



# State of Alaska

## Public Employees' Retirement System

Actuarial Valuation Report  
As of June 30, 2022

June 2023



June 5, 2023

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 Public Employees' Retirement System (PERS) as of June 30, 2022 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, 2022. The actuary did not verify the data submitted, but did perform tests for consistency and reasonableness.

All costs, liabilities, and other factors under PERS 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 PERS as of June 30, 2022.

PERS 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 funding objective for PERS is to pay required contributions that remain level as a percent of total PERS 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 PERS 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 PERS, 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 FY63. 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 PERS. 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 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. 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, 2022 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 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 what, 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 annually the signing actuary reviews the assumptions through discussions with the Board staff and analyzing actuarial gain/loss experience. In the case of the Board's selection of the expected return on assets (EROA), the signing actuary has used economic information and tools provided by Buck's Financial Risk Management (FRM) practice. A spreadsheet tool created by the FRM practice converts averages, standard deviations, and correlations from Buck's Capital Markets Assumptions that are used for stochastic forecasting into approximate percentile ranges for the arithmetic and geometric average returns. It is intended to suggest possible reasonable ranges for EROA without attempting to predict or select a specific best estimate rate of return. It takes into account the duration (horizon) of investment and the target allocation of assets in the portfolio to various asset classes. Based on the actuary's analysis, including consistency with other assumptions used in the valuation, the percentiles generated by the spreadsheet tool described above, and review of actuarial gain/loss analysis, the actuary believes the assumptions do not significantly conflict with what, in the actuary's professional judgment, 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 PERS beginning with fiscal year ending June 30, 2014, and Statement No. 74 (GASB 74) was effective for PERS 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.

## **Assessment of Risks**

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 PERS. See Section 6 of this report for further details regarding ASOP 51.

## **Use of Models**

Actuarial Standard of Practice No. 56 (ASOP 56) provides guidance to actuaries when performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. In addition to the EROA analysis spreadsheet model disclosed above, Buck uses third-party software in the performance of 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 has 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 an adjustment was made in setting the medical per capita claims cost assumption. FY21 medical claims were adjusted for a COVID-19 related decline in those claims during the fiscal year. FY22 medical claims were not adjusted. A more detailed explanation on these adjustments is shown in Section 5.2.

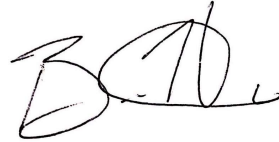
This report was prepared under the overall direction of David Kershner, who meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. He is a Fellow of the Society of Actuaries, an Enrolled Actuary, a Member of the American Academy of Actuaries,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



Brett Hunter, ASA, EA, MAAA  
Senior Consultant  
Buck

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.



Stephen R. Oates, ASA, EA, MAAA, FCA  
Principal  
Buck

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# Executive Summary

## Overview

The State of Alaska Public Employees' Retirement System (PERS) provides pension and postemployment healthcare benefits to 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 PERS as of the valuation date of June 30, 2022.

## 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 PERS 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)	2021	2022
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**Pension**

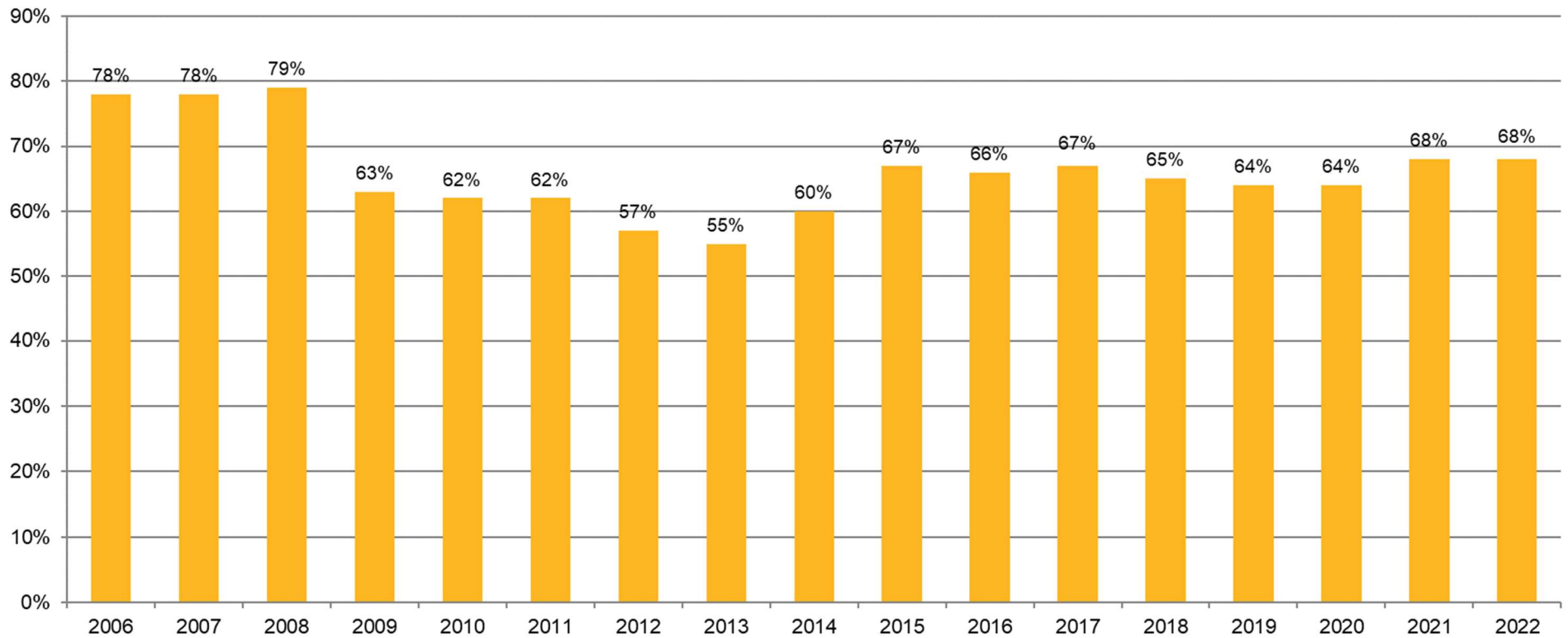
a. Actuarial Accrued Liability	\$ 15,419,975	\$ 16,093,679
b. Valuation Assets	<u>10,466,709</u>	<u>10,961,498</u>
c. Unfunded Actuarial Accrued Liability, (a) - (b)	\$ 4,953,266	\$ 5,132,181
d. Funded Ratio based on Valuation Assets, (b) ÷ (a)	67.9%	68.1%
e. Fair Value of Assets	\$ 11,912,309	\$ 10,816,140
f. Funded Ratio based on Fair Value of Assets, (e) ÷ (a)	77.3%	67.2%

**Healthcare**

a. Actuarial Accrued Liability	\$ 6,856,170	\$ 6,657,069
b. Valuation Assets	<u>8,581,155</u>	<u>8,979,943</u>
c. Unfunded Actuarial Accrued Liability, (a) - (b)	\$ (1,724,985)	\$ (2,322,874)
d. Funded Ratio based on Valuation Assets, (b) ÷ (a)	125.2%	134.9%
e. Fair Value of Assets	\$ 9,784,141	\$ 8,869,134
f. Funded Ratio based on Fair Value of Assets, (e) ÷ (a)	142.7%	133.2%

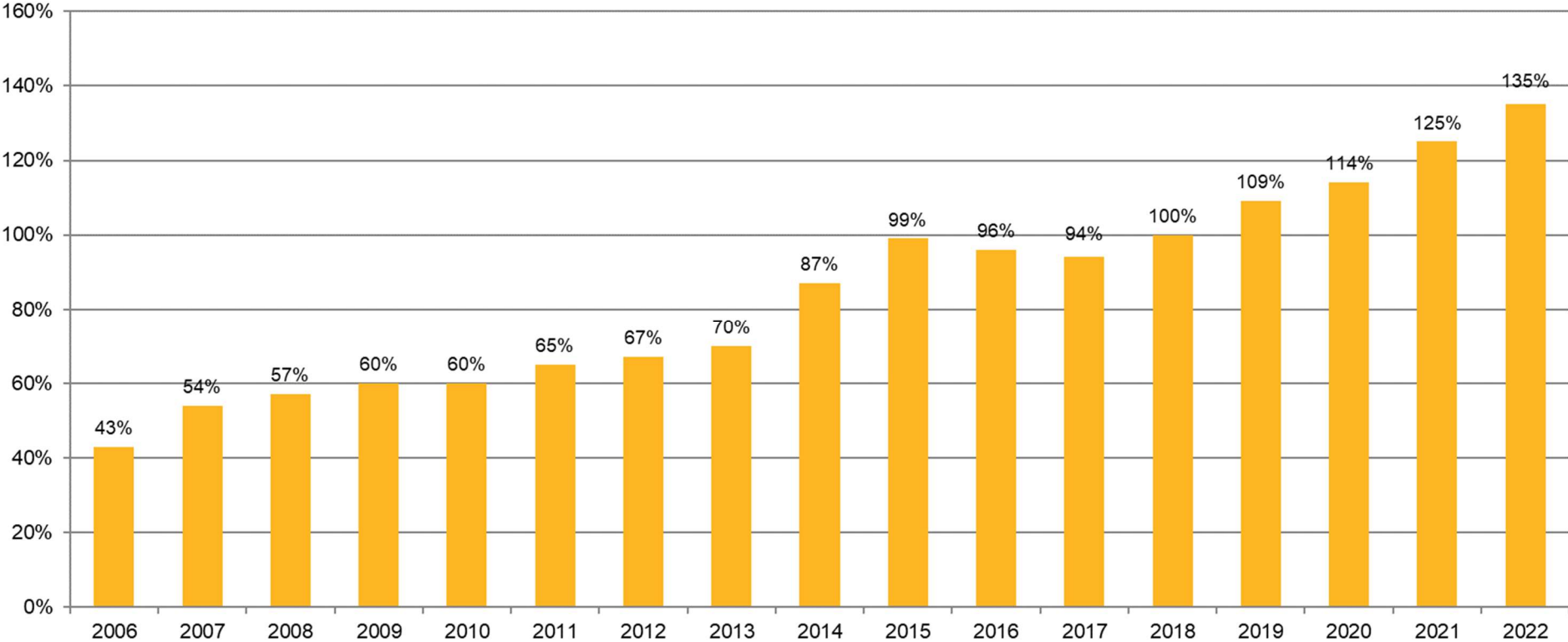
## Funded Ratio History (Based on Valuation Assets)

### Pension (2006 and later)



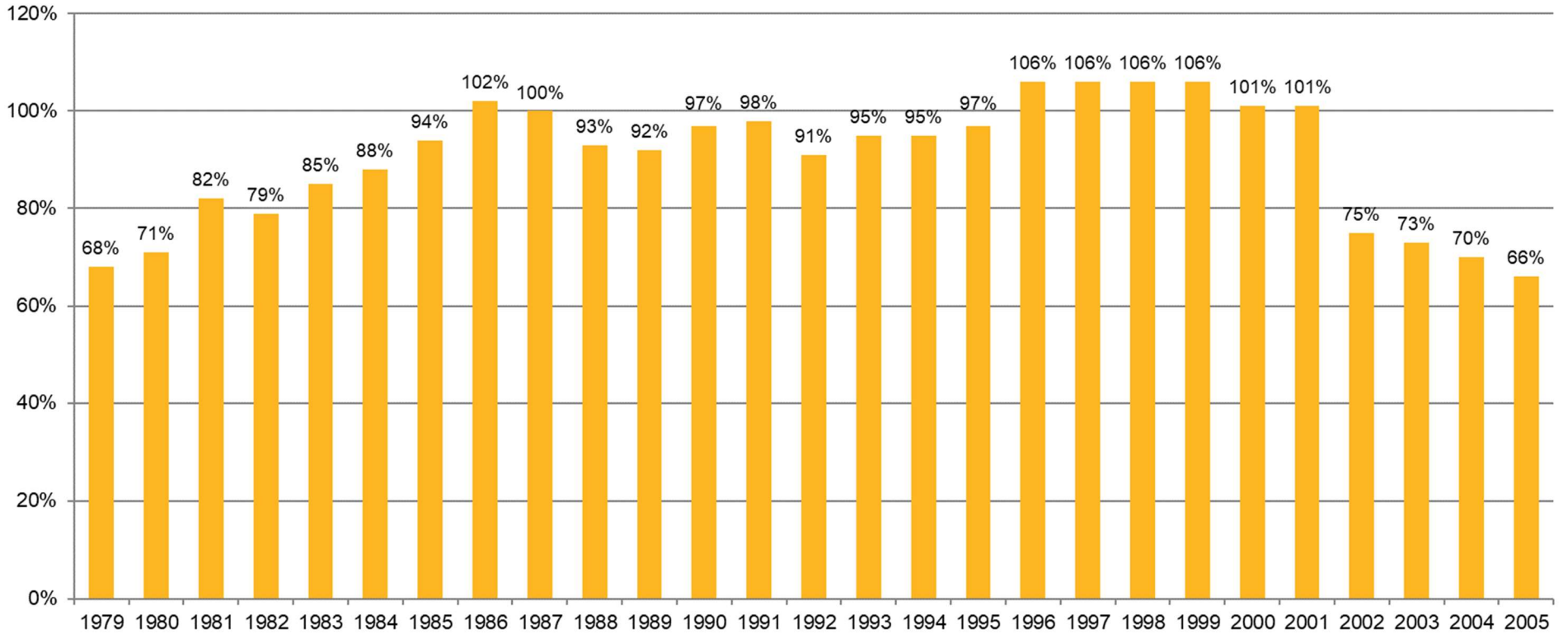
# Funded Ratio History (Based on Valuation Assets)

## 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 FY22 investment return based on fair value of assets was approximately (6.0)% compared to the expected investment return of 7.38% (net of investment expenses). This resulted in a market asset loss of approximately \$1,570 million (pension) and \$1,288 million (healthcare). Due to the recognition of investment gains and losses over a 5-year period, the FY22 investment return based on actuarial value of assets was approximately 8.7%, which resulted in an actuarial asset gain of approximately \$128 million (pension) and \$114 million (healthcare).

### **2. Salary Increases**

Salary increases for continuing active members during FY22 were higher than expected based on the valuation assumptions, resulting in a liability loss of approximately \$51 million.

### **3. Demographic Experience**

Section 4 provides statistics on active and inactive members. The number of active members decreased 11.1% from 9,888 at June 30, 2021 to 8,795 at June 30, 2022 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 53.51 to 53.78 and average credited service increased from 18.96 to 19.52 years.

The number of benefit recipients increased 1.4% from 37,717 to 38,243 and their average age increased from 71.17 to 71.61. The number of vested terminated participants decreased 3.5% from 5,135 to 4,955. Their average age increased from 53.92 to 54.37.

The overall effect of the demographic experience during FY22 was a liability loss of approximately \$0.4 million (pension) and a liability gain of approximately \$10.1<sup>1</sup> million (healthcare).

### **4. COLA / PRPA Experience**

The cost-of-living increases (COLA) for benefit recipients during FY22 were less than expected based on the valuation assumptions, resulting in a liability gain of approximately \$1.1 million. However, the CPI-based postretirement pension adjustments (PRPA) were more than expected, resulting in a liability loss of approximately \$162 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, 2022 valuation generated a liability gain of approximately \$252 million. Healthcare benefits paid during FY22 generated a liability gain of approximately \$12 million. The EGWP subsidy received by the plan during FY22 was approximately \$54 million; the expected EGWP subsidy for FY22 was approximately \$46 million.

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<sup>1</sup> 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**

Effective for the June 30, 2022 valuation, the Board adopted the changes to the demographic and economic assumptions recommended by the actuary, based on the results of an experience study performed on the plan experience from July 1, 2017 to June 30, 2021. The changes in assumptions were adopted at the June 2022 Board meeting. The effect of the new assumptions was to increase the pension Actuarial Accrued Liability as of June 30, 2022 by approximately \$206 million and decrease the healthcare Actuarial Accrued Liability as of June 30, 2022 by approximately \$88 million.

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

## **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 2024	Estimated FY 2025
<b>Pension</b>		
a. Normal Cost Rate Net of Member Contributions	2.14%	2.15%
b. Past Service Cost Rate	<u>16.33%</u>	<u>17.70%</u>
c. Total Employer/State Contribution Rate, (a) + (b), not less than (a) <sup>1</sup>	18.47%	19.85%
<b>Healthcare</b>		
a. Normal Cost Rate	2.50%	1.94%
b. Past Service Cost Rate	<u>(5.83%)</u>	<u>(7.30%)</u>
c. Total Employer/State Contribution Rate, (a) + (b), not less than (a) <sup>1</sup>	2.50%	1.94%
<b>Total</b>		
a. Normal Cost Rate Net of Member Contributions	4.64%	4.09%
b. Past Service Cost Rate	<u>16.33%</u>	<u>17.70%</u>
c. Total Employer/State Contribution Rate, (a) + (b) <sup>1</sup>	20.97%	21.79%
d. Board Adopted Total Employer/State Contribution Rate	18.47% <sup>2</sup>	TBD
e. Defined Contribution Retirement (DCR) Rate Paid by Employers	<u>6.63%</u>	<u>6.73%</u>
f. Board Adopted Total Rate, Including DCR Rate Paid by Employers, (d) + (e)	25.10%	TBD

Contribution rates are based on total (DB and DCR) payroll. The contribution rates shown above for FY25 are estimated assuming no actuarial gains/losses during FY23 and FY24. Actual FY25 contribution rates will be adopted by the Board in September 2023 reflecting FY23 asset experience.

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

<sup>1</sup> 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.

<sup>2</sup> The FY24 contribution rates adopted by the Board in September 2022 were 18.47% for Pension and 0.00% for Healthcare.

## 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, 2021 and June 30, 2022 based on DB and DCR payroll combined:

	Pension	Healthcare
1. Total Employer/State Contribution Rate as of June 30, 2021	18.93%	3.16%
2. Change due to:		
a. Health Claims Experience	N/A	(0.11%)
b. Salary Increases	0.13%	N/A
c. Investment Experience	(0.34%)	0.00%
d. Demographic Experience and Miscellaneous <sup>1</sup>	0.52%	(0.37%)
e. Actual vs Expected Contributions	(0.14%)	0.00%
f. Assumption/Method Changes	0.54%	(0.22%)
g. Plan Changes	<u>0.00%</u>	<u>0.00%</u>
h. Total Change, (a) + (b) + (c) + (d) + (e) + (f) + (g)	0.71%	(0.70%)
3. Total Employer/State Contribution Rate as of June 30, 2022, (1) + (2)(h)	19.64%	2.46%

The following table shows the FY22 gain/(loss) on actuarial accrued liability as of June 30, 2022 (\$'s in 000's):

	Pension	Healthcare
Retirement Experience	\$ (20,482)	\$ (9,371)
Termination Experience	(6,115)	(12,796)
Disability Experience	120	282
Active Mortality Experience	8,240	3,144
Inactive Mortality Experience	17,838	6,761
Salary Increases	(50,545)	N/A
Rehires (Net of Rehire Load)	8,458	11,563
Transfers between PF and Others	(724)	631
COLA Increases	1,134	N/A
PRPA Increases	(162,028)	N/A
Benefit Payments different than Expected	17,930	11,949
Per Capita Claims Cost	N/A	251,976
Medicare Part B Only Experience	N/A	5,064
Changes in Dependent Coverage Elections	N/A	17,064
Programming Changes <sup>2</sup>	791	(314)
Miscellaneous <sup>3</sup>	<u>(16,449)</u>	<u>(6,702)</u>
Total	\$ (201,832)	\$ 279,251

<sup>1</sup> Includes the effects of census data changes between the two valuations.

<sup>2</sup> Includes adjustments to the way the 10% COLA minimum of \$50 applies for all active members (pension), the calculation of occupational death benefits for married Peace Officer/Firefighters to include a minimum of 50% of salary (pension), the timing of the PRPA increases for Peace Officer/Firefighters who retire from occupational disability to be at their normal retirement date (pension), the elimination of child medical premiums for retirees over age 60 (healthcare), and the extension of disability rates beyond age 54 (healthcare).

<sup>3</sup> 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 pension amount includes a loss of \$6,746 for unexpected beneficiaries and QDRO's based on last year's data.



The rehire gain/(loss) amount shown on the previous page is the difference between (i) the increase in Actuarial Accrued Liability at June 30, 2022 due to rehires during the most recent plan year, and (ii) the load that was added to the June 30, 2021 Normal Cost based on the rehire load assumption used in the June 30, 2021 valuation. The development of the FY22 rehire gain/(loss) amount is shown in the table below (\$'s in 000's):

	<b>Pension</b>	<b>Healthcare</b>
1. Increase/(Decrease) in Actuarial Accrued Liability at June 30, 2022 due to Rehires	\$ 11,800	\$ (519)
2. June 30, 2021 Normal Cost Rehire Load, with interest to June 30, 2022	\$ 20,258	\$ 11,044
3. Rehire Gain/(Loss), (2) - (1)	\$ 8,458	\$ 11,563

Other items that increased/(decreased) the actuarial accrued liability as of June 30, 2022 are shown below (\$'s in 000's):

	<b>Pension</b>	<b>Healthcare</b>
Experience Study Assumption Changes	\$ 205,891	\$ (88,392)

# Section 1: Actuarial Funding Results

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

Peace Officer / Firefighter

As of June 30, 2022	Present Value of Projected Benefits	Actuarial Accrued (Past Service) Liability
<b>Active Members</b>		
Retirement Benefits	\$ 933,907	\$ 819,088
Termination Benefits	5,794	(650)
Disability Benefits	1,151	(1,627)
Death Benefits	5,205	2,791
Return of Contributions	531	(3,932)
Medical and Prescription Drug Benefits	345,828	292,498
Medicare Part D Subsidy	(32,479)	(27,510)
Indebtedness	(4,169)	(4,169)
Subtotal	\$ 1,255,768	\$ 1,076,489
<b>Inactive Members</b>		
Not Vested	\$ 2,604	\$ 2,604
Vested Terminations		
- Retirement Benefits	37,113	37,113
- Medical and Prescription Drug Benefits	99,317	99,317
- Medicare Part D Subsidy	(11,459)	(11,459)
- Indebtedness	(550)	(550)
Retirees & Beneficiaries		
- Retirement Benefits	1,855,975	1,855,975
- Medical and Prescription Drug Benefits	613,845	613,845
- Medicare Part D Subsidy	(93,135)	(93,135)
Subtotal	\$ 2,503,710	\$ 2,503,710
<b>Total</b>	<b>\$ 3,759,478</b>	<b>\$ 3,580,199</b>
<b>Total Pension</b>	<b>\$ 2,837,561</b>	<b>\$ 2,706,643</b>
<b>Total Medical, Net of Part D Subsidy</b>	<b>\$ 921,917</b>	<b>\$ 873,556</b>
<b>Total Medical, Gross of Part D Subsidy</b>	<b>\$ 1,058,990</b>	<b>\$ 1,005,660</b>

Peace Officer / Firefighter

As of June 30, 2022	Present Value of Projected Benefits	Actuarial Accrued (Past Service) Liability
<b>By Tier</b>		
Tier 1		
- Pension	\$ 980,148	\$ 979,552
- Medical, Net of Part D Subsidy	249,473	249,070
Tier 2		
- Pension	728,229	716,835
- Medical, Net of Part D Subsidy	262,083	257,941
Tier 3		
- Pension	1,129,184	1,010,256
- Medical, Net of Part D Subsidy	410,361	366,545
<b>Total</b>	<b>\$ 3,759,478</b>	<b>\$ 3,580,199</b>

As of June 30, 2022	Normal Cost
<b>Active Members</b>	
Retirement Benefits	\$ 22,133
Termination Benefits	1,306
Disability Benefits	560
Death Benefits	483
Return of Contributions	885
Medical and Prescription Drug Benefits	10,190
Medicare Part D Subsidy	(974)
Rehire Assumption (Pension)	3,881
Rehire Assumption (Medical)	221
Administrative Expenses (Pension)	2,175
Administrative Expenses (Medical)	639
<b>Total</b>	<b>\$ 41,499</b>
<b>Total Pension</b>	<b>\$ 31,423</b>
<b>Total Medical, Net of Part D Subsidy</b>	<b>\$ 10,076</b>
<b>Total Medical, Gross of Part D Subsidy</b>	<b>\$ 11,050</b>

<b>By Tier</b>	
Tier 1	
- Pension	\$ 285
- Medical, Net of Part D Subsidy	174
Tier 2	
- Pension	3,775
- Medical, Net of Part D Subsidy	1,189
Tier 3	
- Pension	27,363
- Medical, Net of Part D Subsidy	8,713
<b>Total</b>	<b>\$ 41,499</b>

