

State of Alaska

Teachers' Retirement System

Defined Contribution Retirement Plan

For Occupational Death & Disability and Retiree Medical Benefits

Actuarial Valuation Report
as of June 30, 2023



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 Defined Contribution Retirement (TRS DCR) Plan 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 DCR 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 DCR as of June 30, 2023.

TRS DCR is funded by Employer Contributions in accordance with the funding policy adopted by the Alaska Retirement Management Board (Board). The calculations of the Employer Contributions are reasonable actuarially determined contributions as defined in Actuarial Standard of Practice No. 4 (ASOP 4). The funding objective for TRS DCR is to pay required contributions that remain level as a percent of TRS DCR 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 as a level percent of TRS DCR compensation over closed layered 25-year periods. This objective is currently being met and is projected to continue to be met as required by the Alaska State statutes. Absent future gains/losses, actuarially determined contributions are expected to remain level as a percent of pay and the funded status of the occupational death & disability trust and the retiree medical trust are 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 DCR. 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 4.2 and 4.3. We certify that the assumptions and methods used for funding purposes, as described in Sections 4.2 and 4.3 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 3; (ii) summary of actuarial assumptions in Section 4.3; and (iii) historical information in Section 5.

Governmental Accounting Standards Board (GASB) Statement No. 74 (GASB 74) was effective for TRS DCR beginning with fiscal year ending June 30, 2017. Please see our separate GASB 74 report 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 retiree medical portion of TRS DCR. We also believe ASOP 51 does not apply to the occupational death & disability portion of TRS DCR. Therefore, information related to ASOP 51 is not included in this report. However, it may be beneficial to review the ASOP 51 information provided in the TRS valuation report for information on risks that may also relate to the occupational death & disability benefits provided by this plan.

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 an internally developed model that applies 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 model 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 model, extra checking and review are completed. Significant changes to the internal model 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.

Buck used manual rate models to determine relative plan values for the defined benefit (DB) retiree medical plan and the DCR retiree medical plan, and to reflect the different Medicare coordination methods between the two plans. The manual rate models are intended to provide benchmark data and pricing capabilities, calculate per capita costs, and calculate actuarial values of different commercial health plans. Buck relied on the models, which were developed using industry data by actuaries and consultants at OptumInsight.

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. A more detailed explanation on these adjustments is shown in Sections 4.2 and 4.3 and in the valuation report for the DB plan.

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
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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 Defined Contribution Retirement (TRS DCR) Plan provides occupational death & disability and retiree medical benefits to teachers and other eligible members hired after June 30, 2006 or who have elected participation in this plan. 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 DCR 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 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 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 DCR based on the plan provisions, membership data, assets, and actuarial methods and assumptions as of the valuation date.

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
Occupational Death & Disability		
a. Actuarial Accrued Liability	\$ 199	\$ 190
b. Valuation Assets	<u>6,700</u>	<u>7,568</u>
c. Unfunded Actuarial Accrued Liability, (a) - (b)	\$ (6,501)	\$ (7,378)
d. Funded Ratio based on Valuation Assets, (b) ÷ (a)	3,366.8%	3,983.2%
e. Fair Value of Assets	\$ 6,557	\$ 7,447
f. Funded Ratio based on Fair Value of Assets, (e) ÷ (a)	3,295.0%	3,919.5%

Funded Status as of June 30 (\$'s in 000's)	2022	2023
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Retiree Medical

a. Actuarial Accrued Liability	\$ 47,797	\$ 57,093
b. Valuation Assets	<u>68,403</u>	<u>77,815</u>
c. Unfunded Actuarial Accrued Liability, (a) - (b)	\$ (20,606)	\$ (20,722)
d. Funded Ratio based on Valuation Assets, (b) ÷ (a)	143.1%	136.3%
e. Fair Value of Assets	\$ 66,909	\$ 76,557
f. Funded Ratio based on Fair Value of Assets, (e) ÷ (a)	140.0%	134.1%

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 \$26,000 (occupational death & disability) and \$266,000 (retiree medical). 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 7.1%, which resulted in an actuarial asset loss of approximately \$7,000 (occupational death & disability) and \$78,000 (retiree medical).

2. Salary Increases

Salary increases for continuing active members during FY23 were slightly higher than expected based on the valuation assumptions, resulting in a very small liability loss (less than \$1,000).

3. Demographic Experience

The number of active members increased 3.3% from 5,688 at June 30, 2022 to 5,877 at June 30, 2023. The average age of active members increased from 42.26 to 42.44 and average credited service increased from 6.60 to 6.72 years.

The demographic experience gains/losses are shown on page 4.

4. Retiree Medical Claims Experience

Please refer to the State of Alaska Teachers' Retirement System (TRS) Defined Benefit Plan Actuarial Valuation Report as of June 30, 2023 for a full description of the assumptions and costs of the retiree medical plan. Adjustments to these costs and assumptions are described in this report.

The recent claims experience described in Section 4.2 of this report (Section 5.2 of the TRS DB report) created an actuarial loss of approximately \$3,496,000. The EGWP subsidy received by the plan during FY23 was approximately \$31,000; the expected EGWP subsidy for FY23 was approximately \$43,000.

5. Changes in Methods Since the Prior Valuation

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

6. Changes in Assumptions Since the Prior Valuation

Healthcare claim costs are updated annually as described in Section 4.2. 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.

7. 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

	FY 2025	FY 2026
Occupational Death & Disability		
a. Employer Normal Cost Rate	0.08%	0.08%
b. Past Service Cost Rate	<u>(0.11)%</u>	<u>(0.12)%</u>
c. Total Employer Contribution Rate, (a) + (b), not less than (a)	0.08%	0.08%
Retiree Medical		
a. Employer Normal Cost Rate	0.68%	0.74%
b. Past Service Cost Rate	<u>(0.29)%</u>	<u>(0.28)%</u>
c. Total Employer Contribution Rate, (a) + (b), not less than (a)	0.68%	0.74%
Total		
a. Employer Normal Cost Rate	0.76%	0.82%
b. Past Service Cost Rate	<u>(0.40)%</u>	<u>(0.40)%</u>
c. Total Employer Contribution Rate, (a) + (b), not less than (a)	0.76%	0.82%

The exhibit below shows the historical Board-adopted employer contribution rates for TRS DCR.

Total Employer Contribution Rate				
Valuation Date	Fiscal Year	Occupational Death & Disability	Retiree Medical	Total
June 30, 2012	FY15	0.00%	2.04%	2.04%
June 30, 2013	FY16	0.00%	2.04%	2.04%
June 30, 2014	FY17	0.00%	1.05%	1.05%
June 30, 2015	FY18	0.00%	0.91%	0.91%
June 30, 2016	FY19	0.08%	0.79%	0.87%
June 30, 2017	FY20	0.08%	1.09%	1.17%
June 30, 2018	FY21	0.08%	0.93%	1.01%
June 30, 2019	FY22	0.08%	0.83%	0.91%
June 30, 2020	FY23	0.08%	0.87%	0.95%
June 30, 2021	FY24	0.08%	0.82%	0.90%
June 30, 2022	FY25	0.08%	0.68%	0.76%
June 30, 2023	FY26	TBD	TBD	TBD

Summary of Actuarial Accrued Liability Gain/(Loss)

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

	Occupational Death & Disability	Retiree Medical
Retirement Experience	\$ 0	\$ (150)
Termination Experience	(10)	2,618
Disability Experience	251	(40)
Active Mortality Experience	116	(57)
Inactive Mortality Experience	(1)	(17)
Salary Increases	0	N/A
New Entrants	0	(591)
Rehires	0	(1,985)
Metcalfe Transfers	5	768
Benefit Payments Different than Expected	6	94
Per Capita Claims Cost	N/A	(3,496)
Miscellaneous ¹	<u>(7)</u>	<u>263</u>
Total	\$ 360	\$ (2,593)

¹ 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.

