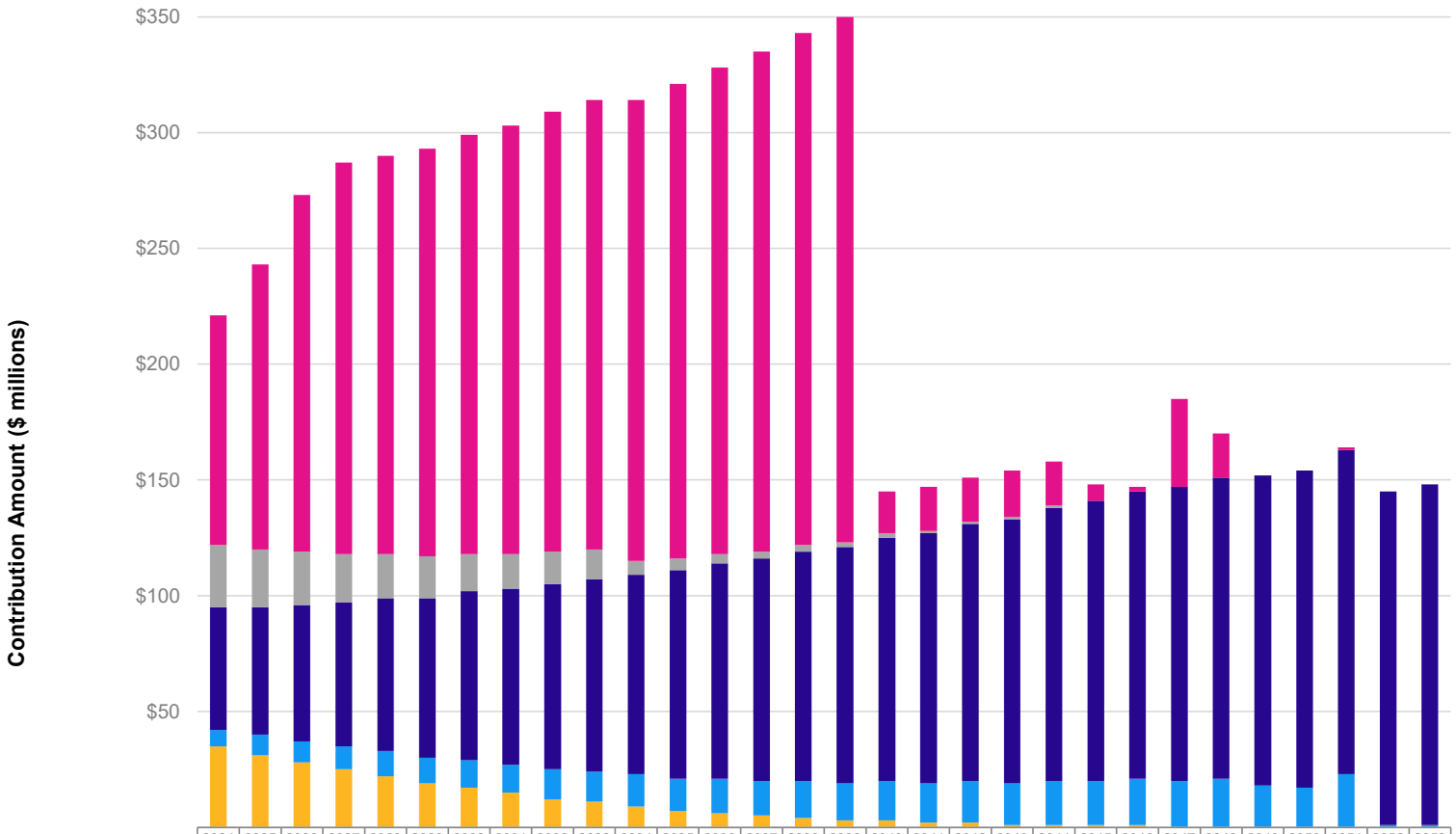


	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
DB Amortization	16.44	19.09	20.82	22.70	23.01	23.32	23.61	23.87	24.11	24.32	24.50	24.66	24.80	24.92	25.03	25.12	3.53	3.55	3.56	3.58	3.43	2.38	1.90	4.96	3.30	1.42	1.34	1.81	0.04	0.08
DB Healthcare Normal Cost	0.00	0.00	2.07	1.84	1.62	1.41	1.21	1.03	0.87	0.73	0.60	0.49	0.39	0.32	0.25	0.20	0.15	0.12	0.09	0.07	0.05	0.04	0.03	0.02	0.01	0.01	0.01	0.00	0.00	0.00
DB ER Pension Normal Cost	2.05	2.21	2.05	1.78	1.52	1.29	1.09	0.91	0.75	0.61	0.49	0.39	0.31	0.25	0.19	0.15	0.12	0.09	0.06	0.04	0.03	0.03	0.02	0.02	0.01	0.01	0.00	0.00	0.01	0.00
DB EE Pension Normal Cost	3.57	3.27	2.98	2.70	2.45	2.22	1.99	1.80	1.64	1.49	0.70	0.57	0.46	0.36	0.29	0.22	0.17	0.13	0.10	0.08	0.06	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.00
DCR ER Contribution	7.03	7.29	7.65	8.03	8.38	8.71	9.02	9.29	9.54	9.76	9.95	10.11	10.25	10.36	10.46	10.54	10.60	10.65	10.69	10.72	10.75	10.77	10.78	10.79	10.80	10.81	10.81	10.81	10.82	10.82

Fiscal Year Ending June 30

These projections reflect the DB contribution rates shown in Section 3.6A.

Section 3.4A: Projected Employer/State Contribution Amounts

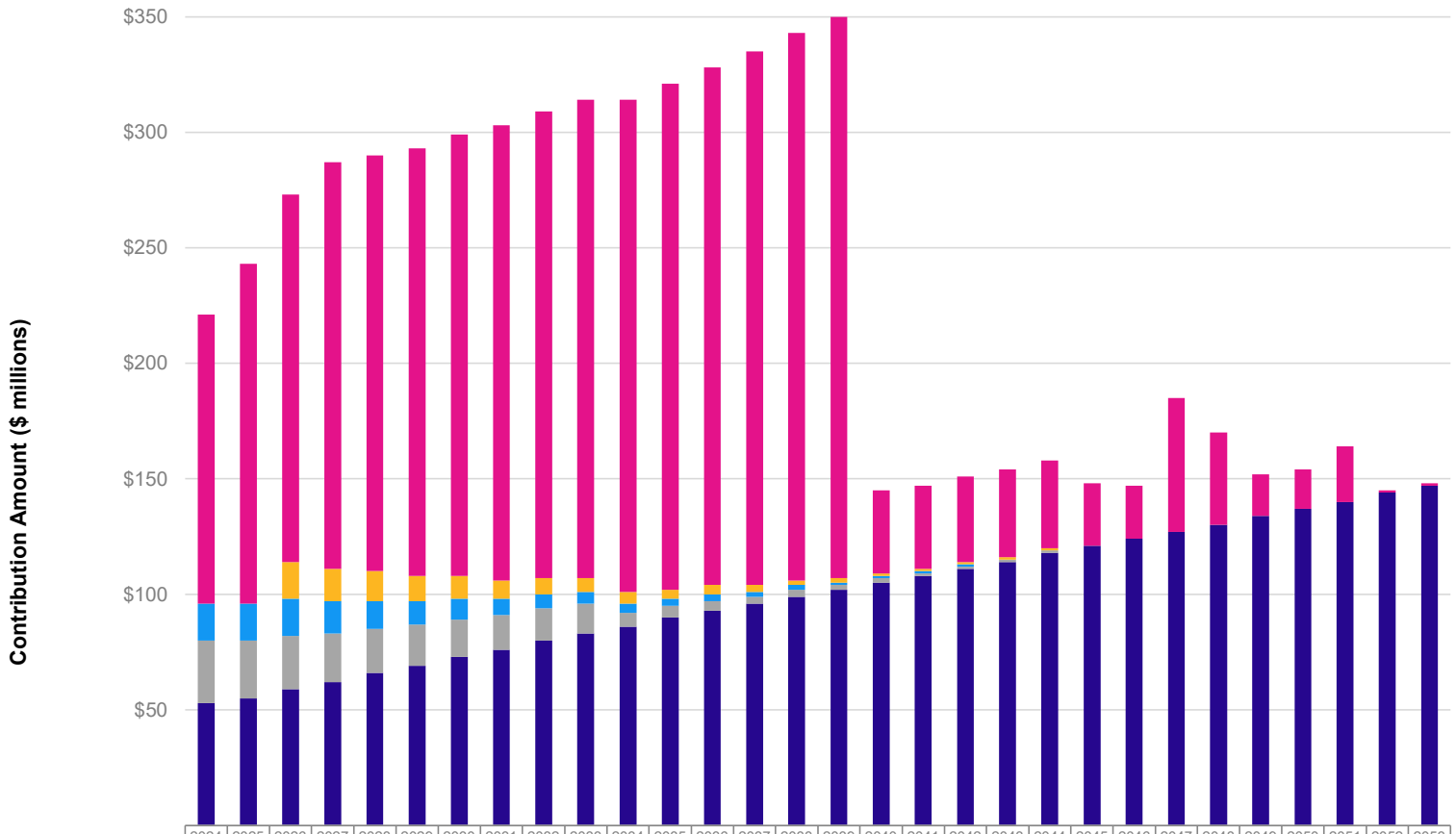


	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
State Assistance	99	123	154	169	172	176	181	185	190	194	199	205	210	216	221	227	18	19	19	20	19	7	2	38	19	0	0	1	0	0
DB EE Contributions	27	25	23	21	19	18	16	15	14	13	6	5	4	3	3	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0
DCR ER Contributions	53	55	59	62	66	69	73	76	80	83	86	90	93	96	99	102	105	108	111	114	118	121	124	127	130	134	137	140	144	147
DB ER Contributions on DCR Pay	7	9	9	10	11	11	12	12	13	13	14	14	15	15	16	16	17	17	18	18	19	19	20	20	21	18	17	23	1	1
DB ER Contributions on DB Pay	35	31	28	25	22	19	17	15	12	11	9	7	6	5	4	3	3	2	2	1	1	1	1	0	0	0	0	0	0	0

Fiscal Year Ending June 30

These projections reflect the DB contribution rates shown in Section 3.6A.

Section 3.4B: Components of Projected Total Contribution Amounts



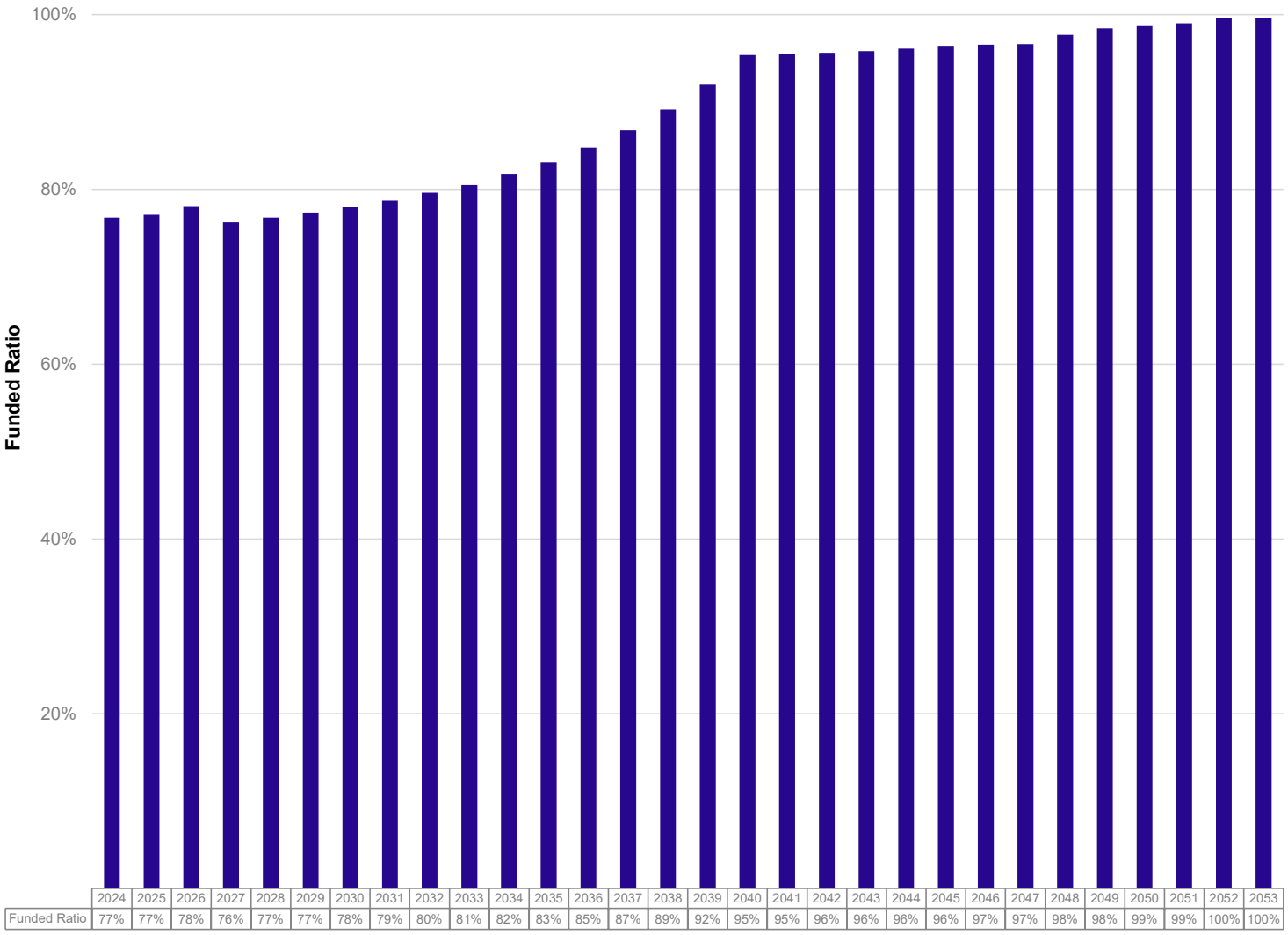
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
DB Amortization	125	147	159	176	180	185	191	197	202	207	213	219	224	231	237	243	36	36	37	38	38	27	23	58	40	18	17	24	1	1
DB Healthcare Normal Cost	0	0	16	14	13	11	10	8	7	6	5	4	4	3	2	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0
DB ER Pension Normal Cost	16	16	16	14	12	10	9	7	6	5	4	3	3	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
DB EE Pension Normal Cost	27	25	23	21	19	18	16	15	14	13	6	5	4	3	3	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0
DCR ER Contribution	53	55	59	62	66	69	73	76	80	83	86	90	93	96	99	102	105	108	111	114	118	121	124	127	130	134	137	140	144	147

Fiscal Year Ending June 30

These projections reflect the DB contribution rates shown in Section 3.6A.

Section 3.5A: Projection of Funded Ratios

Pension



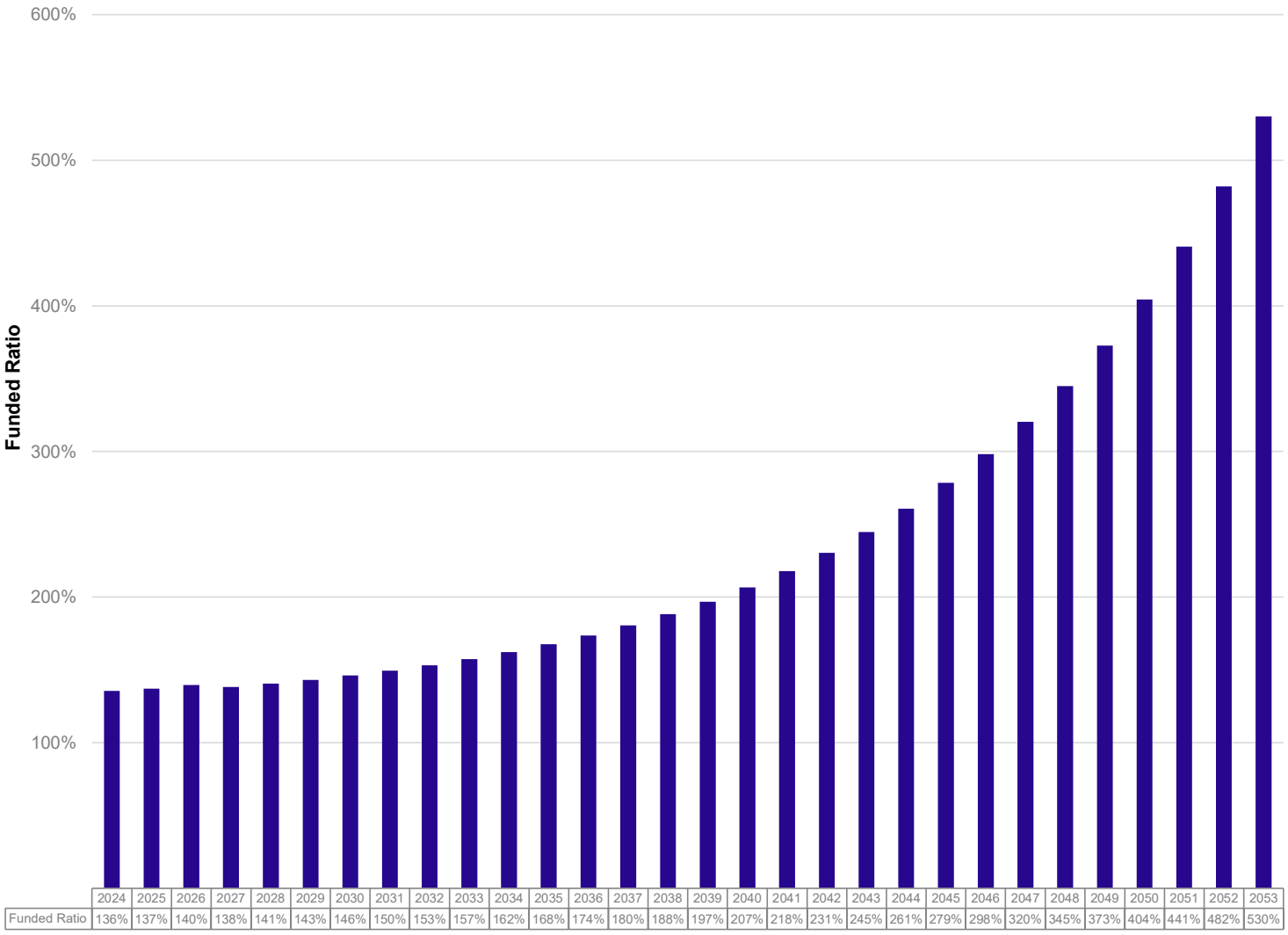
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Funded Ratio	77%	77%	78%	76%	77%	77%	78%	79%	80%	81%	82%	83%	85%	87%	89%	92%	95%	95%	96%	96%	96%	96%	97%	97%	98%	98%	99%	99%	100%	100%

Fiscal Year Ending June 30

These projections reflect the DB contribution rates shown in Section 3.6A.