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

Others

As of June 30, 2022	Present Value of Projected Benefits	Actuarial Accrued (Past Service) Liability
<b>Active Members</b>		
Retirement Benefits	\$ 3,268,920	\$ 2,996,468
Termination Benefits	199,792	113,730
Disability Benefits	16,003	5,629
Death Benefits	24,789	19,011
Return of Contributions	10,360	(27,469)
Medical and Prescription Drug Benefits	1,695,732	1,406,497
Medicare Part D Subsidy	(238,440)	(202,857)
Indebtedness	(34,830)	(34,830)
Subtotal	\$ 4,942,326	\$ 4,276,179
<b>Inactive Members</b>		
Not Vested	\$ 74,813	\$ 74,813
Vested Terminations		
- Retirement Benefits	683,105	683,105
- Medical and Prescription Drug Benefits	896,206	896,206
- Medicare Part D Subsidy	(111,617)	(111,617)
- Indebtedness	(14,335)	(14,335)
Retirees & Beneficiaries		
- Retirement Benefits	9,570,914	9,570,914
- Medical and Prescription Drug Benefits	4,656,111	4,656,111
- Medicare Part D Subsidy	(860,827)	(860,827)
Subtotal	\$ 14,894,370	\$ 14,894,370
<b>Total</b>	<b>\$ 19,836,696</b>	<b>\$ 19,170,549</b>
<b>Total Pension</b>	<b>\$ 13,799,531</b>	<b>\$ 13,387,036</b>
<b>Total Medical, Net of Part D Subsidy</b>	<b>\$ 6,037,165</b>	<b>\$ 5,783,513</b>
<b>Total Medical, Gross of Part D Subsidy</b>	<b>\$ 7,248,049</b>	<b>\$ 6,958,814</b>

Others

As of June 30, 2022	Present Value of Projected Benefits	Actuarial Accrued (Past Service) Liability
<b>By Tier</b>		
Tier 1		
- Pension	\$ 6,012,181	\$ 5,994,690
- Medical, Net of Part D Subsidy	2,170,866	2,155,098
Tier 2		
- Pension	3,992,776	3,916,074
- Medical, Net of Part D Subsidy	1,807,987	1,758,146
Tier 3		
- Pension	3,794,574	3,476,272
- Medical, Net of Part D Subsidy	2,058,312	1,870,269
<b>Total</b>	<b>\$ 19,836,696</b>	<b>\$ 19,170,549</b>

As of June 30, 2022	Normal Cost
<b>Active Members</b>	
Retirement Benefits	\$ 52,076
Termination Benefits	13,971
Disability Benefits	1,772
Death Benefits	1,075
Return of Contributions	6,465
Medical and Prescription Drug Benefits	52,391
Medicare Part D Subsidy	(6,552)
Rehire Assumption (Pension)	11,530
Rehire Assumption (Medical)	1,100
Administrative Expenses (Pension)	6,460
Administrative Expenses (Medical)	3,179
<b>Total</b>	<b>\$ 143,467</b>
<b>Total Pension</b>	<b>\$ 93,349</b>
<b>Total Medical, Net of Part D Subsidy</b>	<b>\$ 50,118</b>
<b>Total Medical, Gross of Part D Subsidy</b>	<b>\$ 56,670</b>

<b>By Tier</b>	
Tier 1	
- Pension	\$ 6,826
- Medical, Net of Part D Subsidy	5,336
Tier 2	
- Pension	21,435
- Medical, Net of Part D Subsidy	11,903
Tier 3	
- Pension	65,088
- Medical, Net of Part D Subsidy	32,879
<b>Total</b>	<b>\$ 143,467</b>

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

**All Members**

As of June 30, 2022	Present Value of Projected Benefits	Actuarial Accrued (Past Service) Liability
<b>Active Members</b>		
Retirement Benefits	\$ 4,202,827	\$ 3,815,556
Termination Benefits	205,586	113,080
Disability Benefits	17,154	4,002
Death Benefits	29,994	21,802
Return of Contributions	10,891	(31,401)
Medical and Prescription Drug Benefits	2,041,560	1,698,995
Medicare Part D Subsidy	(270,919)	(230,367)
Indebtedness	<u>(38,999)</u>	<u>(38,999)</u>
Subtotal	\$ 6,198,094	\$ 5,352,668
<b>Inactive Members</b>		
Not Vested	\$ 77,417	\$ 77,417
Vested Terminations		
- Retirement Benefits	720,218	720,218
- Medical and Prescription Drug Benefits	995,523	995,523
- Medicare Part D Subsidy	(123,076)	(123,076)
- Indebtedness	(14,885)	(14,885)
Retirees & Beneficiaries		
- Retirement Benefits	11,426,889	11,426,889
- Medical and Prescription Drug Benefits	5,269,956	5,269,956
- Medicare Part D Subsidy	<u>(953,962)</u>	<u>(953,962)</u>
Subtotal	\$ 17,398,080	\$ 17,398,080
<b>Total</b>	<b>\$ 23,596,174</b>	<b>\$ 22,750,748</b>
<b>Total Pension</b>	<b>\$ 16,637,092</b>	<b>\$ 16,093,679</b>
<b>Total Medical, Net of Part D Subsidy</b>	<b>\$ 6,959,082</b>	<b>\$ 6,657,069</b>
<b>Total Medical, Gross of Part D Subsidy</b>	<b>\$ 8,307,039</b>	<b>\$ 7,964,474</b>

**All Members**

As of June 30, 2022	Present Value of Projected Benefits	Actuarial Accrued (Past Service) Liability
<b>By Tier</b>		
Tier 1		
- Pension	\$ 6,992,329	\$ 6,974,242
- Medical, Net of Part D Subsidy	2,420,339	2,404,168
Tier 2		
- Pension	4,721,005	4,632,909
- Medical, Net of Part D Subsidy	2,070,070	2,016,087
Tier 3		
- Pension	4,923,758	4,486,528
- Medical, Net of Part D Subsidy	2,468,673	2,236,814
<b>Total</b>	<b>\$ 23,596,174</b>	<b>\$ 22,750,748</b>

As of June 30, 2022	Normal Cost
<b>Active Members</b>	
Retirement Benefits	\$ 74,209
Termination Benefits	15,277
Disability Benefits	2,332
Death Benefits	1,558
Return of Contributions	7,350
Medical and Prescription Drug Benefits	62,581
Medicare Part D Subsidy	(7,526)
Rehire Assumption (Pension)	15,411
Rehire Assumption (Medical)	1,321
Administrative Expenses (Pension)	8,635
Administrative Expenses (Medical)	3,818
<b>Total</b>	<b>\$ 184,966</b>
<b>Total Pension</b>	<b>\$ 124,772</b>
<b>Total Medical, Net of Part D Subsidy</b>	<b>\$ 60,194</b>
<b>Total Medical, Gross of Part D Subsidy</b>	<b>\$ 67,720</b>

<b>By Tier</b>	
Tier 1	
- Pension	\$ 7,111
- Medical, Net of Part D Subsidy	5,510
Tier 2	
- Pension	25,210
- Medical, Net of Part D Subsidy	13,092
Tier 3	
- Pension	92,451
- Medical, Net of Part D Subsidy	41,592
<b>Total</b>	<b>\$ 184,966</b>

Section 1.2: Actuarial Contributions as of June 30, 2022 (\$'s in 000's)

**Peace Officer / Firefighter**

<b>Normal Cost Rate</b>	<b>Pension</b>	<b>Healthcare</b>
1. Total Normal Cost	\$ 31,423	\$ 10,076
2. DB Rate Payroll Projected for FY23	142,154	142,154
3. DCR Rate Payroll Projected for FY23	249,857	249,857
4. Total Rate Payroll Projected for FY23	392,011	392,011
5. Normal Cost Rate		
a. Based on DB Rate Payroll, (1) ÷ (2)	22.10%	7.09%
b. Based on Total Rate Payroll, (1) ÷ (4)	8.02%	2.57%
6. Average Member Contribution Rate	2.72%	0.00%
7. Employer Normal Cost, (5)(b) - (6)	5.30%	2.57%

<b>Past Service Rate</b>	<b>Pension</b>	<b>Healthcare</b>
1. Actuarial Accrued Liability	\$ 2,706,643	\$ 873,556
2. Valuation Assets <sup>1</sup>	<u>1,843,510</u>	<u>1,178,369</u>
3. Unfunded Actuarial Accrued Liability, (1) - (2)	\$ 863,133	\$ (304,813)
4. Funded Ratio, (2) ÷ (1)	68.1%	134.9%
5. Past Service Cost Amortization Payment	68,268	(20,436)
6. Total Rate Payroll Projected for FY23	392,011	392,011
7. Past Service Rate, (5) ÷ (6)	17.41%	(5.21%)
<b>Total Employer / State Contribution Rate, not less than Normal Cost Rate</b>	<b>22.71%</b>	<b>2.57%</b>

**Normal Cost Rate by Tier (Total Employer and Member)<sup>2</sup>**

Tier 1	23.97%	14.63%
Tier 2	21.86%	6.88%
Tier 3	22.12%	7.04%

<sup>1</sup> Allocated between Peace Officer / Firefighter and Others in proportion to Actuarial Accrued Liability.

<sup>2</sup> Rates determined considering the payroll for members in each tier. DCR payroll is excluded from these calculations.



Peace Officer / Firefighter

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

Layer	Amortization Period		Balances		Beginning-of-Year Payment
	Date Created	Years Remaining	Initial	Outstanding	
Initial Amount	6/30/2018	17	\$ 731,232	\$ 711,892	\$ 57,724
Change in Assumptions	6/30/2018	21	88,162	88,842	6,281
FY19 Loss	6/30/2019	22	61,980	62,507	4,296
FY20 Loss	6/30/2020	23	31,158	31,387	2,101
FY21 Gain	6/30/2021	24	(83,489)	(83,862)	(5,476)
Change in Assumptions	6/30/2022	25	42,593	42,593	2,718
FY22 Loss	6/30/2022	25	9,774	9,774	624
<b>Total</b>				<b>\$ 863,133</b>	<b>\$ 68,268</b>

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

Layer	Amortization Period		Balances		Beginning-of-Year Payment
	Date Created	Years Remaining	Initial	Outstanding	
Initial Amount	6/30/2018	17	(30,991)	(30,172)	(2,447)
Change in Assumptions/Methods/EGWP	6/30/2018	21	27,556	27,768	1,963
FY19 Gain	6/30/2019	22	(77,575)	(78,234)	(5,376)
FY20 Gain	6/30/2020	23	(38,036)	(38,315)	(2,564)
Medical/Prescription Drug Plan Changes	6/30/2021	24	(7,361)	(7,394)	(483)
FY21 Gain	6/30/2021	24	(94,266)	(94,687)	(6,183)
Change in Assumptions	6/30/2022	25	4,475	4,475	286
FY22 Gain	6/30/2022	25	(88,254)	(88,254)	(5,632)
<b>Total</b>				<b>\$ (304,813)</b>	<b>\$ (20,436)</b>

Section 1.2: Actuarial Contributions as of June 30, 2022 (\$'s in 000's)

Others

Normal Cost Rate	Pension	Healthcare
1. Total Normal Cost	\$ 93,349	\$ 50,118
2. DB Rate Payroll Projected for FY23	654,512	654,512
3. DCR Rate Payroll Projected for FY23	1,395,484	1,395,484
4. Total Rate Payroll Projected for FY23	2,049,996	2,049,996
5. Normal Cost Rate		
a. Based on DB Rate Payroll, (1) ÷ (2)	14.26%	7.66%
b. Based on Total Rate Payroll, (1) ÷ (4)	4.55%	2.44%
6. Average Member Contribution Rate	2.17%	0.00%
7. Employer Normal Cost, (5)(b) - (6)	2.38%	2.44%

Past Service Rate	Pension	Healthcare
1. Actuarial Accrued Liability	\$ 13,387,036	\$ 5,783,513
2. Valuation Assets <sup>1</sup>	9,117,988	7,801,574
3. Unfunded Actuarial Accrued Liability, (1) - (2)	\$ 4,269,048	\$ (2,018,061)
4. Funded Ratio, (2) ÷ (1)	68.1%	134.9%
5. Past Service Cost Amortization Payment	341,778	(133,951)
6. Total Rate Payroll Projected for FY23	2,049,996	2,049,996
7. Past Service Rate, (5) ÷ (6)	16.67%	(6.53%)
<b>Total Employer / State Contribution Rate, not less than Normal Cost Rate</b>	<b>19.05%</b>	<b>2.44%</b>

Normal Cost Rate by Tier (Total Employer and Member)<sup>2</sup>

Tier 1	18.43%	14.41%
Tier 2	13.73%	7.62%
Tier 3	14.11%	7.13%

<sup>1</sup> Allocated between Peace Officer / Firefighter and Others in proportion to Actuarial Accrued Liability.

<sup>2</sup> Rates determined considering the payroll for members in each tier. DCR payroll is excluded from these calculations.

Others

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

Layer	Amortization Period		Balances		Beginning-of-Year Payment
	Date Created	Years Remaining	Initial	Outstanding	
Initial Amount	6/30/2018	17	\$ 3,889,167	\$ 3,786,305	\$ 307,013
Change in Assumptions	6/30/2018	21	467,280	470,875	33,290
FY19 Loss	6/30/2019	22	235,559	237,556	16,325
FY20 Loss	6/30/2020	23	93,343	94,030	6,293
FY21 Gain	6/30/2021	24	(495,211)	(497,420)	(32,482)
Change in Assumptions	6/30/2022	25	163,298	163,298	10,420
FY22 Loss	6/30/2022	25	14,404	14,404	919
<b>Total</b>				<b>\$ 4,269,048</b>	<b>\$ 341,778</b>

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

Layer	Amortization Period		Balances		Beginning-of-Year Payment
	Date Created	Years Remaining	Initial	Outstanding	
Initial Amount	6/30/2018	17	(47,263)	(46,013)	(3,730)
Change in Assumptions/Methods/EGWP	6/30/2018	21	22,293	22,464	1,588
FY19 Gain	6/30/2019	22	(553,265)	(557,960)	(38,345)
FY20 Gain	6/30/2020	23	(253,711)	(255,575)	(17,106)
Medical/Prescription Drug Plan Changes	6/30/2021	24	(54,446)	(54,689)	(3,571)
FY21 Gain	6/30/2021	24	(613,647)	(616,386)	(40,250)
Change in Assumptions	6/30/2022	25	(92,867)	(92,867)	(5,926)
FY22 Gain	6/30/2022	25	(417,035)	(417,035)	(26,611)
<b>Total</b>				<b>\$ (2,018,061)</b>	<b>\$ (133,951)</b>

Section 1.2: Actuarial Contributions as of June 30, 2022 (\$'s in 000's)

**All Members**

<b>Normal Cost Rate</b>	<b>Pension</b>	<b>Healthcare</b>
1. Total Normal Cost	\$ 124,772	\$ 60,194
2. DB Rate Payroll Projected for FY23	796,666	796,666
3. DCR Rate Payroll Projected for FY23	1,645,341	1,645,341
4. Total Rate Payroll Projected for FY23	2,442,007	2,442,007
5. Normal Cost Rate		
a. Based on DB Rate Payroll, (1) ÷ (2)	15.66%	7.56%
b. Based on Total Rate Payroll, (1) ÷ (4)	5.11%	2.46%
6. Average Member Contribution Rate <sup>1</sup>	2.26%	0.00%
7. Employer Normal Cost, (5)(b) - (6)	2.85%	2.46%

<b>Past Service Rate</b>	<b>Pension</b>	<b>Healthcare</b>
1. Actuarial Accrued Liability	\$ 16,093,679	\$ 6,657,069
2. Valuation Assets	10,961,498	8,979,943
3. Unfunded Actuarial Accrued Liability, (1) - (2)	\$ 5,132,181	\$ (2,322,874)
4. Funded Ratio, (2) ÷ (1)	68.1%	134.9%
5. Past Service Cost Amortization Payment	410,046	(154,387)
6. Total Rate Payroll Projected for FY23	2,442,007	2,442,007
7. Past Service Rate, (5) ÷ (6)	16.79%	(6.32%)
<b>Total Employer / State Contribution Rate, not less than Normal Cost Rate</b>	<b>19.64%</b>	<b>2.46%</b>

**Normal Cost Rate by Tier (Total Employer and Member)<sup>2</sup>**

Tier 1	18.60%	14.41%
Tier 2	14.54%	7.55%
Tier 3	15.80%	7.11%

<sup>1</sup> 7.5% for Peace Officer / Firefighter and 6.82% weighted average for Others

<sup>2</sup> Rates determined considering the payroll for members in each tier. DCR payroll is excluded from these calculations.

**All Members**

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

Layer	Amortization Period		Balances		Beginning-of-Year Payment
	Date Created	Years Remaining	Initial	Outstanding	
Initial Amount	6/30/2018	17	\$ 4,620,399	\$ 4,498,197	\$ 364,737
Change in Assumptions	6/30/2018	21	555,442	559,717	39,571
FY19 Loss	6/30/2019	22	297,539	300,063	20,621
FY20 Loss	6/30/2020	23	124,501	125,417	8,394
FY21 Gain	6/30/2021	24	(578,700)	(581,282)	(37,958)
Change in Assumptions	6/30/2022	25	205,891	205,891	13,138
FY22 Loss	6/30/2022	25	24,178	24,178	1,543
<b>Total</b>				<b>\$ 5,132,181</b>	<b>\$ 410,046</b>

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

Layer	Amortization Period		Balances		Beginning-of-Year Payment
	Date Created	Years Remaining	Initial	Outstanding	
Initial Amount	6/30/2018	17	(78,254)	(76,185)	(6,177)
Change in Assumptions/Methods/EGWP	6/30/2018	21	49,849	50,232	3,551
FY19 Gain	6/30/2019	22	(630,840)	(636,194)	(43,721)
FY20 Gain	6/30/2020	23	(291,747)	(293,890)	(19,670)
Medical/Prescription Drug Plan Changes	6/30/2021	24	(61,807)	(62,083)	(4,054)
FY21 Gain	6/30/2021	24	(707,913)	(711,073)	(46,433)
Change in Assumptions	6/30/2022	25	(88,392)	(88,392)	(5,640)
FY22 Gain	6/30/2022	25	(505,289)	(505,289)	(32,243)
<b>Total</b>				<b>\$ (2,322,874)</b>	<b>\$ (154,387)</b>

Section 1.3: Roll-Forward Contribution Rate Calculation for FY25 (\$'s in 000's)

	Pension	Healthcare
<b>1. Liability Roll Forward</b>		
<b>a. Actuarial Accrued Liability as of June 30, 2022</b>	<b>\$ 16,093,679</b>	<b>\$ 6,657,069</b>
b. Normal Cost	116,137	56,376
c. Interest on (a) and (b) at 7.25%	1,175,212	486,725
d. Estimated Benefit Payments	(1,037,270)	(410,266)
e. Interest on (d) at 7.25%, adjusted for timing	<u>(40,081)</u>	<u>(14,612)</u>
<b>f. Expected Actuarial Accrued Liability as of June 30, 2023</b>	<b>\$ 16,307,677</b>	<b>\$ 6,775,292</b>
g. Projected Normal Cost	103,083	50,293
h. Interest on (f) and (g) at 7.25%	1,189,780	494,855
i. Estimated Benefit Payments	(1,087,579)	(431,186)
j. Interest on (i) at 7.25%, adjusted for timing	<u>(42,024)</u>	<u>(15,357)</u>
<b>k. Expected Actuarial Accrued Liability as of June 30, 2024</b>	<b>\$ 16,470,937</b>	<b>\$ 6,873,897</b>
<b>2. Asset Roll Forward</b>		
<b>a. Actuarial Value of Assets as of June 30, 2022</b>	<b>\$ 10,961,498</b>	<b>\$ 8,979,943</b>
b. Interest on (a) at 7.25%	794,709	651,046
c. Employee Contributions	60,769	0
d. Employer Contributions	414,488	0
e. State Assistance Contributions	33,933	0
f. Interest on (c) thru (e) at 7.25%, adjusted for timing*	19,387	0
g. Estimated Benefit Payments	(1,037,270)	(410,266)
h. Administrative Expenses	(8,635)	(3,818)
i. Interest on (g) and (h) at 7.25%, adjusted for timing	(40,388)	(14,748)
j. AVA Adjustments	<u>5,705</u>	<u>11,127</u>
<b>k. Expected Actuarial Value of Assets as of June 30, 2023</b>	<b>\$ 11,204,196</b>	<b>\$ 9,213,284</b>
l. Interest on (k) at 7.25%	812,304	667,963
m. Employee Contributions	55,952	0
n. Employer Contributions	414,172	0
o. State Assistance Contributions**	37,942	0
p. Interest on (m) thru (o) at 7.25%, adjusted for timing*	19,495	0
q. Estimated Benefit Payments	(1,087,579)	(431,186)
r. Administrative Expenses	(7,716)	(3,410)
s. Interest on (q) and (r) at 7.25%, adjusted for timing	(42,299)	(15,478)
t. AVA Adjustments	<u>34,003</u>	<u>29,654</u>
<b>u. Expected Actuarial Value of Assets as of June 30, 2024</b>	<b>\$ 11,440,470</b>	<b>\$ 9,460,827</b>
<b>3. Expected Unfunded Actuarial Accrued Liability as of June 30, 2024, 1(k) - 2(u)</b>	<b>\$ 5,030,467</b>	<b>\$ (2,586,930)</b>

\* Employee and Employer Contributions are paid throughout the year. State Assistance Contributions are be paid on July 1, 2022 for FY23, and July 1, 2023 for FY24.

\*\* The FY24 State Assistance Contribution is expected to be contributed 100% to pension.