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		
Occupational Death Benefits	\$ 776	\$ 107
Occupational Disability Benefits	1,538	(84)
Medical and Prescription Drug Benefits	96,496	67,989
Medicare Part D Subsidy	<u>(19,762)</u>	<u>(13,920)</u>
Subtotal	\$ 79,048	\$ 54,092
Benefit Recipients		
Survivor Benefits	\$ 0	\$ 0
Disability Benefits	167	167
Medical and Prescription Drug Benefits	3,804	3,804
Medicare Part D Subsidy	<u>(780)</u>	<u>(780)</u>
Subtotal	\$ 3,191	\$ 3,191
Total	\$ 82,239	\$ 57,283
Total Occupational Death & Disability	\$ 2,481	\$ 190
Total Retiree Medical, Net of Part D Subsidy	\$ 79,758	\$ 57,093
Total Retiree Medical, Gross of Part D Subsidy	\$ 100,300	\$ 71,793
As of June 30, 2023	Normal Cost	
Active Members		
Occupational Death Benefits	\$	108
Occupational Disability Benefits		247
Medical and Prescription Drug Benefits		4,422
Medicare Part D Subsidy		<u>(906)</u>
Subtotal	\$	3,871
Administrative Expense Load		
Occupational Death & Disability	\$	10
Retiree Medical		<u>36</u>
Subtotal	\$	46
Total	\$	3,917
Total Occupational Death & Disability	\$	365
Total Retiree Medical, Net of Part D Subsidy	\$	3,552
Total Retiree Medical, Gross of Part D Subsidy	\$	4,458

Section 1.2: Actuarial Contributions as of June 30, 2023 for FY26 (\$'s in 000's)

Normal Cost Rate	Occupational Death & Disability	Retiree Medical
1. Total Normal Cost	\$ 365	\$ 3,552
2. DCR Plan Rate Payroll Projected for FY24	477,857	477,857
3. Employer Normal Cost Rate, (1) ÷ (2)	0.08%	0.74%
Past Service Cost Rate		
1. Actuarial Accrued Liability	\$ 190	\$ 57,093
2. Valuation Assets	7,568	77,815
3. Unfunded Actuarial Accrued Liability, (1) - (2)	\$ (7,378)	\$ (20,722)
4. Funded Ratio based on Valuation Assets	3,983.2%	136.3%
5. Past Service Cost Amortization Payment	(590)	(1,338)
6. DCR Plan Rate Payroll Projected for FY24	477,857	477,857
7. Past Service Cost Rate, (5) ÷ (6)	(0.12%)	(0.28%)
Total Employer Contribution Rate, not less than Normal Cost Rate	0.08%	0.74%

The table below shows the total employer contribution rate based on total DB and DCR Plan payroll for informational purposes.

Total Employer Contribution Rate as Percent of Total Payroll	Occupational Death & Disability	Retiree Medical
1. Total Normal Cost	\$ 365	\$ 3,552
2. Total DB and DCR Plan Rate Payroll Projected for FY24	754,274	754,274
3. Employer Normal Cost Rate, (1) ÷ (2)	0.05%	0.47%
4. Past Service Cost Amortization Payment	(590)	(1,338)
5. Past Service Cost Rate, (4) ÷ (2)	(0.08%)	(0.18%)
Total Employer Contribution Rate, not less than Normal Cost Rate	0.05%	0.47%

Schedule of Past Service Cost Amortizations - Occupational Death & Disability (\$'s in 000's)

Layer	Amortization Period		Balances		Beginning-of-Year Payment
	Date Created	Years Remaining	Initial	Outstanding	
Initial Unfunded Liability	06/30/2007	9	\$ 16	\$ 12	\$ 2
FY08 Gain	06/30/2008	10	(392)	(336)	(40)
Change in Assumptions	06/30/2009	11	(82)	(72)	(8)
FY09 Gain	06/30/2009	11	(594)	(536)	(60)
Change in Assumptions	06/30/2010	12	(7)	(8)	(1)
FY10 Gain	06/30/2010	12	(479)	(445)	(46)
FY11 Gain	06/30/2011	13	(560)	(532)	(52)
FY12 Gain	06/30/2012	14	(129)	(127)	(12)
FY13 Gain	06/30/2013	15	(149)	(145)	(13)
Change in Assumptions	06/30/2014	16	(50)	(53)	(4)
PRPA Modification	06/30/2014	16	(25)	(25)	(2)
FY14 Gain	06/30/2014	16	(255)	(254)	(21)
FY15 Gain	06/30/2015	17	(275)	(275)	(22)
FY16 Gain	06/30/2016	18	(209)	(212)	(17)
FY17 Gain	06/30/2017	19	(251)	(251)	(19)
Change in Assumptions ¹	06/30/2018	20	0	0	0
FY18 Gain	06/30/2018	20	(257)	(258)	(19)
FY19 Gain	06/30/2019	21	(338)	(340)	(24)
FY20 Gain	06/30/2020	22	(637)	(642)	(44)
FY21 Gain	06/30/2021	23	(985)	(991)	(66)
Change in Assumptions ¹	06/30/2022	24	0	0	0
FY22 Gain	06/30/2022	24	(927)	(931)	(61)
FY23 Gain	06/30/2023	25	(957)	(957)	(61)
Total				\$ (7,378)	\$ (590)

¹ The net effect of changing assumptions was less than \$1,000.