Section 3.5B: Projection of Funded Ratios

Healthcare



	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Funded Ratio	136%	137%	140%	138%	141%	143%	146%	150%	153%	157%	162%	168%	174%	180%	188%	197%	207%	218%	231%	245%	261%	279%	298%	320%	345%	373%	404%	441%	482%	530%

Fiscal Year Ending June 30

These projections reflect the DB contribution rates shown in Section 3.6A.

Section 3.6A: Table of Projected Actuarial Results ($'s in 000's)

Fiscal Year End	Valuation Amounts on July 1 (Beginning of FY)				Cash Flow Amounts during Following 12 Months									Deferred Asset Gain / (Loss)	
	Pension		Healthcare			Actuarial Contrib. Rates			DB Contributions						
	Actuarial Assets	Accrued Liability	Actuarial Assets	Accrued Liability	Total Salaries	DB	DCR	Total	Employer	State Assistance	Employee	Total	Benefit Payments	Pension	Healthcare
2024	$ 6,171,460	$ 8,036,685	$ 3,547,973	$ 2,617,821	$ 754,274	18.49%	7.03%	25.52%	$ 41,711	$ 98,766	$ 26,892	$ 167,369	$ 738,921	$ (102,698)	$ (58,100)
2025	6,205,601	8,050,410	3,658,153	2,667,461	759,599	21.30%	7.29%	28.59%	40,031	123,358	24,840	188,229	763,818	(169,819)	(93,296)
2026	6,282,612	8,044,085	3,785,254	2,710,529	767,012	24.94%	7.65%	32.59%	37,660	153,633	22,819	214,112	787,516	3,184	2,537
2027	6,115,456	8,020,478	3,796,331	2,746,843	775,550	26.32%	8.03%	34.35%	35,132	168,992	20,948	225,072	809,797	0	0
2028	6,123,764	7,973,923	3,903,769	2,775,950	785,088	26.15%	8.38%	34.53%	32,816	172,484	19,218	224,518	831,749	0	0
2029	6,116,868	7,906,862	4,005,673	2,796,486	795,759	26.02%	8.71%	34.73%	30,637	176,420	17,630	224,687	852,568	0	0
2030	6,099,680	7,820,036	4,103,791	2,807,285	807,592	25.91%	9.02%	34.93%	28,589	180,658	16,104	225,351	871,344	0	0
2031	6,073,460	7,713,889	4,198,468	2,808,296	820,527	25.81%	9.29%	35.10%	26,831	184,947	14,799	226,577	886,978	0	0
2032	6,040,120	7,589,525	4,290,740	2,800,086	834,912	25.73%	9.54%	35.27%	25,215	189,609	13,724	228,548	900,816	0	0
2033	6,001,299	7,447,489	4,381,017	2,782,539	850,629	25.66%	9.76%	35.42%	23,818	194,454	12,712	230,984	912,590	0	0
2034	5,959,077	7,288,991	4,469,345	2,755,147	867,613	25.59%	9.95%	35.54%	22,645	199,377	6,073	228,095	913,945	0	0
2035	5,916,428	7,115,653	4,557,714	2,719,396	886,047	25.54%	10.11%	35.65%	21,709	204,588	5,050	231,347	917,282	0	0
2036	5,875,894	6,928,550	4,647,806	2,676,333	905,483	25.50%	10.25%	35.75%	20,916	209,982	4,165	235,063	917,563	0	0
2037	5,840,236	6,729,140	4,740,793	2,626,547	925,959	25.49%	10.36%	35.85%	20,371	215,656	3,333	239,360	914,755	0	0
2038	5,812,393	6,519,008	4,838,126	2,570,648	947,505	25.47%	10.46%	35.93%	19,898	221,432	2,748	244,078	908,598	0	0
2039	5,795,297	6,299,502	4,941,665	2,509,870	970,065	25.47%	10.54%	36.01%	19,595	227,480	2,134	249,209	900,331	0	0
2040	5,792,298	6,072,445	5,051,902	2,443,822	993,529	3.80%	10.60%	14.40%	19,473	18,281	1,689	39,443	889,806	0	0
2041	5,575,849	5,839,363	5,169,705	2,372,611	1,017,314	3.76%	10.65%	14.41%	19,431	18,820	1,323	39,574	875,293	0	0
2042	5,357,020	5,601,596	5,298,252	2,298,375	1,042,083	3.71%	10.69%	14.40%	19,487	19,174	1,042	39,703	857,752	0	0
2043	5,137,409	5,360,701	5,439,641	2,222,294	1,067,612	3.69%	10.72%	14.41%	19,644	19,751	854	40,249	836,131	0	0
2044	4,918,813	5,118,063	5,597,560	2,146,950	1,094,097	3.51%	10.75%	14.26%	19,803	18,600	656	39,059	812,897	0	0
2045	4,700,667	4,874,858	5,773,611	2,072,852	1,121,264	2.45%	10.77%	13.22%	20,071	7,400	449	27,920	787,186	0	0
2046	4,473,415	4,632,315	5,970,568	2,001,483	1,148,946	1.95%	10.78%	12.73%	20,452	1,953	345	22,750	761,687	0	0
2047	4,243,721	4,391,467	6,188,792	1,931,925	1,177,192	5.00%	10.79%	15.79%	20,836	38,023	235	59,094	736,240	0	0
2048	4,056,672	4,153,215	6,429,027	1,863,543	1,206,103	3.32%	10.80%	14.12%	21,228	18,815	241	40,284	711,989	0	0
2049	3,856,785	3,918,364	6,691,046	1,794,620	1,235,749	1.44%	10.81%	12.25%	17,795	0	124	17,919	687,669	0	0
2050	3,639,768	3,687,616	6,976,188	1,724,775	1,266,055	1.35%	10.81%	12.16%	17,092	0	127	17,219	663,746	0	0
2051	3,427,743	3,461,523	7,285,483	1,653,304	1,296,847	1.80%	10.81%	12.61%	22,755	648	130	23,533	639,329	0	0
2052	3,228,524	3,240,534	7,621,025	1,580,515	1,328,479	0.05%	10.82%	10.87%	705	0	0	705	614,893	0	0
2053	3,012,759	3,025,028	7,984,786	1,506,339	1,361,052	0.08%	10.82%	10.90%	1,116	0	0	1,116	590,414	0	0
								Total	$ 687,462	$ 3,083,301	$ 220,404	$ 3,991,167			

The contribution rates, contribution amounts, and benefit payments are determined separately for Pension and Healthcare. They are aggregated solely for purposes of display in this exhibit.

Section 3.6A: Table of Projected Actuarial Results ($'s in 000's) (continued)

Fiscal Year End	Valuation Amounts on July 1 (Beginning of FY)			
	Funded Ratio		Unfunded Liability / (Surplus)	
	Pension	Healthcare	Pension	Healthcare
2024	77%	136%	$ 1,865,225	$ (930,152)
2025	77%	137%	1,844,809	(990,692)
2026	78%	140%	1,761,473	(1,074,725)
2027	76%	138%	1,905,022	(1,049,488)
2028	77%	141%	1,850,159	(1,127,819)
2029	77%	143%	1,789,994	(1,209,187)
2030	78%	146%	1,720,356	(1,296,506)
2031	79%	150%	1,640,429	(1,390,172)
2032	80%	153%	1,549,405	(1,490,654)
2033	81%	157%	1,446,190	(1,598,478)
2034	82%	162%	1,329,914	(1,714,198)
2035	83%	168%	1,199,225	(1,838,318)
2036	85%	174%	1,052,656	(1,971,473)
2037	87%	181%	888,904	(2,114,246)
2038	89%	188%	706,615	(2,267,478)
2039	92%	197%	504,205	(2,431,795)
2040	95%	207%	280,147	(2,608,080)
2041	96%	218%	263,514	(2,797,094)
2042	96%	231%	244,576	(2,999,877)
2043	96%	245%	223,292	(3,217,347)
2044	96%	261%	199,250	(3,450,610)
2045	96%	279%	174,191	(3,700,759)
2046	97%	298%	158,900	(3,969,085)
2047	97%	320%	147,746	(4,256,867)
2048	98%	345%	96,543	(4,565,484)
2049	98%	373%	61,579	(4,896,426)
2050	99%	405%	47,848	(5,251,413)
2051	99%	441%	33,780	(5,632,179)
2052	100%	482%	12,010	(6,040,510)
2053	100%	530%	12,269	(6,478,447)

Section 3.6B: Table of Projected Actuarial Results ($'s in 000's)

Fiscal Year End	Valuation Amounts on July 1 (Beginning of FY)				Cash Flow Amounts during Following 12 Months									Deferred Asset Gain / (Loss)	
	Pension		Healthcare			Actuarial Contrib. Rates			DB Contributions						
	Actuarial Assets	Accrued Liability	Actuarial Assets	Accrued Liability	Total Salaries	DB	DCR	Total	Employer	State Assistance	Employee	Total	Benefit Payments	Pension	Healthcare
2024	$ 6,171,460	$ 8,036,685	$ 3,547,973	$ 2,617,821	$ 754,274	18.49%	7.03%	25.52%	$ 41,711	$ 98,766	$ 26,892	$ 167,369	$ 738,921	$ (102,698)	$ (58,100)
2025	6,205,601	8,050,410	3,658,153	2,667,461	759,599	21.30%	7.29%	28.59%	40,031	123,358	24,840	188,229	763,818	(169,819)	(93,296)
2026	6,282,612	8,044,085	3,785,254	2,710,529	767,012	25.93%	7.65%	33.58%	37,661	155,703	22,819	216,183	787,516	3,184	2,537
2027	6,117,041	8,020,478	3,796,967	2,746,843	775,550	27.33%	8.03%	35.36%	35,132	170,776	20,948	226,856	809,797	0	0
2028	6,126,815	7,973,923	3,905,014	2,775,950	785,088	27.12%	8.38%	35.50%	32,817	173,897	19,218	225,932	831,749	0	0
2029	6,121,249	7,906,862	4,007,415	2,796,486	795,759	26.97%	8.71%	35.68%	30,637	177,613	17,630	225,880	852,568	0	0
2030	6,105,246	7,820,036	4,106,071	2,807,285	807,592	26.83%	9.02%	35.85%	28,589	181,627	16,104	226,320	871,344	0	0
2031	6,080,134	7,713,889	4,201,248	2,808,296	820,527	26.73%	9.29%	36.02%	26,832	185,849	14,799	227,480	886,978	0	0
2032	6,047,906	7,589,525	4,294,063	2,800,086	834,912	26.61%	9.54%	36.15%	25,214	190,193	13,724	229,131	900,816	0	0
2033	6,010,016	7,447,489	4,384,840	2,782,539	850,629	26.53%	9.76%	36.29%	23,818	194,879	12,712	231,409	912,590	0	0
2034	5,968,706	7,288,991	4,473,621	2,755,147	867,613	26.45%	9.95%	36.40%	22,644	199,725	6,073	228,442	913,945	0	0
2035	5,926,948	7,115,653	4,562,479	2,719,396	886,047	26.39%	10.11%	36.50%	21,708	204,854	5,050	231,612	917,282	0	0
2036	5,887,278	6,928,550	4,653,100	2,676,333	905,483	26.33%	10.25%	36.58%	20,916	209,982	4,165	235,063	917,563	0	0
2037	5,852,258	6,729,140	4,746,658	2,626,547	925,959	26.31%	10.36%	36.67%	20,371	215,563	3,333	239,267	914,755	0	0
2038	5,825,090	6,519,008	4,844,512	2,570,648	947,505	26.28%	10.46%	36.74%	19,898	221,242	2,748	243,888	908,598	0	0
2039	5,808,612	6,299,502	4,948,612	2,509,870	970,065	26.26%	10.54%	36.80%	19,595	227,092	2,134	248,821	900,331	0	0
2040	5,806,162	6,072,445	5,059,353	2,443,822	993,529	3.83%	10.60%	14.43%	19,474	17,983	1,689	39,146	889,806	0	0
2041	5,590,296	5,839,363	5,177,800	2,372,611	1,017,314	3.77%	10.65%	14.42%	19,431	18,312	1,323	39,066	875,293	0	0
2042	5,371,970	5,601,596	5,306,934	2,298,375	1,042,083	3.72%	10.69%	14.41%	19,487	18,653	1,042	39,182	857,752	0	0
2043	5,152,885	5,360,701	5,448,953	2,222,294	1,067,612	3.69%	10.72%	14.41%	19,644	19,110	854	39,608	836,131	0	0
2044	4,934,724	5,118,063	5,607,547	2,146,950	1,094,097	3.49%	10.75%	14.24%	19,803	17,724	656	38,183	812,897	0	0
2045	4,716,793	4,874,858	5,784,322	2,072,852	1,121,264	2.39%	10.77%	13.16%	20,071	6,503	449	27,023	787,186	0	0
2046	4,489,748	4,632,315	5,982,056	2,001,483	1,148,946	1.87%	10.78%	12.65%	20,452	1,034	345	21,831	761,687	0	0
2047	4,260,252	4,391,467	6,201,113	1,931,925	1,177,192	5.03%	10.79%	15.82%	20,836	37,082	235	58,153	736,240	0	0
2048	4,073,393	4,153,215	6,442,241	1,863,543	1,206,103	3.28%	10.80%	14.08%	21,228	17,730	241	39,199	711,989	0	0
2049	3,873,555	3,918,364	6,705,218	1,794,620	1,235,749	1.33%	10.81%	12.14%	16,436	0	124	16,560	687,669	0	0
2050	3,656,346	3,687,616	6,991,387	1,724,775	1,266,055	1.23%	10.81%	12.04%	15,573	0	127	15,700	663,746	0	0
2051	3,443,950	3,461,523	7,301,784	1,653,304	1,296,847	1.70%	10.81%	12.51%	22,108	0	130	22,238	639,329	0	0
2052	3,244,539	3,240,534	7,638,510	1,580,515	1,328,479	0.01%	10.82%	10.83%	175	0	0	175	614,893	0	0
2053	3,029,385	3,025,028	8,003,539	1,506,339	1,361,052	0.00%	10.82%	10.82%	76	0	0	76	590,414	0	0
								Total	$ 682,368	$ 3,085,250	$ 220,404	$ 3,988,022			

The contribution rates, contribution amounts, and benefit payments are determined separately for Pension and Healthcare. They are aggregated solely for purposes of display in this exhibit.

These projections reflect a ½ year interest adjustment to account for the monthly timing of Employer Contributions.

Section 3.6B: Table of Projected Actuarial Results ($'s in 000's) (continued)

Fiscal Year End	Valuation Amounts on July 1 (Beginning of FY)			
	Funded Ratio		Unfunded Liability / (Surplus)	
	Pension	Healthcare	Pension	Healthcare
2024	77%	136%	$ 1,865,225	$ (930,152)
2025	77%	137%	1,844,809	(990,692)
2026	78%	140%	1,761,473	(1,074,725)
2027	76%	138%	1,903,437	(1,050,124)
2028	77%	141%	1,847,108	(1,129,064)
2029	77%	143%	1,785,613	(1,210,929)
2030	78%	146%	1,714,790	(1,298,786)
2031	79%	150%	1,633,755	(1,392,952)
2032	80%	153%	1,541,619	(1,493,977)
2033	81%	158%	1,437,473	(1,602,301)
2034	82%	162%	1,320,285	(1,718,474)
2035	83%	168%	1,188,705	(1,843,083)
2036	85%	174%	1,041,272	(1,976,767)
2037	87%	181%	876,882	(2,120,111)
2038	89%	189%	693,918	(2,273,864)
2039	92%	197%	490,890	(2,438,742)
2040	96%	207%	266,283	(2,615,531)
2041	96%	218%	249,067	(2,805,189)
2042	96%	231%	229,626	(3,008,559)
2043	96%	245%	207,816	(3,226,659)
2044	96%	261%	183,339	(3,460,597)
2045	97%	279%	158,065	(3,711,470)
2046	97%	299%	142,567	(3,980,573)
2047	97%	321%	131,215	(4,269,188)
2048	98%	346%	79,822	(4,578,698)
2049	99%	374%	44,809	(4,910,598)
2050	99%	405%	31,270	(5,266,612)
2051	100%	442%	17,573	(5,648,480)
2052	100%	483%	(4,005)	(6,057,995)
2053	100%	531%	(4,357)	(6,497,200)

These projections reflect a ½ year interest adjustment to account for the monthly timing of Employer Contributions.

Section 3.7: Projected Pension Benefit Recipients and Amounts ($'s in 000's)

Fiscal Year End	Pension		Fiscal Year End	Pension	
	Recipient Counts	Benefit Amounts		Recipient Counts	Benefit Amounts
2024	14,255	$ 585,684	2062	2,941	$ 235,723
2025	14,694	602,632	2063	2,669	217,484
2026	15,066	618,570	2064	2,410	199,606
2027	15,380	633,073	2065	2,165	182,141
2028	15,623	646,407	2066	1,933	165,151
2029	15,789	657,926	2067	1,716	148,709
2030	15,873	667,955	2068	1,511	132,897
2031	15,884	675,928	2069	1,321	117,799
2032	15,810	682,450	2070	1,144	103,495
2033	15,665	686,895	2071	983	90,066
2034	15,442	682,887	2072	835	77,581
2035	15,150	682,358	2073	703	66,096
2036	14,792	679,737	2074	584	55,653
2037	14,387	674,972	2075	481	46,277
2038	13,918	668,363	2076	389	37,974
2039	13,425	659,519	2077	312	30,728
2040	12,919	648,831	2078	246	24,501
2041	12,380	636,563	2079	191	19,238
2042	11,825	622,590	2080	147	14,865
2043	11,251	607,150	2081	110	11,297
2044	10,669	590,534	2082	82	8,438
2045	10,097	572,769	2083	60	6,194
2046	9,538	554,112	2084	43	4,465
2047	8,993	534,745	2085	30	3,165
2048	8,468	514,818	2086	21	2,206
2049	7,964	494,476	2087	15	1,514
2050	7,474	473,907	2088	10	1,027
2051	7,000	453,246	2089	7	691
2052	6,542	432,585	2090	4	464
2053	6,102	411,997	2091	4	313
2054	5,680	391,536	2092	2	214
2055	5,277	371,245	2093	2	150
2056	4,893	351,154	2094	1	106
2057	4,526	331,284	2095	1	77
2058	4,177	311,651	2096	1	57
2059	3,844	292,265	2097	0	0
2060	3,528	273,138	2098	0	0
2061	3,227	254,283	2099	0	0

Counts include retirees, disabilitants, and beneficiaries.