	Pension	Healthcare
<b>4. Expected Annual Rate Payroll for FY25</b>		
a. Defined Benefit Members	\$ 649,344	\$ 649,344
b. Defined Contribution Retirement Members	<u>1,815,216</u>	<u>1,815,216</u>
<b>c. Total Rate Payroll</b>	<b>\$ 2,464,560</b>	<b>\$ 2,464,560</b>
<b>5. Expected FY25 Contribution Rate Calculation</b>		
a. Projected Normal Cost for FY25	\$ 98,092	\$ 47,841
b. Projected Normal Cost Rate for FY25	3.98%	1.94%
c. Expected Member Contribution Rate for FY25	(1.83%)	0.00%
<b>d. Expected Employer Normal Cost Rate for FY25</b>	<b>2.15%</b>	<b>1.94%</b>
e. Expected Unfunded Liability as of June 30, 2024	\$ 5,030,467	\$ (2,586,930)
f. FY25 Layered Amortization of Expected Unfunded Liability	436,202	(179,931)
<b>g. Expected Past Service Cost Contribution Rate for FY25</b>	<b>17.70%</b>	<b>(7.30%)</b>
<b>h. Expected Total Contribution Rate for FY25, not less than Normal Cost Rate</b>	<b>19.85%</b>	<b>1.94%</b>

The components of the expected FY25 amortization amounts are shown below (totals may not add due to rounding):

**Expected FY25 Schedule of Past Service Cost Amortizations - Pension (\$'s in 000's)**

Layer	Amortization Period		Balances		Beginning-of-Year Payment for FY25
	Date Created	Years Remaining at 6/30/24	Initial	Outstanding at 6/30/24	
Initial Amount	6/30/2018	15	\$ 4,620,399	\$ 4,352,600	\$ 385,074
Change in Assumptions	6/30/2018	19	555,442	554,694	41,777
FY19 Loss	6/30/2019	20	297,539	298,706	21,771
FY20 Loss	6/30/2020	21	124,501	125,356	8,862
FY21 Gain	6/30/2021	22	(578,700)	(583,132)	(40,074)
FY22 Loss	6/30/2022	23	24,970	24,335	1,629
Change in Assumptions	6/30/2022	23	205,891	207,237	13,871
Expected FY23 Loss	6/30/2023	24	38,992	39,150	2,557
Expected FY24 Loss	6/30/2024	25	11,521	<u>11,521</u>	<u>735</u>
<b>Total</b>				<b>\$ 5,030,467</b>	<b>\$ 436,202</b>

**Expected FY25 Schedule of Past Service Cost Amortizations - Healthcare (\$'s in 000's)**

Layer	Amortization Period		Balances		Beginning-of-Year Payment for FY25
	Date Created	Years Remaining at 6/30/24	Initial	Outstanding at 6/30/24	
Initial Amount	6/30/2018	15	\$ (78,254)	\$ (73,720)	\$ (6,522)
Change in Assumptions/Methods/EGWP	6/30/2018	19	49,849	49,781	3,749
FY19 Gain	6/30/2019	20	(630,840)	(633,316)	(46,159)
FY20 Gain	6/30/2020	21	(291,747)	(293,747)	(20,767)
Medical/Prescription Drug Plan Changes	6/30/2021	22	(61,807)	(62,280)	(4,280)
FY21 Gain	6/30/2021	22	(707,913)	(713,337)	(49,022)
FY22 Gain	6/30/2022	23	(505,289)	(508,591)	(34,041)
Change in Assumptions/Methods/EGWP	6/30/2022	23	(88,392)	(88,969)	(5,955)
Expected FY23 Gain	6/30/2023	24	(112,291)	(112,748)	(7,362)
Expected FY24 Gain	6/30/2024	25	(150,003)	<u>(150,003)</u>	<u>(9,572)</u>
<b>Total</b>				<b>\$ (2,586,930)</b>	<b>\$ (179,931)</b>

The components of the expected FY25 amortization amounts are shown below (totals may not add due to rounding):



Section 1.4: Actuarial Gain/(Loss) for FY22 (\$'s in 000's)

	Pension	Healthcare
<b>1. Expected Actuarial Accrued Liability</b>		
a. Actuarial Accrued Liability as of June 30, 2021	\$ 15,419,975	\$ 6,856,170
b. Normal Cost	119,376	70,467
c. Interest on (a) and (b) at 7.38%	1,146,804	511,186
d. Employer Group Waiver Plan	0	54,646
e. Benefit Payments	(953,055)	(453,308)
f. Refund of Contributions	(9,302)	0
g. Interest on (d) thru (f) at 7.38%, adjusted for timing	(37,842)	(14,449)
h. Assumptions/Methods Changes	<u>205,891</u>	<u>(88,392)</u>
i. Expected Actuarial Accrued Liability as of June 30, 2022 (a) + (b) + (c) + (d) + (e) + (f) + (g) + (h)	\$ 15,891,847	\$ 6,936,320
2. Actual Actuarial Accrued Liability as of June 30, 2022	<u>16,093,679</u>	<u>6,657,069</u>
<b>3. Liability Gain/(Loss), (1)(i) - (2)</b>	<b>\$ (201,832)</b>	<b>\$ 279,251</b>
<b>4. Expected Actuarial Asset Value</b>		
a. Actuarial Value of Assets as of June 30, 2021	\$ 10,466,709	\$ 8,581,155
b. Interest on (a) at 7.38%	772,443	633,289
c. Employee Contributions	66,412	0
d. Employer Contributions	415,538	64,990
e. State Assistance Contributions	97,700	0
f. Employer Group Waiver Plan	0	54,646
g. Interest on (c) thru (f) at 7.38%, adjusted for timing	24,678	4,336
h. Benefit Payments	(953,055)	(453,308)
i. Refund of Contributions	(9,302)	0
j. Administrative Expenses	(9,038)	(2,776)
k. Interest on (h) thru (j) at 7.38%, adjusted for timing	<u>(38,169)</u>	<u>(16,530)</u>
l. Expected Actuarial Asset Value as of June 30, 2022 (a) + (b) + (c) + (d) + (e) + (f) + (g) + (h) + (i) + (j) + (k)	\$ 10,833,916	\$ 8,865,802
5. Actual Actuarial Asset Value as of June 30, 2022	<u>10,961,498</u>	<u>8,979,943</u>
<b>6. Actuarial Asset Value Gain/(Loss), (5) - (4)(l)</b>	<b>\$ 127,582</b>	<b>\$ 114,141</b>
<b>7. Total Actuarial Gain/(Loss), (3) + (6)</b>	<b>\$ (74,250)</b>	<b>\$ 393,392</b>
<b>8. Contribution Gain/(Loss)</b>	<b>\$ 51,250</b>	<b>\$ 108,834</b>
<b>9. Administrative Expense Gain/(Loss)</b>	<b>\$ (1,178)</b>	<b>\$ 3,063</b>
<b>10. FY22 Gain/(Loss), (7) + (8) + (9)</b>	<b>\$ (24,178)</b>	<b>\$ 505,289</b>

Section 1.5: Development of Change in Unfunded Liability During FY22 (\$'s in 0

	Pension	Healthcare
1. 2021 Unfunded Liability	\$ 4,953,266	\$ (1,724,985)
a. Interest on Unfunded Liability at 7.38%	\$ 365,551	\$ (127,304)
b. Normal Cost	119,376	70,467
c. Employee Contributions	(66,412)	0
d. Employer Contributions	(415,538)	(64,990)
e. State Assistance Contributions	(97,700)	0
f. Administrative Expenses	9,038	2,776
g. Interest on (b) thru (f) at 7.38%, adjusted for timing	(15,541)	2,946
h. Assumptions/Methods Changes	<u>205,891</u>	<u>(88,392)</u>
i. Expected Change in Unfunded Liability During FY22 (a) + (b) + (c) + (d) + (e) + (f) + (g) + (h)	\$ 104,665	\$ (204,497)
2. Expected 2022 Unfunded Liability, (1) + (1)(i)	\$ 5,057,931	\$ (1,929,482)
a. Liability (Gain)/Loss During FY22	\$ 201,832	\$ (279,251)
b. Actuarial Assets (Gain)/Loss During FY22	<u>(127,582)</u>	<u>(114,141)</u>
c. Total Actuarial (Gain)/Loss During FY22	\$ 74,250	\$ (393,392)
3. Actual 2022 Unfunded Liability, (2) + (2)(c)	\$ 5,132,181	\$ (2,322,874)

## 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**

Type of (Gain) or Loss	Change in Employer / State Contribution Rate During Fiscal Year				
	Pension				
	2018	2019	2020	2021	2022
1. Health Claims	N/A	N/A	N/A	N/A	N/A
2. Salary Experience	(0.30%)	0.16%	(0.03%)	0.05%	0.13%
3. Investment Experience	0.52%	0.50%	0.44%	(1.06%)	(0.34%)
4. Demographic Experience and Miscellaneous	0.26%	(0.45%)	(0.19%)	(0.54%)	0.52%
5. Actual vs Expected Contributions	<u>0.14%</u>	<u>0.11%</u>	<u>0.15%</u>	<u>(0.06%)</u>	<u>(0.14%)</u>
6. (Gain) or Loss During Year From Experience, (1) + (2) + (3) + (4) + (5)	0.62%	0.32%	0.37%	(1.61%)	0.17%
7. Assumptions / Method Changes	1.65%	0.00%	0.00%	0.00%	0.54%
8. Plan Changes	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>
9. Composite (Gain) or Loss During Year, (6) + (7) + (8)	2.27%	0.32%	0.37%	(1.61%)	0.71%
10. Beginning Total Employer / State Contribution Rate	<u>17.58%</u>	<u>19.85%</u>	<u>20.17%</u>	<u>20.54%</u>	<u>18.93%</u>
11. Ending Valuation Year Employer / State Contribution Rate, (9) + (10)	19.85%	20.17%	20.54%	18.93%	19.64%
12. Fiscal Year Rates Adopted by ARMB					
a. Fiscal Year Employer / State Contribution Rate	20.66%	20.89%	18.38%	18.47%	19.85% *
b. Fiscal Year for which Rate Applies	FY21	FY22	FY23	FY24	FY25

\* 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**

Type of (Gain) or Loss	Change in Employer / State Contribution Rate During Fiscal Year				
	Healthcare				
	2018	2019	2020	2021	2022
1. Health Claims	(1.51%)	(2.39%)	(0.87%)	(0.12%)	(0.11%)
2. Salary Experience	N/A	N/A	N/A	N/A	N/A
3. Investment Experience	0.40%	0.38%	0.31%	0.00%	0.00%
4. Demographic Experience and Miscellaneous	(1.08%)	1.16%	0.38%	(0.26%)	(0.37%)
5. Actual vs Expected Contributions	<u>0.06%</u>	<u>0.02%</u>	<u>(0.16%)</u>	<u>0.00%</u>	<u>0.00%</u>
6. (Gain) or Loss During Year From Experience, (1) + (2) + (3) + (4) + (5)	(2.13%)	(0.83%)	(0.34%)	(0.38%)	(0.48%)
7. Assumptions / Method Changes	2.20%	0.00%	0.00%	0.00%	(0.22%)
8. Plan Changes	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>(0.03%)</u>	<u>0.00%</u>
9. Composite (Gain) or Loss During Year, (6) + (7) + (8)	0.07%	(0.83%)	(0.34%)	(0.41%)	(0.70%)
10. Beginning Total Employer / State Contribution Rate	<u>4.67%</u>	<u>4.74%</u>	<u>3.91%</u>	<u>3.57%</u>	<u>3.16%</u>
11. Ending Valuation Year Employer / State Contribution Rate, (9) + (10)	4.74%	3.91%	3.57%	3.16%	2.46%
12. Fiscal Year Rates Adopted by ARMB					
a. Fiscal Year Employer / State Contribution Rate	4.27%	3.12%	0.00%	0.00%	1.94% *
b. Fiscal Year for which Rate Applies	FY21	FY22	FY23	FY24	FY25

\* 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	\$ 8,094,043	\$ 6,331,065	78.2%	\$ 1,762,978
June 30, 2007	8,662,324	6,739,004	77.8%	1,923,320
June 30, 2008	9,154,282	7,210,772	78.8%	1,943,510
June 30, 2009	9,702,086	6,108,528	63.0%	3,593,558
June 30, 2010	10,371,672	6,469,832	62.4%	3,901,840
June 30, 2011	10,919,047	6,762,149	61.9%	4,156,898
June 30, 2012	11,428,944	6,530,421	57.1%	4,898,523
June 30, 2013	11,945,881	6,510,749	54.5%	5,435,132
June 30, 2014	12,947,759	7,731,438	59.7%	5,216,321
June 30, 2015	13,337,929	8,931,160	67.0%	4,406,769
June 30, 2016	13,633,033	9,056,662	66.4%	4,576,371
June 30, 2017	13,832,130	9,229,703	66.7%	4,602,427
June 30, 2018	14,606,033	9,430,192	64.6%	5,175,841
June 30, 2019	15,039,180	9,576,693	63.7%	5,462,487
June 30, 2020	15,279,525	9,713,710	63.6%	5,565,815
June 30, 2021	15,419,975	10,466,709	67.9%	4,953,266
June 30, 2022	16,093,679	10,961,498	68.1%	5,132,181

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	\$ 6,294,370	\$ 2,709,843	43.1%	\$ 3,584,527
June 30, 2007	5,908,609	3,161,956	53.5%	2,746,653
June 30, 2008	6,733,859	3,829,334	56.9%	2,904,525
June 30, 2009	6,877,285	4,134,450	60.1%	2,742,835
June 30, 2010	7,760,820	4,687,632	60.4%	3,073,188
June 30, 2011	7,821,503	5,051,625	64.6%	2,769,878
June 30, 2012	7,863,417	5,301,609	67.4%	2,561,808
June 30, 2013	8,046,878	5,651,877	70.2%	2,395,001
June 30, 2014	7,949,613	6,913,160	87.0%	1,036,453
June 30, 2015	7,310,734	7,242,299	99.1%	68,435
June 30, 2016	7,736,457	7,411,330	95.8%	325,127
June 30, 2017	8,049,265	7,557,068	93.9%	492,197
June 30, 2018	7,658,104	7,686,509	100.4%	(28,405)
June 30, 2019	7,151,694	7,810,491	109.2%	(658,797)
June 30, 2020	7,036,550	7,989,358	113.5%	(952,808)
June 30, 2021	6,856,170	8,581,155	125.2%	(1,724,985)
June 30, 2022	6,657,069	8,979,943	134.9%	(2,322,874)

## Section 2: Plan Assets

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

As of June 30, 2022	Pension	Healthcare	Allocation Percent
Cash and Short-Term Investments			
- Cash and Cash Equivalents	\$ 155,842	\$ 112,908	1.5%
- Subtotal	\$ 155,842	\$ 112,908	1.5%
Fixed Income Investments			
- Domestic Fixed Income Pool	\$ 2,300,390	\$ 1,899,694	21.3%
- International Fixed Income Pool	0	0	0.0%
- Tactical Fixed Income Pool	0	0	0.0%
- High Yield Pool	0	0	0.0%
- Treasury Inflation Protection Pool	0	0	0.0%
- Emerging Debt Pool	0	0	0.0%
- Subtotal	\$ 2,300,390	\$ 1,899,694	21.3%
Equity Investments			
- Domestic Equity Pool	\$ 2,618,110	\$ 2,162,072	24.2%
- International Equity Pool	1,421,227	1,173,607	13.1%
- Private Equity Pool	1,779,516	1,469,549	16.5%
- Emerging Markets Equity Pool	318,049	262,649	2.9%
- Alternative Equity Strategies	629,789	520,088	5.8%
- Subtotal	\$ 6,766,691	\$ 5,587,965	62.5%
Other Investments			
- Real Estate Pool	\$ 813,282	\$ 672,726	7.5%
- Other Investments Pool	778,899	643,225	7.2%
- Absolute Return Pool	0	0	0.0%
- Other Assets	15	967	0.0%
- Subtotal	\$ 1,592,196	\$ 1,316,918	14.7%
Total Cash and Investments	\$ 10,815,119	\$ 8,917,485	100.0%
Net Accrued Receivables	1,021	(48,351)	
Net Assets	\$ 10,816,140	\$ 8,869,134	

Section 2.2: Changes in Fair Value of Assets During FY22 (\$'s in 000's)

Fiscal Year 2022	Pension	Healthcare
1. Fair Value of Assets as of June 30, 2021	\$ 11,912,309	\$ 9,784,141
2. Additions:		
a. Employee Contributions	\$ 66,412	\$ 0
b. Employer Contributions	415,538	64,990
c. State Assistance Contributions	97,700	0
d. Interest and Dividend Income	153,569	127,317
e. Net Appreciation / Depreciation in Fair Value of Investments	(829,657)	(682,785)
f. Employer Group Waiver Plan	0	54,646
g. Other	<u>187</u>	<u>125</u>
h. Total Additions	\$ (96,251)	\$ (435,707)
3. Deductions:		
a. Medical Benefits	\$ 0	\$ 453,308
b. Retirement Benefits	953,055	0
c. Refund of Contributions	9,302	0
d. Investment Expenses	28,523	23,216
e. Administrative Expenses	<u>9,038</u>	<u>2,776</u>
f. Total Deductions	\$ 999,918	\$ 479,300
4. Fair Value of Assets as of June 30, 2022	\$ 10,816,140	\$ 8,869,134
5. Approximate Fair Value Investment Return Rate during FY22 Net of Investment Expenses	-6.0%	-6.0%



### 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 w 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 FY22		
a. Fair Value of Assets as of June 30, 2021	\$ 11,912,309	\$ 9,784,141
b. Contributions	579,650	64,990
c. Employer Group Waiver Plan	0	54,646
d. Benefit Payments	962,357	453,308
e. Administrative Expenses	9,038	2,776
f. Actual Investment Return (net of investment expenses)	(704,424)	(578,559)
g. Expected Return Rate (net of investment expenses)	7.38%	7.38%
h. Expected Return, Weighted for Timing	865,637	709,876
i. Investment Gain / (Loss) for the Year, (f) - (h)	(1,570,061)	(1,288,435)
2. Actuarial Value as of June 30, 2022		
a. Fair Value as of June 30, 2022	\$ 10,816,140	\$ 8,869,134
b. Deferred Investment Gain / (Loss)	(145,358)	(110,809)
c. Actuarial Value as of June 30, 2022, (a) - (b)	10,961,498	8,979,943
3. Ratio of Actuarial Value of Assets to Fair Value of Assets	101.3%	101.2%
4. Approximate Actuarial Value Investment Return Rate during FY22 Net of Investment Expenses	8.6%	8.7%

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

<b>Pension</b>				
<b>Fiscal Year Ending</b>	<b>Asset Gain / (Loss)</b>	<b>Gain / (Loss) Recognized in Prior Years</b>	<b>Gain / (Loss) Recognized This Year</b>	<b>Gain / (Loss) Deferred to Future Years</b>
June 30, 2018	\$ 17,834	\$ 14,268	\$ 3,566	\$ 0
June 30, 2019	(136,242)	(81,744)	(27,248)	(27,250)
June 30, 2020	(310,824)	(124,330)	(62,165)	(124,329)
June 30, 2021	2,103,782	420,756	420,756	1,262,270
June 30, 2022	<u>(1,570,061)</u>	<u>0</u>	<u>(314,012)</u>	<u>(1,256,049)</u>
<b>Total</b>	<b>\$ 104,489</b>	<b>\$ 228,950</b>	<b>\$ 20,897</b>	<b>\$ (145,358)</b>

<b>Healthcare</b>				
<b>Fiscal Year Ending</b>	<b>Asset Gain / (Loss)</b>	<b>Gain / (Loss) Recognized in Prior Years</b>	<b>Gain / (Loss) Recognized This Year</b>	<b>Gain / (Loss) Deferred to Future Years</b>
June 30, 2018	\$ 30,997	\$ 24,796	\$ 6,201	\$ 0
June 30, 2019	(101,128)	(60,678)	(20,225)	(20,225)
June 30, 2020	(244,753)	(97,903)	(48,950)	(97,900)
June 30, 2021	1,730,106	346,021	346,021	1,038,064
June 30, 2022	<u>(1,288,435)</u>	<u>0</u>	<u>(257,687)</u>	<u>(1,030,748)</u>
<b>Total</b>	<b>\$ 126,787</b>	<b>\$ 212,236</b>	<b>\$ 25,360</b>	<b>\$ (110,809)</b>

## Section 2.4: Historical Asset Rates of Return

Year Ending	Actuarial Value		Fair Value	
	Annual	Cumulative	Annual	Cumulative
June 30, 2005	8.7%	8.7%	8.5%	8.5%
June 30, 2006	9.3%	9.0%	11.4%	9.9%
June 30, 2007	11.6%	9.9%	18.5%	12.7%
June 30, 2008	10.0%	9.9%	(3.1%)	8.5%
June 30, 2009	(7.3%)	6.2%	(20.5%)	2.0%
June 30, 2010	7.2%	6.4%	10.2%	3.3%
June 30, 2011	7.2%	6.5%	20.4%	5.6%
June 30, 2012	1.2%	5.8%	0.2%	4.9%
June 30, 2013	4.0%	5.6%	12.1%	5.7%
June 30, 2014	21.9%	7.1%	18.1%	6.9%
June 30, 2015	7.0%	7.1%	2.9%	6.5%
June 30, 2016	5.0%	6.9%	(0.7%)	5.9%
June 30, 2017	5.4%	6.8%	12.8%	6.4%
June 30, 2018	6.1%	6.8%	8.2%	6.5%
June 30, 2019	5.5%	6.7%	6.0%	6.5%
June 30, 2020	5.8%	6.6%	4.1%	6.3%
June 30, 2021	11.6%	6.9%	30.0%	7.6%
June 30, 2022	8.7%	7.0%	(6.0%)	6.8%

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

Cumulative since fiscal year ending June 30, 2005.

# Section 3: Projections

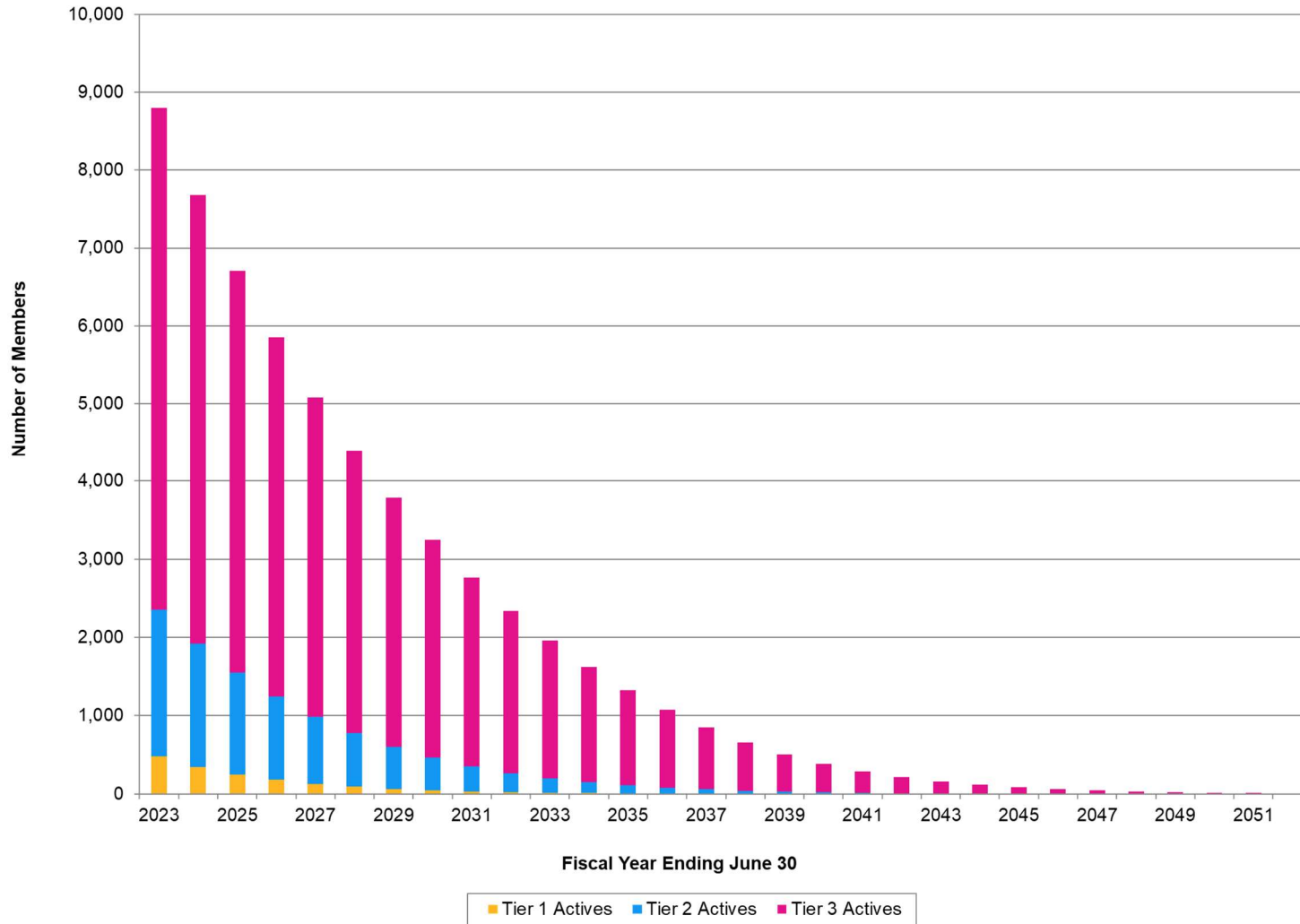
## Section 3.1: Projection Assumptions and Methods

### Key Assumptions

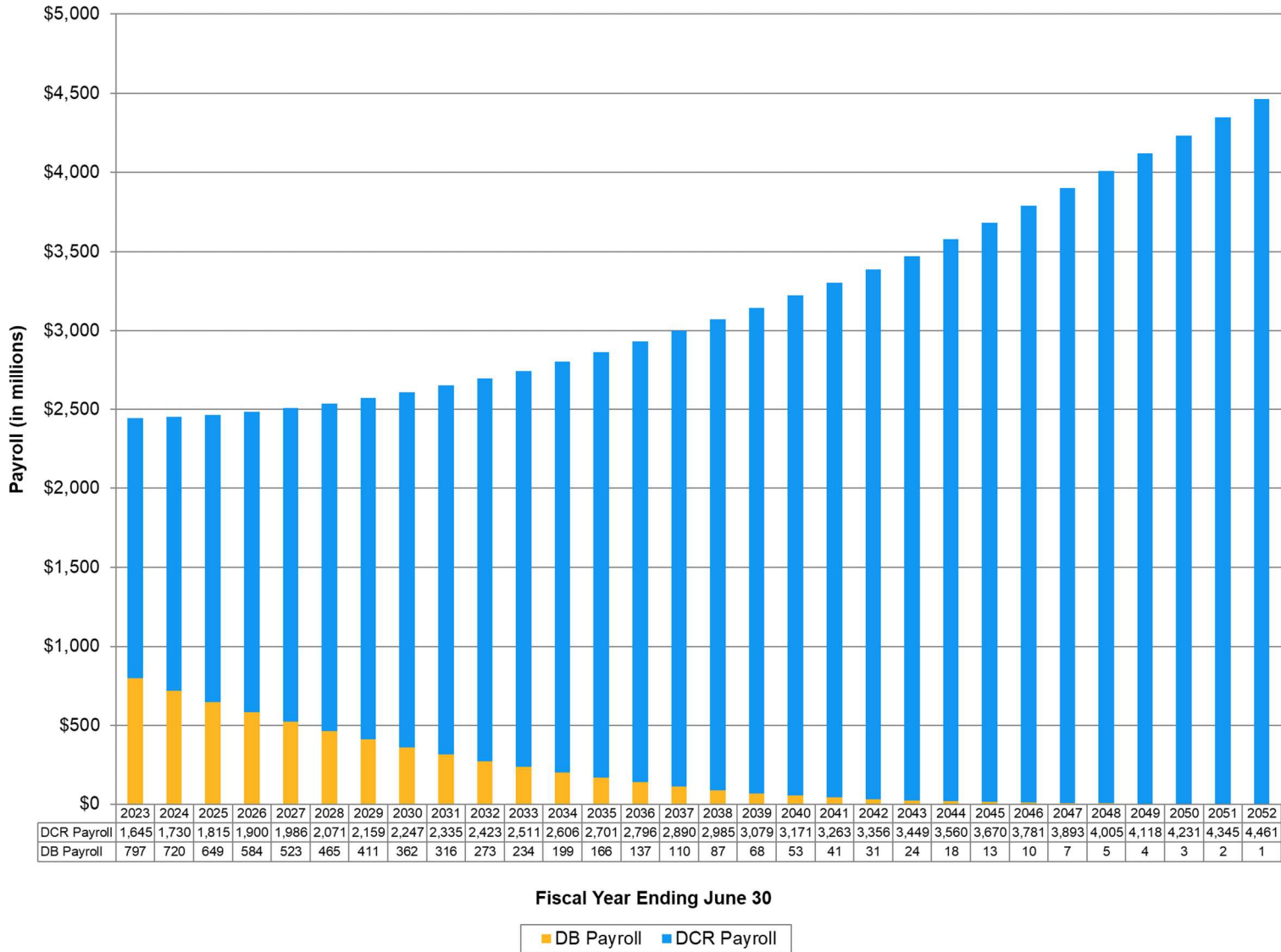
- 7.25% investment return (net of investment expenses) on the Fair Value of Assets in all future years.
- The Actuarial Value of Assets was re-initialized to Fair Value as of June 30, 2014. The Actuarial Value of Assets after June 30, 2014 reflects the deferred gains and losses generated by the smoothing 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, 2022 is assumed to match the assumptions.
- The projections in Section 3.6A reflect 25-year amortization in all years.
- The projections in Section 3.6B reflect 25-year amortization through FY39, and 15-year amortization in FY40 and beyond.
- 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, 2022 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.
- The % of total DB/DCR payroll represented by the State's employees based on the June 30, 2022 data was assumed to remain constant in all future years.
- Board-adopted contribution rates for FY23 and FY24 are reflected.
- The healthcare Normal Cost is assumed to be deposited to the healthcare trust in FY25 and beyond.