Schedule of Past Service Cost Amortizations - Retiree Medical (\$'s in 000's)

Layer	Amortization Period		Balances		Beginning-of-Year Payment
	Date Created	Years Remaining	Initial	Outstanding	
Initial Unfunded Liability	06/30/2007	9	\$ (239)	\$ (198)	\$ (26)
Change in Assumptions	06/30/2008	10	84	75	9
FY08 Gain	06/30/2008	10	(393)	(336)	(40)
Change in Assumptions	06/30/2009	11	(69)	(60)	(7)
FY09 Gain	06/30/2009	11	(281)	(254)	(28)
Change in Assumptions ¹	06/30/2010	12	0	0	0
FY10 Gain	06/30/2010	12	(545)	(506)	(53)
FY11 Gain	06/30/2011	13	(94)	(88)	(9)
Change in Assumptions	06/30/2012	14	11,518	11,192	1,041
FY12 Gain	06/30/2012	14	(60)	(55)	(5)
FY13 Loss	06/30/2013	15	3,439	3,394	300
Change in Assumptions	06/30/2014	16	(9,736)	(9,703)	(820)
FY14 Loss	06/30/2014	16	1,616	1,609	136
FY15 Gain	06/30/2015	17	(3,485)	(3,494)	(283)
EGWP Impact	06/30/2016	18	(6,400)	(6,440)	(503)
FY16 Loss	06/30/2016	18	958	967	75
Change in Assumptions	06/30/2017	19	7,645	7,695	580
FY17 Gain	06/30/2017	19	(1,451)	(1,461)	(110)
Change in Assumptions/Methods	06/30/2018	20	(9,505)	(9,545)	(696)
FY18 Loss	06/30/2018	20	2,491	2,502	182
FY19 Gain	06/30/2019	21	(4,904)	(4,941)	(349)
Change in Assumptions	06/30/2020	22	2,153	2,171	149
FY20 Gain	06/30/2020	22	(1,655)	(1,668)	(115)
Prescription Drug Plan Changes	06/30/2021	23	(528)	(531)	(36)
FY21 Gain	06/30/2021	23	(5,449)	(5,487)	(367)
Change in Assumptions	06/30/2022	24	(3,374)	(3,388)	(221)
FY22 Gain	06/30/2022	24	(2,147)	(2,156)	(141)
FY23 Gain	06/30/2023	25	(16)	(16)	(1)
Total				\$ (20,722)	\$ (1,338)

¹ The net effect of changing assumptions was less than \$1,000. The demographic assumption changes decreased liability by \$133,000 and the economic assumptions changes increased the liability by \$133,000. Therefore, the net effect of all assumptions changes is \$0 for amortization purposes.

Section 1.3: Actuarial Gain/(Loss) for FY23 (\$'s in 000's)

	Occupational Death & Disability	Retiree Medical
1. Expected Actuarial Accrued Liability		
a. Actuarial Accrued Liability as of June 30, 2022	\$ 199	\$ 47,797
b. Normal Cost	339	3,072
c. Interest on (a) and (b) at 7.25%	39	3,688
d. Employer Group Waiver Plan	0	31
e. Benefit Payments	(26)	(86)
f. Interest on (d) and (e) at 7.25%, adjusted for timing	(1)	(2)
g. Assumptions/Methods Changes	0	0
h. Expected Actuarial Accrued Liability as of June 30, 2023 (a) + (b) + (c) + (d) + (e) + (f) + (g)	\$ 550	\$ 54,500
2. Actual Actuarial Accrued Liability as of June 30, 2023	190	57,093
3. Liability Gain/(Loss), (1)(h) - (2)	\$ 360	\$ (2,593)
4. Expected Actuarial Asset Value		
a. Actuarial Asset Value as of June 30, 2022	\$ 6,700	\$ 68,403
b. Interest on (a) at 7.25%	486	4,959
c. Employer Contributions	411	4,467
d. Employer Group Waiver Plan	0	31
e. Interest on (c) and (d) at 7.25%, adjusted for timing	15	160
f. Benefit Payments	(26)	(86)
g. Administrative Expenses	(10)	(37)
h. Interest on (f) and (g) at 7.25%, adjusted for timing	(1)	(4)
i. Expected Actuarial Asset Value as of June 30, 2023 (a) + (b) + (c) + (d) + (e) + (f) + (g) + (h)	\$ 7,575	\$ 77,893
5. Actuarial Asset Value as of June 30, 2023	7,568	77,815
6. Actuarial Asset Gain/(Loss), (5) - (4)(i)	\$ (7)	\$ (78)
7. Total Actuarial Gain/(Loss), (3) + (6)	\$ 353	\$ (2,671)
8. Contribution Gain/(Loss)	\$ 605	\$ 2,688
9. Administrative Expense Gain/(Loss)	\$ (1)	\$ (1)
10. FY23 Gain/(Loss), (7) + (8) + (9)	\$ 957	\$ 16

Section 1.4: History of Unfunded Liability and Funded Ratio (\$'s in 000's)

Occupational Death & Disability

Valuation Date	Total Actuarial Accrued Liability	Valuation Assets	Assets as a Percent of Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)
June 30, 2007	\$ 16	\$ 0	0.0%	\$ 16
June 30, 2008	44	420	954.5%	(376)
June 30, 2009	14	1,071	7,650.0%	(1,057)
June 30, 2010	18	1,577	8,761.1%	(1,559)
June 30, 2011	57	2,193	3,847.4%	(2,136)
June 30, 2012	63	2,348	3,727.0%	(2,285)
June 30, 2013	80	2,532	3,165.0%	(2,452)
June 30, 2014	23	2,820	12,260.9%	(2,797)
June 30, 2015	29	3,114	10,737.9%	(3,085)
June 30, 2016	19	3,323	17,489.5%	(3,304)
June 30, 2017	26	3,588	13,800.0%	(3,562)
June 30, 2018	30	3,845	12,816.7%	(3,815)
June 30, 2019	240	4,359	1,816.3%	(4,119)
June 30, 2020	223	4,933	2,212.1%	(4,710)
June 30, 2021	205	5,843	2,850.2%	(5,638)
June 30, 2022	199	6,700	3,366.8%	(6,501)
June 30, 2023	190	7,568	3,983.2%	(7,378)

Retiree Medical

Valuation Date	Total Actuarial Accrued Liability	Valuation Assets	Assets as a Percent of Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)
June 30, 2007	\$ 358	\$ 597	166.8%	\$ (239)
June 30, 2008	757	1,308	172.8%	(551)
June 30, 2009	1,446	2,353	162.7%	(907)
June 30, 2010	2,430	3,895	160.3%	(1,465)
June 30, 2011	3,801	5,373	141.4%	(1,572)
June 30, 2012	16,811	6,937	41.3%	9,874
June 30, 2013	22,058	8,614	39.1%	13,444
June 30, 2014	16,273	10,791	66.3%	5,482
June 30, 2015	19,768	17,733	89.7%	2,035
June 30, 2016	21,988	25,410	115.6%	(3,422)
June 30, 2017	33,681	30,998	92.0%	2,683
June 30, 2018	32,429	36,776	113.4%	(4,347)
June 30, 2019	32,981	42,307	128.3%	(9,326)
June 30, 2020	40,634	49,554	122.0%	(8,920)
June 30, 2021	44,396	59,380	133.8%	(14,984)
June 30, 2022	47,797	68,403	143.1%	(20,606)
June 30, 2023	57,093	77,815	136.3%	(20,722)