Section 4: Member Data

Section 4.1: Summary of Members Included

As of June 30	2019	2020	2021	2022	2023
Active Members					
1. Number	4,044	3,789	3,396	3,023	2,734[1]
2. Average Age	51.48	51.92	52.14	52.57	52.95
3. Average Credited Service	19.21	19.76	20.31	20.85	21.18
4. Average Entry Age	32.27	32.16	31.83	31.72	31.77
5. Average Annual Earnings	$ 88,879	$ 90,564	$ 94,143	$ 97,702	$ 98,820
6. Number Vested	4,044	3,789	3,396	3,023	2,734
7. Percent Who Are Vested	100.0%	100.0%	100.0%	100.0%	100.0%
Retirees, Disabilitants, and Beneficiaries					
1. Number	13,491	13,689	13,972	14,126	14,255
2. Average Age	71.30	71.85	72.26	72.60	73.10
3. Average Years Since Retirement	14.74	15.06	15.24	15.51	15.80
4. Average Monthly Pension Benefit					
a. Base	$ 2,303	$ 2,330	$ 2,363	$ 2,411	$ 2,445
b. COLA[2]	126	126	125	123	122
c. PRPA[2]	518	519	491	561	692
d. Adjustment	0	0	(1)	0	(1)
e. Sick	67	68	70	72	74
f. Total	$ 3,014	$ 3,043	$ 3,048	$ 3,167	$ 3,332
Vested Terminations (vested at termination, not refunded contributions, and not commenced benefit)					
1. Number	812	764	727	729	763
2. Average Age	51.71	52.37	52.68	53.22	53.70
3. Average Monthly Pension Benefit	$ 1,534	$ 1,579	$ 1,635	$ 1,725	$ 1,967
Non-Vested Terminations (not vested at termination and not refunded contributions)					
1. Number	1,810	1,744	1,679	1,616	1,560
2. Average Account Balance	$ 21,612	$ 22,591	$ 23,388	$ 23,906	$ 24,693
Total Number of Members	**20,157**	**19,986**	**19,774**	**19,494**	**19,312**

[1] Includes 825 male active members and 1,909 female active members.

[2] Calculated by taking the average of the data field, as provided by the State of Alaska, for all participants in the group.

Summary of Members Included

As of June 30, 2023	DB Tier 1	DB Tier 2	DB Total	DCR Tier 3	Grand Total
Active Members					
1. Number	85	2,649	2,734	5,877	8,611
2. Average Age	65.23	52.56	52.95	42.44	45.78
3. Average Credited Service	30.16	20.89	21.18	6.72	11.31
4. Average Entry Age	35.07	31.67	31.77	35.72	34.47
5. Annual Earnings					
a. Total	$ 8,775,277	$ 261,398,875	$ 270,174,152	$ 459,104,767	$ 729,278,919
b. Average	$ 103,239	$ 98,678	$ 98,820	$ 78,119	$ 84,692

Total and average annual earnings (“valuation pay”) are the annualized earnings for the fiscal year ending on the valuation date.

As of June 30, 2023	Tier 1	Tier 2	Total
Retirees, Disabilitants, and Beneficiaries			
1. Number	10,104	4,151	14,255
2. Average Age	75.76	66.61	73.10
3. Average Years Since Retirement	19.47	6.85	15.80
4. Average Monthly Pension Benefit			
a. Base	$ 2,399	$ 2,557	$ 2,445
b. COLA	147	61	122
c. PRPA	888	215	692
d. Adjustment	(1)	0	(1)
e. Sick	71	83	74
f. Total	$ 3,504	$ 2,916	$ 3,332

Summary of Members Included

As of June 30, 2023	Active Members	Inactive Members				
		Retirees	Covered Spouses	Covered Children / Dependents	Deferred	Total Inactive Members
Retiree Medical Participants						
1. Retiree Coverage Only	2,700	4,659	0	0	398	5,057
2. Retiree + Spouse	0	5,690	5,690	0	486	11,866
3. Retiree + Children / Dependents	0	119	0	130	0	249
4. Family	0	363	363	515	0	1,241
5. Total	2,700	10,831	6,053	645	884	18,413

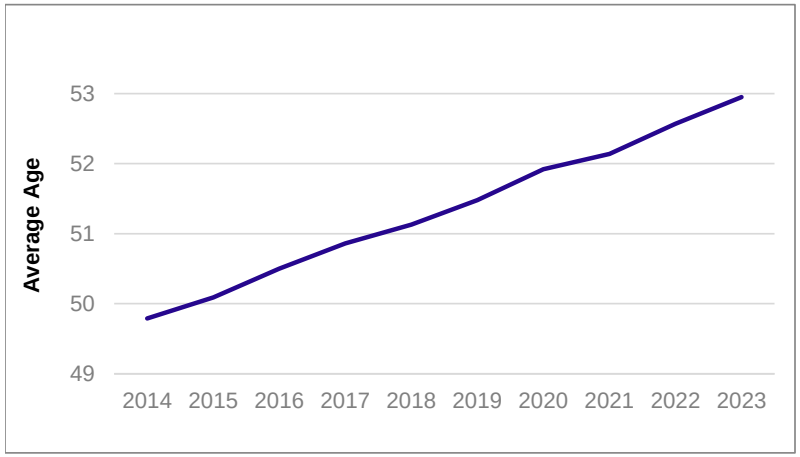
As of June 30, 2023	Retirees	Covered Spouses	Covered Children / Dependents	Deferred	Total Inactive Members
Retiree Medical Participants					
1. Pre-Medicare	1,886	1,482	645	872	4,885
2. Medicare Part A & B	8,759	4,510	0	12	13,281
3. Medicare Part B Only	186	61	0	0	247
4. Total	10,831	6,053	645	884	18,413

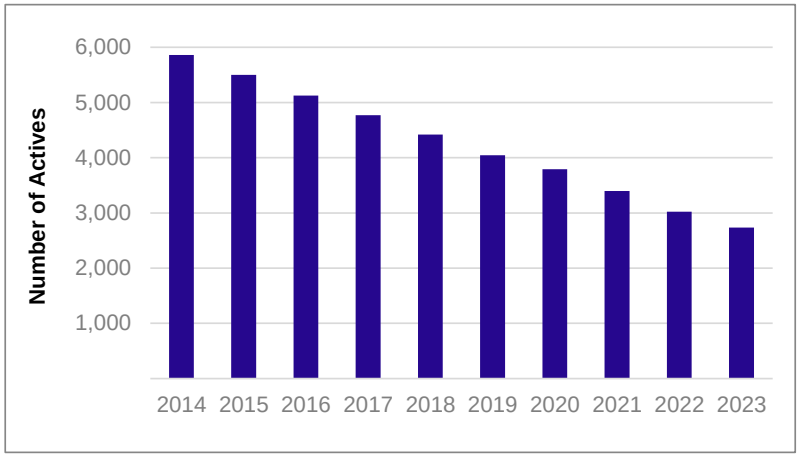
As of June 30, 2023	Retirees
Summary of Retiree Medical Data Received	
1. Retiree records on pension data	14,255
2. Remove duplicates on pension data	(565)
3. Valued in a different retiree healthcare plan[1]	(858)
4. Records without medical coverage	(2,100)
5. Medical only retirees	99
6. Total	10,831

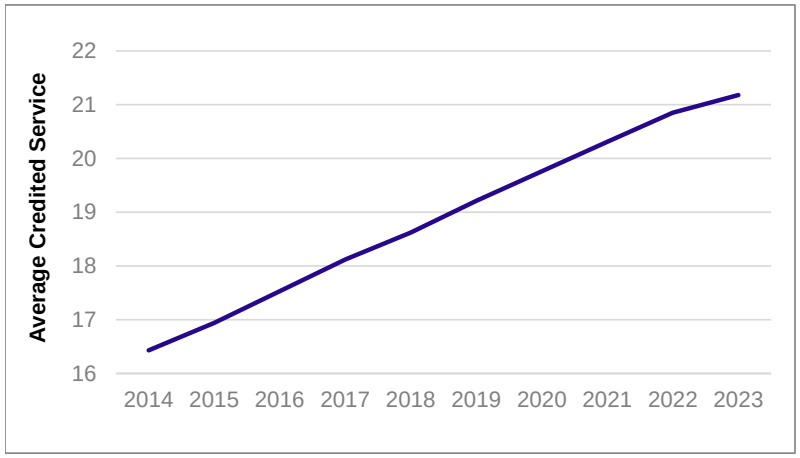
As of June 30	2019	2020	2021	2022	2023
Retiree Medical Retirees					
1. Number	11,914	12,019	12,138	12,325	10,831
2. Average Age	71.47	72.02	72.48	72.80	73.25

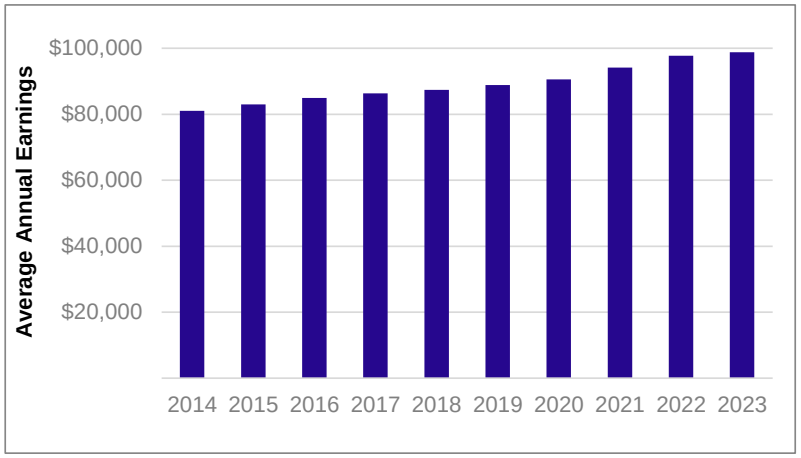
[1] Each member's retiree medical benefits are valued in the plan indicated in the data from Aetna

Summary of Members Included - Active Members at June 30









Average annual earnings (“valuation pay”) are the annualized earnings for the fiscal year ending on the valuation date.

Section 4.2: Age and Service Distribution of Active Members

Annual Earnings by Age

Age	Number	Total Annual Earnings	Average Annual Earnings
0 - 19	0	$ 0	$ 0
20 - 24	0	0	0
25 - 29	0	0	0
30 - 34	0	0	0
35 - 39	0	0	0
40 - 44	303	28,798,180	95,043
45 - 49	669	66,021,366	98,687
50 - 54	849	84,676,272	99,736
55 - 59	520	51,635,441	99,299
60 - 64	233	22,994,280	98,688
65 - 69	106	10,575,452	99,768
70 - 74	30	3,034,033	101,134
75+	24	2,439,128	101,630
Total	**2,734**	**$270,174,152**	**$ 98,820**

Annual Earnings by Credited Service

Years of Service	Number	Total Annual Earnings	Average Annual Earnings
0	1	$ 71,842	$ 71,842
1	1	57,187	57,187
2	2	144,378	72,189
3	5	396,396	79,279
4	3	205,049	68,350
0 - 4	**12**	**$ 874,852**	**$ 72,904**
5 - 9	90	6,896,419	76,627
10 - 14	166	14,635,986	88,169
15 - 19	756	72,540,549	95,953
20 - 24	1,103	111,593,788	101,173
25 - 29	470	48,971,999	104,196
30 - 34	105	11,137,485	106,071
35 - 39	24	2,600,567	108,357
40+	8	922,507	115,313
Total	**2,734**	**$270,174,152**	**$ 98,820**

Years of Credited Service by Age

	Years of Service									
Age	**0 - 4**	**5 - 9**	**10 - 14**	**15 - 19**	**20 - 24**	**25 - 29**	**30 - 34**	**35 - 39**	**40+**	**Total**
0 - 19	0	0	0	0	0	0	0	0	0	0
20 - 24	0	0	0	0	0	0	0	0	0	0
25 - 29	0	0	0	0	0	0	0	0	0	0
30 - 34	0	0	0	0	0	0	0	0	0	0
35 - 39	0	0	0	0	0	0	0	0	0	0
40 - 44	2	12	30	194	65	0	0	0	0	303
45 - 49	3	18	57	222	329	40	0	0	0	669
50 - 54	3	32	40	183	371	210	10	0	0	849
55 - 59	2	18	21	92	210	130	44	3	0	520
60 - 64	1	6	11	35	81	61	31	7	0	233
65 - 69	0	3	6	22	27	22	13	10	3	106
70 - 74	1	1	0	4	12	5	5	0	2	30
75+	0	0	1	4	8	2	2	4	3	24
Total	**12**	**90**	**166**	**756**	**1,103**	**470**	**105**	**24**	**8**	**2,734**

Total and average annual earnings (“valuation pay”) are the annualized earnings for the fiscal year ending on the valuation date.

Section 4.3: Member Data Reconciliation

Pension

		Inactive Members					
	Active Members	Due a Refund	Deferred Benefits	Retired Members	Disabled Members	Bene-ficiaries	Total
As of June 30, 2022	**3,023**	**1,616**	**729**	**12,570**	**16**	**1,540**	**19,494**
Vested Terminations	(164)	(1)	165	0	0	0	0
Non-Vested Terminations	0	0	0	0	0	0	0
Refund of Contributions	0	(48)	(1)	0	0	(1)	(50)
Disability Retirements	0	0	0	0	0	0	0
Age Retirements	(236)	(2)	(90)	334	(6)	0	0
Deaths With Beneficiary	(7)	(1)	0	(131)	0	139	0
Deaths Without Beneficiary	(1)	(5)	(1)	(149)	0	(55)	(211)
Data Corrections	0	0	0	0	0	(1)	(1)
Transfers In/Out	50	5	7	3	0	0	65
Rehires	65	(10)	(46)	(9)	0	0	0
Pick Ups*	4	6	0	0	0	5	15
Net Change	**(289)**	**(56)**	**34**	**48**	**(6)**	**87**	**(182)**
As of June 30, 2023	**2,734**	**1,560**	**763**	**12,618**	**10**	**1,627**	**19,312**

* Pickup beneficiaries are primarily new DROs.

Healthcare

		Inactive Members				
	Active Members	Retirees	Covered Spouses	Covered Children / Dependents	Deferred	Total Inactive Members
As of June 30, 2022	**2,997**	**12,325**	**4,314**	**636**	**966**	**18,241**
Vested Terminations	(92)	0	0	0	92	92
Non-Vested Terminations	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	(1)	(1)
Disability Retirements	0	0	0	0	0	0
Age Retirements	(265)	265	174	114	0	553
Deferred Retirements	0	45	27	8	(45)	35
Retired without Medical Coverage	(46)	0	0	0	28	28
Deceased	(8)	(302)	(34)	0	(1)	(337)
New Beneficiaries	0	41	(41)	0	0	0
Added Retiree Medical Coverage	0	37	18	10	(24)	41
Added Dependent Coverage	0	0	133	33	0	166
Dropped Retiree Medical Coverage	0	(31)	(17)	(5)	13	(40)
Dropped Dependent Coverage	0	0	(68)	(149)	0	(217)
Change in Double Coverage	0	(1,546)	1,546	0	0	0
Removal of Spouse Duplicates	0	0	0	0	(107)	(107)
Rehires	65	(6)	(1)	(3)	(45)	(55)
Transfers In/Out	49	3	2	1	8	14
Net Change	**(297)**	**(1,494)**	**1,739**	**9**	**(82)**	**172**
As of June 30, 2023	**2,700**	**10,831**	**6,053**	**645**	**884**	**18,413**

Section 4.4: Schedule of Active Member Data

Valuation Date	Number	Annual Earnings (000's)	Annual Average Earnings	Percent Increase in Average Earnings	Number of Participating Employers
June 30, 2023	2,734	$ 270,174	$ 98,820	1.1%	57
June 30, 2022	3,023	295,354	97,702	3.8%	57
June 30, 2021	3,396	319,711	94,143	4.0%	56
June 30, 2020	3,789	343,146	90,564	1.9%	56
June 30, 2019	4,044	359,426	88,879	1.7%	56
June 30, 2018	4,418	386,016	87,374	1.2%	56
June 30, 2017	4,772	411,951	86,327	1.6%	57
June 30, 2016	5,123	435,222	84,954	2.4%	57
June 30, 2015	5,502	456,636	82,995	2.4%	58
June 30, 2014	5,861	474,873	81,023	2.1%	58

Total and average annual earnings ("valuation pay") are the annualized earnings for the fiscal year ending on the valuation date.