## Section 3.2: Membership Projection

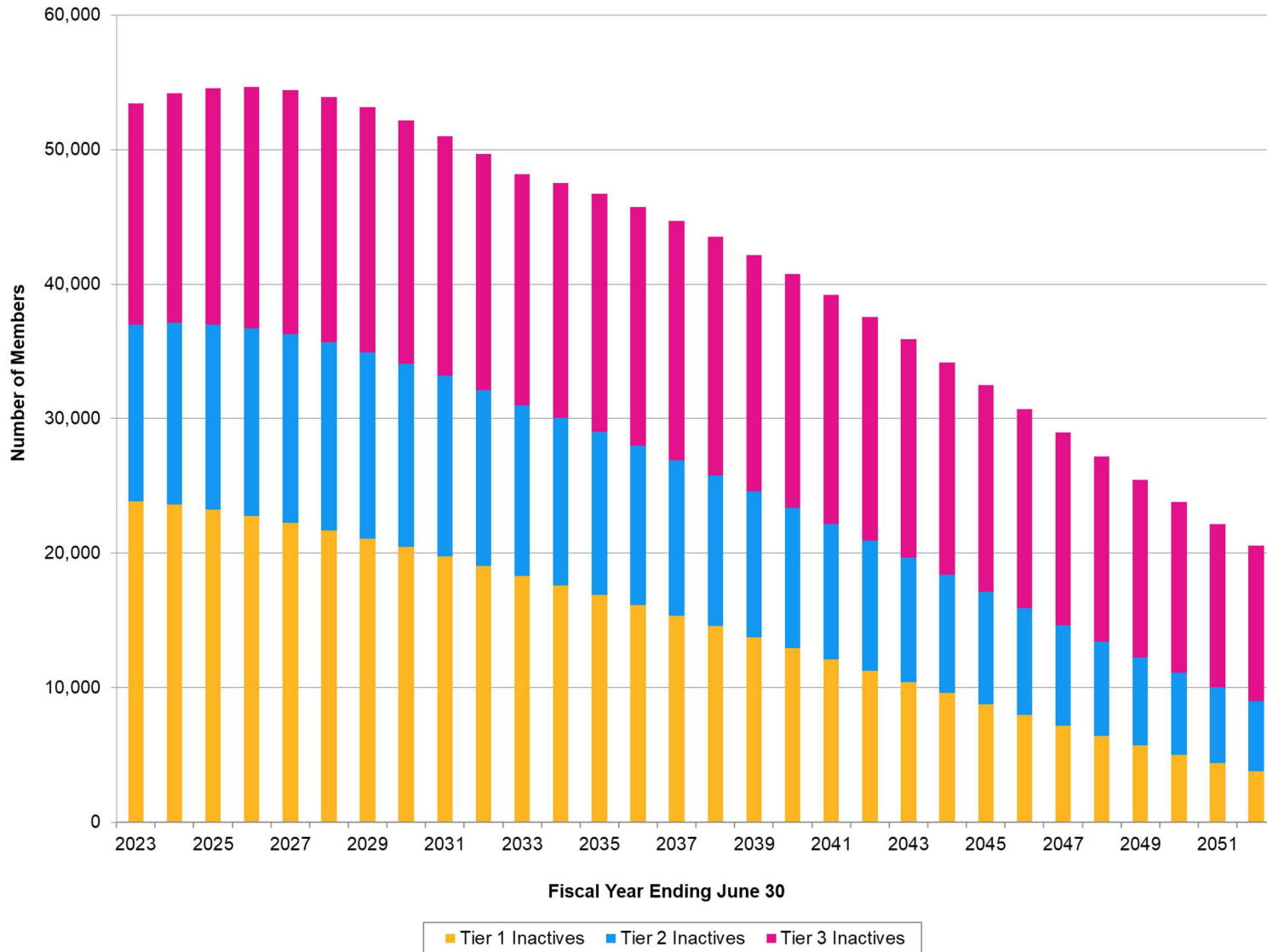
### Projected Active Member Count



### Projected DB and DCR Payroll

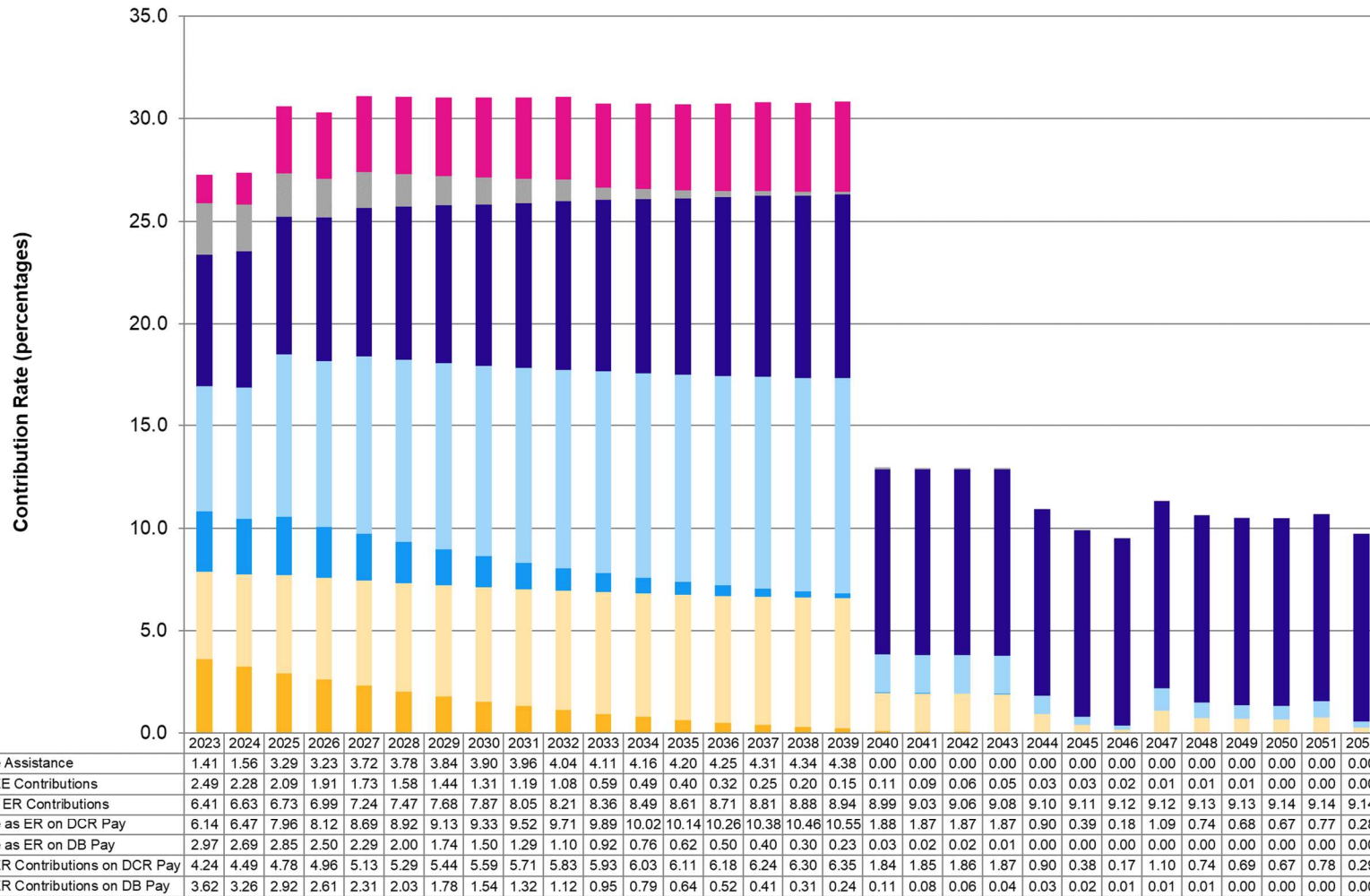


## Projected Inactive Member Count



## Section 3.3A: Projected Employer/State Contribution Rates

### Based on Total DB and DCR Payroll



These projections reflect 25-year amortization in all years, as summarized in Section 3.6A.

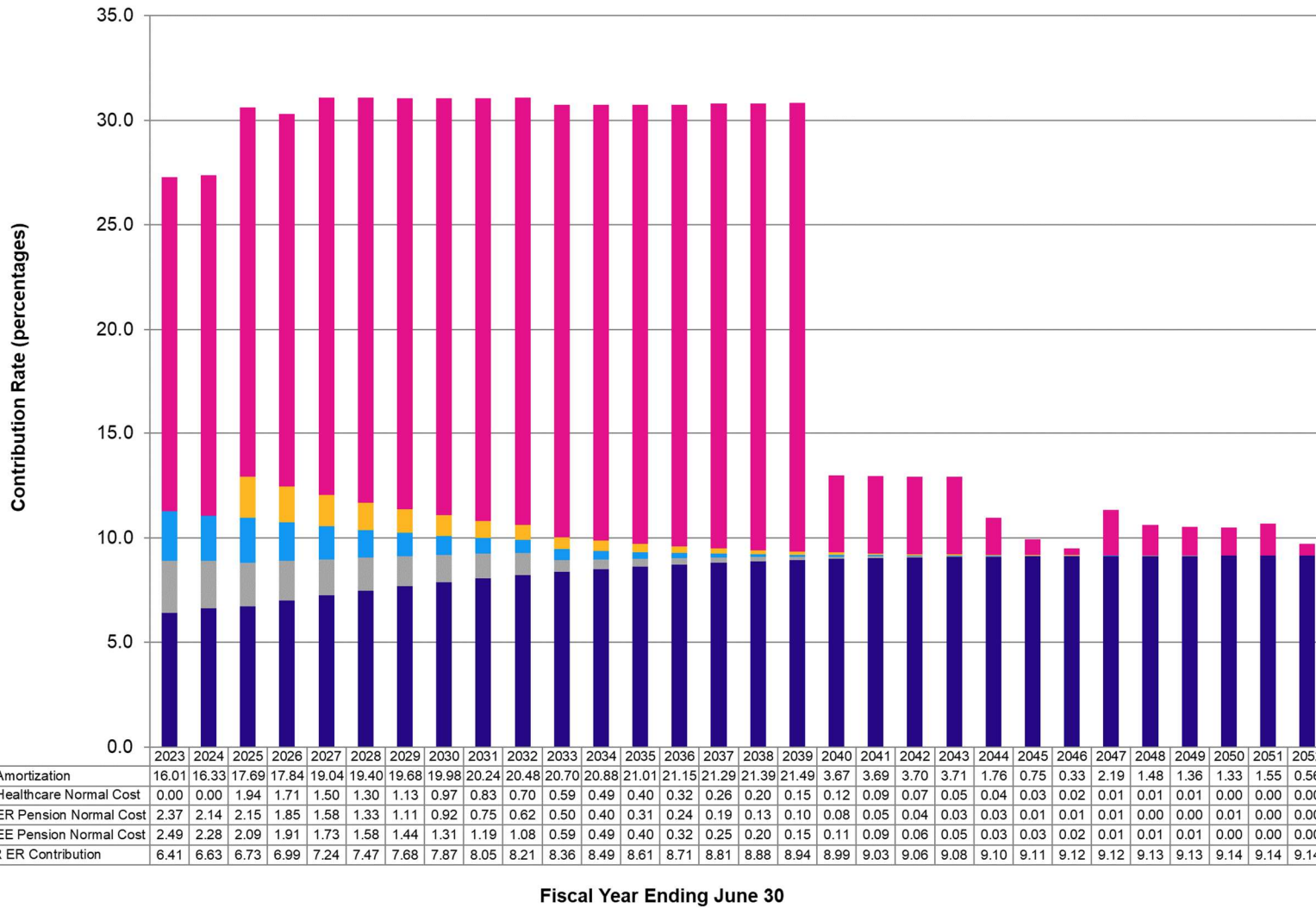
Fiscal Year Ending June 30





### Section 3.3B: Components of Projected Total Contribution Rates

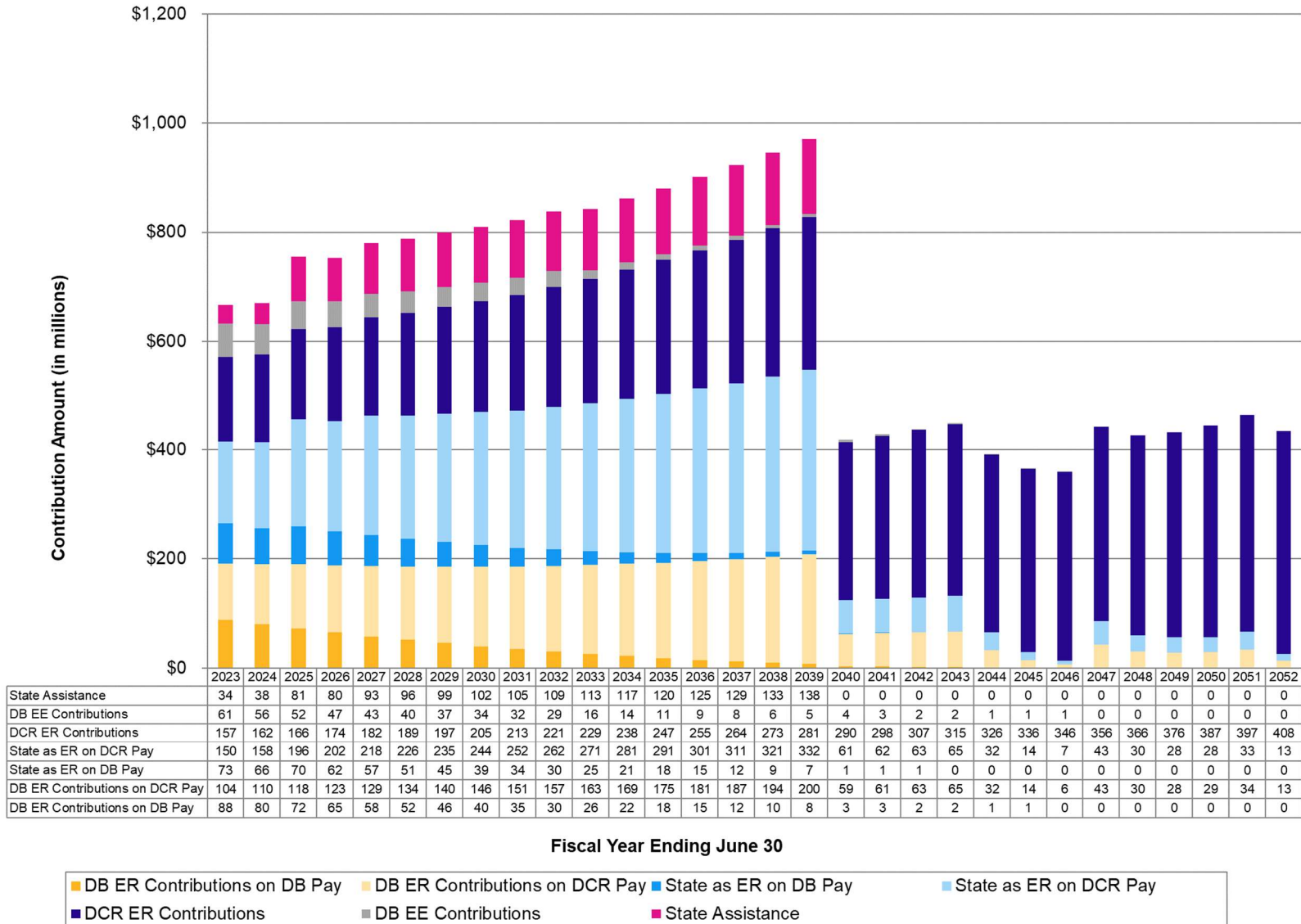
Based on Total DB and DCR Payroll



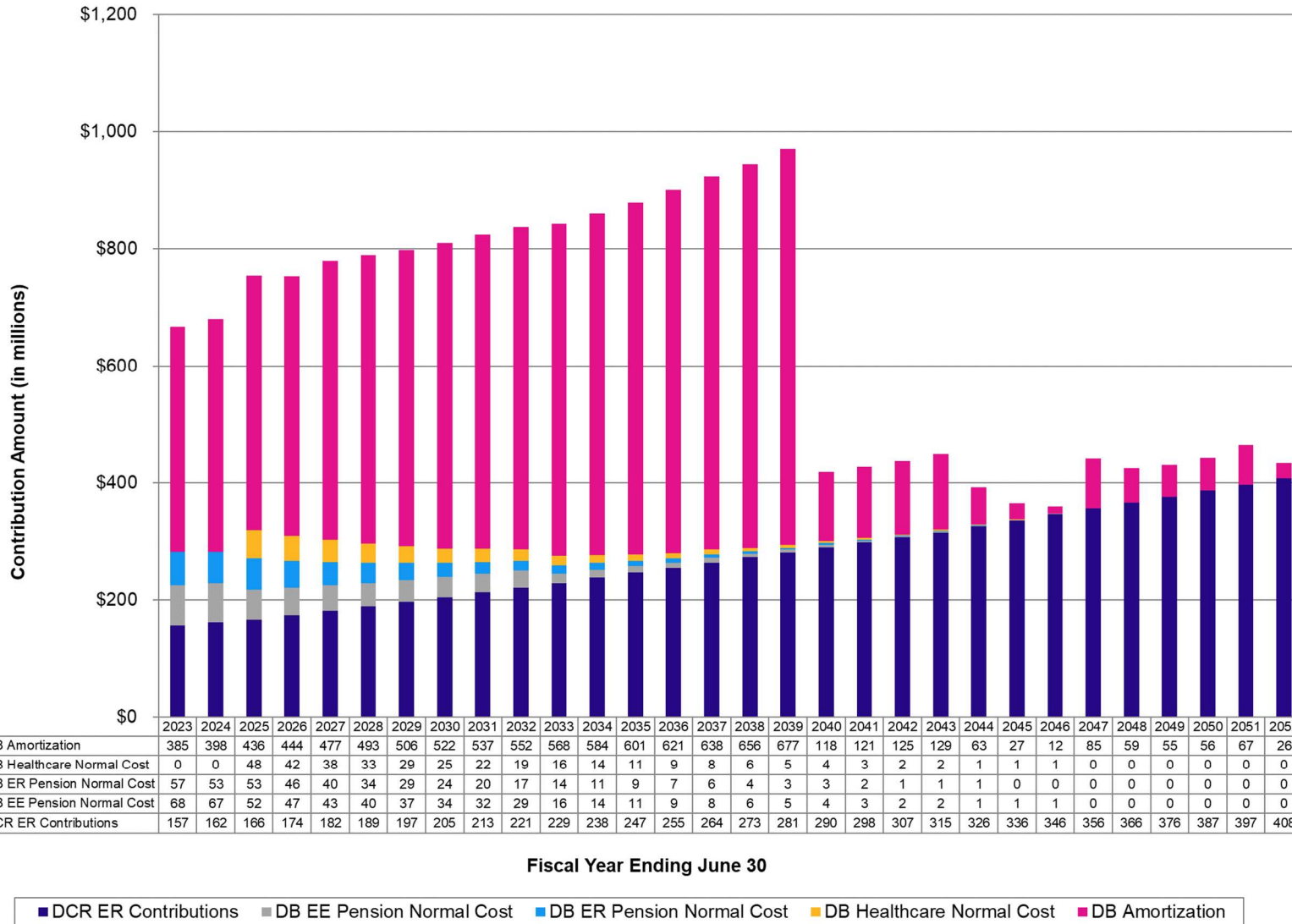
These projections reflect 25-year amortization in all years, as summarized in Section 3.6A.

### Section 3.4A: Projected Employer/State Contribution Amounts

These projections reflect 25-year amortization in all years, as summarized in Section 3.6A.