Section 2: Plan Assets

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

As of June 30, 2023	Occupational Death & Disability	Retiree Medical	Allocation Percent
Cash and Short-Term Investments			
- Cash and Cash Equivalents	\$ 111	\$ 1,160	1.5%
- Subtotal	\$ 111	\$ 1,160	1.5%
Fixed Income Investments			
- Domestic Fixed Income Pool	\$ 1,345	\$ 13,822	18.1%
- International Fixed Income Pool	0	0	0.0%
- Alternative Fixed Income Pool	202	2,078	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	\$ 1,547	\$ 15,900	20.8%
Equity Investments			
- Domestic Equity Pool	\$ 1,830	\$ 18,794	24.7%
- International Equity Pool	1,041	10,695	14.0%
- Private Equity Pool	1,200	12,331	16.2%
- Emerging Markets Equity Pool	228	2,339	3.1%
- Alternative Equity Strategies	399	4,100	5.4%
- Subtotal	\$ 4,698	\$ 48,259	63.4%
Other Investments			
- Real Estate Pool	\$ 501	\$ 5,143	6.8%
- Other Investments Pool	557	5,723	7.5%
- Absolute Return Pool	0	0	0.0%
- Other Assets	0	0	0.0%
- Subtotal	\$ 1,058	\$ 10,866	14.3%
Total Cash and Investments	\$ 7,414	\$ 76,185	100.0%
Net Accrued Receivables	33	372	
Net Assets	\$ 7,447	\$ 76,557	

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

Fiscal Year 2023	Occupational Death & Disability	Retiree Medical
1. Fair Value of Assets as of June 30, 2022	\$ 6,557	\$ 66,909
2. Additions:		
a. Member Contributions	\$ 0	\$ 0
b. Employer Contributions	411	4,467
c. Interest and Dividend Income	109	1,113
d. Net Appreciation/(Depreciation) in Fair Value of Investments	426	4,367
e. Employer Group Waiver Plan	0	31
f. Other	0	0
g. Total Additions	\$ 946	\$ 9,978
3. Deductions:		
a. Medical Benefits	\$ 0	\$ 86
b. Death & Disability Benefits	26	0
c. Investment Expenses	20	207
d. Administrative Expenses	10	37
e. Total Deductions	\$ 56	\$ 330
4. Fair Value of Assets as of June 30, 2023	\$ 7,447	\$ 76,557
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 assets and the fair value were \$0 at June 30, 2006. Investment gains and losses are recognized 20% per year over 5 years. In no event may valuation assets be less than 80% or more than 120% of fair value as of the current valuation date.

	Occupational Death & Disability	Retiree Medical
1. Investment Gain/(Loss) for FY23		
a. Fair Value as of June 30, 2022	\$ 6,557	\$ 66,909
b. Contributions	411	4,467
c. Employer Group Waiver Plan	0	31
d. Benefit Payments	26	86
e. Administrative Expenses	10	37
f. Actual Investment Return (net of investment expenses)	515	5,273
g. Expected Return Rate (net of investment expenses)	7.25%	7.25%
h. Expected Return	489	5,007
i. Investment Gain/(Loss) for the Year (f) - (h)	26	266
2. Actuarial Value as of June 30, 2023		
a. Fair Value as of June 30, 2023	\$ 7,447	\$ 76,557
b. Deferred Investment Gain/(Loss)	(121)	(1,258)
c. Preliminary Actuarial Value as of June 30, 2023, (a) - (b)	7,568	77,815
d. Upper Limit: 120% of Fair Value as of June 30, 2023	8,936	91,868
e. Lower Limit: 80% of Fair Value as of June 30, 2023	5,958	61,246
f. Actuarial Value at June 30, 2023, (c) limited by (d) and (e)	7,568	77,815
3. Ratio of Actuarial Value of Assets to Fair Value of Assets	101.6%	101.6%
4. Approximate Actuarial Value Investment Return Rate during FY23 Net of Investment Expenses	7.2%	7.1%

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

Occupational Death & Disability				
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	\$ (48)	\$ (40)	\$ (8)	\$ 0
June 30, 2020	(140)	(84)	(28)	(28)
June 30, 2021	1,103	442	220	441
June 30, 2022	(925)	(185)	(185)	(555)
June 30, 2023	<u>26</u>	<u>0</u>	<u>5</u>	<u>21</u>
Total	\$ 16	\$ 133	\$ 4	\$ (121)

Retiree Medical				
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	\$ (460)	\$ (368)	\$ (92)	\$ 0
June 30, 2020	(1,367)	(819)	(274)	(274)
June 30, 2021	11,132	4,452	2,227	4,453
June 30, 2022	(9,418)	(1,884)	(1,884)	(5,650)
June 30, 2023	<u>266</u>	<u>0</u>	<u>53</u>	<u>213</u>
Total	\$ 153	\$ 1,381	\$ 30	\$ (1,258)

Section 2.4: Historical Asset Rates of Return

Year Ending	Actuarial Value		Fair Value	
	Annual	Cumulative	Annual	Cumulative
June 30, 2008	6.4%	6.4%	(0.3%)	(0.3%)
June 30, 2009	3.2%	4.8%	(12.0%)	(6.3%)
June 30, 2010	4.2%	4.6%	6.4%	(2.3%)
June 30, 2011	7.4%	5.3%	18.9%	2.6%
June 30, 2012	6.9%	5.6%	1.6%	2.4%
June 30, 2013	7.7%	6.0%	11.9%	3.9%
June 30, 2014	10.9%	6.6%	18.0%	5.8%
June 30, 2015	9.5%	7.0%	3.1%	5.5%
June 30, 2016	6.5%	6.9%	(0.1%)	4.9%
June 30, 2017	7.6%	7.0%	12.6%	5.6%
June 30, 2018	7.8%	7.1%	8.0%	5.8%
June 30, 2019	6.4%	7.0%	6.2%	5.9%
June 30, 2020	6.3%	7.0%	4.3%	5.7%
June 30, 2021	11.3%	7.3%	29.5%	7.3%
June 30, 2022	8.3%	7.3%	(6.2%)	6.3%
June 30, 2023	7.1%	7.3%	7.6%	6.4%

Rates of return are shown based on combined assets for OD&D and Retiree Medical.

Cumulative returns are since fiscal year ending June 30, 2008.

Section 3: Member Data

Section 3.1: Summary of Members Included

As of June 30	2019	2020	2021	2022	2023
Active Members					
1. Number	4,998	5,332	5,521	5,688	5,877 ¹
2. Average Age	41.06	41.63	41.90	42.26	42.44
3. Average Credited Service	5.67	6.03	6.34	6.60	6.72
4. Average Entry Age	35.39	35.60	35.56	35.66	35.72
5. Average Annual Earnings	\$ 69,619	\$ 71,118	\$ 74,045	\$ 76,956	\$ 78,119
Disabilitants and Beneficiaries (Occupational Death & Disability)					
1. Number	1	1	1	1	1
2. Average Age	53.45	54.45	55.45	56.45	57.45
3. Average Monthly Death & Disability Benefit	\$ 2,024	\$ 2,024	\$ 2,024	\$ 2,170	\$ 2,299
Retirees, Surviving Spouses, and Dependent Spouses (Retiree Medical)					
1. Number	12	17	24	35	51
2. Average Age	68.54	68.79	67.71	69.66	70.58
Total Number of Members	5,011	5,350	5,546	5,724	5,929

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

¹ Includes 1,548 male active members and 4,329 female active members.