Section 4.5: Active Member Payroll Reconciliation

Payroll Field	Payroll Data (000's)
a) DRB actual reported salaries FY23 in employer list	$ 817,946
b) DRB actual reported salaries FY23 in valuation data	717,639
c) Annualized valuation data	729,279
d) Valuation payroll as of June 30, 2023	760,228
e) Rate payroll for FY24	754,274
f) Rate payroll for FY26	767,012

a) Actual reported salaries from DRB employer listing showing all payroll paid during FY23, including those who were not active as of June 30, 2023
b) Payroll from valuation data for people who are in active status as of June 30, 2023
c) Payroll from (b) annualized for both new entrants and part-timers
d) Payroll from (c) with one year of salary scale applied to estimate salaries payable for the upcoming year
e) Payroll from (d) with the part-timer annualization removed
f) Payroll from (e) with two years of assumed decrements and salary scale, and 0% population growth

Section 4.6: Summary of New Pension Benefit Recipients

During the Year Ending June 30	2019	2020	2021	2022	2023
Service					
1. Number	367	331	447	394	334
2. Average Age at Commencement	59.87	59.71	59.79	58.49	58.97
3. Average Monthly Pension Benefit	$ 3,562	$ 3,693	$ 3,593	$ 4,079	$ 4,092
Survivor (including surviving spouse and DROs)					
1. Number	96	127	145	135	144
2. Average Age at Commencement	74.36	74.16	76.80	73.76	75.00
3. Average Monthly Pension Benefit	$ 1,795	$ 1,903	$ 1,951	$ 2,071	$ 2,052
Disability					
1. Number	5	2	1	0	0
2. Average Age at Commencement	51.51	53.65	54.35	0.00	0.00
3. Average Monthly Pension Benefit	$ 4,182	$ 3,019	$ 4,886	$ 0	$ 0
Total					
1. Number	468	460	593	529	478
2. Average Age at Commencement	62.75	63.67	63.94	62.39	63.80
3. Average Monthly Pension Benefit	$ 3,206	$ 3,196	$ 3,194	$ 3,567	$ 3,477

Summary of New Pension Benefit Recipients

Average Pension Benefit Payments

	Years of Credited Service						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/2022 – 6/30/2023:							
Average Monthly Pension	$ 191	$ 698	$ 1,431	$ 2,705	$ 4,018	$ 4,919	$ 6,375
Average Final Avg Salary	$ 32,298	$ 45,878	$ 69,642	$ 89,836	$ 99,759	$ 103,676	$ 107,194
Number of Recipients	1	9	26	46	118	89	45
Period 7/1/2021 – 6/30/2022:							
Average Monthly Pension	$ 1,073	$ 994	$ 1,828	$ 2,952	$ 3,984	$ 4,743	$ 6,936
Average Final Avg Salary	$ 56,500	$ 63,629	$ 79,736	$ 92,533	$ 98,208	$ 101,942	$ 112,372
Number of Recipients	5	19	15	69	139	101	46
Period 7/1/2020 – 6/30/2021:							
Average Monthly Pension	$ 451	$ 764	$ 1,509	$ 2,684	$ 3,625	$ 4,659	$ 6,090
Average Final Avg Salary	$ 43,545	$ 54,444	$ 71,764	$ 88,437	$ 94,909	$ 97,881	$ 98,847
Number of Recipients	8	24	33	83	142	112	46
Period 7/1/2019 – 6/30/2020:							
Average Monthly Pension	$ 243	$ 1,054	$ 1,647	$ 2,600	$ 3,616	$ 4,874	$ 6,772
Average Final Avg Salary	$ 35,203	$ 70,014	$ 76,621	$ 86,341	$ 91,619	$ 96,657	$ 107,454
Number of Recipients	8	19	26	72	90	78	40
Period 7/1/2018 – 6/30/2019:							
Average Monthly Pension	$ 334	$ 891	$ 1,540	$ 2,760	$ 3,567	$ 4,666	$ 6,777
Average Final Avg Salary	$ 21,317	$ 57,735	$ 72,728	$ 85,580	$ 92,422	$ 96,096	$ 104,880
Number of Recipients	4	23	39	87	93	85	41
Period 7/1/2017 – 6/30/2018:							
Average Monthly Pension	$ 204	$ 899	$ 1,583	$ 2,583	$ 3,422	$ 4,580	$ 6,083
Average Final Avg Salary	$ 34,164	$ 56,061	$ 75,433	$ 85,174	$ 90,449	$ 94,803	$ 102,076
Number of Recipients	5	21	61	85	109	130	57
Period 7/1/2016 – 6/30/2017:							
Average Monthly Pension	$ 426	$ 795	$ 1,626	$ 2,433	$ 3,549	$ 4,536	$ 6,351
Average Final Avg Salary	$ 37,851	$ 56,206	$ 75,706	$ 81,394	$ 91,313	$ 95,651	$ 101,423
Number of Recipients	10	22	60	75	100	64	48
Period 7/1/2015 – 6/30/2016:							
Average Monthly Pension	$ 245	$ 1,002	$ 1,535	$ 2,540	$ 3,445	$ 4,472	$ 6,168
Average Final Avg Salary	$ 33,030	$ 59,102	$ 74,725	$ 85,087	$ 89,590	$ 91,468	$ 98,446
Number of Recipients	11	31	82	69	105	74	54
Period 7/1/2014 – 6/30/2015:							
Average Monthly Pension	$ 349	$ 1,041	$ 1,342	$ 2,205	$ 3,267	$ 4,220	$ 5,900
Average Final Avg Salary	$ 30,580	$ 66,389	$ 66,444	$ 75,510	$ 88,520	$ 90,069	$ 96,693
Number of Recipients	11	33	70	67	137	125	94
Period 7/1/2013 – 6/30/2014:							
Average Monthly Pension	$ 235	$ 904	$ 1,435	$ 2,398	$ 3,016	$ 4,073	$ 7,485
Average Final Avg Salary	$ 32,410	$ 57,124	$ 63,001	$ 75,489	$ 84,962	$ 93,746	$ 111,694
Number of Recipients	8	31	31	28	22	18	12

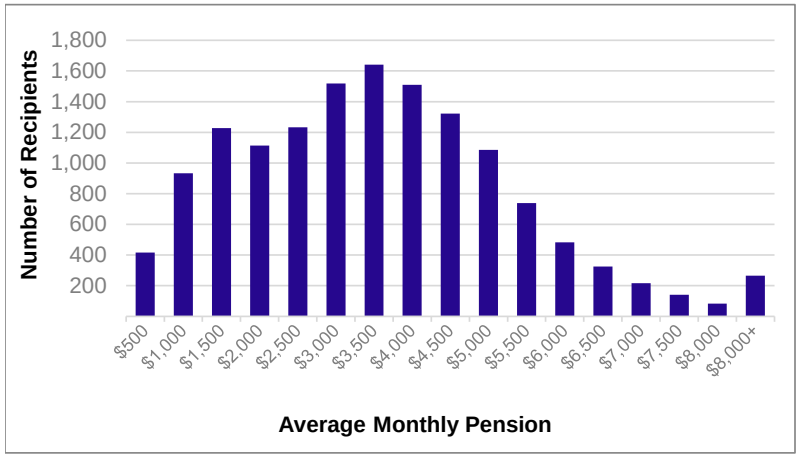
“Average Monthly Pension” includes postretirement pension adjustments and cost-of-living increases.

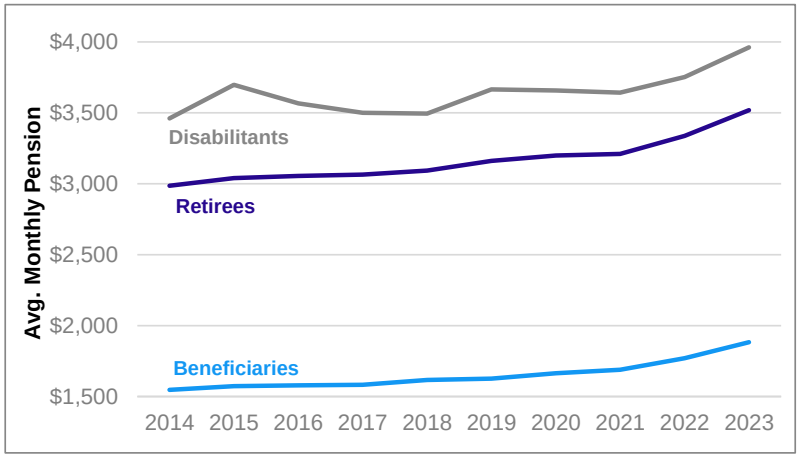
Beneficiaries are not included in the table above.

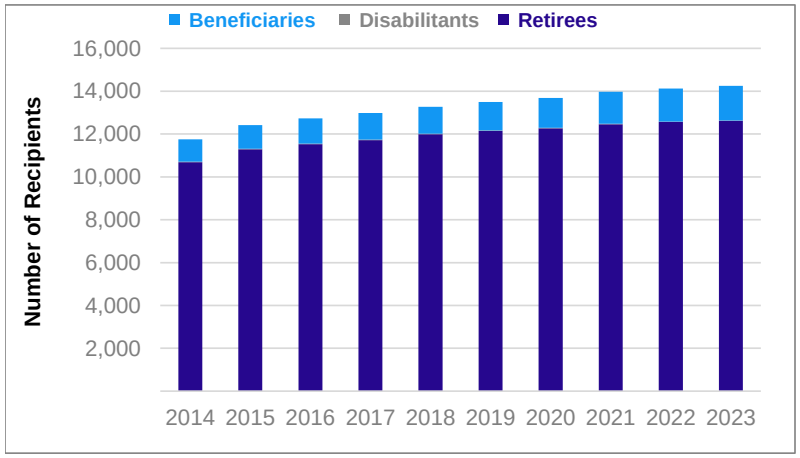
Section 4.7: Summary of All Pension Benefit Recipients

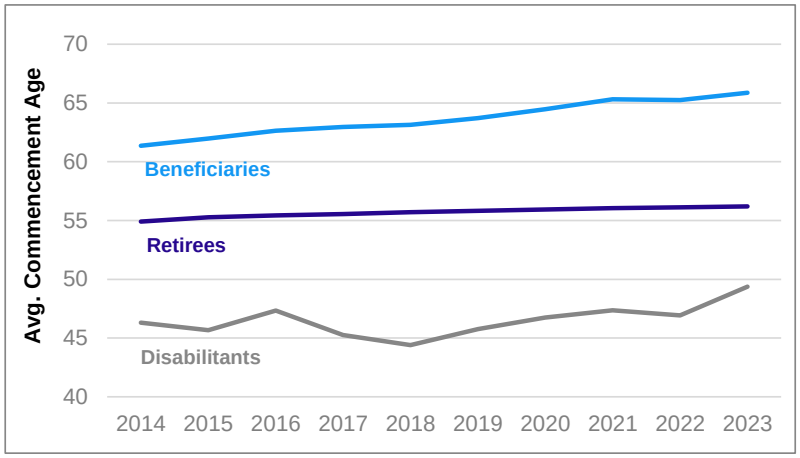
As of June 30	2019	2020	2021	2022	2023
Service					
1. Number, Fiscal Year Start	11,988	12,147	12,267	12,459	12,570
2. Net Change	159	120	192	111	48
3. Number, Fiscal Year End	12,147	12,267	12,459	12,570	12,618
4. Average Age at Commencement	55.82	55.93	56.05	56.12	56.20
5. Average Current Age	70.99	71.50	71.85	72.20	72.64
6. Average Monthly Pension Benefit	$ 3,161	$ 3,199	$ 3,210	$ 3,338	$ 3,519
Surviving Spouse (including DROs)					
1. Number, Fiscal Year Start	1,261	1,315	1,400	1,493	1,540
2. Net Change	54	85	93	47	87
3. Number, Fiscal Year End	1,315	1,400	1,493	1,540	1,627
4. Average Age at Commencement	63.73	64.49	65.32	65.24	65.87
5. Average Current Age	74.65	75.26	75.97	76.13	76.67
6. Average Monthly Pension Benefit	$ 1,629	$ 1,665	$ 1,688	$ 1,770	$ 1,883
Survivor (other than spouse)					
1. Number, Fiscal Year Start	3	3	2	0	0
2. Net Change	0	(1)	(2)	0	0
3. Number, Fiscal Year End	3	2	0	0	0
4. Average Age at Commencement	53.85	53.94	0.00	0.00	0.00
5. Average Current Age	61.65	61.56	0.00	0.00	0.00
6. Average Monthly Pension Benefit	$ 765	$ 705	$ 0	$ 0	$ 0
Disability					
1. Number, Fiscal Year Start	25	26	20	20	16
2. Net Change	1	(6)	0	(4)	(6)
3. Number, Fiscal Year End	26	20	20	16	10
4. Average Age at Commencement	45.75	46.74	47.37	46.92	49.37
5. Average Current Age	51.08	51.73	52.85	53.23	55.92
6. Average Monthly Pension Benefit	$ 3,666	$ 3,658	$ 3,643	$ 3,752	$ 3,962
Total					
1. Number, Fiscal Year Start	13,277	13,491	13,689	13,972	14,126
2. Net Change	214	198	283	154	129
3. Number, Fiscal Year End	13,491	13,689	13,972	14,126	14,255
4. Average Age at Commencement	56.56	56.79	57.02	57.09	57.30
5. Average Current Age	71.30	71.85	72.26	72.60	73.10
6. Average Monthly Pension Benefit	$ 3,014	$ 3,043	$ 3,048	$ 3,167	$ 3,332

Summary of All Pension Benefit Recipients









Summary of All Pension Benefit Recipients

Distribution of Annual Pension Benefits for Benefit Recipients

Annual Pension Benefit by Age

Age	Number	Total Annual Pension Benefit	Average Annual Pension Benefit
0 - 19	0	$ 0	$ 0
20 - 24	0	0	0
25 - 29	0	0	0
30 - 34	0	0	0
35 - 39	0	0	0
40 - 44	4	121,819	30,455
45 - 49	71	2,698,215	38,003
50 - 54	301	14,233,227	47,286
55 - 59	669	31,221,811	46,669
60 - 64	1,503	61,657,733	41,023
65 - 69	2,381	93,695,566	39,351
70 - 74	3,327	125,141,784	37,614
75+	5,999	241,298,719	40,223
Total	**14,255**	**$570,068,874**	**$ 39,991**

Annual Pension Benefit by Years Since Commenced

Years Since Comm.	Number	Total Annual Pension Benefit	Average Annual Pension Benefit
0	431	$ 17,182,334	$ 39,866
1	511	22,794,897	44,608
2	529	22,467,153	42,471
3	458	18,927,677	41,327
4	461	19,203,457	41,656
0 - 4	**2,390**	**$100,575,518**	**$ 42,082**
5 - 9	2,441	101,520,269	41,590
10 - 14	2,216	86,044,106	38,829
15 - 19	2,011	69,779,002	34,699
20 - 24	1,981	71,037,755	35,860
25 - 29	1,843	79,111,475	42,925
30 - 34	748	32,732,829	43,760
35 - 39	495	24,456,921	49,408
40+	130	4,810,999	37,008
Total	**14,255**	**$570,068,874**	**$ 39,991**

Years Since Commencement by Age

	Years Since Commencement									
Age	**0 - 4**	**5 - 9**	**10 - 14**	**15 - 19**	**20 - 24**	**25 - 29**	**30 - 34**	**35 - 39**	**40+**	**Total**
0 - 19	0	0	0	0	0	0	0	0	0	0
20 - 24	0	0	0	0	0	0	0	0	0	0
25 - 29	0	0	0	0	0	0	0	0	0	0
30 - 34	0	0	0	0	0	0	0	0	0	0
35 - 39	0	0	0	0	0	0	0	0	0	0
40 - 44	3	1	0	0	0	0	0	0	0	4
45 - 49	64	7	0	0	0	0	0	0	0	71
50 - 54	251	45	3	1	0	1	0	0	0	301
55 - 59	398	197	62	11	1	0	0	0	0	669
60 - 64	716	439	209	116	19	3	1	0	0	1,503
65 - 69	360	852	609	340	176	42	1	0	1	2,381
70 - 74	222	534	848	803	581	312	24	2	1	3,327
75+	376	366	485	740	1,204	1,485	722	493	128	5,999
Total	**2,390**	**2,441**	**2,216**	**2,011**	**1,981**	**1,843**	**748**	**495**	**130**	**14,255**

Section 4.8: Pension Benefit Recipients by Type of Benefit and Option Elected

Amount of Monthly Pension Benefit	Number of Recipients	Type of Pension Benefit			Option Selected			
		1	2	3	1	2	3	4
$ 1 – 500	416	277	139	0	260	76	65	15
501 – 1,000	934	690	244	0	528	170	181	55
1,001 – 1,500	1,228	955	273	0	737	232	214	45
1,501 – 2,000	1,114	805	309	0	655	216	212	31
2,001 – 2,500	1,233	991	242	0	629	274	284	46
2,501 – 3,000	1,519	1,345	174	0	699	358	419	43
3,001 – 3,500	1,641	1,518	118	5	712	396	483	50
3,501 – 4,000	1,510	1,456	53	1	604	341	520	45
4,001 – 4,500	1,322	1,288	33	1	552	278	452	40
4,501 – 5,000	1,086	1,071	14	1	449	212	395	30
5,001 – 5,500	738	728	9	1	286	143	290	19
5,501 – 6,000	483	473	9	1	196	101	170	16
6,001 – 6,500	325	316	9	0	130	46	132	17
6,501 – 7,000	216	216	0	0	79	36	88	13
7,001 – 7,500	141	140	1	0	49	28	58	6
7,501 – 8,000	84	84	0	0	35	14	31	4
8,000+	265	265	0	0	87	48	116	14
Total	14,255	12,618	1,627	10	6,687	2,969	4,110	489

Type of Pension Benefit
1. Regular Retirement
2. Survivor Payment
3. Disability

Option Selected
1. Whole Life Annuity
2. 75% Joint and Contingent Annuity
3. 50% Joint and Contingent Annuity
4. 66 2/3% Joint and Survivor Annuity

Section 4.9: Pension Benefit Recipients Added to and Removed from Rolls

Year Ended	Added to Rolls		Removed from Rolls		Rolls at End of Year		Percent Increase in Annual Pension Benefits	Average Annual Pension Benefit
	No.[1]	Annual Pension Benefits[1]	No.[1]	Annual Pension Benefits[1]	No.	Annual Pension Benefits		
June 30, 2023	478	$ 19,944,072	349	$(13,224,262)	14,255	$ 570,068,874	6.2%	$ 39,991
June 30, 2022	529	22,643,316	375	(3,174,745)	14,126	536,900,540	5.1%	38,008
June 30, 2021	593	22,728,504	310	11,391,465	13,972	511,082,479	2.3%	36,579
June 30, 2020	460	17,641,920	262	5,527,983	13,689	499,745,440	2.5%	36,507
June 30, 2019	468	18,004,896	254	871,684	13,491	487,631,503	3.6%	36,145
June 30, 2018	555	21,924,986	261	6,926,129	13,277	470,498,291	3.3%	35,437
June 30, 2017	487	17,151,684	230	7,736,025	12,983	455,499,434	2.1%	35,084
June 30, 2016	530	18,364,581	222	6,144,109	12,726	446,083,775	2.8%	35,053
June 30, 2015	888	34,120,658	220	3,531,501	12,418	433,863,303	7.6%	34,938
June 30, 2014	226	5,964,256	181	(1,150,187)	11,750	403,274,146	1.8%	34,321

[1] Numbers are estimated, and include other internal transfers.

Section 5: Basis of the Actuarial Valuation

Section 5.1: Summary of Plan Provisions

Effective Date

July 1, 1955, with amendments through June 30, 2023. Chapter 97, 1990 Session Laws of Alaska, created a two-tier retirement system. Members who were first hired under TRS before July 1, 1990 (Tier 1) are eligible for different benefits than members hired after June 30, 1990 (Tier 2). Chapter 9, 2005 Session Laws of Alaska, closed the plan to new members hired after June 30, 2006. The 2021 Alaska Supreme Court Metcalfe decision allows certain members the option of transferring from the DCR plan to the DB plan.

Administration of Plan

The Commissioner of Administration or the Commissioner's designee is the administrator of the system. The Attorney General of the state is the legal counsel for the system and shall advise the administrator and represent the system in legal proceedings.

Prior to June 30, 2005, the Teachers' Retirement Board prescribed policies and adopted regulations and performed other activities necessary to carry out the provisions of the system. The Alaska State Pension Investment Board, Department of Revenue, Treasury Division was responsible for investing TRS funds.

On July 27, 2005, Senate Bill 141, enacted as Chapter 9, 2005 Session laws of Alaska, replaced the Teachers' Retirement Board and the Alaska State Pension Investment Board with the Alaska Retirement Management Board.

Employers Included

Currently, there are 57 employers participating in TRS, including the State of Alaska, 53 school districts, and three other eligible organizations.