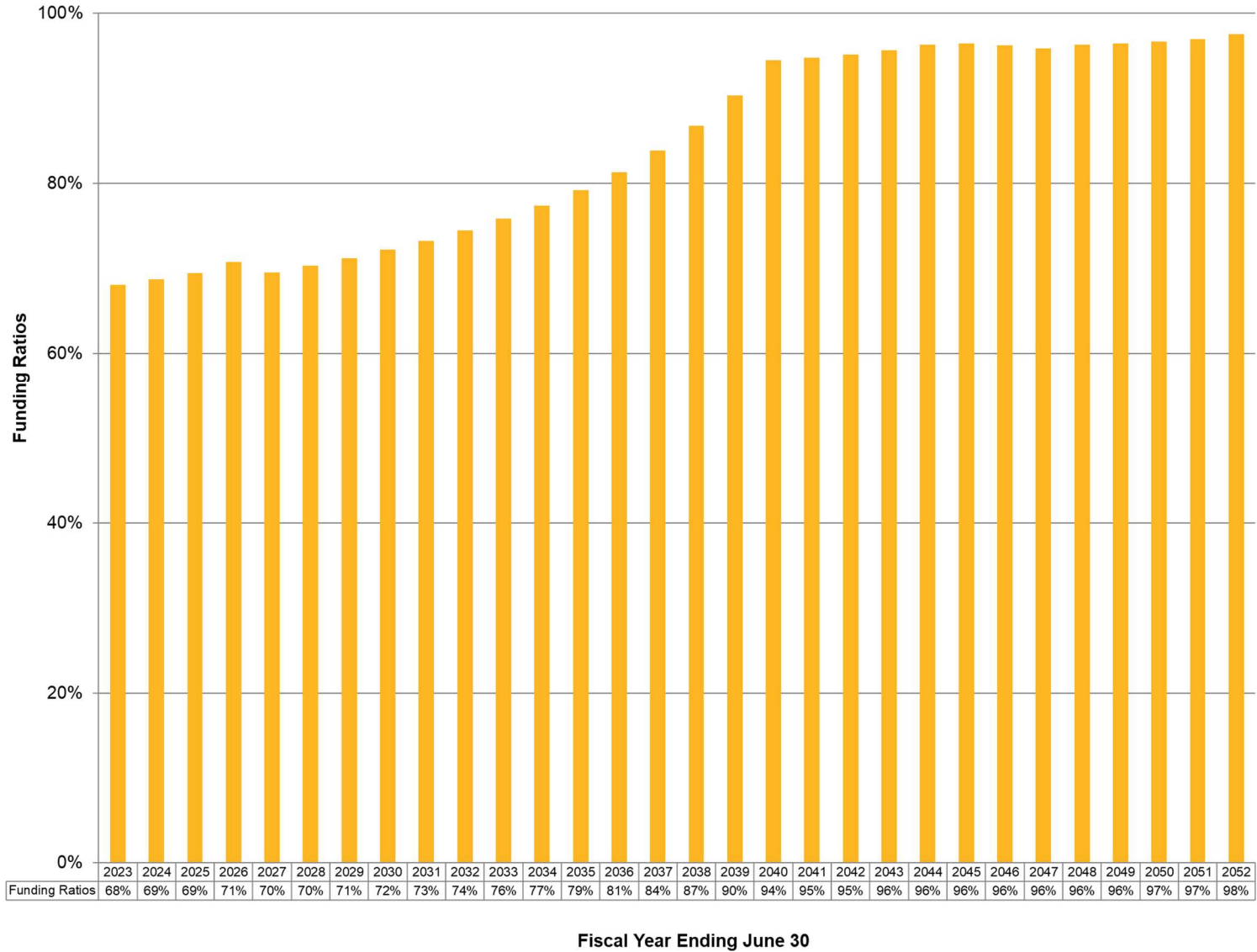


### Section 3.4B: Components of Projected Total Contribution Amounts



## Section 3.5A: Projection of Funded Ratios

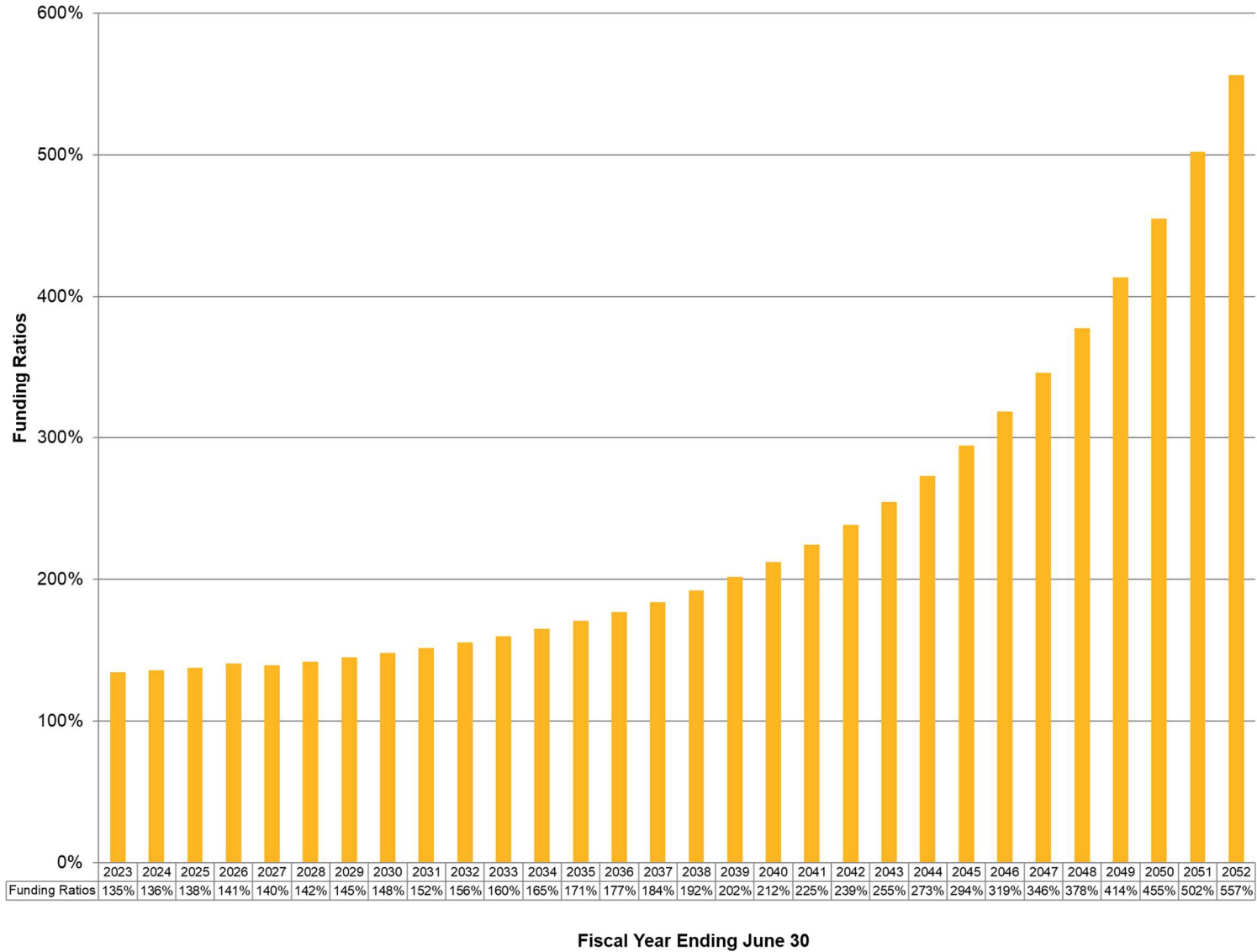
### Pension



These projections reflect 25-year amortization in all years, as summarized in Section 3.6A.

## Section 3.5B: Projection of Funded Ratios

### Healthcare



These projections reflect 25-year amortization in all years, as summarized 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 Assed Gain / (Loss)	
	Pension		Healthcare		Total Salaries	Actuarial Contrib. Rates			DB Contributions					Benefit Payments	Pension	Healthcare
	Actuarial Assets	Accrued Liability	Actuarial Assets	Accrued Liability		DB	DCR	Total	Non-State Employers	State as an Employer	State Assistance	Employee	Total			
2023	\$10,961,498	\$ 16,093,679	\$ 8,979,943	\$ 6,657,069	\$ 2,442,007	18.38%	6.41%	24.79%	\$ 191,953	\$ 222,535	\$ 33,933	\$ 60,769	\$ 509,190	\$ 1,447,536	\$ (162,689)	\$ (129,969)
2024	11,204,196	16,307,677	9,213,284	6,775,292	2,449,710	18.47%	6.63%	25.10%	189,842	224,330	37,942	55,952	508,066	1,518,765	(207,268)	(169,353)
2025	11,440,470	16,470,937	9,460,827	6,873,897	2,464,560	21.79%	6.73%	28.52%	189,750	266,258	81,020	51,505	588,533	1,585,941	(314,012)	(257,687)
2026	11,739,769	16,591,903	9,801,448	6,952,261	2,484,549	21.41%	6.99%	28.40%	188,031	263,737	80,173	47,358	579,299	1,647,739	0	0
2027	11,583,862	16,661,148	9,789,796	7,011,917	2,508,463	22.13%	7.24%	29.37%	186,680	275,229	93,213	43,470	598,592	1,703,581	0	0
2028	11,736,344	16,682,326	10,033,904	7,055,888	2,535,575	22.03%	7.47%	29.50%	185,757	276,947	95,883	40,074	598,661	1,756,237	0	0
2029	11,865,340	16,656,016	10,276,437	7,083,767	2,570,663	21.93%	7.68%	29.61%	185,605	279,505	98,635	36,966	600,711	1,805,207	0	0
2030	11,973,611	16,583,144	10,518,572	7,095,369	2,608,993	21.86%	7.87%	29.73%	185,874	282,768	101,685	34,079	604,406	1,853,251	0	0
2031	12,063,250	16,463,462	10,759,308	7,088,776	2,650,982	21.81%	8.05%	29.86%	186,459	286,661	105,059	31,679	609,858	1,898,933	0	0
2032	12,137,127	16,297,405	10,998,512	7,062,562	2,696,089	21.80%	8.21%	30.01%	187,457	291,405	108,885	29,238	616,985	1,940,533	0	0
2033	12,198,922	16,085,754	11,237,113	7,016,482	2,745,032	21.80%	8.36%	30.16%	188,784	296,696	112,938	16,196	614,614	1,966,249	0	0
2034	12,254,340	15,831,019	11,475,288	6,949,171	2,804,506	21.76%	8.49%	30.25%	191,036	302,567	116,658	13,742	624,003	1,996,724	0	0
2035	12,307,459	15,533,701	11,715,671	6,861,801	2,867,406	21.72%	8.61%	30.33%	193,585	308,785	120,431	11,470	634,271	2,022,132	0	0
2036	12,363,080	15,195,633	11,959,591	6,754,179	2,932,888	21.71%	8.71%	30.42%	196,527	315,690	124,512	9,385	646,114	2,042,489	0	0
2037	12,426,499	14,818,132	12,209,027	6,626,624	3,000,710	21.73%	8.81%	30.54%	199,559	323,288	129,207	7,502	659,556	2,057,842	0	0
2038	12,504,198	14,403,584	12,465,222	6,478,204	3,072,106	21.72%	8.88%	30.60%	203,223	330,828	133,210	6,144	673,405	2,063,937	0	0
2039	12,603,499	13,955,651	12,732,458	6,311,525	3,146,912	21.75%	8.94%	30.69%	207,219	339,352	137,882	4,720	689,173	2,064,049	0	0
2040	12,733,315	13,478,096	13,012,532	6,126,320	3,223,871	3.86%	8.99%	12.85%	62,744	61,698	0	3,546	127,988	2,053,597	0	0
2041	12,299,161	12,975,948	13,311,254	5,925,801	3,304,029	3.82%	9.03%	12.85%	63,637	62,577	0	2,974	129,188	2,034,475	0	0
2042	11,852,528	12,452,669	13,634,087	5,713,230	3,386,930	3.81%	9.06%	12.87%	65,063	63,979	0	2,032	131,074	2,007,017	0	0
2043	11,398,473	11,912,616	13,986,143	5,490,969	3,472,665	3.79%	9.08%	12.87%	66,359	65,254	0	1,736	133,349	1,972,329	0	0
2044	10,942,280	11,360,231	14,371,622	5,260,580	3,577,503	1.83%	9.10%	10.93%	33,010	32,459	0	1,073	66,542	1,926,661	0	0
2045	10,416,384	10,799,325	14,800,105	5,028,412	3,683,645	0.78%	9.11%	9.89%	14,487	14,246	0	1,105	29,838	1,875,282	0	0
2046	9,851,934	10,234,452	15,275,540	4,795,288	3,791,021	0.36%	9.12%	9.48%	6,881	6,767	0	758	14,406	1,817,201	0	0
2047	9,271,832	9,669,103	15,804,566	4,564,473	3,900,021	2.21%	9.12%	11.33%	43,458	42,733	0	390	86,581	1,752,797	0	0
2048	8,769,181	9,106,834	16,394,063	4,339,220	4,010,390	1.49%	9.13%	10.62%	30,128	29,627	0	401	60,156	1,686,487	0	0
2049	8,249,864	8,550,721	17,047,986	4,119,161	4,121,778	1.37%	9.13%	10.50%	28,472	27,997	0	412	56,881	1,617,028	0	0
2050	7,739,052	8,003,675	17,771,859	3,905,562	4,233,861	1.34%	9.14%	10.48%	28,704	28,227	0	0	56,931	1,547,964	0	0
2051	7,243,004	7,468,364	18,568,157	3,696,559	4,347,409	1.55%	9.14%	10.69%	34,045	33,478	0	0	67,523	1,477,089	0	0
2052	6,774,875	6,947,005	19,442,852	3,493,068	4,462,598	0.57%	9.14%	9.71%	12,874	12,660	0	0	25,534	1,406,744	0	0
<b>Total</b>									<b>\$3,747,203</b>	<b>\$5,368,283</b>	<b>\$1,711,266</b>	<b>\$ 514,676</b>	<b>\$11,341,428</b>			

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 25-year amortization in all years.

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

Fiscal Year End	Valuation Amounts on July 1 (Beginning of FY)			
	Funding Ratio		Unfunded Liability / (Surplus)	
	Pension	Healthcare	Pension	Healthcare
2023	68%	135%	\$ 5,132,181	\$ (2,322,874)
2024	69%	136%	5,103,481	(2,437,992)
2025	70%	138%	5,030,467	(2,586,930)
2026	71%	141%	4,852,134	(2,849,187)
2027	70%	140%	5,077,286	(2,777,879)
2028	70%	142%	4,945,982	(2,978,016)
2029	71%	145%	4,790,676	(3,192,670)
2030	72%	148%	4,609,533	(3,423,203)
2031	73%	152%	4,400,212	(3,670,532)
2032	75%	156%	4,160,278	(3,935,950)
2033	76%	160%	3,886,832	(4,220,631)
2034	77%	165%	3,576,679	(4,526,117)
2035	79%	171%	3,226,242	(4,853,870)
2036	81%	177%	2,832,553	(5,205,412)
2037	84%	184%	2,391,633	(5,582,403)
2038	87%	192%	1,899,386	(5,987,018)
2039	90%	202%	1,352,152	(6,420,933)
2040	95%	212%	744,781	(6,886,212)
2041	95%	225%	676,787	(7,385,453)
2042	95%	239%	600,141	(7,920,857)
2043	96%	255%	514,143	(8,495,174)
2044	96%	273%	417,951	(9,111,042)
2045	97%	294%	382,941	(9,771,693)
2046	96%	319%	382,518	(10,480,252)
2047	96%	346%	397,271	(11,240,093)
2048	96%	378%	337,653	(12,054,843)
2049	97%	414%	300,857	(12,928,825)
2050	97%	455%	264,623	(13,866,297)
2051	97%	502%	225,360	(14,871,598)
2052	98%	557%	172,130	(15,949,784)

These projections reflect 25-year amortization in all years.

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 Assed Gain / (Loss)	
	Pension		Healthcare		Total Salaries	Actuarial Contrib. Rates			DB Contributions					Benefit Payments	Pension	Healthcare
	Actuarial Assets	Accrued Liability	Actuarial Assets	Accrued Liability		DB	DCR	Total	Non-State Employers	State as an Employer	State Assistance	Employee	Total			
2023	\$10,961,498	\$ 16,093,679	\$ 8,979,943	\$ 6,657,069	\$2,442,007	18.38%	6.41%	24.79%	\$ 191,953	\$ 222,535	\$ 33,933	\$ 60,769	\$ 509,190	\$ 1,447,536	\$ (162,689)	\$ (129,969)
2024	11,204,196	16,307,677	9,213,284	6,775,292	2,449,710	18.47%	6.63%	25.10%	189,842	224,330	37,942	55,952	508,066	1,518,765	(207,268)	(169,353)
2025	11,440,470	16,470,937	9,460,827	6,873,897	2,464,560	21.79%	6.73%	28.52%	189,750	266,258	81,020	51,505	588,533	1,585,941	(314,012)	(257,687)
2026	11,739,769	16,591,903	9,801,448	6,952,261	2,484,549	21.41%	6.99%	28.40%	188,031	263,737	80,173	47,358	579,299	1,647,739	0	0
2027	11,583,862	16,661,148	9,789,796	7,011,917	2,508,463	22.13%	7.24%	29.37%	186,680	275,229	93,213	43,470	598,592	1,703,581	0	0
2028	11,736,344	16,682,326	10,033,904	7,055,888	2,535,575	22.03%	7.47%	29.50%	185,757	276,947	95,883	40,074	598,661	1,756,237	0	0
2029	11,865,340	16,656,016	10,276,437	7,083,767	2,570,663	21.93%	7.68%	29.61%	185,605	279,505	98,635	36,966	600,711	1,805,207	0	0
2030	11,973,611	16,583,144	10,518,572	7,095,369	2,608,993	21.86%	7.87%	29.73%	185,874	282,768	101,685	34,079	604,406	1,853,251	0	0
2031	12,063,250	16,463,462	10,759,308	7,088,776	2,650,982	21.81%	8.05%	29.86%	186,459	286,661	105,059	31,679	609,858	1,898,933	0	0
2032	12,137,127	16,297,405	10,998,512	7,062,562	2,696,089	21.80%	8.21%	30.01%	187,457	291,405	108,885	29,238	616,985	1,940,533	0	0
2033	12,198,922	16,085,754	11,237,113	7,016,482	2,745,032	21.80%	8.36%	30.16%	188,784	296,696	112,938	16,196	614,614	1,966,249	0	0
2034	12,254,340	15,831,019	11,475,288	6,949,171	2,804,506	21.76%	8.49%	30.25%	191,036	302,567	116,658	13,742	624,003	1,996,724	0	0
2035	12,307,459	15,533,701	11,715,671	6,861,801	2,867,406	21.72%	8.61%	30.33%	193,585	308,785	120,431	11,470	634,271	2,022,132	0	0
2036	12,363,080	15,195,633	11,959,591	6,754,179	2,932,888	21.71%	8.71%	30.42%	196,527	315,690	124,512	9,385	646,114	2,042,489	0	0
2037	12,426,499	14,818,132	12,209,027	6,626,624	3,000,710	21.73%	8.81%	30.54%	199,559	323,288	129,207	7,502	659,556	2,057,842	0	0
2038	12,504,198	14,403,584	12,465,222	6,478,204	3,072,106	21.72%	8.88%	30.60%	203,223	330,828	133,210	6,144	673,405	2,063,937	0	0
2039	12,603,499	13,955,651	12,732,458	6,311,525	3,146,912	21.75%	8.94%	30.69%	207,219	339,352	137,882	4,720	689,173	2,064,049	0	0
2040	12,733,315	13,478,096	13,012,532	6,126,320	3,223,871	3.88%	8.99%	12.87%	63,069	62,018	0	3,546	128,633	2,053,597	0	0
2041	12,299,829	12,975,948	13,311,254	5,925,801	3,304,029	3.84%	9.03%	12.87%	63,970	62,904	0	2,974	129,848	2,034,475	0	0
2042	11,853,928	12,452,669	13,634,087	5,713,230	3,386,930	3.83%	9.06%	12.89%	65,404	64,314	0	2,032	131,750	2,007,017	0	0
2043	11,400,675	11,912,616	13,986,143	5,490,969	3,472,665	3.82%	9.08%	12.90%	66,885	65,771	0	1,736	134,392	1,972,329	0	0
2044	10,945,722	11,360,231	14,371,622	5,260,580	3,577,503	1.85%	9.10%	10.95%	33,370	32,813	0	1,073	67,256	1,926,661	0	0
2045	10,420,815	10,799,325	14,800,105	5,028,412	3,683,645	0.81%	9.11%	9.92%	15,044	14,794	0	1,105	30,943	1,875,282	0	0
2046	9,857,830	10,234,452	15,275,540	4,795,288	3,791,021	0.39%	9.12%	9.51%	7,454	7,330	0	758	15,542	1,817,201	0	0
2047	9,279,332	9,669,103	15,804,566	4,564,473	3,900,021	2.25%	9.12%	11.37%	44,244	43,506	0	390	88,140	1,752,797	0	0
2048	8,778,839	9,106,834	16,394,063	4,339,220	4,010,390	1.52%	9.13%	10.65%	30,735	30,223	0	401	61,359	1,686,487	0	0
2049	8,261,468	8,550,721	17,047,986	4,119,161	4,121,778	1.40%	9.13%	10.53%	29,095	28,610	0	412	58,117	1,617,028	0	0
2050	7,752,778	8,003,675	17,771,859	3,905,562	4,233,861	1.38%	9.14%	10.52%	29,558	29,066	0	0	58,624	1,547,964	0	0
2051	7,259,478	7,468,364	18,568,157	3,696,559	4,347,409	1.59%	9.14%	10.73%	34,922	34,341	0	0	69,263	1,477,089	0	0
2052	6,794,345	6,947,005	19,442,852	3,493,068	4,462,598	0.61%	9.14%	9.75%	13,774	13,545	0	0	27,319	1,406,744	0	0
<b>Total</b>	<b>\$3,754,865</b>	<b>\$5,375,816</b>	<b>\$1,711,266</b>	<b>\$ 514,676</b>	<b>\$11,356,623</b>											

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 25-year amortization through FY39, and 15-year amortization in FY40 and beyond.



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

Fiscal Year End	Valuation Amounts on July 1 (Beginning of FY)			
	Funding Ratio		Unfunded Liability / (Surplus)	
	Pension	Healthcare	Pension	Healthcare
2023	68%	135%	\$ 5,132,181	\$ (2,322,874)
2024	69%	136%	5,103,481	(2,437,992)
2025	70%	138%	5,030,467	(2,586,930)
2026	71%	141%	4,852,134	(2,849,187)
2027	70%	140%	5,077,286	(2,777,879)
2028	70%	142%	4,945,982	(2,978,016)
2029	71%	145%	4,790,676	(3,192,670)
2030	72%	148%	4,609,533	(3,423,203)
2031	73%	152%	4,400,212	(3,670,532)
2032	75%	156%	4,160,278	(3,935,950)
2033	76%	160%	3,886,832	(4,220,631)
2034	77%	165%	3,576,679	(4,526,117)
2035	79%	171%	3,226,242	(4,853,870)
2036	81%	177%	2,832,553	(5,205,412)
2037	84%	184%	2,391,633	(5,582,403)
2038	87%	192%	1,899,386	(5,987,018)
2039	90%	202%	1,352,152	(6,420,933)
2040	95%	212%	744,781	(6,886,212)
2041	95%	225%	676,119	(7,385,453)
2042	95%	239%	598,741	(7,920,857)
2043	96%	255%	511,941	(8,495,174)
2044	96%	273%	414,509	(9,111,042)
2045	97%	294%	378,510	(9,771,693)
2046	96%	319%	376,622	(10,480,252)
2047	96%	346%	389,771	(11,240,093)
2048	96%	378%	327,995	(12,054,843)
2049	97%	414%	289,253	(12,928,825)
2050	97%	455%	250,897	(13,866,297)
2051	97%	502%	208,886	(14,871,598)
2052	98%	557%	152,660	(15,949,784)

These projections reflect 25-year amortization through FY39, and 15-year amortization in FY40 and beyond.

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
2023	38,243	\$ 1,037,270	2065	3,783	\$ 364,079
2024	39,646	1,087,579	2066	3,310	328,379
2025	40,749	1,134,873	2067	2,883	294,582
2026	41,554	1,178,211	2068	2,500	262,715
2027	42,129	1,219,750	2069	2,157	232,806
2028	42,464	1,258,422	2070	1,850	204,880
2029	42,564	1,293,897	2071	1,578	178,961
2030	42,495	1,327,351	2072	1,336	155,063
2031	42,278	1,358,009	2073	1,124	133,194
2032	41,893	1,385,456	2074	937	113,347
2033	41,363	1,396,648	2075	775	95,501
2034	40,701	1,414,917	2076	635	79,617
2035	39,914	1,429,026	2077	516	65,632
2036	38,996	1,439,583	2078	415	53,463
2037	37,995	1,445,486	2079	329	43,007
2038	36,878	1,445,727	2080	259	34,143
2039	35,636	1,440,578	2081	201	26,732
2040	34,286	1,429,011	2082	154	20,629
2041	32,850	1,412,789	2083	118	15,680
2042	31,347	1,391,205	2084	88	11,733
2043	29,803	1,364,438	2085	64	8,641
2044	28,200	1,333,359	2086	48	6,262
2045	26,596	1,297,461	2087	34	4,468
2046	24,972	1,258,064	2088	25	3,140
2047	23,362	1,215,316	2089	18	2,176
2048	21,759	1,169,908	2090	13	1,492
2049	20,193	1,122,196	2091	9	1,014
2050	18,674	1,072,604	2092	7	687
2051	17,206	1,021,741	2093	5	467
2052	15,793	970,083	2094	4	321
2053	14,442	918,022	2095	2	225
2054	13,157	865,935	2096	2	160
2055	11,944	814,178	2097	2	117
2056	10,805	763,073	2098	1	88
2057	9,740	712,885	2099	1	67
2058	8,752	663,839	2100	1	52
2059	7,838	616,122	2101	1	41
2060	6,998	569,883	2102	0	0
2061	6,228	525,239	2103	0	0
2062	5,526	482,277	2104	0	0
2063	4,887	441,064	2105	0	0
2064	4,308	401,652	2106	0	0

## Section 4: Member Data

### Section 4.1: Summary of Members Included

As of June 30	2018	2019	2020	2021	2022
<b>Active Members</b>					
1. Number	13,434	12,152	11,033	9,888	8,795 <sup>1</sup>
2. Average Age	52.52	52.84	53.21	53.51	53.78
3. Average Credited Service	17.21	17.80	18.38	18.96	19.52
4. Average Entry Age	35.30	35.04	34.83	34.55	34.26
5. Average Annual Earnings	\$ 77,813	\$ 82,192	\$ 83,757	\$ 86,316	\$ 89,603
6. Number Vested	13,103	11,868	10,791	9,675	8,604
7. Percent Who Are Vested	97.5%	97.7%	97.8%	97.8%	97.8%
<b>Retirees, Disabilitants, and Beneficiaries</b>					
1. Number	35,454	36,310	37,106	37,717	38,243
2. Average Age	69.85	70.29	70.77	71.17	71.61
3. Average Years Since Retirement	11.87	12.14	12.45	12.66	12.94
4. Average Monthly Pension Benefit					
a. Base	\$ 1,616	\$ 1,660	\$ 1,704	\$ 1,752	\$ 1,802
b. COLA <sup>2</sup>	94	92	93	94	95
c. PRPA <sup>2</sup>	222	241	244	230	282
d. Adjustment	1	1	0	0	1
e. Total	\$ 1,933	\$ 1,994	\$ 2,041	\$ 2,076	\$ 2,180
<b>Vested Terminations (vested at termination, not refunded contributions, or commenced benefit)</b>					
1. Number	5,660	5,499	5,327	5,135	4,955
2. Average Age	52.56	53.06	53.52	53.92	54.37
3. Average Monthly Pension Benefit	\$ 1,087	\$ 1,123	\$ 1,158	\$ 1,205	\$ 1,258
<b>Non-Vested Terminations (not vested at termination, not refunded contributions)</b>					
1. Number	11,192	10,921	10,642	10,432	10,223
2. Average Account Balance	\$ 6,558	\$ 6,923	\$ 7,060	\$ 7,325	\$ 7,573
<b>Total Number of Members</b>	<b>65,740</b>	<b>64,882</b>	<b>64,108</b>	<b>63,172</b>	<b>62,216</b>

<sup>1</sup> Includes 4,130 male active members and 4,665 female active members.