Section 3.2: 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	112	6,307,635	56,318
25 - 29	547	34,325,861	62,753
30 - 34	873	63,152,967	72,340
35 - 39	1,120	87,984,264	78,557
40 - 44	1,115	89,906,565	80,634
45 - 49	737	60,608,262	82,236
50 - 54	571	48,923,314	85,680
55 - 59	398	33,328,551	83,740
60 - 64	269	23,133,459	85,998
65 - 69	98	8,486,977	86,602
70 - 74	30	2,407,932	80,264
75+	7	538,980	76,997

Total 5,877 \$459,104,767 \$ 78,119

Annual Earnings by Credited Service

Years of Service	Number	Total Annual Earnings	Average Annual Earnings
0	262	\$ 15,709,478	\$ 59,960
1	760	49,976,413	65,758
2	565	39,360,670	69,665
3	471	33,734,970	71,624
4	430	32,100,454	74,652
0 - 4	2,488	\$170,881,985	\$ 68,682
5 - 9	1,732	138,507,087	79,969
10 - 14	1,178	104,568,265	88,768
15 - 19	476	44,846,288	94,215
20 - 24	3	301,142	100,381
25 - 29	0	0	0
30 - 34	0	0	0
35 - 39	0	0	0
40+	0	0	0

Total 5,877 \$459,104,767 \$ 78,119

Years of Credited Service by Age

Age	Years of Service										Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+		
0 - 19	0	0	0	0	0	0	0	0	0	0	0
20 - 24	112	0	0	0	0	0	0	0	0	0	112
25 - 29	453	93	1	0	0	0	0	0	0	0	547
30 - 34	442	374	57	0	0	0	0	0	0	0	873
35 - 39	393	357	323	47	0	0	0	0	0	0	1,120
40 - 44	381	293	300	140	1	0	0	0	0	0	1,115
45 - 49	262	211	166	98	0	0	0	0	0	0	737
50 - 54	191	151	147	82	0	0	0	0	0	0	571
55 - 59	127	134	84	52	1	0	0	0	0	0	398
60 - 64	70	87	71	41	0	0	0	0	0	0	269
65 - 69	41	19	25	12	1	0	0	0	0	0	98
70 - 74	13	11	3	3	0	0	0	0	0	0	30
75+	3	2	1	1	0	0	0	0	0	0	7
Total	2,488	1,732	1,178	476	3	0	0	0	0	0	5,877

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

Section 3.3: Member Data Reconciliation

	Actives	Retirees and Surviving Spouses	Dependent Spouses	OD&D Disabilitants	OD&D Beneficiaries	Total
As of June 30, 2022 ¹	5,688	27	8	1	0	5,724
New Entrants	874	0	0	0	0	874
Rehires	253	0	0	0	0	253
Vested Terminations	(379)	0	0	0	0	(379)
Non-Vested Terminations	(436)	0	0	0	0	(436)
Refund of Contributions	(60)	0	0	0	0	(60)
Disability Retirements	0	0	0	0	0	0
Age Retirements	(9)	9	6	0	0	6
Deaths With Beneficiary	0	0	0	0	0	0
Deaths Without Beneficiary	(3)	0	0	0	0	(3)
Added Retiree Medical Coverage	0	0	0	0	0	0
Dropped Retiree Medical Coverage	0	(1)	0	0	0	(1)
Transfers In/Out	(50)	2	0	0	0	(48)
Data Corrections	(1)	0	0	0	0	(1)
Net Change	189	10	6	0	0	205
As of June 30, 2023 ²	5,877	37	14	1	0	5,929

¹ 124 participants are expected to receive retiree medical benefits in a different plan and are included for OD&D benefits only.

² 130 participants are expected to receive retiree medical benefits in a different plan and are included for OD&D benefits only.

Section 3.4: 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	5,877	\$ 459,105	\$ 78,119	1.5%	57
June 30, 2022	5,688	437,728	76,956	3.9%	57
June 30, 2021	5,521	408,805	74,045	4.1%	57
June 30, 2020	5,332	379,201	71,118	2.2%	57
June 30, 2019	4,998	347,957	69,619	2.2%	57
June 30, 2018	4,915	334,803	68,119	2.4%	57
June 30, 2017	4,694	312,347	66,542	2.0%	57
June 30, 2016	4,383	285,854	65,219	2.5%	58
June 30, 2015	4,095	260,584	63,635	2.7%	58
June 30, 2014	3,547	219,701	61,940	2.4%	58

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

Section 3.5: Active Member Payroll Reconciliation

Payroll Field	Payroll Data (000's)
a) DRB actual reported salaries FY23 in employer list	\$ 512,714
b) DRB actual reported salaries FY23 in valuation data	449,165
c) Annualized valuation data	459,105
d) Valuation payroll as of June 30, 2023	481,866
e) Rate payroll for FY24	477,857

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- 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

Section 4: Basis of the Actuarial Valuation

Section 4.1: Summary of Plan Provisions

Effective Date

July 1, 2006, with amendments through June 30, 2023.

Administration of Plan

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

The Alaska Retirement Management Board prescribes policies, adopts regulations, invests the funds, and performs other activities necessary to carry out the provisions of the Plan.

Employers Included

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

Membership

An employee of a participating employer who first enters service on or after July 1, 2006, or a member of the defined benefit plan who works for an employer who began participation on or after July 1, 2006, and meets the following criteria is a member in the Plan:

- Permanent full-time or part-time elementary or secondary teachers, school nurses, or a person in a position requiring a teaching certificate as a condition of hire in a public school of the State of Alaska, the Department of Education and Early Development, or in the Department of Labor and Workforce Development.
- Full-time or part-time teachers at the University of Alaska or persons occupying full-time administrative positions requiring academic standing who are not in the University's Optional Retirement Plan.

Members can convert to TRS DCR if they are an eligible non-vested member of the TRS defined benefit plan whose employer consents to transfers to the defined contribution plan and they elect to transfer his or her account balance to TRS DCR.

Member Contributions

Other than the member-paid premiums discussed later in this section, there are no member contributions for the occupational death & disability and retiree medical benefits.

Retiree Medical Benefits

- Member must retire directly from the plan to be eligible for retiree medical coverage. Normal retirement eligibility is the earlier of a) 30 years of service or b) Medicare eligible and 10 years of service.
- No subsidized retiree medical benefits are provided until normal retirement eligibility. The member's and any covered dependent's premium is 100% until the member is Medicare eligible. Upon the member's Medicare-eligibility, the required contribution will follow the service-based schedule shown below.
- Coverage cannot be denied except for failure to pay premium.
- Members who are receiving disability benefits or survivors who are receiving monthly survivor benefits are not eligible until the member meets, or would have met if he/she had lived, the normal retirement eligibility requirements.
- The following is a summary of the medical benefit design adopted in July 2016. The plan description below is used for valuation purposes and indicates participant cost-sharing. Please refer to the benefit handbook for more details.