Membership

Membership in TRS is mandatory for the following employees hired before July 1, 2006:

- certificated full-time and part-time elementary and secondary teachers, certificated school nurses, and certificated employees in positions requiring teaching certificates;
- positions requiring a teaching certificate as a condition of employment in the Department of Education and Early Development and the Department of Labor and Workforce Development;
- University of Alaska full-time and part-time teachers, and full-time administrative employees in positions requiring academic standing if approved by the TRS administrator;
- certain full-time or part-time teachers of Alaska Native language or culture who have elected to be covered under TRS;
- members on approved sabbatical leave under AS 14.20.310;
- certain State legislators who have elected to be covered under TRS; and
- a teacher who has filed for worker's compensation benefits due to an on-the-job assault and who, as a result of the physical injury, is placed on leave without pay.

Employees participating in the University of Alaska's Optional Retirement Plan or other retirement plans funded by the State are not covered by TRS.

Employees who work half-time in TRS and Public Employees' Retirement System (PERS) simultaneously are eligible for half-time TRS and PERS credit.

Senate Bill 141, signed into law on July 27, 2005, closes the plan effective July 1, 2006 to new members first hired on or after July 1, 2006.

The 2021 Alaska Supreme Court Metcalfe decision allows certain members the option of transferring from the DCR plan to the DB plan.

Credited Service

TRS members receive a year of membership credit if they work a minimum of 172 days during the school year (July 1 through June 30 of the following year). Fractional credit is determined based on the number of days worked. Part-time members who work at least 50% of full-time receive membership credit for each day in proportion to full-time service. Credit is granted for all Alaskan public school service.

Members may claim other types of service, including:

- Outside teaching service in out-of-state schools or Alaska private schools (not more than ten years may be claimed);
- Military service (not more than five years of military service or ten years of combined outside and military service may be claimed);
- Alaska Bureau of Indian Affairs (BIA) service;
- Retroactive Alaskan service that was not creditable at the time it occurred, but later became creditable because of legislative change;
- Unused sick leave credit after members retire; and
- Leave of absence without pay.

Except for retroactive Alaska service that occurred before July 1, 1955, and unused sick leave, contributions are required for all claimed service.

Members receiving TRS disability benefits continue to earn TRS credit while disabled.

Survivors who are receiving occupational death benefits continue to earn TRS service credit while occupational survivor benefits are being paid.

Employer Contributions

TRS employers contribute the amounts required, in addition to employees' contributions, to fund the benefits of the system.

The normal cost rate is a uniform rate for all participating employers (less the value of members' contributions).

The past service rate is a uniform rate for all participating employers to amortize the unfunded past service liability with payments that are a level percentage of payroll amount over a closed 25-year period starting June 30, 2014. Effective June 30, 2018, each future year's unfunded service liability is separately amortized on a level percent of pay basis over 25 years.

Employer rates cannot be less than the normal cost rate.

Pursuant to AS14.25.070 effective July 1, 2008, each TRS employer will pay a simple uniform contribution rate of 12.56% of member payroll.

Additional State Contributions

Pursuant to AS14.25.085 effective July 1, 2008, the State shall contribute an amount (in addition to the State contribution as an employer) that, when combined with the employer contribution of 12.56%, will be sufficient to pay the total contribution rate adopted by the Board.

Member Contributions

Mandatory Contributions

Members are required to contribute 8.65% of their base salaries. Members' contributions are deducted from gross salaries before federal income taxes are withheld.

Contributions for Claimed Service

Member contributions are also required for most of the claimed service described above.

1% Supplemental Contributions

Members who joined the system before July 1, 1982 and elected to participate in the supplemental contributions provision are required to contribute an additional 1% of their salaries. Supplemental contributions are deducted from gross salaries after federal income taxes are withheld. Under the supplemental provision, an eligible spouse or dependent child will receive a survivor's allowance or spouse's pension if the member dies (see below). Supplemental contributions are only refundable upon death (see below).

Interest

Members' contributions earn 4.5% interest, compounded annually on June 30.

Refund of Contributions

Terminated members may receive refunds of their member contribution accounts which includes their mandatory contributions, indebtedness payments, and interest earned. Terminated members' accounts may be attached to satisfy claims under Alaska Statute 09.38.065, federal income tax levies, and valid Qualified Domestic Relations Orders.

Reinstatement of Contributions

Refunded accounts and the corresponding TRS service may be reinstated upon reemployment in TRS. Interest accrues on refunds until paid in full or members retire.

Retirement Benefits

Eligibility

a. Members, including deferred vested members, are eligible for normal retirement at age 55 or early retirement at age 50 if they were hired before July 1, 1990 (Tier 1), and age 60 or early retirement at age 55 if they were hired on or after July 1, 1990 (Tier 2). Additionally, they must have at least:

   (i) eight years of paid-up membership service;

   (ii) 15 years of paid-up creditable service, the last five years of which are membership service, and they were first hired under TRS before July 1, 1975;

   (iii) five years of paid-up membership service and three years of paid-up Alaska Bureau of Indian Affairs service;

   (iv) 12 years of combined part-time and full-time paid-up membership service;

   (v) two years of paid-up membership service if they are vested in PERS; or

   (vi) one year of paid-up membership service if they are retired from PERS.

b. Members may retire at any age when they have:

   (i) 25 years of paid-up creditable service, the last five years of which are membership service;

   (ii) 20 years of paid-up membership service;

   (iii) 20 years of combined paid-up membership and Alaska Bureau of Indian Affairs service, the last five years of which are membership service; or

   (iv) 20 years of combined paid-up part-time and full-time membership service.

Benefit Type

Lifetime benefits are paid to members. Eligible members may receive normal, unreduced benefits when they (1) reach normal retirement age and complete the service required; or (2) satisfy the minimum service requirements to retire at any age under (b) above. Members may receive early, actuarially reduced benefits when they reach early retirement age and complete the service required.

Members may select joint and survivor options and a last survivor option. Under these options and early retirement, benefits are actuarially adjusted so that members receive the actuarial equivalents of their normal benefit amounts.

Benefit Calculations

Retirement benefits are calculated by multiplying the average base salary (ABS) times the total TRS service times the percentage multiplier. The ABS is determined by averaging the salaries earned during the three highest school years. Members must earn at least 115 days of credit in a school year to include it in the ABS calculation. TRS pays a minimum benefit of $25 per month for each year of service when the calculated benefit is less.

The percentage multipliers are 2% for the first 20 years and 2.5% for all remaining service. Service before July 1, 1990 is calculated at 2%.

Salaries are subject to compensation limits under IRC 401(a)(17) for members first hired on or after July 1, 1996. Retirement benefit amounts are subject to IRC 415(b) limits regardless of hire date.

Indebtedness

Members who terminate and refund their TRS contributions are not eligible to retire unless they return to TRS employment and pay back their refunds plus interest or accrue additional service which qualifies them for retirement. TRS refunds must be paid in full if the corresponding service is to count toward the minimum service requirements for retirement. Refunded TRS service is included in total service for the purpose of calculating retirement benefits. However, when refunds are not completely paid before retirement, benefits are actuarially reduced for life. Indebtedness balances may also be created when a member purchases qualified claimed service.

Reemployment of Retired Members

Retirees who return to work in a permanent full-time or part-time TRS position after a normal retirement are eligible to return under the Standard Option.

Under the Standard Option, retirement and retiree healthcare benefits are suspended while retired members are reemployed under TRS. During reemployment, members earn additional TRS service and contributions are withheld from their wages.

Members retired under the Retirement Incentive Programs (RIPs) who return to employment will:

a. forfeit the three years of incentive credits that they received;

b. owe TRS 110% of the benefits that they received under the RIP, which may include costs for health insurance, excluding amounts that they paid to participate; and

c. be charged 7% interest from the date that they are reemployed until their indebtedness is paid in full or they retire again. If the indebtedness is not completely paid, future benefits will be actuarially reduced for life.

Employers make contributions to the unfunded liability of the plan on behalf of rehired retired members at the rate the employer is making contributions to the unfunded liability of the plan for other members.

Postemployment Healthcare Benefits

When pension benefits begin, major medical benefits are provided by TRS to (1) all employees first hired before July 1, 1990 (Tier 1) and their surviving spouses and (2) members and their surviving spouses who have 25 years of membership service, are disabled or age 60 or older, regardless of their initial hire dates. Employees first hired after June 30, 1990 (Tier 2) and their surviving spouses may receive major medical benefits prior to age 60 by paying premiums.

Medical, prescription drug, dental, vision, and audio coverage is provided through the AlaskaCare Retiree Health Plan. Health plan provisions do not vary by retirement tier or age, except for Medicare coordination. Participants in dental, vision, and audio coverage pay a full self-supporting rate and those benefits are not included in this valuation.

Starting in 2022, prior authorization is required for certain specialty medications for all participants. There is no change to the medications that are covered by the plan.

Starting in 2022, certain preventive benefits for pre-Medicare participants are covered by the plan.

Surviving spouses continue coverage only if a pension payment form that provided survivor benefits was elected. Alternate payees (i.e. individuals who are the subject of a domestic relations order or DRO) are allowed to participate in the plan, but must pay the full cost.

Where premiums are required prior to age 60 (Tier 2), the valuation bases this payment upon the age of the retiree.

Participants in the defined benefit plan are covered under the following benefit design:

Plan Feature	Amounts
Deductible (single/family)	$150 / $450
Coinsurance (most services)	20%
Outpatient surgery/testing	0%
Maximum Out-of-Pocket (single/family, excluding deductible)	$800 / $2,400
Rx Copays (generic/brand/mail-order), does not apply to OOP max	$4 / $8 / $0
Lifetime Maximum	$2,000,000

The plan coordinates with Medicare on a traditional Coordination of Benefits Method. Starting in 2019, the prescription drug coverage is through a Medicare Part D EGWP arrangement.

Disability Benefits

Monthly disability benefits are paid to permanently disabled members until they die, recover, or become eligible for normal retirement. To be eligible, members must have at least five years of paid-up membership service.

Disability benefits are equal to 50% of the member's base salary at the time of disability. The benefit is increased by 10% of the base salary for each minor child, up to a maximum of 40%. Members continue to earn TRS service until eligible for normal retirement.

Members are appointed to normal retirement on the first of the month after they become eligible.

Death Benefits

Death benefits may be paid to a spouse, dependent children, or a designated beneficiary upon the death of a member.

Occupational Death

When an active member dies from occupational causes, a monthly survivor's pension may be paid to the spouse or to the member's dependent children if there is no spouse, unless benefits are payable under the supplemental contributions provision. The pension equals 40% of the member's base salary on the date of death or disability. On the member's normal retirement date, the benefit converts to a normal retirement benefit based on the member's average base salary on the date of death and TRS service, including service accumulated from the date of death to normal retirement date.

If there is no surviving spouse or dependent children, the designated beneficiary receives the member's contribution account, which includes mandatory contributions, supplemental contributions, indebtedness payments, and interest earned. The designated beneficiary also receives a lump sum payment equal to $1,000 plus $100 for each year of TRS service, up to a maximum of $3,000.

Non-Occupational Death

When a vested member dies from non-occupational causes, the surviving spouse may elect to receive a monthly 50% joint and survivor benefit or a lump sum benefit (see below), unless benefits are payable under the supplemental contributions provision. The monthly benefit is based on the member's average base salary and TRS service accrued on the date of death.

Upon the death of an active member who has less than one year of service or an inactive member who is not vested, the designated beneficiary receives the member's contribution account, which includes mandatory contributions, supplemental contributions, indebtedness payments, and interest earned. If the member has more than one year of TRS service or is vested, the designated beneficiary also receives a lump sum payment equal to $1,000 plus $100 for each year of TRS service, up to a maximum of $3,000. An additional $500 may be payable if the member is survived by dependent children.

Supplemental Contributions Provision

Members are eligible for supplemental coverage if they joined TRS before July 1, 1982, elected to participate in the supplemental provision, and made the required contributions. A survivor's allowance or spouse's pension may be payable if the member made supplemental contributions for at least one year and dies while in membership service or while disabled under TRS. In addition, the allowance and pension may be payable if the member dies while retired or in deferred vested status if supplemental contributions were made for at least five years.

Survivor's Allowance

If the member is survived by dependent children, the surviving spouse and dependent children are entitled to a survivor's allowance. The allowance for the spouse is equal to 35% of the member's base salary at the time of death or disability, plus 10% for each dependent child up to a maximum of 40%. The allowance terminates and a spouse's pension becomes payable when there is no longer an eligible dependent child.

Spouse's Pension

A monthly spouse's pension is payable to the surviving spouse if there are no dependent children. The spouse's pension is equal to 50% of the retirement benefit that the deceased member was receiving or the unreduced retirement benefit that the deceased member would have received if retired at the time of death. The spouse's pension begins on the first of the month after the member's death or termination of the survivor's allowance.

Death After Retirement

If a joint and survivor option was selected at retirement, the eligible spouse receives continuing, lifetime monthly benefits after the member dies. A survivor's allowance or spouse's pension may be payable if the member participated in the supplemental contributions provision. If a joint and survivor option was not selected and benefits are not payable under the supplemental contributions provision, the designated beneficiary receives the member's contribution account, less any benefits already paid and the member's last benefit check.

Postretirement Pension Adjustments

Postretirement pension adjustments (PRPAs) are granted annually to eligible benefit recipients when the consumer price index (CPI) for urban wage earners and clerical workers for Anchorage increases during the preceding calendar year. PRPAs are calculated by multiplying the recipient's base benefit including past PRPAs, but excluding the Alaska COLA, times:

a. The lesser of 75% of the CPI increase in the preceding calendar year or 9% if the recipient is at least age 65 or on TRS disability; or
b. The lesser of 50% of the CPI increase in the preceding calendar year or 6% if the recipient is at least age 60, or under age 60 if the recipient has been receiving benefits for at least eight years.

Ad hoc PRPAs, up to a maximum of 4%, may be granted to eligible recipients who were first hired before July 1, 1990 (Tier 1) if the CPI increases and the funded ratio is at least 105%.

In a year where an ad hoc PRPA is granted, eligible recipients will receive the higher of the two calculations.

Alaska Cost-of-Living Allowance (COLA)

Eligible benefit recipients who reside in Alaska receive an Alaska COLA equal to 10% of their base benefits. The following benefit recipients are eligible:

a. members who were first hired under TRS before July 1, 1990 (Tier 1) and their survivors;
b. members who were first hired under TRS after June 30, 1990 (Tier 2) and their survivors if they are at least age 65; and
c. all disabled members.

Changes in Benefit Provisions Valued Since the Prior Valuation

There were no changes in benefit provisions since the prior valuation.

Section 5.2: Description of Actuarial Methods and Valuation Procedures

The funding method used in this valuation was adopted by the Board in October 2006. Changes in methods were adopted by the Board in January 2019 based on the experience study for the period July 1, 2013 to June 30, 2017. The asset smoothing method used to determine valuation assets was changed effective June 30, 2014.

Benefits valued are those delineated in Alaska State statutes as of the valuation date. Changes in State statutes effective after the valuation date are not taken into consideration in setting the assumptions and methods.

Actuarial Cost Method

Liabilities and contributions shown in the report are computed using the Entry Age Normal Actuarial Cost Method, level percent of pay.

Effective June 30, 2018, the Board adopted a layered UAAL amortization method: Layer #1 equals the sum of (i) the UAAL at June 30, 2018 based on the 2017 valuation, plus (ii) the FY18 experience gain/loss. Layer #1 is amortized over the remainder of the 25-year closed period that was originally established in 2014[1]. Layer #2 equals the change in UAAL at June 30, 2018 due to the experience study and EGWP implementation. Layer #2 is amortized over a separate closed 25-year period starting in 2018. Future layers will be created each year based on the difference between actual and expected UAAL occurring that year, and will be amortized over separate closed 25-year periods. The UAAL amortization continues to be on a level percent of pay basis. State statutes allow the contribution rate to be determined on payroll for all members, defined benefit and defined contribution member payroll combined.

Projected pension and postemployment healthcare benefits were determined for all active members. Cost factors designed to produce annual costs as a constant percentage of each member's expected compensation in each year from the assumed entry age to the assumed retirement age were applied to the projected benefits to determine the normal cost (the portion of the total cost of the plan allocated to the current year under the method). The normal cost is determined by summing intermediate results for active members and determining an average normal cost rate which is then related to the total payroll of active members. The actuarial accrued liability for active members (the portion of the total cost of the plan allocated to prior years under the method) was determined as the excess of the actuarial present value of projected benefits over the actuarial present value of future normal costs.

The actuarial accrued liability for retired members and their beneficiaries currently receiving benefits, terminated vested members and disabled members not yet receiving benefits was determined as the actuarial present value of the benefits expected to be paid. No future normal costs are payable for these members.

The actuarial accrued liability under this method at any point in time is the theoretical amount of the fund that would have been accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date). The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over the actuarial value of plan assets measured on the valuation date.

Under this method, experience gains or losses, i.e., decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust the unfunded actuarial accrued liability.

[1] Layer #1 is referred to as "initial amount" in Sections 1.2 and 1.3.

Valuation of Assets

The actuarial asset value was reinitialized to equal Fair Value of Assets as of June 30, 2014. Beginning in FY15, the asset valuation method recognizes 20% of the gain or loss each year, for a period of five years. All assets are valued at fair value. Assets are accounted for on an accrued basis and are taken directly from financial statements audited by KPMG LLP.

Changes in Methods Since the Prior Valuation

There were no changes in the asset or valuation methods since the prior valuation.

Valuation of Retiree Medical and Prescription Drug Benefits

This section outlines the detailed methodology used in the internal model developed by Buck to calculate the initial per capita claims cost rates for the TRS postemployment healthcare plan. Note that the methodology reflects the results of our annual experience rate update for the period from July 1, 2022 to June 30, 2023.

Base claims cost rates are incurred healthcare costs expressed as a rate per member per year. Ideally, claims cost rates should be derived for each significant component of cost that can be expected to require differing projection assumptions or methods (i.e., medical claims, prescription drug claims, administrative costs, etc.). Separate analysis is limited by the availability and historical credibility of cost and enrollment data for each component of cost. This valuation reflects non-prescription claims separated by Medicare status, including eligibility for free Part A coverage. Prescription costs are analyzed separately as in prior valuations. Administrative costs are assumed in the final per capita claims cost rates used for valuation purposes, as described below. Analysis to date on Medicare Part A coverage is limited since Part A claim data is not available by individual, nor is this status incorporated into historical claim data.

Benefits

Medical, prescription drug, dental, vision and audio coverage is provided through the AlaskaCare Retiree Health Plan and is available to employees of the State and subdivisions who meet retirement criteria based on the retirement plan tier in effect at their date of hire. Health plan provisions do not vary by retirement tier or age, except for Medicare coordination for those Medicare-eligible. Dental, vision and audio claims (DVA) are excluded from data analyzed for this valuation because those are retiree-pay all benefits where rates are assumed to be self-supporting. Buck relies upon rates set by a third-party for the DVA benefits. Buck reviewed historical rate-setting information and views contribution rate adjustments made are not unreasonable.