<sup>2</sup> 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, 2022	DB					DCR Tier 4	Grand Total
	Tier 1	Tier 2	Tier 3	Total			
<b>Active Members</b>							
1. Number	483	1,875	6,437	8,795	24,702		33,497
2. Average Age	63.99	57.27	52.00	53.78	41.35		44.61
3. Average Credited Service	24.28	23.67	17.96	19.52	5.11		8.89
4. Average Entry Age	39.71	33.60	34.04	34.26	36.24		35.72
5. Annual Earnings							
a. Total (000's)	\$ 38,284	\$ 171,786	\$ 577,988	\$ 788,058	\$ 1,622,742		\$ 2,410,800
b. Average	\$ 79,263	\$ 91,619	\$ 89,792	\$ 89,603	\$ 65,693		\$ 71,971

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

As of June 30, 2022	Tier 1	Tier 2	Tier 3	Total
<b>Retirees, Disabilitants, and Beneficiaries</b>				
1. Number	22,664	9,710	5,869	38,243
2. Average Age	73.52	69.54	67.68	71.61
3. Average Years Since Retirement	16.45	9.01	5.88	12.94
4. Average Monthly Pension Benefit				
a. Base	\$ 1,790	\$ 2,001	\$ 1,521	\$ 1,802
b. COLA	121	64	48	95
c. PRPA	391	152	78	282
d. Adjustment	1	1	1	1
e. Total	\$ 2,303	\$ 2,218	\$ 1,648	\$ 2,180

## Summary of Members Included

As of June 30, 2022	Active Members	Inactive Members				Total Inactive Members
		Retirees	Covered Spouses	Covered Children / Dependents	Deferred	
<b>Retiree Medical Participants</b>						
1. Retiree Coverage Only	8,730	19,879	0	0	2,413	22,292
2. Retiree + Spouse	0	12,795	12,795	0	2,785	28,375
3. Retiree + Children / Dependents	0	393	0	296	0	689
4. Family	0	691	691	1,112	0	2,494
5. Total	8,730	33,758	13,486	1,408	5,198	53,850

As of June 30, 2022	Retirees	Covered Spouses	Covered Children / Dependents	Deferred	Total Inactive Members
<b>Retiree Medical Participants</b>					
1. Pre-Medicare	6,647	4,390	1,408	4,999	17,444
2. Medicare Part A & B	26,858	9,044	0	199	36,101
3. Medicare Part B Only	253	52	0	0	305
4. Total	33,758	13,486	1,408	5,198	53,850

As of June 30, 2022	Retirees
<b>Summary of Retiree Medical Data Received</b>	
1. Retiree records on pension data	38,243
2. Remove duplicates on pension data	(1,193)
3. Valued in a different retiree healthcare plan <sup>1</sup>	(1,173)
4. Records without medical coverage	(2,255)
5. Medical only retirees	136
6. Total	33,758

As of June 30	2018	2019	2020	2021	2022
<b>Retiree Medical Retirees</b>					
1. Number	31,396	32,290	32,857	33,254	33,758
2. Average Age	70.06	70.41	70.87	71.31	71.72

<sup>1</sup> Each member's retiree medical benefits are valued in the plan indicated in the data from Aetna

## Summary of Members Included

### Active Members – DB Only

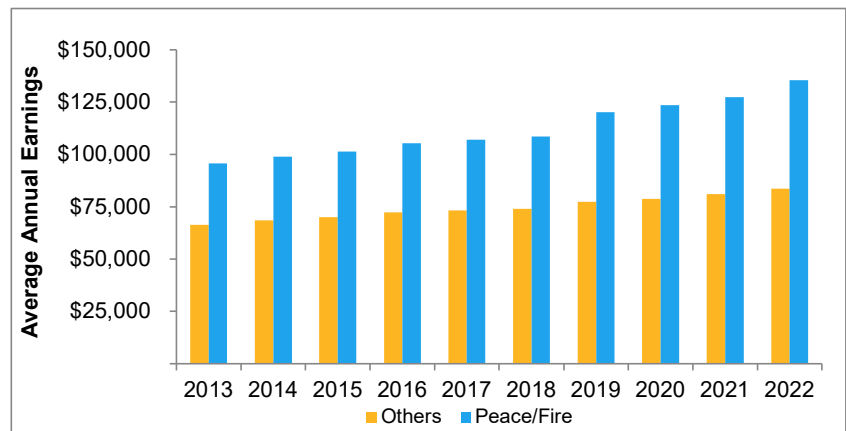
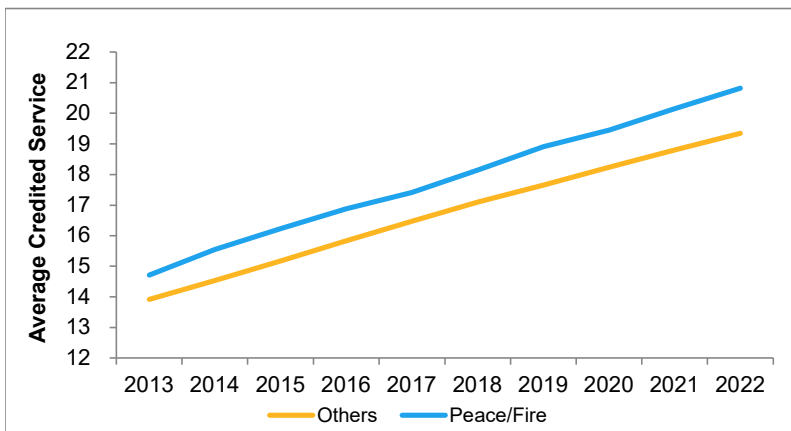
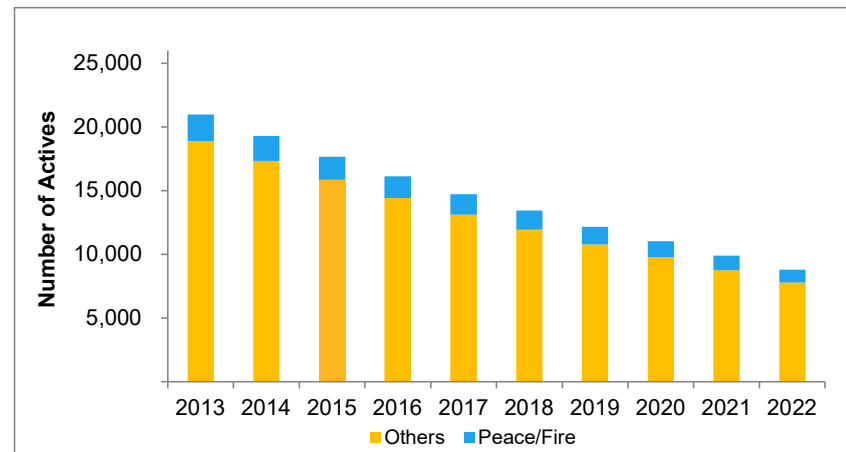
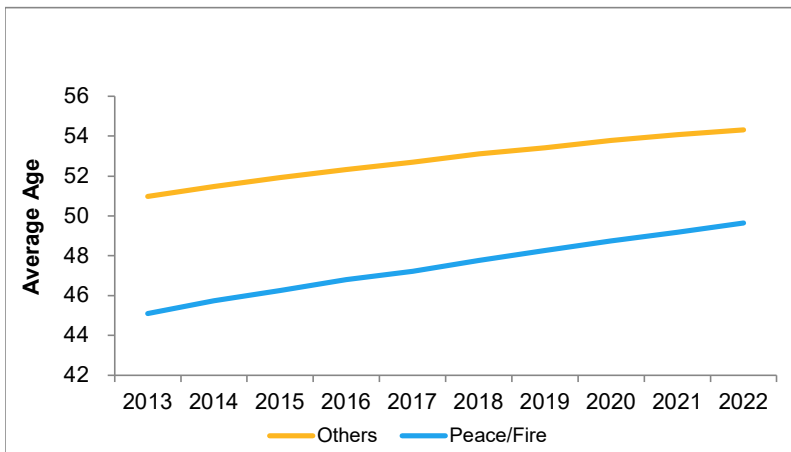
As of June 30	2018	2019	2020	2021	2022
<b>Peace Officer / Firefighter</b>					
1. Number	1,507	1,382	1,266	1,137	1,014 <sup>1</sup>
2. Average Age	47.75	48.25	48.74	49.18	49.64
3. Average Credited Service	18.15	18.90	19.45	20.15	20.82
4. Average Entry Age	29.60	29.35	29.29	29.03	28.82
5. Average Annual Earnings	\$ 108,580	\$ 120,089	\$ 123,436	\$ 127,327	\$ 135,357
6. Number Vested	1,500	1,374	1,260	1,134	1,011
7. Percent Who Are Vested	99.5%	99.4%	99.5%	99.7%	99.7%
<b>Others</b>					
1. Number	11,927	10,770	9,767	8,751	7,781 <sup>2</sup>
2. Average Age	53.12	53.43	53.79	54.07	54.32
3. Average Credited Service	17.09	17.66	18.24	18.80	19.35
4. Average Entry Age	36.03	35.77	35.55	35.27	34.97
5. Average Annual Earnings	\$ 73,926	\$ 77,329	\$ 78,613	\$ 80,987	\$ 83,641
6. Number Vested	11,603	10,494	9,531	8,541	7,593
7. Percent Who Are Vested	97.3%	97.4%	97.6%	97.6%	97.6%
<b>Total</b>					
1. Number	13,434	12,152	11,033	9,888	8,795
2. Average Age	52.52	52.84	53.21	53.51	53.78
3. Average Credited Service	17.21	17.80	18.38	18.96	19.52
4. Average Entry Age	35.30	35.04	34.83	34.55	34.26
5. Average Annual Earnings	\$ 77,813	\$ 82,192	\$ 83,757	\$ 86,316	\$ 89,603
6. Number Vested	13,103	11,868	10,791	9,675	8,604
7. Percent Who Are Vested	97.5%	97.7%	97.8%	97.8%	97.8%

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

<sup>1</sup> Includes 880 male active members and 134 female active members.

<sup>2</sup> Includes 3,250 male active members and 4,531 female active members.

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

### Peace Officer / Firefighter

#### 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	59	7,570,890	128,320
40 - 44	177	24,348,602	137,563
45 - 49	308	42,867,708	139,181
50 - 54	276	38,211,684	138,448
55 - 59	149	18,847,477	126,493
60 - 64	33	4,092,911	124,028
65 - 69	10	1,072,476	107,248
70 - 74	2	239,762	119,881
75+	0	0	0

**Total 1,014 \$ 137,251,510 \$ 135,357**

#### Annual Earnings by Credited Service

Years of Service	Number	Total Annual Earnings	Average Annual Earnings
0	0	\$ 0	\$ 0
1	1	100,959	100,959
2	0	0	0
3	2	154,382	77,191
4	0	0	0
<b>0 - 4</b>	<b>3</b>	<b>\$ 255,341</b>	<b>\$ 85,114</b>
5 - 9	7	666,577	95,225
10 - 14	51	5,107,462	100,146
15 - 19	392	51,435,257	131,212
20 - 24	405	56,507,206	139,524
25 - 29	132	19,788,474	149,913
30 - 34	22	3,139,103	142,687
35 - 39	1	222,150	222,150
40+	1	129,940	129,940

**Total 1,014 \$ 137,251,510 \$ 135,357**

#### 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
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	3	8	47	1	0	0	0	0	59
40 - 44	1	2	10	115	48	1	0	0	0	177
45 - 49	1	0	9	104	163	31	0	0	0	308
50 - 54	0	2	8	72	120	69	5	0	0	276
55 - 59	1	0	11	42	62	25	8	0	0	149
60 - 64	0	0	3	12	7	5	5	0	1	33
65 - 69	0	0	2	0	3	1	3	1	0	10
70 - 74	0	0	0	0	1	0	1	0	0	2
75+	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>3</b>	<b>7</b>	<b>51</b>	<b>392</b>	<b>405</b>	<b>132</b>	<b>22</b>	<b>1</b>	<b>1</b>	<b>1,014</b>

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



## Age and Service Distribution of Active Members

### Others

#### 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	6	582,629	97,105
35 - 39	258	20,520,116	79,535
40 - 44	833	71,590,584	85,943
45 - 49	1,259	110,184,532	87,517
50 - 54	1,654	145,167,129	87,767
55 - 59	1,953	161,507,573	82,697
60 - 64	1,169	91,568,637	78,331
65 - 69	488	37,063,462	75,950
70 - 74	118	9,289,294	78,723
75+	43	3,332,777	77,506

**Total 7,781 \$ 650,806,733 \$ 83,641**

#### Annual Earnings by Credited Service

Years of Service	Number	Total Annual Earnings	Average Annual Earnings
0	19	\$ 737,323	\$ 38,806
1	22	1,047,416	47,610
2	33	1,756,606	53,230
3	49	2,724,274	55,597
4	54	2,762,993	51,167
<b>0 - 4</b>	<b>177</b>	<b>\$ 9,028,612</b>	<b>\$ 51,009</b>
5 - 9	420	26,220,561	62,430
10 - 14	926	62,577,595	67,578
15 - 19	2,821	232,377,282	82,374
20 - 24	2,104	191,524,272	91,029
25 - 29	948	92,019,222	97,067
30 - 34	305	29,130,100	95,509
35 - 39	59	5,816,222	98,580
40+	21	2,112,867	100,613

**Total 7,781 \$ 650,806,733 \$ 83,641**

#### Years of Credited Service by Age

Age	Years of Service									
	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	1	0	2	3	0	0	0	0	0	6
35 - 39	17	33	76	129	3	0	0	0	0	258
40 - 44	30	68	125	484	126	0	0	0	0	833
45 - 49	28	77	148	511	410	84	1	0	0	1,259
50 - 54	36	82	158	569	538	229	41	1	0	1,654
55 - 59	26	79	215	592	555	365	113	8	0	1,953
60 - 64	24	50	145	367	306	177	78	19	3	1,169
65 - 69	10	20	43	135	131	73	57	13	6	488
70 - 74	5	8	13	22	23	17	11	11	8	118
75+	0	3	1	9	12	3	4	7	4	43
<b>Total</b>	<b>177</b>	<b>420</b>	<b>926</b>	<b>2,821</b>	<b>2,104</b>	<b>948</b>	<b>305</b>	<b>59</b>	<b>21</b>	<b>7,781</b>

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						Total
	Active Members	Due a Refund	Deferred Benefits	Retired Members	Disabled Members	Bene-ficiaries	
<b>As of June 30, 2021</b>	<b>9,888</b>	<b>10,432</b>	<b>5,135</b>	<b>33,015 *</b>	<b>139</b>	<b>4,578</b>	<b>63,187</b>
Vested Terminations	(386)	(2)	388	0	0	0	0
Non-Vested Terminations	(44)	44	0	0	0	0	0
Refund of Contributions	(10)	(151)	(30)	0	0	0	(191)
Disability Retirements	(6)	0	(1)	0	7	0	0
Age Retirements	(838)	0	(399)	1,260	(23)	0	0
Deaths With Beneficiary	(16)	(5)	(2)	(289)	(3)	315	0
Deaths Without Beneficiary	(11)	(26)	(20)	(556)	(2)	(210)	(825)
Expired Benefits	0	0	0	0	0	0	0
Data Corrections	0	1	(2)	0	0	(8)	(9)
Converted To DCR Plan	11	0	0	0	0	0	11
Transfers In/Out	1	(2)	(4)	0	0	0	(5)
Rehires	203	(76)	(111)	(13)	0	0	3
Pick Ups***	3	8	1	0	0	47	59
<b>Net Change</b>	<b>(1,093)</b>	<b>(209)</b>	<b>(180)</b>	<b>402</b>	<b>(21)</b>	<b>144</b>	<b>(957)</b>
<b>As of June 30, 2022</b>	<b>8,795</b>	<b>10,223</b>	<b>4,955</b>	<b>33,417 **</b>	<b>118</b>	<b>4,722</b>	<b>62,230</b>

\* Includes 15 medical only retirees

\*\* Includes 14 medical only retirees

\*\*\* Pickup beneficiaries are primarily new DROs.

## Member Data Reconciliation

### Healthcare

	Active Members	Inactive Members				Total Inactive Members
		Retirees	Covered Spouses	Covered Children / Dependents	Deferred	
<b>As of June 30, 2021</b>	<b>9,817</b>	<b>33,254</b>	<b>13,420</b>	<b>1,524</b>	<b>5,434</b>	<b>53,632</b>
Vested Terminations	(362)	0	0	0	362	362
Non-Vested Terminations	(41)	0	0	0	0	0
Refund of Contributions	(9)	0	0	0	(30)	(30)
Disability Retirements	(7)	7	3	5	0	15
Age Retirements	(790)	790	430	135	0	1,355
Deferred Retirements	0	298	169	39	(298)	208
Retired without Medical Coverage	(60)	0	0	0	60	60
Deceased	(27)	(930)	(104)	(11)	(25)	(1,070)
New Beneficiaries	0	167	(167)	0	0	0
Added Retiree Medical Coverage	0	209	65	19	(184)	109
Added Dependent Coverage	0	0	104	72	0	176
Dropped Retiree Medical Coverage	0	(11)	(5)	(1)	1	(16)
Dropped Dependent Coverage	0	0	(419)	(375)	0	(794)
Rehires	202	(16)	(9)	0	(111)	(136)
Transfers In/Out	7	(10)	(1)	1	(11)	(21)
<b>Net Change</b>	<b>(1,087)</b>	<b>504</b>	<b>66</b>	<b>(116)</b>	<b>(236)</b>	<b>218</b>
<b>As of June 30, 2022</b>	<b>8,730</b>	<b>33,758</b>	<b>13,486</b>	<b>1,408</b>	<b>5,198</b>	<b>53,850</b>

## Section 4.4: Schedule of Active Member Data

### Peace Officer / Firefighter

Valuation Date	Number	Annual Earnings (000's)	Annual Average Earnings	Percent Increase in Average Earnings	Number of Participating Employers
June 30, 2022	1,014	\$ 137,252	\$ 135,357	6.3%	150
June 30, 2021	1,137	144,771	127,327	3.2%	151
June 30, 2020	1,266	156,271	123,436	2.8%	153
June 30, 2019	1,382	165,963	120,089	10.6%	155
June 30, 2018	1,507	163,630	108,580	1.5%	155
June 30, 2017	1,606	171,821	106,987	1.6%	155
June 30, 2016	1,704	179,461	105,317	3.8%	155
June 30, 2015	1,827	185,350	101,450	2.5%	159
June 30, 2014	1,958	193,737	98,946	3.4%	159
June 30, 2013	2,065	197,534	95,658	4.8%	159

### Others

Valuation Date	Number	Annual Earnings (000's)	Annual Average Earnings	Percent Increase in Average Earnings	Number of Participating Employers
June 30, 2022	7,781	\$ 650,807	\$ 83,641	3.3%	150
June 30, 2021	8,751	708,718	80,987	3.0%	151
June 30, 2020	9,767	767,817	78,613	1.7%	153
June 30, 2019	10,770	832,832	77,329	4.6%	155
June 30, 2018	11,927	881,716	73,926	1.0%	155
June 30, 2017	13,113	960,106	73,218	1.4%	155
June 30, 2016	14,401	1,039,960	72,214	3.2%	155
June 30, 2015	15,833	1,108,218	69,994	2.1%	159
June 30, 2014	17,339	1,188,918	68,569	3.4%	159
June 30, 2013	18,890	1,252,786	66,320	4.5%	159

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 FY22 in employer list	\$ 2,271,607
b) DRB actual reported salaries FY22 in valuation data	2,210,209
c) Annualized valuation data	2,410,800
d) Valuation payroll as of June 30, 2022	2,517,996
e) Rate payroll for FY23	2,442,007
f) Rate payroll for FY25	2,464,560

- a) Actual reported salaries from DRB employer listing showing all payroll paid during FY22, including those who were not active as of June 30, 2022
- b) Payroll from valuation data for people who are in active status as of June 30, 2022
- 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

### Peace Officer / Firefighter

During the Year Ending June 30	2018	2019	2020	2021	2022
<b>Service</b>					
1. Number	105	109	118	129	117
2. Average Age at Commencement	55.70	55.61	55.52	55.30	55.39
3. Average Monthly Pension Benefit	\$ 4,519	\$ 4,412	\$ 5,199	\$ 5,248	\$ 5,647
<b>Survivor (including surviving spouse and DROs)</b>					
1. Number	44	36	43	58	39
2. Average Age at Commencement	63.76	68.19	67.92	64.58	70.91
3. Average Monthly Pension Benefit	\$ 2,187	\$ 1,842	\$ 1,785	\$ 1,971	\$ 1,996
<b>Disability</b>					
1. Number	4	4	3	4	1
2. Average Age at Commencement	46.56	50.44	51.72	52.10	54.74
3. Average Monthly Pension Benefit	\$ 3,230	\$ 3,071	\$ 5,276	\$ 2,890	\$ 5,427
<b>Total</b>					
1. Number	153	149	164	191	157
2. Average Age at Commencement	57.78	58.51	58.70	58.05	59.24
3. Average Monthly Pension Benefit	\$ 3,814	\$ 3,755	\$ 4,305	\$ 4,204	\$ 4,739

## Summary of New Pension Benefit Recipients

### Peace Officer / Firefighter

	Years of Credited Service						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/2021 – 6/30/2022:							
Average Monthly Pension	\$ 0	\$ 860	\$ 2,227	\$ 4,341	\$ 5,743	\$ 7,831	\$ 7,566
Average Final Avg Salary	\$ 0	\$ 60,646	\$ 97,870	\$ 122,607	\$ 137,018	\$ 144,961	\$ 119,732
Number of Recipients	0	2	7	33	42	27	7
Period 7/1/2020 – 6/30/2021:							
Average Monthly Pension	\$ 2,612	\$ 767	\$ 1,619	\$ 3,711	\$ 5,196	\$ 6,960	\$ 7,970
Average Final Avg Salary	\$ 68,013	\$ 63,962	\$ 79,481	\$ 116,789	\$ 129,218	\$ 141,383	\$ 135,765
Number of Recipients	2	5	9	26	42	40	9
Period 7/1/2019 – 6/30/2020:							
Average Monthly Pension	\$ 0	\$ 694	\$ 2,212	\$ 3,626	\$ 5,531	\$ 6,829	\$ 8,636
Average Final Avg Salary	\$ 0	\$ 60,557	\$ 107,689	\$ 111,341	\$ 131,016	\$ 140,297	\$ 127,620
Number of Recipients	0	6	11	23	40	32	9
Period 7/1/2018 – 6/30/2019:							
Average Monthly Pension	\$ 3,792	\$ 651	\$ 1,933	\$ 3,362	\$ 4,786	\$ 6,196	\$ 5,688
Average Final Avg Salary	\$ 94,797	\$ 56,617	\$ 89,247	\$ 99,086	\$ 114,079	\$ 125,509	\$ 110,542
Number of Recipients	2	5	11	25	38	26	6
Period 7/1/2017 – 6/30/2018:							
Average Monthly Pension	\$ 0	\$ 1,063	\$ 2,133	\$ 3,747	\$ 4,847	\$ 6,024	\$ 7,717
Average Final Avg Salary	\$ 0	\$ 86,908	\$ 91,941	\$ 107,039	\$ 115,635	\$ 121,972	\$ 132,459
Number of Recipients	0	4	18	19	35	30	3
Period 7/1/2016 – 6/30/2017:							
Average Monthly Pension	\$ 0	\$ 686	\$ 2,075	\$ 3,234	\$ 4,462	\$ 5,151	\$ 6,376
Average Final Avg Salary	\$ 0	\$ 74,166	\$ 83,315	\$ 99,520	\$ 109,258	\$ 104,716	\$ 108,035
Number of Recipients	0	8	9	28	41	23	14
Period 7/1/2015 – 6/30/2016:							
Average Monthly Pension	\$ 0	\$ 958	\$ 1,742	\$ 3,347	\$ 4,622	\$ 5,778	\$ 7,221
Average Final Avg Salary	\$ 0	\$ 76,190	\$ 87,241	\$ 97,297	\$ 109,236	\$ 118,513	\$ 115,323
Number of Recipients	0	6	11	19	30	28	16
Period 7/1/2014 – 6/30/2015:							
Average Monthly Pension	\$ 0	\$ 1,173	\$ 1,621	\$ 3,632	\$ 4,436	\$ 5,457	\$ 6,863
Average Final Avg Salary	\$ 0	\$ 85,992	\$ 76,254	\$ 104,320	\$ 105,430	\$ 108,874	\$ 102,705
Number of Recipients	0	8	9	26	24	25	7
Period 7/1/2013 – 6/30/2014:							
Average Monthly Pension	\$ 290	\$ 1,423	\$ 2,002	\$ 2,902	\$ 4,014	\$ 5,464	\$ 6,299
Average Final Avg Salary	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable
Number of Recipients	1	9	10	14	22	16	7
Period 7/1/2012 – 6/30/2013:							
Average Monthly Pension	\$ 0	\$ 865	\$ 1,779	\$ 2,762	\$ 3,793	\$ 4,983	\$ 4,911
Average Final Avg Salary	\$ 0	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable
Number of Recipients	0	9	8	19	31	18	4

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

Beneficiaries are not included in the table above.