Plan Design Feature	In-Network ¹	Out-of-Network ^{1 2}
Deductible (single / family)	\$300 / \$600	
Medical services (participant share)	20%	40%
Emergency Room Copay (non-emergent use)	\$100	\$100
Medical Out-of-Pocket Maximum (single / family, including deductible)	\$1,500 / \$3,000	\$3,000 / \$6,000
Medicare Coordination	Exclusion	Exclusion
Pharmacy	No Deductible	No Deductible
Retail Generic (per 30-day fill)	20% \$10 min / \$50 max	
Retail Non-Formulary Brand (per 30-day fill)	25% \$25 min / \$75 max	40%
Retail Formulary Brand (per 30-day fill)	35% \$80 min / \$150 max	
Mail-Order Generic	\$20 copay	
Mail-Order Non-Formulary Brand	\$50 copay	40%
Mail-Order Formulary Brand	\$100 copay	
Pharmacy Out-of-Pocket Max (single / family)	\$1,000 / \$2,000	
Medicare Pharmacy Arrangement	Retiree Drug Subsidy / Employer Group Waiver Plan effective 1/1/2019	
Wellness / Preventative	100% covered, not subject to deductible	20%, after deductible

¹ Section 1.1 of the AlaskaCare Defined Contribution Retiree Benefit Plan states that this health plan shall be updated from time to time to reflect changes in benefits, including annual adjustments to the premium, deductible, coinsurance, medical out-of-pocket limit, and prescription drug out-of-pocket limit.

² OON applies only to non-Medicare eligible participants.

- Buck used manual rate models to determine relative plan values for the defined benefit (DB) retiree medical plan and the DCR retiree medical plan outlined above. We applied the ratio of the DCR retiree medical plan value to the DB retiree medical plan value to the per capita costs determined for each of pre/post-Medicare medical and pharmacy benefits to estimate corresponding values for the DCR retiree medical plan design. These factors are noted in Section 4.3. We further adjusted the Medicare medical manual rate to reflect the Medicare coordination method adopted. The estimated 2024 reimbursements under EGWP were provided by Segal Consulting (who worked with the EGWP administrator, Optum, to develop those estimates). We reflect estimated discounts and pharmacy rebates in the defined benefit medical cost so no further adjustment was needed for the DCR retiree medical plan. The medical network differential is reflected in the relative plan value adjustments.
- Starting in 2022, prior authorization is required for certain specialty medications. There is no change to the medications that are covered by the plan.
- The retiree medical plan’s coverage is supplemental to Medicare. Medicare coordination is described in the DCR Plan Handbook, referred to in the industry as exclusion coordination: Medicare payment is deducted from the Medicare allowable expense and plan parameters are applied to the remaining amount. Starting in 2019, the prescription drug coverage is through a Medicare Part D EGWP arrangement.
- The premium for Medicare-eligible retirees will be based on the member’s years of service. The percentage of premium paid by the member is as follows:

Years of Service	Percent of Premium Paid by Member
< 15	30%
15 – 19	25%
20 – 24	20%
25 – 29	15%
30+	10%

- The premium for dependents who are not eligible for Medicare aligns with the member’s subsidy. While a member is not Medicare-eligible, premiums are 100% of the estimated cost.
- Members have a separate defined contribution Health Reimbursement Arrangement account, which is not reflected in this valuation, that can be used to pay for premiums or other medical expenses.
- For valuation purposes, retiree premiums were assumed to equal the percentages outlined in the table above times the age-related plan costs. Future premiums calculated and charged to DCR participants will need to be determined reflecting any appropriate adjustments to the defined benefit (DB) plan data because current DB premiums were determined using information based upon enrollment with members who have double coverage.
- Coverage will continue for surviving spouses of covered retired members.

Occupational Disability Benefits

- Benefit is 40% of salary at date of disability.
- Disability Benefit Adjustment: The disability benefit is increased by 75% of the cost-of-living increase in the preceding calendar year or 9%, whichever is less.
- Member earns service while on occupational disability.
- Benefits cease when the member becomes eligible for normal retirement at Medicare-eligible age and 10 years of service, or at any age with 30 years of service.
- No subsidized retiree medical benefits are provided until normal retirement eligibility. The member's premium is 100% of the estimated cost until they are Medicare eligible. Medicare-eligible premiums follow the service-based schedule above.

Occupational Death Benefits

- Benefit is 40% of salary.
- Survivor's Pension Adjustment: A survivor's pension is increased by 50% of the cost-of-living increase in the preceding calendar year or 6%, whichever is less, if the recipient is at least age 60 on July 1, or under age 60 if the recipient has been receiving TRS benefits for at least 8 years as of July 1.
- Benefits cease when the member would have become eligible for normal retirement.
- The period during which the survivor is receiving benefits is counted as service credit toward retiree medical benefits.
- No subsidized retiree medical benefits are provided until the member would have been eligible for normal retirement. The surviving spouse's premium is 100% of the estimated cost until the member would have been Medicare eligible. Medicare-eligible premiums follow the service-based schedule above.

Changes in Benefit Provisions Valued Since the Prior Valuation

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

Section 4.2: Description of Actuarial Methods and Valuation Procedures

The funding method used in this valuation was adopted by the Board in October 2006, and was modified as part of the experience study for the period July 1, 2013 to June 30, 2017. The asset smoothing method used to determine valuation assets was implemented effective June 30, 2006.

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. Each year's difference between actual and expected unfunded actuarial accrued liability is amortized over 25 years as a level percentage of expected payroll.

Cost factors designed to produce annual costs as a constant percentage of each member's expected compensation in each year for death & disability benefits and retiree medical benefits, from the assumed entry age to the last age with a future benefit, 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 DCR Plan 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 beneficiaries and disabled members currently receiving benefits (if any) 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.

Valuation of Assets

Effective June 30, 2006, the asset valuation method recognizes 20% of the investment gain or loss in each of the current and preceding four years. This method was phased in over five years. Fair Value of Assets was \$0 as of June 30, 2006. 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. Valuation assets are constrained to a range of 80% to 120% of the fair value of assets.

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

The methodology used for the valuation of the retiree medical benefits is described in Section 5.2 of the State of Alaska Teachers' Retirement System Defined Benefit Plan Actuarial Valuation Report as of June 30, 2023.

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. Those base claims costs were used for the DCR valuation with further adjustments as noted below. Additionally, starting in 2022, certain common preventive benefits are covered for the DB plan. The resulting adjustment factor for pre-Medicare medical costs was applied to claims experience incurred before January 1, 2022. However, preventive benefits were already covered under the DCR plan so the pre-65 DCR medical adjustment factor referenced below was increased from 3.1% to 4.4%.

Due to the lack of experience for the DCR retiree medical plan, base claims costs are based on those described in the actuarial valuation as of June 30, 2023 for the Defined Benefit (DB) retiree medical plan covering TRS and PERS. The DB rates were used with some adjustments. The claims costs were adjusted to reflect the differences between the DCR medical plan and the DB medical plan. These differences include network steerage, different coverage levels, different Medicare coordination for medical benefits, and an indexing of the retiree out-of-pocket dollar amounts. To account for higher initial copays, deductibles, and out-of-pocket limits, projected FY24 claims costs were reduced 4.4% for pre-Medicare medical claims, 3.1% for Medicare medical claims, and 8.9% for prescription drugs. In addition, to account for the difference in Medicare coordination, projected FY24 medical claims costs for Medicare eligible retirees were further reduced 29.5%.