Administration and Data Sources

The plan was administered by Wells Fargo Insurance Services (acquired by HealthSmart, in January 2012) from July 1, 2009 through December 31, 2013 and by Aetna effective January 1, 2014.

Claims incurred for the period from July 2021 through June 2023 (FY22 through FY23) were provided by the State of Alaska from reports extracted from their data warehouse, which separated claims by Medicare status. Monthly enrollment data for the same period was provided by Aetna.

Aetna also provided census information identifying Medicare Part B only participants. These participants are identified when hospital claims are denied by Medicare; Aetna then flags that participant as a Part B only participant. Buck added newly identified participants to our list of Medicare Part B only participants. Buck assumes that once identified as Part B only, that participant remains in that status until we are notified otherwise.

Aetna provided a snapshot file as of July 1, 2023 of retirees and dependents that included a coverage level indicator. The monthly enrollment data includes double coverage participants. These are participants whereby both the retiree and spouse are retirees from the State and both are reflected with Couple coverage in the enrollment. In this case, such a couple would show up as four members in the

monthly enrollment (each would be both a retiree and a spouse). As a result, the snapshot census file was used to adjust the total member counts in the monthly enrollment reports to estimate the number of unique participants enrolled in coverage. Based on the snapshot files from the last two valuations, the total member count in the monthly enrollment reports needs to be reduced by approximately 13% to account for the number of participants with double coverage.

Aetna does not provide separate experience by Medicare status in standard reporting, so the special reports mentioned above from the data warehouse were used this year to obtain that information and incorporate it into the per capita rate development for each year of experience (with corresponding weights applied in the final per capita cost).

Methodology

Buck projected historical claim data to FY24 for retirees using the following summarized steps:

1. Develop historical annual incurred claim cost rates – an analysis of medical costs was completed based on claims information and enrollment data provided by the State of Alaska and Aetna for each year in the experience period of FY22 through FY23.
    - Costs for medical services and prescriptions were analyzed separately, and separate trend rates were developed to project expected future medical and prescription costs for the valuation year (e.g., from the experience period up through FY24).
    - Because the reports provided reflected incurred claims, no additional adjustment was needed to determine incurred claims to be used in the valuation.
    - An offset for costs expected to be reimbursed by Medicare was incorporated beginning at age 65. Alaska retirees who do not have 40 quarters of Medicare-covered compensation do not qualify for Medicare Part A coverage free of charge. This is a relatively small and closed group. Medicare was applied to State employment for all employees hired after March 31, 1986. For the “no-Part A” individuals who are required to enroll in Medicare Part B, the State is the primary payer for hospital bills and other Part A services. Claims experience is not available separately for participants with both Medicare Parts A and B and those with Part B only. For Medicare Part B only participants, a lower average claims cost was applied to retirees covered by both Medicare Part A and B vs. retirees covered only by Medicare Part B based upon manual rate models that estimate the Medicare covered proportion of medical costs. To the extent that no-Part A claims can be isolated and applied strictly to the appropriate closed group, actuarial accrued liability will be more accurate.
    - Based on census data received from Aetna, less than 1% of the current retiree population was identified as having coverage only under Medicare Part B. We assume that 2% of actives hired before April 1, 1986 and current retirees who are not yet Medicare eligible will not be eligible for Medicare Part A.
    - Based upon a reconciliation of valuation census data to the snapshot eligibility files provided by Aetna as of July 1, 2022, and July 1, 2023, Buck adjusted member counts used for duplicate records where participants have double coverage; i.e. primary coverage as a retiree and secondary coverage as the covered spouse of another retiree. This is to reflect the total cost per distinct individual/member which is then applied to distinct members in the valuation census.
    - Buck understands that pharmacy claims reported do not reflect rebates. Based on actual pharmacy rebate information provided by Optum, rebates were assumed to be 20.1% of pre-Medicare, and 13.5% of Medicare prescription drug claims for FY22; and 31.8% of pre-Medicare, and 16.4% of Medicare prescription drug claims for FY23.
2. Develop estimated EGWP reimbursements – Segal provided estimated 2024 EGWP subsidies, developed with the assistance of OptumRx. These amounts are applicable only to Medicare-eligible participants.

3. Adjust for claim fluctuation, anomalous experience, etc. – explicit adjustments are often made for anticipated large claims or other anomalous experience. FY22 and FY23 experience was thoroughly reviewed to assess the impact of COVID-19 and whether an adjustment to FY22 and FY23 claims was appropriate for use in the June 30, 2023 valuation. Total medical and prescription drug claims experience for FY22 and FY23 was reasonable when compared to pre-COVID levels, so no adjustments were used in the per capita claims cost development. In addition, we did not make any large claim adjustments due to group size and demographics. We do blend both Alaska plan-specific and national trend factors as described below. Buck compared data utilized to lag reports and quarterly plan experience presentations provided by the State and Aetna to assess accuracy and reasonableness of data.
4. Trend all data points to the projection period – project prior years' experience forward to FY24 for retiree benefits on an incurred claim basis. Trend factors derived from historical Alaska-specific experience and national trend factors are shown in the table in item 5 below.
5. Apply credibility to prior experience – adjust prior year's data by assigning weight to recent periods, as shown at the right of the table below. The Board approved a change in the weighting of experience periods beginning with the June 30, 2017 valuation as outlined below. Note also that for FY23 to FY24 medical and both years of prescription drugs, we averaged projected plan costs using Alaska-specific trend factors and national trend factors, assigning 75% weight to Alaska-specific trends and 25% to national trends. For FY22 to FY23 medical, we applied 100% weight to national trends because the Alaska-specific trends were impacted by COVID-19:

Alaska-Specific and National Average Weighted Trend from Experience Period to Valuation Year

Experience Period	Medical	Prescription	Weighting Factors
FY22 to FY23	7.4% Pre-Medicare / 5.6% Medicare	9.5%	50%
FY23 to FY24	11.1% Pre-Medicare / 7.4% Medicare	10.4%	50%

Trend assumptions used for rate development are assessed annually and as additional/improved reporting becomes available, we will incorporate into rate development as appropriate.

6. Starting in 2022, prior authorization is required for certain specialty medications. There is no change to the medications that are covered by the plan. Segal provided an estimate of the impact of this change to the DB retiree health plan cost for calendar year 2022. The resulting adjustment factors for pre-Medicare prescription drug, Medicare prescription drug, and EGWP costs were applied to claims experience incurred before January 1, 2022. Additionally, starting in 2022, certain preventive benefits for pre-Medicare participants are covered by the plan. Segal provided an estimate of the impact of this change to the DB retiree health plan cost for calendar year 2022. The resulting adjustment factor for pre-Medicare medical costs was applied to claims experience incurred before January 1, 2022.
7. Develop separate administration costs – no adjustments were made for internal administrative costs. Third party retiree plan administration fees for FY24 are based upon total fees projected to 2024 by Segal based on actual FY23 fees. The annual per participant per year administrative cost rate for medical and prescription benefits is $497.

Healthcare Reform

Healthcare Reform legislation passed on March 23, 2010 included several provisions with potential implications for the State of Alaska Retiree Health Plan liability. Buck evaluated the impact due to these provisions.

Because the State plan is retiree-only, and was in effect at the time the legislation was enacted, not all provisions of the health reform legislation apply to the State plan. Unlimited lifetime benefits and

dependent coverage to age 26 are two of these provisions. We reviewed the impact of including these provisions, but there was no decision made to adopt them, and no requirement to do so.

Because Transitional Reinsurance fees are only in effect until 2016, we excluded these for valuation purposes.

The Further Consolidated Appropriations Act, 2020 passed in December 2019 repealed several healthcare-related taxes, including the Cadillac Tax.

The Tax Cuts and Jobs Act passed in December 2017 included the elimination of the individual mandate penalty and changed the inflation measure for purposes of determining the limits for the High Cost Excise Tax to use chained CPI. It is our understanding the law does not directly impact other provisions of the ACA. While the nullification of the ACA's individual mandate penalty does not directly impact employer group health plans, it could contribute to the destabilization of the individual market and increase the number of uninsured. Such destabilization could translate to increased costs for employers. We have considered this when setting our healthcare cost trend assumptions and will continue to monitor this issue.

The Inflation Reduction Act was signed into law on August 16, 2022. The law contains several provisions that are expected to impact Alaska's Medicare prescription drug plan (EGWP), which will be considered at the next measurement date.

We have not identified any other specific provisions of healthcare reform or its potential repeal that would be expected to have a significant impact on the measured obligation. We will continue to monitor legislative activity.

Data

In accordance with actuarial standards, we note the following specific data sources and steps taken to value retiree medical benefits:

The Division of Retirement and Benefits provided pension valuation census data, which for people currently in receipt of healthcare benefits was supplemented by coverage data from the healthcare claims administrator (Aetna).

Certain adjustments and assumptions were made to prepare the data for valuation:

- All records provided with retiree medical coverage on the Aetna data were included in this valuation and we relied on the Aetna data as the source of medical coverage for current retirees and their dependents.
- Some records in the Aetna data were duplicates due to the double coverage (i.e. coverage as a retiree and as a spouse of another retiree) allowed under the plan. Records were adjusted for these members so that each member was only valued once. Any additional value of the double coverage (due to coordination of benefits) is small and reflected in the per capita costs.
- Covered children included in the Aetna data were valued until age 23, unless disabled. We assumed that those dependents over 23 were only eligible and valued due to being disabled.
- For individuals included in the pension data expecting a future pension, we valued health benefits starting at the same point that the pension benefit is assumed to start.
- Some records in the pension data were duplicates due to being a covered spouse in the Aetna data. Records were adjusted for these members so that each inactive member was only valued once, removing the record that came in through the pension data.

We are not aware of any other data issues that would be expected to have a material impact on the results and there are no unresolved matters related to the data.

The chart below shows the basis of setting the per capita claims cost assumption, which includes both PERS and TRS.

	Medical		Prescription Drugs (Rx)	
	Pre-Medicare	**Medicare**	**Pre-Medicare**	**Medicare**
A. Fiscal 2022				
1. Incurred Claims	$ 197,733,173	$ 98,249,082	$ 64,076,270	$ 230,832,315
2. Adjustments for Rx Rebates	0	0	(12,879,330)	(31,162,363)
3. Net incurred claims	$ 197,733,173	$ 98,249,082	$ 51,196,940	$ 199,669,953
4. Average Enrollment	17,072	48,698	17,072	48,698
5. Claim Cost Rate (3) / (4)	11,582	2,018	2,999	4,100
6. Trend to Fiscal 2024	1.193	1.134	1.207	1.207
7. Fiscal 2024 Incurred Cost Rate (5) x (6)	$ 13,820	$ 2,288	$ 3,619	$ 4,948
8. Adjustment Factor for 2022 Plan Changes	1.007	1.000	0.957	0.988
9. Adjusted Fiscal 2024 Incurred Cost Rate (7) x (8)	$ 13,916	$ 2,288	$ 3,462	$ 4,888
B. Fiscal 2023				
1. Incurred Claims	$ 211,125,808	$ 110,136,448	$ 66,184,443	$ 264,456,476
2. Adjustments for Rx Rebates	0	0	(21,046,653)	(43,370,862)
3. Net incurred claims	$ 211,125,808	$ 110,136,448	$ 45,137,790	$ 221,085,614
4. Average Enrollment	16,250	50,465	16,250	50,465
5. Claim Cost Rate (3) / (4)	12,992	2,182	2,778	4,381
6. Trend to Fiscal 2024	1.111	1.074	1.102	1.102
7. Fiscal 2024 Incurred Cost Rate (5) x (6)	$ 14,434	$ 2,344	$ 3,061	$ 4,828
8. Adjustment Factor for 2022 Plan Changes	1.000	1.000	1.000	1.000
9. Adjusted Fiscal 2024 Incurred Cost Rate (7) x (8)	$ 14,434	$ 2,344	$ 3,061	$ 4,828

	Medical		Prescription Drugs (Rx)	
	Pre-Medicare	**Medicare**	**Pre-Medicare**	**Medicare**
C. Adjusted Incurred Cost Rate by Fiscal Year				
1. Fiscal 2022 A.(9)	13,916	2,288	3,462	4,888
2. Fiscal 2023 B.(9)	14,434	2,344	3,061	4,828
D. Weighting by Fiscal Year				
1. Fiscal 2022	50%	50%	50%	50%
2. Fiscal 2023	50%	50%	50%	50%
E. Fiscal 2024 Incurred Cost Rate				
1. Rate at Average Age C x D	$ 14,175	$ 2,316	$ 3,261	$ 4,858
2. Average Aging Factor	0.818	1.288	0.826	1.130
3. Rate at Age 65 (1) / (2)	$ 17,338	$ 1,798	$ 3,947	$ 4,300
F. Development of Part A&B and Part B Only Cost from Pooled Rate Above				
1. Part A&B Average Enrollment		50,007		
2. Part B Only Average Enrollment		459		
3. Total Medicare Average Enrollment B(4)		50,465		
4. Cost ratio for those with Part B only to those with Parts A&B		3.300		
5. Factor to determine cost for those with Parts A&B (2) / (3) x (4) + (1) / (3) x 1.00		1.021		
6. Medicare per capita cost for all participants: E(3)		$ 1,798		
7. Cost for those eligible for Parts A&B: (6) / (5)		$ 1,761		
8. Cost for those eligible for Part B only: (7) x (4)		$ 5,812		

Following the development of total projected costs, a distribution of per capita claims cost was developed. This was accomplished by allocating total projected costs to the population census used in the valuation. The allocation was done separately for each of prescription drugs and medical costs for the Medicare eligible and pre-Medicare populations. The allocation weights were developed using participant counts by age and assumed morbidity and aging factors. Results were tested for reasonableness based on historical trend and external benchmarks for costs paid by Medicare.

Below are the results of this analysis:

Distribution of Per Capita Claims Cost by Age
for the Period July 1, 2023 through June 30, 2024

Age	Medical and Medicare Parts A & B	Medical and Medicare Part B Only	Prescription Drug	Medicare EGWP Subsidy
45	$ 10,581	$ 10,581	$ 2,533	$ 0
50	11,971	11,971	3,009	0
55	13,544	13,544	3,573	0
60	15,324	15,324	3,755	0
65	1,761	5,812	4,300	1,267
70	1,944	6,417	4,771	1,406
75	2,147	7,085	5,293	1,560
80	2,393	7,899	5,214	1,536

Section 5.3: Summary of Actuarial Assumptions

The demographic and economic assumptions used in the June 30, 2023 valuation are described below. Unless noted otherwise, these assumptions were adopted by the Board at the June 2022 meeting based on the experience study for the period July 1, 2017 to June 30, 2021.

Investment Return

7.25% per year, net of investment expenses.

Salary Scale

Salary scale rates based on the 2017-2021 actual experience (see Table 1).

Inflation – 2.50% per year.

Productivity – 0.25% per year.

Payroll Growth

2.75% per year (inflation + productivity).

Total Inflation

Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase 2.50% annually.

Mortality (Pre-Commencement)

Mortality rates based on the 2017-2021 actual experience, to the extent the experience was statistically credible.

- Pension: Pub-2010 Teachers Employee table, amount-weighted, and projected with MP-2021 generational improvement.
- Healthcare: Pub-2010 Teachers Employee table, headcount-weighted, and projected with MP-2021 generational improvement.

Deaths are assumed to result from occupational causes 15% of the time.

Mortality (Post-Commencement)

Mortality rates based on the 2017-2021 actual experience, to the extent the experience was statistically credible.

Retiree mortality in accordance with the following tables:

- Pension: 97% of male and 97% of female rates of the Pub-2010 Teachers Retiree table, amount-weighted, and projected with MP-2021 generational improvement.
- Healthcare: 98% of male and 100% of female rates of the Pub-2010 Teachers Retiree table, headcount-weighted, and projected with MP-2021 generational improvement.

Beneficiary mortality in accordance with the following tables. These tables are applied only after the death of the original member.

- Pension: 100% of male and 95% of female rates of the Pub-2010 Contingent Survivor table, amount-weighted, and projected with MP-2021 generational improvement.
- Healthcare: 100% of male and 94% of female rates of the Pub-2010 Contingent Survivor table, headcount-weighted, and projected with MP-2021 generational improvement.

Turnover

Select and ultimate rates based on the 2017-2021 actual experience (see Table 2).

Disability

No changes to the incidence rates from the prior valuation due to insufficient 2017-2021 actual experience (see Table 3). Disability rates cease once a member is eligible for retirement.

Post-disability mortality in accordance with the following tables:

- Pension: Pub-2010 Non-Safety Disabled Retiree table, amount-weighted, and projected with MP-2021 generational improvement.
- Healthcare: Pub-2010 Non-Safety Disabled Retiree table, headcount-weighted, and projected with MP-2021 generational improvement.

Retirement

Retirement rates based on the 2017-2021 actual experience (see Table 4).

Deferred vested members are assumed to retire at their earliest unreduced retirement date.

The modified cash refund annuity is valued as a three-year certain and life annuity.

Spouse Age Difference

Male members are assumed to be three years older than their wives. Female members are assumed to be two years younger than their husbands.

Percent Married for Pension

85% of male members and 75% of female members are assumed to be married at termination from active service.

Dependent Spouse Medical Coverage Election

Applies to members who do not have double medical coverage. 60% of male members and 50% of female members are assumed to be married and cover a dependent spouse.

Dependent Children

- Pension: For the participants who are assumed to be married, those between ages 25 and 45 are assumed to have two dependent children.
- Healthcare: Benefits for dependent children have been valued only for members currently covering their dependent children. These benefits are only valued through the dependent children's age 23 (unless the child is disabled).

Imputed Data

Data changes from the prior year which are deemed to have an immaterial impact on liabilities and contribution rates are assumed to be correct in the current year's client data.

Non-vested terminations with appropriate refund dates are assumed to have received a full refund of contributions. Active members with missing salary and service are assumed to be terminated with status based on their vesting percentage.

Active Data Adjustment

No adjustment was made to reflect participants who terminate employment before the valuation date and are subsequently rehired after the valuation date.

Administrative Expenses

The Normal Cost as of June 30, 2023 was increased by the following amounts. These amounts are based on the average of actual administrative expenses during the last two fiscal years. For projections, the percent increase was assumed to remain constant in future years.

- Pension: $3,558,000
- Healthcare: $1,956,000

Rehire Assumption

The Normal Cost used for determining contribution rates and in the projections includes a rehire assumption to account for anticipated rehires. The Normal Cost shown in the report includes the following assumptions based on the four years of rehire loss experience through June 30, 2021. For projections, these assumptions were assumed to grade to zero uniformly over a 20-year period.