## Summary of New Pension Benefit Recipients

### Others

During the Year Ending June 30	2018	2019	2020	2021	2022
<b>Service</b>					
1. Number	1,419	1,288	1,166	1,171	1,121
2. Average Age at Commencement	62.19	61.38	61.70	62.03	62.03
3. Average Monthly Pension Benefit	\$ 2,477	\$ 2,540	\$ 2,701	\$ 2,693	\$ 2,915
<b>Survivor (including surviving spouse and DROs)</b>					
1. Number	261	238	297	391	326
2. Average Age at Commencement	70.38	69.25	72.09	72.34	70.13
3. Average Monthly Pension Benefit	\$ 1,120	\$ 1,249	\$ 1,204	\$ 1,265	\$ 1,380
<b>Disability</b>					
1. Number	28	17	9	14	6
2. Average Age at Commencement	53.80	52.95	54.21	53.39	47.91
3. Average Monthly Pension Benefit	\$ 1,896	\$ 2,313	\$ 2,422	\$ 2,587	\$ 2,533
<b>Total</b>					
1. Number	1,708	1,543	1,472	1,576	1,453
2. Average Age at Commencement	63.31	62.50	63.75	64.51	63.79
3. Average Monthly Pension Benefit	\$ 2,260	\$ 2,339	\$ 2,397	\$ 2,338	\$ 2,569



## Summary of New Pension Benefit Recipients

### Others

	Years of Credited Service						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/2021 – 6/30/2022:							
Average Monthly Pension	\$ 1,453	\$ 623	\$ 1,340	\$ 2,181	\$ 3,373	\$ 4,644	\$ 6,822
Average Final Avg Salary	\$ 61,752	\$ 48,643	\$ 63,167	\$ 73,283	\$ 84,361	\$ 91,984	\$ 105,569
Number of Recipients	6	147	181	286	227	165	115
Period 7/1/2020 – 6/30/2021:							
Average Monthly Pension	\$ 553	\$ 628	\$ 1,317	\$ 2,213	\$ 3,091	\$ 4,607	\$ 6,054
Average Final Avg Salary	\$ 37,456	\$ 50,287	\$ 62,986	\$ 73,819	\$ 78,565	\$ 91,034	\$ 98,834
Number of Recipients	17	163	228	281	194	188	114
Period 7/1/2019 – 6/30/2020:							
Average Monthly Pension	\$ 492	\$ 601	\$ 1,311	\$ 2,065	\$ 3,040	\$ 4,686	\$ 6,213
Average Final Avg Salary	\$ 42,520	\$ 47,573	\$ 61,357	\$ 69,829	\$ 78,632	\$ 93,182	\$ 100,366
Number of Recipients	32	165	218	258	183	197	122
Period 7/1/2018 – 6/30/2019:							
Average Monthly Pension	\$ 652	\$ 646	\$ 1,301	\$ 2,071	\$ 3,058	\$ 4,596	\$ 5,685
Average Final Avg Salary	\$ 49,840	\$ 52,459	\$ 60,651	\$ 69,110	\$ 76,946	\$ 92,620	\$ 94,857
Number of Recipients	21	190	266	289	222	205	105
Period 7/1/2017 – 6/30/2018:							
Average Monthly Pension	\$ 414	\$ 607	\$ 1,299	\$ 1,982	\$ 3,034	\$ 4,475	\$ 6,085
Average Final Avg Salary	\$ 34,603	\$ 48,524	\$ 61,668	\$ 67,811	\$ 78,675	\$ 88,707	\$ 97,703
Number of Recipients	26	221	351	280	223	214	127
Period 7/1/2016 – 6/30/2017:							
Average Monthly Pension	\$ 381	\$ 640	\$ 1,271	\$ 2,067	\$ 3,119	\$ 4,579	\$ 6,224
Average Final Avg Salary	\$ 39,320	\$ 50,209	\$ 61,150	\$ 70,810	\$ 79,613	\$ 91,169	\$ 98,661
Number of Recipients	27	254	375	233	212	191	115
Period 7/1/2015 – 6/30/2016:							
Average Monthly Pension	\$ 434	\$ 660	\$ 1,240	\$ 2,017	\$ 3,059	\$ 4,158	\$ 6,583
Average Final Avg Salary	\$ 44,649	\$ 48,729	\$ 60,599	\$ 66,996	\$ 78,592	\$ 83,505	\$ 103,143
Number of Recipients	30	323	387	266	192	161	135
Period 7/1/2014 – 6/30/2015:							
Average Monthly Pension	\$ 430	\$ 685	\$ 1,260	\$ 2,008	\$ 3,086	\$ 4,544	\$ 6,195
Average Final Avg Salary	\$ 41,184	\$ 52,565	\$ 61,224	\$ 67,225	\$ 77,440	\$ 86,942	\$ 96,468
Number of Recipients	42	284	304	213	198	169	98
Period 7/1/2013 – 6/30/2014:							
Average Monthly Pension	\$ 503	\$ 700	\$ 1,189	\$ 2,065	\$ 3,021	\$ 4,439	\$ 5,490
Average Final Avg Salary	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable
Number of Recipients	48	347	319	241	214	224	121
Period 7/1/2012 – 6/30/2013:							
Average Monthly Pension	\$ 414	\$ 650	\$ 1,179	\$ 1,925	\$ 2,879	\$ 4,356	\$ 5,208
Average Final Avg Salary	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable
Number of Recipients	59	349	365	257	206	209	132

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

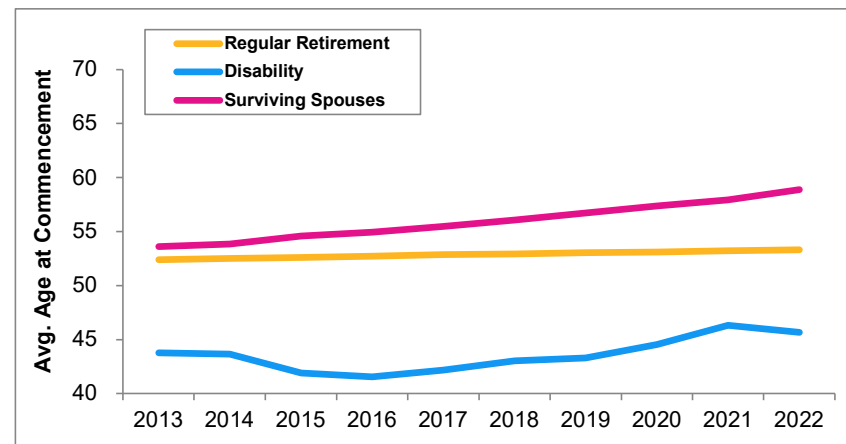
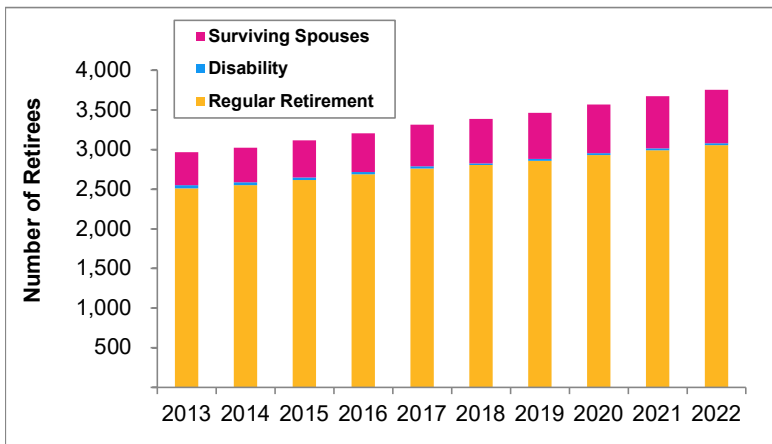
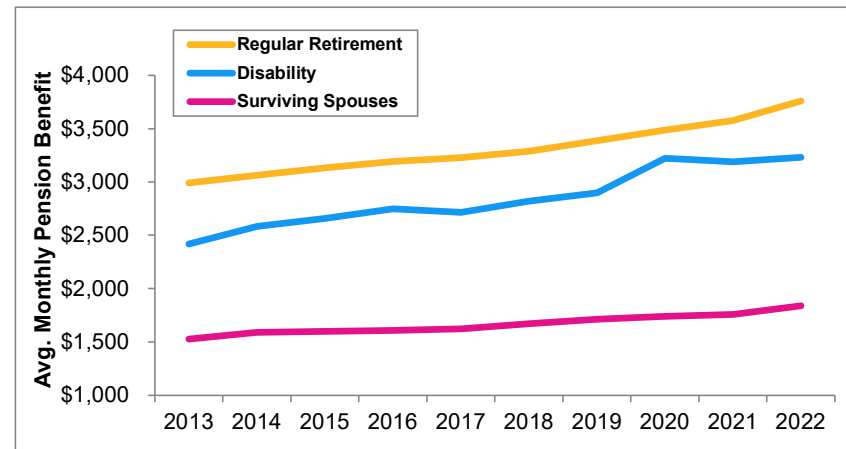
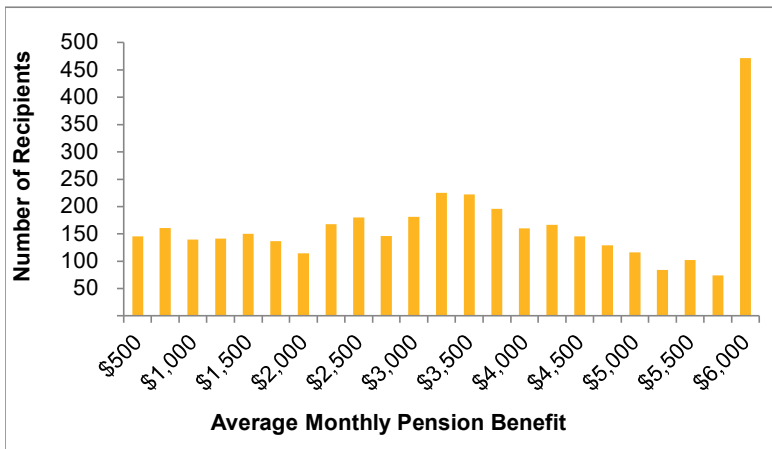
Beneficiaries are not included in the table above.

## Section 4.7: Summary of All Pension Benefit Recipients

	Peace Officer / Firefighter	Others
<b>Service</b>		
1. Number as of June 30, 2021	2,991	30,009
2. Net Change During FY22	65	338
3. Number as of June 30, 2022	3,056	30,347
4. Average Age at Commencement	53.31	58.58
5. Average Current Age	68.76	71.69
6. Average Monthly Pension Benefit	\$ 3,760	\$ 2,161
<b>Survivors (including surviving spouses and DROs)</b>		
1. Number as of June 30, 2021	656	3,922
2. Net Change During FY22	19	125
3. Number as of June 30, 2022	675	4,047
4. Average Age at Commencement	58.87	63.78
5. Average Current Age	70.26	73.93
6. Average Monthly Pension Benefit	\$ 1,840	\$ 1,185
<b>Disability</b>		
1. Number as of June 30, 2021	26	113
2. Net Change During FY22	(2)	(19)
3. Number as of June 30, 2022	24	94
4. Average Age at Commencement	45.65	45.67
5. Average Current Age	51.45	54.80
6. Average Monthly Pension Benefit	\$ 3,232	\$ 2,055
<b>Total</b>		
1. Number as of June 30, 2021	3,673	34,044
2. Net Change During FY22	82	444
3. Number as of June 30, 2022	3,755	34,488
4. Average Age at Commencement	54.26	59.16
5. Average Current Age	68.92	71.91
6. Average Monthly Pension Benefit	\$ 3,411	\$ 2,046

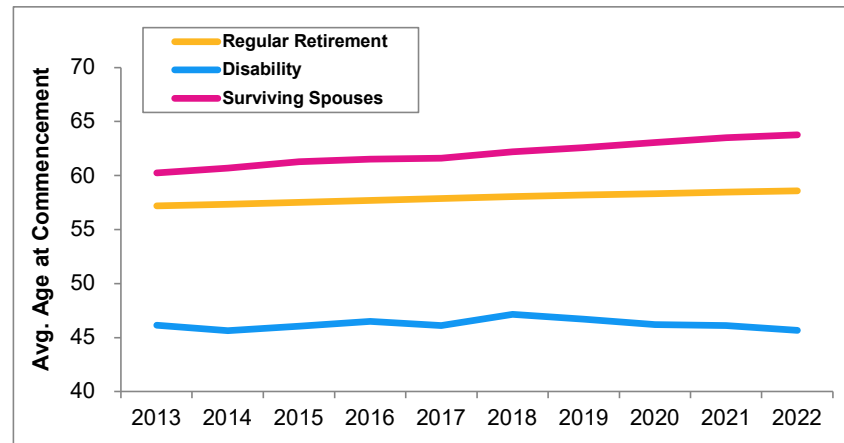
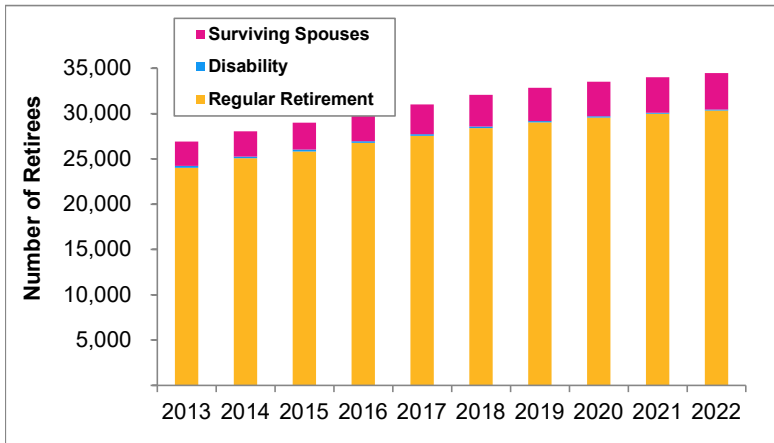
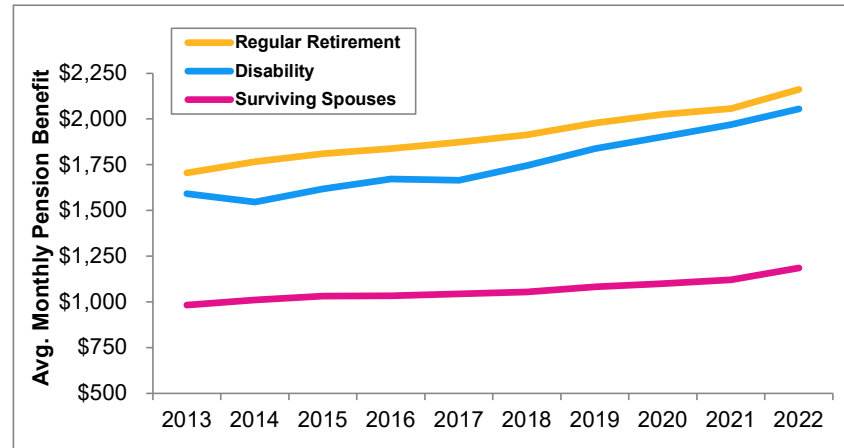
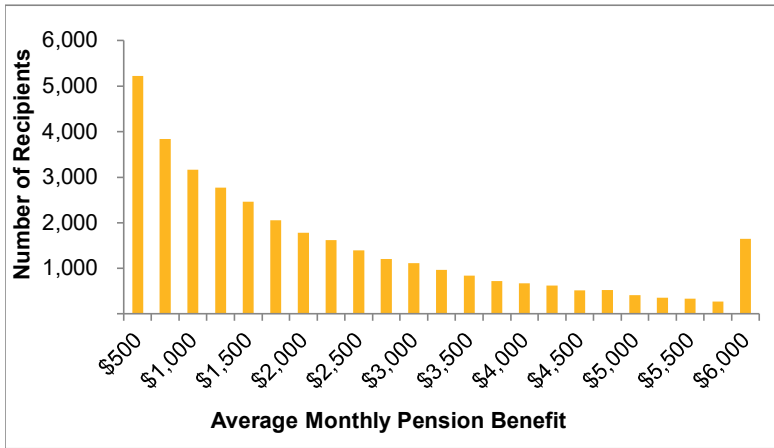
## Summary of All Pension Benefit Recipients

### Peace Officer / Firefighter



## Summary of All Pension Benefit Recipients

### Others



## Summary of All Pension Benefit Recipients

### Peace Officer / Firefighter

#### 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	1	58,921	58,921
40 - 44	15	707,476	47,165
45 - 49	78	4,763,503	61,071
50 - 54	229	13,826,806	60,379
55 - 59	312	17,320,370	55,514
60 - 64	557	23,367,302	41,952
65 - 69	784	29,395,298	37,494
70 - 74	784	28,356,090	36,168
75+	995	35,942,501	36,123
<b>Total</b>	<b>3,755</b>	<b>\$ 153,738,267</b>	<b>\$ 40,942</b>

#### Annual Pension Benefit by Years Since Commenced

Years Since Comm.	Number	Total Annual Pension Benefit	Average Annual Pension Benefit
0	179	\$ 10,055,170	\$ 56,174
1	189	9,674,708	51,189
2	153	8,018,026	52,405
3	152	6,890,326	45,331
4	133	6,194,174	46,573
<b>0 - 4</b>	<b>806</b>	<b>\$ 40,832,404</b>	<b>\$ 50,661</b>
5 - 9	635	28,145,526	44,324
10 - 14	527	17,241,596	32,717
15 - 19	592	20,091,585	33,938
20 - 24	630	22,935,992	36,406
25 - 29	288	11,736,592	40,752
30 - 34	156	6,755,468	43,304
35 - 39	94	5,033,308	53,546
40+	27	965,796	35,770
<b>Total</b>	<b>3,755</b>	<b>\$ 153,738,267</b>	<b>\$ 40,942</b>

#### Years Since Commencement by Age

Age	Years Since Commencement									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
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	1	0	0	0	0	0	0	0	1
40 - 44	11	2	1	1	0	0	0	0	0	15
45 - 49	69	8	1	0	0	0	0	0	0	78
50 - 54	158	58	10	1	2	0	0	0	0	229
55 - 59	162	105	31	11	0	1	2	0	0	312
60 - 64	191	149	93	89	34	1	0	0	0	557
65 - 69	88	188	155	180	146	21	3	1	2	784
70 - 74	50	72	158	195	212	69	23	3	2	784
75+	77	52	78	115	236	196	128	90	23	995
<b>Total</b>	<b>806</b>	<b>635</b>	<b>527</b>	<b>592</b>	<b>630</b>	<b>288</b>	<b>156</b>	<b>94</b>	<b>27</b>	<b>3,755</b>

## Summary of All Pension Benefit Recipients

### Others

#### 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	1	65,490	65,490
35 - 39	5	79,474	15,895
40 - 44	9	162,022	18,002
45 - 49	27	403,958	14,961
50 - 54	138	4,800,323	34,785
55 - 59	968	34,073,365	35,200
60 - 64	5,440	160,722,800	29,545
65 - 69	8,566	225,814,957	26,362
70 - 74	8,432	198,058,173	23,489
75+	10,902	222,282,181	20,389
<b>Total</b>	<b>34,488</b>	<b>\$846,462,743</b>	<b>\$ 24,544</b>

#### Annual Pension Benefit by Years Since Commenced

Years Since Comm.	Number	Total Annual Pension Benefit	Average Annual Pension Benefit
0	1,614	\$ 48,933,655	\$ 30,318
1	1,441	42,135,803	29,241
2	1,393	42,014,809	30,161
3	1,495	43,079,473	28,816
4	1,452	41,662,487	28,693
<b>0 - 4</b>	<b>7,395</b>	<b>\$217,826,227</b>	<b>\$ 29,456</b>
5 - 9	7,882	212,283,875	26,933
10 - 14	6,593	155,510,227	23,587
15 - 19	5,549	121,408,562	21,879
20 - 24	3,894	80,784,151	20,746
25 - 29	1,702	32,424,911	19,051
30 - 34	1,044	18,241,176	17,472
35 - 39	360	6,919,696	19,221
40+	69	1,063,918	15,419
<b>Total</b>	<b>34,488</b>	<b>\$846,462,743</b>	<b>\$ 24,544</b>

#### Years Since Commencement by Age

Age	Years Since Commencement									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
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	1	0	0	0	0	0	0	0	0	1
35 - 39	1	4	0	0	0	0	0	0	0	5
40 - 44	5	2	2	0	0	0	0	0	0	9
45 - 49	10	10	5	3	0	0	0	0	0	28
50 - 54	89	25	16	5	1	0	1	0	0	137
55 - 59	702	204	34	18	9	3	0	0	0	970
60 - 64	3,335	1,529	499	45	12	12	6	0	0	5,438
65 - 69	1,784	3,460	2,456	803	40	13	8	1	1	8,566
70 - 74	749	1,780	2,310	2,583	949	41	12	5	3	8,432
75+	719	868	1,271	2,092	2,883	1,633	1,017	354	65	10,902
<b>Total</b>	<b>7,395</b>	<b>7,882</b>	<b>6,593</b>	<b>5,549</b>	<b>3,894</b>	<b>1,702</b>	<b>1,044</b>	<b>360</b>	<b>69</b>	<b>34,488</b>

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

### Peace Officer / Firefighter

Amount of Monthly Pension Benefit	Number of Recipients	Type of Pension Benefit			Option Selected				
		1	2	3	1	2	3	4	5
\$ 1 – 300	47	13	34	0	37	2	0	1	7
301 – 600	168	102	66	0	96	35	18	8	11
601 – 900	186	103	82	1	110	42	14	11	9
901 – 1,200	160	84	76	0	106	30	12	7	5
1,201 – 1,500	176	106	69	1	107	36	21	5	7
1,501 – 1,800	164	109	55	0	95	34	24	6	5
1,801 – 2,100	147	99	47	1	69	40	27	5	6
2,101 – 2,400	218	168	49	1	98	69	34	9	8
2,401 – 2,700	190	146	41	3	85	54	35	8	8
2,701 – 3,000	209	180	26	3	79	81	30	12	7
3,001 – 3,300	268	231	33	4	98	102	51	11	6
3,301 – 3,600	257	227	28	2	89	96	44	17	11
3,601 – 3,900	208	180	26	2	83	84	28	8	5
3,901 – 4,200	208	197	10	1	58	98	36	13	3
4,200+	1,149	1,113	31	5	322	524	222	70	11
<b>Total</b>	<b>3,755</b>	<b>3,058</b>	<b>673</b>	<b>24</b>	<b>1,532</b>	<b>1,327</b>	<b>596</b>	<b>191</b>	<b>109</b>

#### 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
5. Level Income Option

## Pension Benefit Recipients by Type of Benefit and Option Elected

### Others

Amount of Monthly Pension Benefit	Number of Recipients	Type of Pension Benefit			Option Selected				
		1	2	3	1	2	3	4	5
\$ 1 – 300	1,924	1,400	524	0	939	350	251	58	326
301 – 600	4,908	4,087	817	4	2,632	1,100	804	236	136
601 – 900	4,198	3,481	707	10	2,253	1,015	655	174	101
901 – 1,200	3,394	2,889	500	5	1,716	794	637	166	81
1,201 – 1,500	3,042	2,646	383	13	1,538	741	590	105	68
1,501 – 1,800	2,411	2,127	272	12	1,129	655	493	83	51
1,801 – 2,100	2,075	1,843	221	11	994	550	384	89	58
2,101 – 2,400	1,834	1,660	165	9	818	530	370	70	46
2,401 – 2,700	1,482	1,363	108	11	662	395	314	66	45
2,701 – 3,000	1,352	1,235	114	3	607	405	265	43	32
3,001 – 3,300	1,166	1,104	59	3	479	359	256	48	24
3,301 – 3,600	931	879	47	5	363	307	204	30	27
3,601 – 3,900	857	827	29	1	353	275	168	47	14
3,901 – 4,200	759	732	27	0	305	254	157	31	12
4,200+	4,155	4,089	60	6	1,467	1,417	990	228	53
<b>Total</b>	<b>34,488</b>	<b>30,362</b>	<b>4,033</b>	<b>93</b>	<b>16,255</b>	<b>9,147</b>	<b>6,538</b>	<b>1,474</b>	<b>1,074</b>

#### 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
5. Level Income Option



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

Peace Officer / Firefighter

Year Ended	Added to Rolls		Removed from Rolls		Rolls at End of Year		Percent Increase in Annual Pension Benefits	Average Annual Pension Benefit
	No. <sup>1</sup>	Annual Pension Benefits <sup>1</sup>	No. <sup>1</sup>	Annual Pension Benefits <sup>1</sup>	No.	Annual Pension Benefits		
June 30, 2022	157	\$ 8,928,276	75	\$ (1,692,346)	3,755	\$ 153,738,267	7.4%	\$ 40,942
June 30, 2021	191	9,635,568	86	2,931,719	3,673	143,117,645	4.9%	38,965
June 30, 2020	164	8,472,240	61	1,078,932	3,568	136,413,796	5.7%	38,233
June 30, 2019	149	6,713,940	71	233,335	3,465	129,020,488	5.3%	37,235
June 30, 2018	153	7,002,504	81	2,573,694	3,387	122,539,883	3.7%	36,179
June 30, 2017	165	6,971,580	54	2,132,027	3,315	118,111,073	4.3%	35,629
June 30, 2016	137	6,618,744	49	1,594,394	3,204	113,271,520	4.6%	35,353
June 30, 2015	136	5,617,344	46	633,046	3,116	108,247,168	4.8%	34,739
June 30, 2014	109	4,270,620	50	(145,771)	3,026	103,262,870	4.5%	34,125
June 30, 2013	113	4,162,920	42	240,775	2,967	98,846,479	4.1%	33,315

<sup>1</sup> Numbers are estimated, and include other internal transfers.