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. FY22 and FY23 per capita claims were reasonable when compared to pre-COVID levels, so no adjustments were made to the claims used in the per capita claims cost development.

No implicit subsidies are assumed. Employees projected to retire with 30 years of service prior to Medicare are valued with commencement deferred to Medicare eligibility, because those members will be required to pay the full plan premium prior to Medicare. Explicit subsidies for disabled and normal retirement are determined using the plan-defined percentages of age-related total projected plan costs, again with no implicit subsidy assumed.

The State transitioned to an Employer Group Waiver Program (EGWP) for DCR participants effective January 1, 2019. The estimated 2024 reimbursements under EGWP were provided by Segal Consulting (who worked with the EGWP administrator, Optum, to develop those estimates).

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, not all provisions are required. Unlimited lifetime benefits and dependent coverage to age 26 are two of these provisions. The adopted DCR plan does not place lifetime limits on benefits, but does restrict dependent child coverage.

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.

Section 4.3: 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.

- Occ D&D: 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:

- Occ D&D: 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.

- Occ D&D: 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). For retiree medical benefits, the disability rates cease once a member is eligible for retirement. However, the disability rates continue after retirement eligibility for occupational death & disability benefits.

Disabilities are assumed to be occupational 15% of the time.

Post-disability mortality in accordance with the following tables:

- Occ D&D: 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).

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 Occupational Death & Disability

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.

Part-Time Service

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

Imputed Data

Data changes from the prior year which are deemed to have 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.

Administrative Expenses

The Normal Cost as of June 30, 2023 was increased by \$10,000 for occupational death & disability and \$36,000 for retiree medical. These amounts are based on the average of actual administrative expenses during the last two fiscal years.

Retiree Medical Participation

Death / Disability Decrement		Retirement Decrement	
Age	Percent Participation	Age	Percent Participation*
< 56	75.0%	55	50.0%
56	77.5%	56	55.0%
57	80.0%	57	60.0%
58	82.5%	58	65.0%
59	85.0%	59	70.0%
60	87.5%	60	75.0%
61	90.0%	61	80.0%
62	92.5%	62	85.0%
63	95.0%	63	90.0%
64	97.5%	64	95.0%
65+	100.0%	65+	Years of Service
		< 15	75.0%
		15 – 19	80.0%
		20 – 24	85.0%
		25 – 29	90.0%
		30+	95.0%

* Participation assumption is a combination of (i) the service-based rates for retirement from employment at age 65+ and (ii) the age-based rates for retirement from employment before age 65. These rates reflect the expected plan election rate that varies by reason for decrement, duration that a member may pay full cost prior to Medicare eligibility, and availability of alternative and/or lower cost options, particularly in the Medicare market. This assumption is based on observed trends in participation from a range of other plans.

Healthcare Per Capita Claims Cost

Sample claims cost rates (before base claims cost adjustments described below) 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.

	Medical	Prescription Drugs
Pre-Medicare	\$ 17,338	\$ 3,947
Medicare Parts A & B	\$ 1,761	\$ 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.

Base Claims Cost Adjustments

Due to higher initial copays, deductibles, out-of-pocket limits, and member cost sharing compared to the DB medical plan, the following cost adjustments are applied to the per capita claims cost rates above:

- 0.956 for the pre-Medicare plan.
- 0.674 for both the Medicare medical plan and Medicare coordination method (3.1% reduction for the medical plan and 29.5% reduction for the coordination method).
- 0.911 for the prescription drug plan.

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 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.

Changes in Assumptions Since the Prior Valuation

The healthcare per capita claims cost assumption is updated annually as described in Section 4.2. The amounts included in the Normal Cost for administrative expenses were changed from \$9,000 to \$10,000 for occupational death & disability, and from \$35,000 to \$36,000 for retiree medical (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	7.25%
1	6.75%
2	6.25%
3	5.75%
4	5.25%
5	5.00%
6	4.75%
7	4.50%
8	4.25%
9	4.00%
10	3.75%
11	3.50%
12	3.25%
13	3.05%
14	3.00%
15	2.95%
16	2.90%
17+	2.85%

Table 2: Turnover Rates

Select Rates during the First 6 Years of Employment

Years of Service	Male	Female
< 1	28.00%	31.00%
1	28.00%	21.00%
2	19.00%	18.00%
3	17.00%	13.00%
4	13.00%	13.00%
5	13.00%	10.00%

Ultimate Rates after the First 6 Years of Employment

Age	Male	Female
< 30	10.50%	8.70%
30 - 34	10.50%	8.70%
35 - 39	10.40%	8.60%
40 - 44	10.30%	8.60%
45 - 49	10.00%	8.40%
50 - 54	9.50%	8.10%
55 - 59	8.80%	7.90%
60 - 64	9.30%	8.70%
65+	10.90%	7.40%

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

Age	Rate
< 55	2.00%
55	3.00%
56	3.00%
57	3.00%
58	3.00%
59	3.00%
60	5.00%
61	5.00%
62	10.00%
63	5.00%
64	5.00%
65	25.00%
66	25.00%
67	25.00%
68	20.00%
69	20.00%
70+	100.00%

Section 5: Historical Information¹

Section 5.1: Funding Progress

Funding Progress - Occupational Death & Disability (\$'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	\$ 190	\$ 7,568	3,983.2%	\$ (7,378)	\$ 477,857	(1.5%)
June 30, 2022	199	6,700	3,366.8%	(6,501)	455,927	(1.4%)
June 30, 2021	205	5,843	2,850.2%	(5,638)	423,783	(1.3%)
June 30, 2020	223	4,933	2,212.1%	(4,710)	391,854	(1.2%)
June 30, 2019	240	4,359	1,816.3%	(4,119)	359,622	(1.1%)
June 30, 2018	30	3,845	12,816.7%	(3,815)	346,044	(1.1%)
June 30, 2017	26	3,588	13,800.0%	(3,562)	327,765	(1.1%)
June 30, 2016	19	3,323	17,489.5%	(3,304)	300,750	(1.1%)
June 30, 2015	29	3,114	10,737.9%	(3,085)	274,892	(1.1%)
June 30, 2014	23	2,820	12,260.9%	(2,797)	232,051	(1.2%)
June 30, 2013	80	2,532	3,165.0%	(2,452)	210,004	(1.2%)
June 30, 2012	63	2,348	3,727.0%	(2,285)	189,680	(1.2%)
June 30, 2011	57	2,193	3,847.4%	(2,136)	160,509	(1.3%)
June 30, 2010	18	1,577	8,761.1%	(1,559)	126,520	(1.2%)
June 30, 2009	14	1,071	7,650.0%	(1,057)	95,141	(1.1%)
June 30, 2008	44	420	954.5%	(376)	59,750	(0.6%)
June 30, 2007	16	0	0.0%	16	30,113	0.1%

Change in assumptions reflected in 2022, 2018, 2014, 2010, and 2009 valuations.

¹ 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 43 were still effective.