- Pension: 12.00%
- Healthcare: 0.20%

Re-Employment Option

All re-employed retirees are assumed to return to work under the Standard Option.

Service

Total credited service is provided by the State. This service is assumed to be the only service that should be used to calculate benefits. Additionally, the State provides claimed service (including Bureau of Indian Affairs Service). Claimed service is used for vesting and eligibility purposes as described in Section 5.1.

Part-Time Service

Part-time employees are assumed to earn 0.75 years of credited service per year.

Unused Sick Leave

5.25 days of unused sick leave for each year of service are assumed to be available to be credited once the member is retired, terminates, or dies.

Final Average Earnings

Final Average Earnings is provided on the data for active members. This amount is used as a minimum in the calculation of the average earnings in the future.

Contribution Refunds

0% of terminating members with vested benefits are assumed to have their contributions refunded. 100% of those with non-vested benefits are assumed to have their contributions refunded.

Early Retirement Factors

State of Alaska staff provided the early retirement factors, which reflect grandfathered factors.

Alaska Cost-of-Living Adjustments (COLA)

Of those benefit recipients who are eligible for the Alaska COLA, 60% are assumed to remain in Alaska and receive the COLA.

Postretirement Pension Adjustment (PRPA)

50% and 75% of assumed inflation, or 1.25% and 1.875% respectively, is valued for the annual automatic PRPA as specified in the statute.

Healthcare Participation

100% of system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible. 20% of non-system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.

Medicare Part B Only

We assume that 2% of actives hired before April 1, 1986 and current retirees who are not yet Medicare eligible will not be eligible for Medicare Part A.

Healthcare Per Capita Claims Cost

Sample claims cost rates adjusted to age 65 for FY24 medical and prescription drugs are shown below. The prescription drug costs reflect the plan change to require prior authorization for certain specialty medications. The pre-Medicare medical cost reflects the coverage of additional preventive benefits.

	Medical	Prescription Drugs
Pre-Medicare	$ 17,338	$ 3,947
Medicare Parts A & B	$ 1,761	$ 4,300
Medicare Part B Only	$ 5,812	$ 4,300
Medicare Part D – EGWP	N/A	$ 1,267

Members are assumed to attain Medicare eligibility at age 65. All costs are for the 2024 fiscal year (July 1, 2023 – June 30, 2024).

The EGWP subsidy is assumed to increase in future years by the trend rates shown on the following pages. No future legislative changes or other events are anticipated to impact the EGWP subsidy. If any legislative or other changes occur in the future that impact the EGWP subsidy (which could either increase or decrease the plan's Actuarial Accrued Liability), those changes will be evaluated and quantified when they occur.

Healthcare Morbidity

Morbidity rates (also called aging factors) are used to estimate utilization of healthcare benefits at each age to reflect the fact that healthcare utilization typically increases with age. Separate morbidity rates are used for medical and prescription drug benefits. These rates are based on the 2017-2021 actual experience.

Age	Medical	Prescription Drugs
0 - 44	2.0%	4.5%
45 - 54	2.5%	3.5%
55 - 64	2.5%	1.0%
65 - 74	2.0%	2.1%
75 - 84	2.2%	(0.3%)
85 - 94	0.5%	(2.5%)
95+	0.0%	0.0%

Healthcare Third Party Administrator Fees

$497 per person per year; assumed to increase at 4.50% per year.

Healthcare Cost Trend

The table below shows the rate used to project the cost from the shown fiscal year to the next fiscal year. For example, 6.70% is applied to the FY24 pre-Medicare medical claims costs to get the FY25 pre-Medicare medical claims costs.

	Medical Pre-65	Medical Post-65	Prescription Drugs / EGWP
FY24	6.70%	5.50%	7.20%
FY25	6.40%	5.40%	6.90%
FY26	6.20%	5.40%	6.65%
FY27	6.05%	5.35%	6.35%
FY28	5.85%	5.35%	6.10%
FY29	5.65%	5.30%	5.80%
FY30	5.45%	5.30%	5.55%
FY31-FY38	5.30%	5.30%	5.30%
FY39	5.25%	5.25%	5.25%
FY40	5.20%	5.20%	5.20%
FY41	5.10%	5.10%	5.10%
FY42	5.05%	5.05%	5.05%
FY43	4.95%	4.95%	4.95%
FY44	4.90%	4.90%	4.90%
FY45	4.80%	4.80%	4.80%
FY46	4.75%	4.75%	4.75%
FY47	4.70%	4.70%	4.70%
FY48	4.60%	4.60%	4.60%
FY49	4.55%	4.55%	4.55%
FY50+	4.50%	4.50%	4.50%

For the June 30, 2014 valuation and later, the updated Society of Actuaries' Healthcare Cost Trend Model is used to project medical and prescription drug costs. This model estimates trend amounts that are projected out for 80 years. The model has been populated with assumptions that are specific to the State of Alaska.

Retired Member Contributions for Medical Benefits

Currently, contributions are required for TRS members who are under age 60 and have less than 25 years of service. Eligible Tier 1 members are exempt from contribution requirements. Annual FY24 contributions based on monthly rates shown below for calendar 2024 are assumed based on the coverage category for current retirees. The retiree only rate shown is used for current active and inactive members and spouses in Tier 2 who are assumed to retire prior to age 60 with less than 25 years of service and who are not disabled. For dependent children, we value 1/3 of the annual retiree contribution to estimate the per child rate based on the assumed number of children in rates where children are covered.

Coverage Category	Calendar 2024 Annual Contribution	Calendar 2024 Monthly Contribution	Calendar 2023 Monthly Contribution
Retiree Only	$ 8,448	$ 704	$ 704
Retiree and Spouse	$ 16,896	$ 1,408	$ 1,408
Retiree and Child(ren)	$ 11,940	$ 995	$ 995
Retiree and Family	$ 20,388	$ 1,699	$ 1,699
Composite	$ 12,552	$ 1,046	$ 1,046

Trend Rate for Retired Member Medical Contributions

The table below shows the rate used to project the retired member medical contributions from the shown fiscal year to the next fiscal year. For example, 4.0% is applied to the FY24 retired member medical contributions to get the FY25 retired member medical contributions.

Trend Assumptions	
FY24+	4.0%

Graded trend rates for retired member medical contributions are consistent with the rates used for the June 30, 2022 valuation. Actual FY24 retired member medical contributions are reflected in the valuation.

Changes in Assumptions Since the Prior Valuation

The healthcare per capita claims cost assumption is updated annually as described in Section 5.2. The amounts included in the Normal Cost for administrative expenses were changed from $3,626,000 to $3,558,000 for pension, and from $1,940,000 to $1,956,000 for healthcare (based on the most recent two years of actual administrative expenses paid from plan assets). There were no other changes in actuarial assumptions since the prior valuation.

Table 1: Salary Scale

Years of Service	Percent Increase
< 1	7.00%
1	6.50%
2	6.00%
3	5.75%
4	5.50%
5	5.25%
6	5.00%
7	4.75%
8	4.50%
9	4.25%
10	4.00%
11	3.75%
12	3.50%
13	3.45%
14	3.35%
15	3.25%
16	3.15%
17	3.05%
18	3.00%
19	2.95%
20+	2.85%

Table 2: Turnover Rates

Select Rates during the First 8 Years of Employment

Years of Service	Male	Female
< 1	20.40%	17.00%
1	20.40%	17.00%
2	16.80%	14.00%
3	14.40%	12.00%
4	12.00%	10.00%
5	10.80%	9.00%
6	9.00%	7.50%
7	7.20%	6.00%

Ultimate Rates after the First 8 Years of Employment

Age	Male	Female
< 30	3.60%	4.60%
30 - 34	3.60%	5.40%
35 - 39	3.60%	3.90%
40 - 44	3.10%	2.60%
45 - 49	3.10%	2.60%
50 - 54	4.60%	4.80%
55+	2.80%	4.80%

Table 3: Disability Rates

Age	Male	Female	Age	Male	Female
< 31	0.0337%	0.0612%	50	0.0601%	0.1093%
31	0.0337%	0.0613%	51	0.0634%	0.1152%
32	0.0337%	0.0613%	52	0.0666%	0.1211%
33	0.0342%	0.0622%	53	0.0746%	0.1356%
34	0.0347%	0.0631%	54	0.0826%	0.1501%
35	0.0353%	0.0641%	55	0.0905%	0.1645%
36	0.0357%	0.0650%	56	0.0985%	0.1790%
37	0.0362%	0.0659%	57	0.1064%	0.1935%
38	0.0371%	0.0674%	58	0.1245%	0.2263%
39	0.0379%	0.0689%	59	0.1426%	0.2592%
40	0.0387%	0.0703%	60	0.1606%	0.2920%
41	0.0395%	0.0718%	61	0.1787%	0.3249%
42	0.0403%	0.0733%	62	0.1967%	0.3577%
43	0.0423%	0.0770%	63	0.2253%	0.4096%
44	0.0443%	0.0806%	64	0.2572%	0.4677%
45	0.0464%	0.0843%	65	0.2933%	0.5332%
46	0.0483%	0.0879%	66	0.3343%	0.6079%
47	0.0504%	0.0916%	67	0.3812%	0.6930%
48	0.0536%	0.0975%	68	0.4345%	0.7900%
49	0.0569%	0.1034%	69	0.4953%	0.9006%
			70+	0.5647%	1.0267%

Table 4: Retirement Rates

	Reduced		Unreduced	
Age	Male	Female	Male	Female
< 45	N/A	N/A	3.00%	3.00%
45	N/A	N/A	5.50%	7.00%
46	N/A	N/A	5.50%	7.00%
47	N/A	N/A	5.50%	7.00%
48	N/A	N/A	5.50%	7.00%
49	N/A	N/A	5.50%	7.00%
50	5.00%	5.00%	12.50%	13.00%
51	5.00%	5.00%	12.50%	13.00%
52	5.00%	10.00%	12.50%	13.00%
53	5.00%	5.00%	12.50%	13.00%
54	10.00%	5.00%	12.50%	13.00%
55	14.50%	11.00%	20.00%	17.50%
56	9.50%	11.00%	20.00%	17.50%
57	9.50%	11.00%	20.00%	17.50%
58	9.50%	11.00%	20.00%	17.50%
59	9.50%	11.00%	20.00%	17.50%
60 - 64	N/A	N/A	19.50%	23.50%
65 - 69	N/A	N/A	28.00%	23.50%
70 - 74	N/A	N/A	30.00%	36.00%
75 - 79	N/A	N/A	50.00%	50.00%
80+	N/A	N/A	100.00%	100.00%

Section 6: Risk Information

Funding future retirement benefits prior to when those benefits become due involves assumptions regarding future economic and demographic experience. These assumptions are applied to calculate actuarial liabilities, current contribution requirements, and the funded status of the plan. However, to the extent future experience deviates from the assumptions used, variations will occur in these calculated values. These variations create risk to the plan. Understanding the risks to the funding of the plan is important.

Actuarial Standard of Practice No. 51 (ASOP 51)[1] requires certain disclosures of potential risks to the plan and provides useful information for intended users of actuarial reports that determine plan contributions or evaluate the adequacy of specified contribution levels to support benefit provisions.

Under ASOP 51, risk is defined as the potential of actual future measurements deviating from expected future measurements resulting from actual future experience deviating from actuarially assumed experience.

It is important to note that not all risk is negative, but all risk should be understood and accepted based on knowledge, judgment, and educated decisions. Future measurements may deviate in ways that produce positive or negative financial impacts to the plan.

In the actuary's professional judgment, the following risks may reasonably be anticipated to significantly affect the pension plan's future financial condition and contribution requirements.

- Investment Risk – potential that the investment return will differ from the rate assumed in the actuarial valuation
- Contribution Risk – potential that actual contributions will differ from actuarially determined contributions
- Long-Term Return on Investment Risk – potential that changes in long-term capital market assumptions or the plan's asset allocation will create the need to update the long-term return on investment assumption
- Longevity Risk – potential that participants live longer than projected under valuation mortality assumptions
- Salary Increase Risk – potential that future salaries will differ from the valuation assumptions
- Inflation Risk – potential that the consumer price index (CPI) for urban wage earners and clerical workers for Anchorage will differ from the rate assumed in the actuarial valuation
- Other Demographic Risk – potential that other demographic experience will differ from the valuation assumptions

The following information is provided to comply with ASOP 51 and furnish beneficial information on potential risks to the plan. This list is not all-inclusive. It is an attempt to identify the more significant risks and how those risks might affect the results shown in this report.

Note that ASOP 51 does not require the actuary to evaluate the ability or willingness of the plan sponsor to make contributions to the plan when due, or to assess the likelihood or consequences of potential future changes in law. In addition, this valuation report is not intended to provide investment advice or to provide guidance on the management or reduction of risk.

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[1] ASOP 51 does not apply to the healthcare portion of the plan. Accordingly, all figures in this section relate to the pension portion.

Assessment of Risks

Investment Risk

Plan costs are very sensitive to the market return.

- Any return on assets lower than assumed will increase costs.
- The plan uses an actuarial value of assets that smooths gains and losses on market returns over a five-year period to help control some of the volatility in costs due to investment risk.
- Historical experience of actual returns is shown in Section 2.4 of this report. This historical experience illustrates how returns can vary over time.

The plan invests in a diversified portfolio of assets with the objective of maximizing investment returns at a reasonable level of risk. Actuarial Standard of Practice No. 4 (ASOP 4) requires the actuary to disclose a Low-Default-Risk Obligation Measure (LDROM) of the plan's pension liability and provide commentary to help the intended users of this report understand the significance of the LDROM with respect to funded status, contributions, and participant benefit security.

The LDROM is based on discount rates derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of pension benefits expected to be paid in the future. The LDROM shown here represents what the plan's pension liability would be if the plan invested its assets solely in a portfolio of high-quality bonds whose cash flows approximately match future pension benefit payments. Consequently, the difference between the LDROM and the Actuarial Accrued Liability represents the taxpayer savings from investing in a diversified portfolio of assets versus only investing in high-quality bonds. Furthermore, this difference also represents the cost of reducing investment risk.

As of June 30, 2023, the LDROM is $9.8 billion for the pension plan based on an interest rate of 5.35%. The interest rate used for the LDROM was determined by calculating a single equivalent discount rate using projected pension benefit payments and the Buck Above Median Yield Curve as of June 30, 2023. Please note that the interest rate used for the LDROM is based on bond yields as of the measurement date and will therefore vary for different measurement dates. All other assumptions are the same as those used for funding purposes as shown in this report.

Actuaries play a role in helping to determine funding methods and policies that can achieve affordable and appropriate contributions and risk management. The funded status based on the Actuarial Accrued Liability, as well as the actuarially determined contributions, are calculated using the expected return on assets, which reflects the actual investment portfolio. Since the assets are not invested solely in an all-bond portfolio, the LDROM does not indicate the plan's pension funded status or progress, nor does it provide information on necessary plan contributions.

Regarding participant benefit security, if this plan were to be funded on an LDROM basis, participant benefits currently accrued as of the measurement date might be considered more secure, since the investment risk would be significantly reduced. However, the fact that assets are invested in a diversified portfolio does not mean that the participants' benefits are not secure. The security of participant benefits relies on a combination of the assets in the plan, the investment returns generated from those assets, and the promise of future contributions from the plan sponsor. Reducing investment risk by investing solely in bonds may significantly increase the actuarially determined contributions, and thereby increase contribution risk by decreasing the ability of the plan sponsor to make necessary contributions to fund the benefits. Unnecessarily high contribution requirements in the near term may not be affordable and could imperil plan sustainability and benefit security. Participant benefits will remain secure if reasonable and appropriate contributions with managed risk are calculated and paid.

Since this plan is closed to new entrants, the investment horizon of the funds will decrease over the long term. As this change happens, the asset allocation may shift to less risky assets, and the difference between the Actuarial Accrued Liability and LDROM will become smaller. Monitoring this difference may help the plan sponsor decide when the cost of less investment risk is advantageous.

Contribution Risk

There is a risk to the plan when the employer's and/or State's actual contribution amount and the actuarially determined contribution differ.

- If the actual contribution is lower than the actuarially determined contribution, the plan may not be sustainable in the long term.
- Any underpayment of the actuarially determined contribution will increase future contribution amounts to help pay off the additional Unfunded Actuarial Accrued Liability associated with the underpayment(s).
- As long as the Board consistently adopts the actuarially determined contributions, this risk is mitigated due to Alaska statutes requiring the State to contribute additional funds necessary to pay the total contributions adopted by the Board.

Long-Term Return on Investment Risk

Inherent in the long-term return on investment assumption is the expectation that the current rate will be used until the last benefit payment of the plan is made. There is a risk that sustained changes in economic conditions, changes in long-term future capital market assumptions, or changes to the plan's asset allocation will necessitate an update to the long-term return on investment assumption used.

- Under a lower long-term return on investment assumption, less investment return is available to pay plan benefits. This may lead to a need for increased employer contributions.
- The liabilities will be higher at a lower assumed rate of return because future benefits will have a lower discount rate applied when calculating the present value.
- A 1% decrease in the long-term return on investment assumption will increase the actuarial accrued liability by approximately 11%.
- This risk may be increased due to the plan being closed to new entrants. As the plan continues to mature, the magnitude of negative cash flow discussed in the Plan Maturity Measures later in this section will grow, thereby creating a need for more liquid assets that may not garner the same long-term return as currently assumed.

Longevity Risk

Plan costs will be increased as participants are expected to live longer.

- Benefits are paid over a longer lifetime when life expectancy is expected to increase. The longer duration of payments leads to higher liabilities.
- Health care has been improving, which affects the life expectancy of participants. As health care improves, leading to longer life expectancies, costs to the plan could increase.
- The mortality assumption for the plan mitigates this risk by assuming future improvement in mortality. However, any improvement in future mortality greater than that expected under the current mortality assumption would lead to increased costs for the plan.
- The Postretirement Pension Adjustments and Alaska Cost-of-Living Allowance increase longevity risk because members who live longer than expected will incur more benefit payment increases than expected and therefore increase costs.

Salary Increase Risk

Plan costs will be increased if actual salary increases are larger than expected.

- Higher-than-expected salary increases will produce higher benefits.
- The higher benefits may be partially offset by increased employee contributions due to higher salaries.
- If future payroll grows at a rate different than assumed, contributions as a percentage of payroll will be affected.

Inflation Risk

Plan costs will be increased if the actual CPI for Anchorage is greater than the 2.5% assumed in the valuation.

- Retirement benefits will be greater than expected if the CPI is greater than the assumed rate, which will increase costs.
- This risk is mitigated by the 75% and 50% of CPI provisions and the 9% and 6% maximums.
- This risk is also mitigated by the age and time in payment requirements to receive an increase.
- Inflation risk may be associated with the interaction of inflation with other assumptions, but this is not significant as a standalone assumption, and therefore is considered as part of the associated assumption risk instead of being discussed here.

Other Demographic Risk

The plan is subject to risks associated with other demographic assumptions (e.g., retirement, termination, and retired members remaining in Alaska assumptions). Differences between actual and expected experience for these assumptions tend to have less impact on the overall costs of the plan. The demographic assumptions used in the valuation are re-evaluated regularly as part of the four-year experience studies to ensure the assumptions are consistent with long-term expectations.

Historical Information

Monitoring certain information over time may help understand risks faced by the plan. Historical information is included throughout this report. Some examples are:

- Funded Ratio History shown in the Executive Summary illustrates how the plan's funded status (comparison of actuarial accrued liabilities to actuarial value of assets) has changed over time.
- Section 1.6 shows historical analysis of financial experience including how contribution rates have changed over time.
- Section 2.4 shows the volatility of asset returns over time.
- Section 4 includes various historical information showing how member census data has changed over time.
- Section 7 includes historical information for the plan's funding progress, solvency test results, and changes in member demographics.

Plan Maturity Measures

There are certain measures that may aid in understanding the significant risks to the plan.

Ratio of Retired Liability to Total Liability ($'s in $000's)

As of June 30	2019	2020	2021	2022	2023
1. Retiree and Beneficiary Accrued Liability	$ 5,495,907	$ 5,570,625	$ 5,657,056	$ 5,977,257	$ 6,274,565
2. Total Accrued Liability	$ 7,388,020	$ 7,447,036	$ 7,471,887	$ 7,804,046	$ 8,036,685
3. Ratio, (1) ÷ (2)	74.4%	74.8%	75.7%	76.6%	78.1%

A high percentage of liability concentrated on participants in pay status indicates a mature plan (often a ratio above 60% - 65%). Because the plan was closed to new entrants in 2006, we expect the percentage in item #3 to continue to increase over time. An increasing percentage may indicate a need for a less risky asset allocation, which may lead to a lower long-term return on asset assumption and increased costs. Higher percentages may also indicate greater investment risk as benefit payments may be greater than contributions creating an increased reliance on investment returns. This ratio should be monitored each year in the future.

Ratio of Cash Flow to Assets ($'s in $000's)

During FYE June 30	2019	2020	2021	2022	2023
1. Contributions	$ 199,933	$ 207,899	$ 196,748	$ 202,459	$ 172,993
2. Benefit Payments	472,717	490,447	501,429	511,762	538,270
3. Cash Flow, (1) - (2)	$ (272,784)	$ (282,548)	$ (304,681)	$ (309,303)	$ (365,277)
4. Fair Value of Assets	$ 5,511,929	$ 5,444,799	$ 6,731,481	$ 6,026,651	$ 6,099,520
5. Ratio, (3) ÷ (4)	(4.9%)	(5.2%)	(4.5%)	(5.1%)	(6.0%)

When this cash flow ratio is negative, more cash is being paid out than deposited in the trust. Negative cash flow indicates the trust needs to rely on investment returns to cover benefit payments and / or may need to invest in more liquid assets to cover the benefit payments. More liquid assets may not generate the same returns as less liquid assets, which can increase the investment risk. Currently, the low magnitude of the ratio implies there may already be enough liquid assets to cover the benefit payments, less investment return is needed to cover the shortfall, or only a small portion of assets will need to be converted to cash. Therefore, the investment risk is likely not amplified at this time. However, due to the plan being closed, we expect this measure to become increasingly negative over time. This maturity measure should be monitored in the future.

Contribution Volatility ($'s in $000's)

As of June 30	2019	2020	2021	2022	2023
1. Fair Value of Assets	$ 5,511,929	$ 5,444,799	$ 6,731,481	$ 6,026,651	$ 6,099,520
2. DB/DCR Payroll	$ 725,659	$ 741,090	$ 750,334	$ 758,938	$ 754,274
3. Asset to Payroll Ratio, (1) ÷ (2)	7.6	7.3	9.0	7.9	8.1
4. Accrued Liability	$ 7,388,020	$ 7,447,036	$ 7,471,887	$ 7,804,046	$ 8,036,685
5. Liability to Payroll Ratio, (4) ÷ (2)	10.2	10.0	10.0	10.3	10.7

Plans that have higher asset-to-payroll ratios experience more volatile employer contributions (as a percentage of payroll) due to investment return. For example, a plan with an asset-to-payroll ratio of 10 may experience twice the contribution volatility due to investment return volatility than a plan with an asset-to-payroll ratio of 5.

Plans that have higher liability-to-payroll ratios experience more volatile employer contributions (as a percentage of payroll) due to changes in liability. For example, if an assumption change increases the liability of two plans by the same percent, the plan with a liability-to-payroll ratio of 10 may experience twice the contribution volatility than a plan with a liability-to-payroll ratio of 5.

Section 7: Historical Information[1]

Section 7.1: Funding Progress

Funding Progress - Pension ($'s in 000's)

Valuation Date	Actuarial Accrued Liability	Valuation Assets	Assets as Pct. of Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Active Member Payroll	UAAL as Pct. of Active Member Payroll
June 30, 2023	$ 8,036,685	$ 6,171,460	76.8%	$ 1,865,225	$ 276,417	674.8%
June 30, 2022	7,804,046	6,100,204	78.2%	1,703,842	303,011	562.3%
June 30, 2021	7,471,887	5,910,369	79.1%	1,561,518	326,551	478.2%
June 30, 2020	7,447,036	5,587,064	75.0%	1,859,972	349,236	532.6%
June 30, 2019	7,388,020	5,563,931	75.3%	1,824,089	366,037	498.3%
June 30, 2018	7,276,290	5,541,600	76.2%	1,734,690	392,609	441.8%
June 30, 2017	7,217,525	5,476,835	75.9%	1,740,690	425,841	408.8%
June 30, 2016	7,159,788	5,428,687	75.8%	1,731,101	449,629	385.0%
June 30, 2015	7,051,724	5,422,651	76.9%	1,629,073	473,734	343.9%
June 30, 2014	6,921,362	3,771,139	54.5%	3,150,223	490,667	642.0%
June 30, 2013	6,589,553	3,170,313	48.1%	3,419,240	527,474	648.2%
June 30, 2012	6,399,777	3,194,994	49.9%	3,204,783	554,277	578.2%
June 30, 2011	6,196,104	3,345,949	54.0%	2,850,155	571,143	499.0%
June 30, 2010	6,006,981	3,259,868	54.3%	2,747,113	591,943	464.1%
June 30, 2009	5,463,987	3,115,719	57.0%	2,348,268	583,746	402.3%
June 30, 2008	5,231,654	3,670,086	70.2%	1,561,568	575,946	271.1%
June 30, 2007	5,043,448	3,441,867	68.2%	1,601,581	582,743	274.8%
June 30, 2006	4,859,336	3,296,934	67.8%	1,562,402	603,035	259.1%

Change in assumptions reflected in 2022, 2018, 2014, 2010, and 2006 valuations.

Change in methods reflected in 2014 and 2006 valuations.

[1] GASB 67 replaced GASB 25 effective for the fiscal year ending June 30, 2014, and GASB 74 replaced GASB 43 effective for the fiscal year ending June 30, 2017. At the request of the State, historical accounting information has been included in this section as if GASB 25 and GASB 43 were still effective.

Funding Progress - Healthcare ($'s in 000's)

Valuation Date	Actuarial Accrued Liability	Valuation Assets	Assets as Pct. of Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Active Member Payroll	UAAL as Pct. of Active Member Payroll
June 30, 2023	$ 2,617,821	$ 3,547,973	135.5%	$ (930,152)	$ 276,417	(336.5%)
June 30, 2022	2,442,577	3,437,216	140.7%	(994,639)	303,011	(328.3%)
June 30, 2021	2,439,603	3,267,737	133.9%	(828,134)	326,551	(253.6%)
June 30, 2020	2,489,675	3,021,283	121.4%	(531,608)	349,236	(152.2%)
June 30, 2019	2,518,644	2,947,562	117.0%	(428,918)	366,037	(117.2%)
June 30, 2018	2,684,150	2,898,709	108.0%	(214,559)	392,609	(54.6%)
June 30, 2017	2,927,093	2,836,802	96.9%	90,291	425,841	21.2%
June 30, 2016	2,747,836	2,771,704	100.9%	(23,868)	449,629	(5.3%)
June 30, 2015	2,677,393	2,686,272	100.3%	(8,879)	473,734	(1.9%)
June 30, 2014	2,919,670	2,248,135	77.0%	671,535	490,667	136.9%
June 30, 2013	3,002,554	1,803,763	60.1%	1,198,791	527,474	227.3%
June 30, 2012	2,946,667	1,674,160	56.8%	1,272,507	554,277	229.6%
June 30, 2011	2,932,691	1,591,988	54.3%	1,340,703	571,143	234.7%
June 30, 2010	2,840,807	1,479,260	52.1%	1,361,547	591,943	230.0%
June 30, 2009	2,383,527	1,357,239	56.9%	1,026,288	583,746	175.8%
June 30, 2008	2,387,524	1,266,890	53.1%	1,120,634	575,946	194.6%
June 30, 2007	2,145,955	982,532	45.8%	1,163,423	582,743	199.6%
June 30, 2006	2,370,515	844,766	35.6%	1,525,749	603,035	253.0%

Change in assumptions reflected in 2022, 2018, 2016, 2014, 2012, 2010, 2008, and 2006 valuations.

Change in methods reflected in 2018, 2014, 2006 valuations.

Section 7.2: Solvency Test

Solvency Test - Pension ($'s in 000's)

Valuation Date	Actuarial Accrued Liability (AAL) (1) Active Member Contributions	(2) Inactive Members	(3) Active Members Employer Financed	Valuation Assets	Portion of AAL Covered by Valuation Assets (1)	(2)	(3)
June 30, 2023	$ 557,567	$ 6,511,368	$ 967,750	$ 6,171,460	100.0%	86.2%	0.0%
June 30, 2022	594,033	6,169,712	1,040,301	6,100,204	100.0%	89.2%	0.0%
June 30, 2021	634,029	5,833,812	1,004,046	5,910,369	100.0%	90.4%	0.0%
June 30, 2020	668,105	5,749,353	1,029,578	5,587,064	100.0%	85.6%	0.0%
June 30, 2019	673,540	5,672,003	1,042,477	5,563,931	100.0%	86.2%	0.0%
June 30, 2018	690,775	5,502,418	1,083,097	5,541,600	100.0%	88.2%	0.0%
June 30, 2017	706,772	5,418,948	1,091,805	5,476,835	100.0%	88.0%	0.0%
June 30, 2016	709,903	5,329,673	1,120,212	5,428,687	100.0%	88.5%	0.0%
June 30, 2015	714,422	5,192,935	1,144,367	5,422,651	100.0%	90.7%	0.0%
June 30, 2014	718,694	5,042,250	1,160,418	3,771,139	100.0%	60.5%	0.0%
June 30, 2013	726,139	4,726,282	1,137,132	3,170,313	100.0%	51.7%	0.0%
June 30, 2012	727,435	4,532,982	1,139,360	3,194,994	100.0%	54.4%	0.0%
June 30, 2011	717,819	4,352,035	1,126,250	3,345,949	100.0%	60.4%	0.0%
June 30, 2010	716,675	4,153,119	1,137,187	3,259,868	100.0%	61.2%	0.0%
June 30, 2009	692,105	3,815,020	956,862	3,115,719	100.0%	63.5%	0.0%
June 30, 2008	654,662	3,700,812	876,180	3,670,086	100.0%	81.5%	0.0%
June 30, 2007	638,420	3,567,894	837,134	3,441,867	100.0%	78.6%	0.0%
June 30, 2006	615,207	3,432,703	811,426	3,296,934	100.0%	78.1%	0.0%

Change in assumptions reflected in 2022, 2018, 2014, 2010, and 2006 valuations.

Change in methods reflected in 2014 and 2006 valuations.

Solvency Test - Healthcare ($'s in 000's)

Valuation Date	Actuarial Accrued Liability (AAL) (1) Active Member Contributions	(2) Inactive Members	(3) Active Members Employer Financed	Valuation Assets	Portion of AAL Covered by Valuation Assets (1)	(2)	(3)
June 30, 2023	$ 0	$ 2,015,723	$ 602,098	$ 3,547,973	100.0%	100.0%	100.0%
June 30, 2022	0	1,841,588	600,989	3,437,216	100.0%	100.0%	100.0%
June 30, 2021	0	1,778,645	660,958	3,267,737	100.0%	100.0%	100.0%
June 30, 2020	0	1,776,704	712,971	3,021,283	100.0%	100.0%	100.0%
June 30, 2019	0	1,788,124	730,520	2,947,562	100.0%	100.0%	100.0%
June 30, 2018	0	1,874,333	809,817	2,898,709	100.0%	100.0%	100.0%
June 30, 2017	0	1,980,148	946,945	2,836,802	100.0%	100.0%	90.5%
June 30, 2016	0	1,853,084	894,752	2,771,704	100.0%	100.0%	100.0%
June 30, 2015	0	1,870,987	806,406	2,686,272	100.0%	100.0%	100.0%
June 30, 2014	0	2,008,223	911,447	2,248,135	100.0%	100.0%	26.3%
June 30, 2013	0	2,012,114	990,440	1,803,763	100.0%	89.6%	0.0%
June 30, 2012	0	1,933,288	1,013,379	1,674,160	100.0%	86.6%	0.0%
June 30, 2011	0	1,879,564	1,053,127	1,591,988	100.0%	84.7%	0.0%
June 30, 2010	0	1,755,961	1,084,846	1,479,260	100.0%	84.2%	0.0%
June 30, 2009	0	1,477,788	905,739	1,357,239	100.0%	91.8%	0.0%
June 30, 2008	0	1,480,864	906,660	1,266,890	100.0%	85.6%	0.0%
June 30, 2007	0	1,344,131	801,824	982,532	100.0%	73.1%	0.0%
June 30, 2006	0	1,493,219	877,296	844,766	100.0%	56.6%	0.0%

Change in assumptions reflected in 2022, 2018, 2016, 2014, 2012, 2010, 2008, and 2006 valuations.

Change in methods reflected in 2018, 2014, 2006 valuations.

Section 7.3: Member Data

As of June 30	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Active Members										
1. Number	5,861	5,502	5,123	4,772	4,418	4,044	3,789	3,396	3,023	2,734
2. Average Age	49.79	50.09	50.50	50.86	51.13	51.48	51.92	52.14	52.57	52.95
3. Average Credited Service	16.43	16.94	17.53	18.12	18.62	19.21	19.76	20.31	20.85	21.18
4. Average Entry Age	33.36	33.15	32.97	32.74	32.51	32.27	32.16	31.83	31.72	31.77
5. Average Annual Earnings	$ 81,023	$ 82,995	$ 84,954	$ 86,327	$ 87,374	$ 88,879	$ 90,564	$ 94,143	$ 97,702	$ 98,820
6. Number Vested	5,586	5,297	4,966	4,772	4,418	4,044	3,789	3,396	3,023	2,734
7. Percent Who Are Vested	95.3%	96.3%	96.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Retirees, Disabilitants, and Beneficiaries										
1. Number	11,750	12,418	12,726	12,983	13,277	13,491	13,689	13,972	14,126	14,255
2. Average Age	69.09	69.35	69.85	70.36	70.78	71.30	71.85	72.26	72.60	73.10
3. Average Years Since Retirement	N/A	13.50	13.78	14.13	14.40	14.74	15.06	15.24	15.51	15.80
4. Average Monthly Pension Benefit	$ 2,860	$ 2,912	$ 2,921	$ 2,924	$ 2,954	$ 3,014	$ 3,043	$ 3,048	$ 3,167	$ 3,332
Vested Terminations (vested at termination, not refunded contributions, and not commenced benefit)										
1. Number	1,274	890	875	876	797	812	764	727	729	763
2. Average Age	52.56	50.09	50.25	50.82	51.01	51.71	52.37	52.68	53.22	53.70
3. Average Monthly Pension Benefit	$ 1,916	$ 1,273	$ 1,352	$ 1,441	$ 1,350	$ 1,534	$ 1,579	$ 1,635	$ 1,725	$ 1,967
Non-Vested Terminations (not vested at termination and not refunded contributions)										
1. Number	2,328	2,218	2,103	1,994	1,900	1,810	1,744	1,679	1,616	1,560
2. Average Account Balance	$ 18,452	$ 18,962	$ 19,728	$ 20,290	$ 20,872	$ 21,612	$ 22,591	$ 23,388	$ 23,906	$ 24,693
Total Number of Members	**21,213**	**21,028**	**20,827**	**20,625**	**20,392**	**20,157**	**19,986**	**19,774**	**19,494**	**19,312**

Average annual earnings (“valuation pay”) are the annualized earnings for the fiscal year ending on the valuation date.

Glossary of Terms

Actuarial Accrued Liability

Total accumulated cost to fund pension or postemployment benefits arising from service in all prior years.

Actuarial Cost Method

Technique used to assign or allocate, in a systematic and consistent manner, the expected cost of a pension or postemployment plan for a group of plan members to the years of service that give rise to that cost.

Actuarial Present Value of Projected Benefits

Amount which, together with future interest, is expected to be sufficient to pay all future benefits.

Actuarial Valuation

Study of probable amounts of future pension or postemployment benefits and the necessary amount of contributions to fund those benefits.

Actuary

Person who performs mathematical calculations pertaining to pension and insurance benefits based on specific procedures and assumptions.

GASB 67 and 68

Governmental Accounting Standards Board Statement Number 67 amends Number 25 effective for the fiscal year beginning after June 15, 2013 and defines new financial reporting requirements for public pension plans.

Governmental Accounting Standards Board Statement Number 68 amends Number 27 effective for fiscal years beginning after June 15, 2014 and defines new accounting and financial reporting requirements for employers sponsoring public pension plans.

GASB 74 and 75

Governmental Accounting Standards Board Statement Number 74 amends Number 43 effective for the fiscal year beginning after June 15, 2016 and defines new financial reporting requirements for public postemployment benefit plans.

Governmental Accounting Standards Board Statement Number 75 amends Number 45 effective for fiscal years beginning after June 15, 2017 and defines new accounting and financial reporting requirements for employers sponsoring public postemployment benefit plans.

Normal Cost

That portion of the actuarial present value of benefits assigned to a particular year in respect to an individual participant or the plan as a whole.

Rate Payroll

Members' earnings used to determine contribution rates.

Unfunded Actuarial Accrued Liability (UAAL)

The portion of the actuarial accrued liability not offset by plan assets.

Valuation Payroll

Members' earnings used to determine Normal Cost and Actuarial Accrued Liability.

Vested Benefits

Benefits which are unconditionally guaranteed regardless of employment.

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