Funding Progress - Retiree Medical (\$'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	\$ 57,093	\$ 77,815	136.3%	\$ (20,722)	\$ 477,857	(4.3%)
June 30, 2022	47,797	68,403	143.1%	(20,606)	455,927	(4.5%)
June 30, 2021	44,396	59,380	133.8%	(14,984)	423,783	(3.5%)
June 30, 2020	40,634	49,554	122.0%	(8,920)	391,854	(2.3%)
June 30, 2019	32,981	42,307	128.3%	(9,326)	359,622	(2.6%)
June 30, 2018	32,429	36,776	113.4%	(4,347)	346,044	(1.3%)
June 30, 2017	33,681	30,998	92.0%	2,683	327,765	0.8%
June 30, 2016	21,988	25,410	115.6%	(3,422)	300,750	(1.1%)
June 30, 2015	19,768	17,733	89.7%	2,035	274,892	0.7%
June 30, 2014	16,273	10,791	66.3%	5,482	232,051	2.4%
June 30, 2013	22,058	8,614	39.1%	13,444	210,004	6.4%
June 30, 2012	16,811	6,937	41.3%	9,874	189,680	5.2%
June 30, 2011	3,801	5,373	141.4%	(1,572)	160,509	(1.0%)
June 30, 2010	2,430	3,895	160.3%	(1,465)	126,520	(1.2%)
June 30, 2009	1,446	2,353	162.7%	(907)	95,141	(1.0%)
June 30, 2008	757	1,308	172.8%	(551)	59,750	(0.9%)
June 30, 2007	358	597	166.8%	(239)	30,113	(0.8%)

Change in assumptions reflected in 2022, 2020, 2018, 2017, 2014, 2012, 2011, 2010, 2009, and 2008 valuations.

Change in methods reflected in 2018 valuation.

Change in plan provisions reflected in 2021 and 2016 valuations.

Section 5.2: Solvency Test

Solvency Test - Occupational Death & Disability (\$'s in 000's)

Valuation Date	Actuarial Accrued Liability (AAL)			Valuation Assets	Portion of AAL Covered by Valuation Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
	Active Member Contributions	Inactive Members	Active Members Employer Financed				
June 30, 2023	\$ 0	\$ 167	\$ 23	\$ 7,568	100.0%	100.0%	100.0%
June 30, 2022	0	174	25	6,700	100.0%	100.0%	100.0%
June 30, 2021	0	177	28	5,843	100.0%	100.0%	100.0%
June 30, 2020	0	196	27	4,933	100.0%	100.0%	100.0%
June 30, 2019	0	209	31	4,359	100.0%	100.0%	100.0%
June 30, 2018	0	0	30	3,845	100.0%	100.0%	100.0%
June 30, 2017	0	0	26	3,588	100.0%	100.0%	100.0%
June 30, 2016	0	0	19	3,323	100.0%	100.0%	100.0%
June 30, 2015	0	0	29	3,114	100.0%	100.0%	100.0%
June 30, 2014	0	0	23	2,820	100.0%	100.0%	100.0%
June 30, 2013	0	0	80	2,532	100.0%	100.0%	100.0%
June 30, 2012	0	0	63	2,348	100.0%	100.0%	100.0%
June 30, 2011	0	0	57	2,193	100.0%	100.0%	100.0%
June 30, 2010	0	0	18	1,577	100.0%	100.0%	100.0%
June 30, 2009	0	0	14	1,071	100.0%	100.0%	100.0%
June 30, 2008	0	0	44	420	100.0%	100.0%	100.0%
June 30, 2007	0	0	16	0	100.0%	100.0%	0.0%

Change in assumptions reflected in 2022, 2018, 2014, 2010, and 2009 valuations.

Solvency Test - Retiree Medical (\$'s in 000's)

Valuation Date	Actuarial Accrued Liability (AAL)			Valuation Assets	Portion of AAL Covered by Valuation Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
	Active Member Contributions	Inactive Members	Active Members Employer Financed				
June 30, 2023	\$ 0	\$ 3,024	\$ 54,069	\$ 77,815	100.0%	100.0%	100.0%
June 30, 2022	0	1,913	45,884	68,403	100.0%	100.0%	100.0%
June 30, 2021	0	1,265	43,131	59,380	100.0%	100.0%	100.0%
June 30, 2020	0	925	39,709	49,554	100.0%	100.0%	100.0%
June 30, 2019	0	647	32,334	42,307	100.0%	100.0%	100.0%
June 30, 2018	0	534	31,895	36,776	100.0%	100.0%	100.0%
June 30, 2017	0	199	33,482	30,998	100.0%	100.0%	92.0%
June 30, 2016	0	0	21,988	25,410	100.0%	100.0%	100.0%
June 30, 2015	0	0	19,768	17,733	100.0%	100.0%	89.7%
June 30, 2014	0	0	16,273	10,791	100.0%	100.0%	66.3%
June 30, 2013	0	0	22,058	8,614	100.0%	100.0%	39.1%
June 30, 2012	0	0	16,811	6,937	100.0%	100.0%	41.3%
June 30, 2011	0	0	3,801	5,373	100.0%	100.0%	100.0%
June 30, 2010	0	0	2,430	3,895	100.0%	100.0%	100.0%
June 30, 2009	0	0	1,446	2,353	100.0%	100.0%	100.0%
June 30, 2008	0	0	757	1,308	100.0%	100.0%	100.0%
June 30, 2007	0	0	358	597	100.0%	100.0%	100.0%

Change in assumptions reflected in 2022, 2020, 2018, 2017, 2014, 2012, 2011, 2010, 2009, and 2008 valuations.

Change in methods reflected in 2018 valuation.

Change in plan provisions reflected in 2021 and 2016 valuations.

Section 5.3: Member Data

As of June 30	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Active Members										
1. Number	3,547	4,095	4,383	4,694	4,915	4,998	5,332	5,521	5,688	5,877
2. Average Age	38.52	39.15	39.57	40.21	40.64	41.06	41.63	41.90	42.26	42.44
3. Average Credited Service	3.90	4.19	4.50	4.88	5.30	5.67	6.03	6.34	6.60	6.72
4. Average Entry Age	34.62	34.96	35.07	35.33	35.34	35.39	35.60	35.56	35.66	35.72
5. Average Annual Earnings	\$ 61,940	\$ 63,635	\$ 65,219	\$ 66,542	\$ 68,119	\$ 69,619	\$ 71,118	\$ 74,045	\$ 76,956	\$ 78,119
Disabilitants and Beneficiaries (Occupational Death & Disability)										
1. Number	0	0	0	0	0	1	1	1	1	1
2. Average Age	N/A	N/A	N/A	N/A	N/A	53.45	54.45	55.45	56.45	57.45
3. Average Monthly Death & Disability Benefit	N/A	N/A	N/A	N/A	N/A	\$ 2,024	\$ 2,024	\$ 2,024	\$ 2,170	\$ 2,299
Retirees, Surviving Spouses, and Dependent Spouses (Retiree Medical)										
1. Number	0	0	0	4	9	12	17	24	35	51
2. Average Age	N/A	N/A	N/A	69.72	68.59	68.54	68.79	67.71	69.66	70.58
Total Number of Members	3,547	4,095	4,383	4,698	4,924	5,011	5,350	5,546	5,724	5,929

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 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.