## Pension Benefit Recipients Added to and Removed from Rolls

### Others

Year Ended	Added to Rolls		Removed from Rolls		Rolls at End of Year		Percent Increase in Annual Pension Benefits	Average Annual Pension Benefit
	No. <sup>1</sup>	Annual Pension Benefits <sup>1</sup>	No. <sup>1</sup>	Annual Pension Benefits <sup>1</sup>	No.	Annual Pension Benefits		
June 30, 2022	1,453	\$ 44,793,084	1,009	\$ (5,580,072)	34,488	\$ 846,462,743	6.3%	\$ 24,544
June 30, 2021	1,576	44,216,256	1,070	20,522,550	34,044	796,089,587	3.1%	23,384
June 30, 2020	1,472	42,340,608	779	9,911,423	33,538	772,395,881	4.4%	23,030
June 30, 2019	1,543	43,301,707	765	3,096,594	32,845	739,966,696	5.7%	22,529
June 30, 2018	1,708	46,316,673	673	10,533,376	32,067	699,761,583	5.4%	21,823
June 30, 2017	1,699	44,619,382	816	14,610,212	31,032	663,978,286	4.7%	21,397
June 30, 2016	1,780	44,409,702	660	12,099,362	30,149	633,969,116	5.4%	21,028
June 30, 2015	1,583	39,939,292	627	7,232,812	29,029	601,658,776	5.7%	20,726
June 30, 2014	1,778	44,823,611	603	3,011,383	28,073	568,952,296	7.9%	20,267
June 30, 2013	1,808	43,247,667	554	4,861,626	26,898	527,140,068	7.9%	19,598

<sup>1</sup> Numbers are estimated, and include other internal transfers.

# Section 5: Basis of the Actuarial Valuation

## Section 5.1: Summary of Plan Provisions

### Effective Date

January 1, 1961, with amendments through June 30, 2022. Chapter 82, 1986 Session Laws of Alaska, created a two-tier retirement system. Members who were first hired under PERS before July 1, 1986 (Tier 1) are eligible for different benefits than members hired after June 30, 1986 (Tier 2). Chapter 4, 1996 Session Laws of Alaska created a third tier for members who were first hired after June 30, 1996 (Tier 3). Chapter 9, 2005 Session Laws of Alaska, closed the plan to new members hired after June 30, 2006.

### 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 Public Employees' 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 PERS funds.

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

### Employers Included

Currently there are 150 employers participating in PERS, including the State of Alaska and 149 political subdivisions and public organizations. Two additional political subdivisions participate in PERS for healthcare benefits only.

### Membership

PERS membership is mandatory for all permanent full-time and part-time employees of the State of Alaska and participating political subdivisions and public organizations, unless they are specifically excluded by Alaska Statute or employer participation agreements. Employees participating in the University of Alaska's Optional Retirement Plan or other retirement plans funded by the State are not covered by PERS. Elected officials may waive PERS membership.

Certain members of the Alaska Teachers' Retirement System (TRS) are eligible for PERS retirement benefits for their concurrent elected public official service with municipalities. In addition, employees who work half-time in PERS and TRS simultaneously are eligible for half-time PERS and TRS 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.

## **Credited Service**

Permanent employees who work at least 30 hours a week earn full-time credit; part-time employees working between 15 and 30 hours a week earn partial credit based on the number of hours worked. Members receiving PERS occupational disability benefits continue to earn PERS credit while disabled. Survivors who are receiving occupational death benefits continue to earn PERS service credit while occupational survivor benefits are being paid.

Members may claim other types of service, including:

- part-time State of Alaska service rendered after December 31, 1960, and before January 1, 1976;
- service with the State, former Territory of Alaska, or U.S. Government in Alaska before January 1, 1961;
- past Peace Officer, correctional officer, fire fighter, and special officer service after January 1, 1961;
- military service (not more than five years may be claimed);
- temporary service after December 31, 1960;
- elected official service before January 1, 1981;
- Alaska Bureau of Indian Affairs service;
- past service rendered by employees who worked half-time in PERS and TRS simultaneously;
- leave without pay service after June 13, 1987, while receiving Workers' Compensation;
- Village Public Safety Officer service; and
- service as a temporary employee of the legislature before July 1, 1979, but this service must have been claimed no later than July 1, 2003, or by the date of retirement, if sooner (not more than ten years may be claimed).

Except for service before January 1, 1961, with the State, former Territory of Alaska, or U.S. Government in Alaska, contributions are required for all past service.

Past employment with participating political subdivisions that occurred before the employers joined PERS is creditable if the employers agree to pay the required contributions.

At the election of certain PERS members, certain service may be credited in the same fashion as members in TRS.

Members employed as dispatchers or within a state correctional facility may, at retirement, elect to convert their dispatcher or correctional facility service from "all other" service to Peace Officer/Firefighter service and retire under the 20-year retirement option. Members pay the full actuarial cost of conversion.

## **Employer Contributions**

PERS 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 AS 39.35.255 effective July 1, 2008 and subsequently amended on July 1, 2021, each non-state PERS employer will pay a simple uniform contribution rate of 22% of non-state member payroll and

the State as an employer will pay the total contribution rate, adopted by the Board, of State member payroll.

### **Additional State Contributions**

Pursuant to AS 39.35.280 effective July 1, 2008, the State shall contribute an amount (in addition to the State contribution as an employer) that, when combined with the total employer contributions, will be sufficient to pay the total contribution rate adopted by the Board.

### **Member Contributions**

**Mandatory Contributions:** Peace Officer/Firefighter members are required to contribute 7.5% of their compensation; all Others contribute 6.75%. Those all Others who have elected to have their service calculated under TRS rules contribute 9.76% of their compensation. Members' contributions are deducted from gross wages before federal income taxes are withheld.

**Contributions for Claimed Service:** Member contributions are also required for most of the claimed service described above.

**Voluntary Contributions:** Members may voluntarily contribute up to 5% of their salary on an after-tax basis. Voluntary contributions are recorded in a separate account and are payable to the:

- a. member in lump sum payment upon termination of employment;
- b. member's beneficiary if the member dies; or
- c. member in a lump sum, life annuity, or payments over a designated period of time when the member retires.

**Interest:** Members' contributions earn 4.5% interest, compounded semiannually on June 30 and December 31.

**Refund of Contributions:** Terminated members may receive refunds of their member contribution accounts which includes their mandatory and voluntary 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 PERS service may be reinstated upon reemployment in PERS prior to July 1, 2010. 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, 1986 (Tier 1), and age 60 or early retirement at age 55 if they were hired on or after July 1, 1986 (Tiers 2 & 3). Additionally, they must have at least:
  - (i) five years of paid-up PERS service;
  - (ii) 60 days of paid-up PERS service as employees of the legislature during each of five legislative sessions and they were first hired by the legislature before May 30, 1987;
  - (iii) 80 days of paid-up PERS service as employees of the legislature during each of five legislative sessions and they were first hired by the legislature after May 29, 1987;
  - (iv) two years of paid-up PERS service and they are vested in TRS; or
  - (v) two years of paid-up PERS service and a minimum three years of TRS service to qualify for a public service benefit.

- b. Members may retire at any age when they have:
  - (i) 20 paid-up years of PERS Peace Officer/Firefighter service; or
  - (ii) 30 paid-up years of PERS "all other" or "elected official" 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 under the "20 and out" or "30 and out" provisions. Members may receive early, reduced benefits when they reach early retirement age and complete the service required. Benefits are reduced by 6% per year prior to a member's normal retirement date.

Members may select a joint and survivor option. Members who entered PERS prior to July 1, 1996 may also select a 66-2/3 last survivor option or a level income 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 monthly compensation (AMC) times credited PERS service times the percentage multiplier. The AMC is determined by averaging the salaries earned during the five highest (three highest for Peace Officer/Firefighter members or members hired prior to July 1, 1996) consecutive payroll years. Members must earn at least 115 days of credit in the last year worked to include it in the AMC calculation. PERS pays a minimum benefit of \$25.00 per month for each year of service when the calculated benefit is less.

The percentage multipliers for Peace Officer/Firefighter members are 2% for the first ten years of service and 2.5% for all service over ten years.

The percentage multipliers for all Others are 2% for the first ten years, 2.25% for the next ten years, and 2.5% for all remaining service earned on or after July 1, 1986. All service before that date 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 PERS contributions are not eligible to retire unless they return to PERS employment and pay back their refunds plus interest or accrue additional service which qualifies them for retirement. PERS refunds must be paid in full if the corresponding service is to count toward the minimum service requirements for retirement. Refunded PERS 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**

Retirement and retiree healthcare benefits are suspended while retired members are reemployed under PERS. During reemployment, members earn additional PERS service and contributions are withheld from their wages. A member who retired with a normal retirement benefit can elect to waive payment of PERS contributions. The waiver allows the member to continue receiving the retirement benefit during the period of reemployment. Members who elect the waiver option do not earn additional PERS service. The Waiver Option first became effective July 1, 2005 and applies to reemployment periods after that date. The Waiver Option is not available to members who retired early or under the Retirement Incentive Programs (RIPs). The Waiver Option is no longer available after June 30, 2009.

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 PERS 150% of the benefits that they received for state and political subdivision members, and 110% for school district employees, under the 1996-2000 RIP, which may include costs for health insurance, excluding amounts that they paid to participate for the 1986 and 1989 RIPs. Under prior RIPs, the penalty is 110% of the benefits received; 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**

Major medical benefits are provided to retirees and their surviving spouses by PERS for all employees hired before July 1, 1986 (Tier 1) and disabled retirees. Employees hired after June 30, 1986 (Tier 2) and their surviving spouses with five years of credited service (or ten years of credited service for those first hired after June 30, 1996 (Tier 3)) must pay the full monthly premium if they are under age sixty and will receive benefits paid by PERS if they are over age sixty. Tier 3 Members with between five and ten years of credited service must pay the full monthly premium regardless of their age. Tier 2 and Tier 3 Members with less than five years of credited service are not eligible for postemployment healthcare benefits. Tier 2 Members who are receiving a conditional benefit and are age eligible are eligible for postemployment healthcare benefits. In addition, Peace Officers and their surviving spouses with twenty-five years of Peace Officer membership service, Other employees and their surviving spouses with thirty years of membership service, and any disabled member receive benefits paid by PERS, regardless of their age or date of hire.

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

#### Occupational Disability

Members are not required to satisfy age or service requirements to be eligible for occupational disability. Monthly benefits are equal to 40% of their gross monthly compensation on the date of their disability. Members on occupational disability continue to earn PERS service until they become eligible for normal retirement. Peace Officer/Firefighter members may elect to retain the disability benefit formula for the calculation of their normal retirement benefits.

At the time a disabled Peace Officer/Firefighter member retires, the retirement benefit will be increased by a percentage equal to the total cumulative percentage that has been applied to the disability benefit.

#### Non-occupational Disability

Members must be vested (five paid up years of PERS service) to be eligible for non-occupational disability benefits. Monthly benefits are calculated based on the member's average monthly compensation and PERS service on the date of termination from employment because of disability. Members do not earn PERS service while on non-occupational disability.



## **Death Benefits**

Monthly death benefits may be paid to a spouse or dependent children upon the death of a member. If monthly benefits are not payable under the occupational and non-occupational death provisions, the designated beneficiary receives the lump sum benefit described below.

### **Occupational Death**

When an active member (vested or non-vested) dies from occupational causes, a monthly survivor's pension may be paid to the spouse. The pension equals 40% of the member's gross monthly compensation on the date of death or disability, if earlier. If there is no spouse, the pension may be paid to the member's dependent children. On the member's normal retirement date, the benefit converts to a normal retirement benefit. The normal benefit is based on the member's salary on the date of death and service, including service accumulated from the date of the member's death to the normal retirement date. Survivors of Peace Officer/Firefighter members receive the greater of 50% of the member's gross monthly compensation on the date of death or disability, or 75% of the member's monthly normal retirement benefit (including service projected to Normal Retirement). If the member is unmarried with no children, a refund of contributions is payable to the estate.

### **Death after Occupational Disability**

When a member dies while occupationally disabled, benefits are paid as described above in Occupational Death.

### **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. The monthly benefit is calculated on the member's average monthly compensation and PERS service at the time of termination or death.

### **Lump Sum Non-Occupational Death Benefit**

Upon the death of a member who has less than one year of service, the designated beneficiary receives the member's contribution account, which includes mandatory and voluntary contributions, indebtedness payments, and interest earned. If the member has more than one year of PERS service or is vested, the beneficiary also receives \$1,000 and \$100 for each year of PERS service.

### **Death After Retirement**

When a retired member dies, the designated beneficiary receives the member's contribution account, less any benefits already paid and the member's last benefit check. If the member selected a survivor option at retirement, the eligible spouse receives continuing, lifetime monthly benefits.

### **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 PERS 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 five years.

Ad hoc PRPAs, up to a maximum of 4%, may be granted to eligible recipients who were first hired before July 1, 1986 (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 or \$50, whichever is more. The following benefit recipients are eligible:

- a. members who first entered PERS before July 1, 1986 (Tier 1) and their survivors;
- b. members who first entered PERS after June 30, 1986 (Tiers 2 & 3) 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<sup>1</sup>. 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.

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<sup>1</sup> 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 PERS postemployment healthcare plan. Note that the methodology reflects the results of our annual experience rate update for the period from July 1, 2021 to June 30, 2022.

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 2020 through June 2022 (FY21 through FY22) 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, 2022 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 FY23 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 FY21 through FY22.
  - 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 FY23).
  - 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. Claim 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, 2021, and July 1, 2022, 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 16.2% of pre-Medicare, and 14.3% of Medicare prescription drug claims for FY21; and 20.1% of pre-Medicare, and 13.5% of Medicare prescription drug claims for FY22.
2. Develop estimated EGWP reimbursements – Segal provided estimated 2023 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. FY21 and FY22 experience was thoroughly reviewed to assess the impact of COVID-19 and whether an adjustment to FY21 and FY22 claims was appropriate for use in the June 30, 2022 valuation. FY21 medical per capita claims were noticeably lower than expected, so a 4% load was added to the FY21 medical claims used in the per capita claims cost development to better reflect future expected long-term costs of the plan. FY22 medical per capita claims were reasonable when compared to pre-COVID levels, so no adjustments were made to the FY22 medical claims used in the per capita claims cost development. Total prescription drug claims experience for FY21 and FY22 was reasonable and consistent with FY19 and FY20 experience. Therefore, no adjustment was made to FY21 and FY22 prescription drug claims. Due to group size and demographics, we did not make any additional large claim adjustments. 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 FY23 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 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 both years of medical we applied 100% weight to national trends because the Alaska-specific trends were impacted by COVID-19:

<b>Alaska-Specific and National Average Weighted Trend from Experience Period to Valuation Year</b>			
Experience Period	Medical	Prescription	Weighting Factors
FY21 to FY22	8.1% Pre-Medicare / 4.8% Medicare	8.0%	50%
FY22 to FY23	7.4% Pre-Medicare / 5.6% Medicare	9.5%	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 FY23 are based upon total fees projected to 2023 by Segal based on actual FY22 fees. The annual per participant per year administrative cost rate for medical and prescription benefits is \$449.

### 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.

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
<b>A. Fiscal 2021</b>				
1. Incurred Claims	\$ 196,566,470	\$ 86,512,435	\$ 60,691,609	\$ 207,822,858
2. Adjustments for Rx Rebates and COVID (Medical only)	<u>7,862,659</u>	<u>3,460,497</u>	<u>(9,832,041)</u>	<u>(29,718,669)</u>
3. Net incurred claims	\$ 204,429,129	\$ 89,972,933	\$ 50,859,568	\$ 178,104,189
4. Average Enrollment	18,106	47,025	18,106	47,025
5. Claim Cost Rate (3) / (4)	11,291	1,913	2,809	3,787
6. Trend to Fiscal 2023	1.161	1.107	1.183	1.183
7. Fiscal 2023 Incurred Cost Rate (5) x (6)	\$ 13,108	\$ 2,117	\$ 3,322	\$ 4,479
8. Adjustment Factor for 2022 Plan Changes	1.014	1.000	0.913	0.976
9. Adjusted Fiscal 2023 Incurred Cost Rate (7) x (8)	\$ 13,290	\$ 2,117	\$ 3,034	\$ 4,371

<b>B. Fiscal 2022</b>				
1. Incurred Claims	\$ 197,733,173	\$ 98,249,082	\$ 64,076,270	\$ 230,832,315
2. Adjustments for Rx Rebates	<u>0</u>	<u>0</u>	<u>(12,879,330)</u>	<u>(31,162,363)</u>
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 2023	1.074	1.056	1.095	1.095
7. Fiscal 2023 Incurred Cost Rate (5) x (6)	\$ 12,439	\$ 2,131	\$ 3,284	\$ 4,490
8. Adjustment Factor for 2022 Plan Changes	1.007	1.000	0.957	0.988
9. Adjusted Fiscal 2023 Incurred Cost Rate (7) x (8)	\$ 12,526	\$ 2,131	\$ 3,141	\$ 4,436

	Medical		Prescription Drugs (Rx)	
	Pre-Medicare	Medicare	Pre-Medicare	Medicare
<b>C. Adjusted Incurred Cost Rate by Fiscal Year</b>				
1. Fiscal 2021 A.(9)	13,290	2,117	3,034	4,371
2. Fiscal 2022 B.(9)	12,526	2,131	3,141	4,436

<b>D. Weighting by Fiscal Year</b>				
1. Fiscal 2021	50%	50%	50%	50%
2. Fiscal 2022	50%	50%	50%	50%

<b>E. Fiscal 2023 Incurred Cost Rate</b>				
1. Rate at Average Age C x D	\$ 12,908	\$ 2,124	\$ 3,088	\$ 4,403
2. Average Aging Factor	0.822	1.279	0.832	1.127
3. Rate at Age 65 (1) / (2)	<b>\$ 15,706</b>	\$ 1,661	<b>\$ 3,712</b>	<b>\$ 3,907</b>

<b>F. Development of Part A&amp;B and Part B Only Cost from Pooled Rate Above</b>	
1. Part A&B Average Enrollment	48,233
2. Part B Only Average Enrollment	465
3. Total Medicare Average Enrollment B(4)	48,698
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	1.022
6. Medicare per capita cost for all participants: E(3)	\$ 1,661
7. Cost for those eligible for Parts A&B: (6) / (5)	<b>\$ 1,625</b>
8. Cost for those eligible for Part B only: (7) x (4)	<b>\$ 5,363</b>



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, 2022 through June 30, 2023**

Age	Medical and Medicare Parts A & B	Medical and Medicare Part B Only	Prescription Drug	Medicare EGWP Subsidy
45	\$ 9,585	\$ 9,585	\$ 2,382	\$ 0
50	10,844	10,844	2,829	0
55	12,270	12,270	3,369	0
60	13,882	13,882	3,532	0
65	1,625	5,363	3,907	1,309
70	1,794	5,921	4,335	1,452
75	1,981	6,537	4,810	1,611
80	2,209	7,289	4,738	1,587

## Section 5.3: Summary of Actuarial Assumptions

The demographic and economic assumptions used in the June 30, 2022 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.

Employee mortality for Peace Officer/Firefighters in accordance with the following tables:

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

Employee mortality for Others in accordance with the following tables:

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

Deaths are assumed to result from occupational causes 70% of the time for Peace Officer/Firefighters, and 35% of the time for Others.

## **Mortality (Post-Commencement)**

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

Retiree mortality for Peace Officer/Firefighters in accordance with the following tables:

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

Retiree mortality for Others in accordance with the following tables:

- Pension: 98% of male and 106% of female rates of the Pub-2010 General Retiree table, amount-weighted, and projected with MP-2021 generational improvement.
- Healthcare: 101% of male and 110% of female rates of the Pub-2010 General Retiree table, headcount-weighted, and projected with MP-2021 generational improvement.

Beneficiary mortality for Peace Officer/Firefighters in accordance with the following tables. These tables are applied only after the death of the original member.

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

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

- Pension: 102% of male and 108% of female rates of the Pub-2010 Contingent Survivor table, amount-weighted, and projected with MP-2021 generational improvement.
- Healthcare: 101% of male and 108% 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 Tables 2a and 2b).

## **Disability**

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

Disabilities are assumed to be occupational 70% of the time for Peace Officer/Firefighters, and 35% of the time for Others.

Post-disability mortality for Peace Officer/Firefighters in accordance with the following tables:

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

Post-disability mortality for Others 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 Tables 4a and 4b).

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**

Males are assumed to be three years older than their wives. Females are assumed to be two years younger than their husbands.

### **Percent Married for Pension**

For Peace Officer/Firefighters, 85% of male members and 60% of female members are assumed to be married at termination from active service. For Others, 75% of male members and 70% 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. For Peace Officer/Firefighters, 75% of male members and 50% of female members are assumed to be married and cover a dependent spouse. For Others, 60% of male members and 50% of female members are assumed to be married and cover a dependent spouse.

### **Dependent Children**

- Pension: None
- 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, 2022 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: \$8,635,000
- Healthcare: \$3,818,000

## **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: 15.30%
- Healthcare: 2.40%

## **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**

Peace Officer/Firefighter members are assumed to be full-time employees. For Other members, part-time employees are assumed to earn 0.75 years of service per year.

## **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**

5% 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% of Peace Officers/Firefighters and 65% of Others 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. For Peace Officer/Firefighters, 20% of non-system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible. For Others, 25% 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 FY23 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	\$ 15,706	\$ 3,712
Medicare Parts A & B	\$ 1,625	\$ 3,907
Medicare Part B Only	\$ 5,363	\$ 3,907
Medicare Part D – EGWP	N/A	\$ 1,309

Members are assumed to attain Medicare eligibility at age 65. All costs are for the 2023 fiscal year (July 1, 2022 – June 30, 2023).

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

\$449 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, 7.00% is applied to the FY23 pre-Medicare medical claims costs to get the FY24 medical claims costs.

	Medical Pre-65	Medical Post-65	Prescription Drugs / EGWP
FY23	7.00%	5.50%	7.50%
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 PERS members who are under age 60 and have less than 30 years of service (25 for Peace Officer/Firefighter). Eligible Tier 1 members are exempt from contribution requirements. Annual FY23 contributions based on monthly rates shown below for calendar 2023 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 or 3 who are assumed to retire prior to age 60 with less than 30 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 2023 Annual Contribution	Calendar 2023 Monthly Contribution	Calendar 2022 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 FY23 retired member medical contributions to get the FY24 retired member medical contributions.

Trend Assumptions	
FY23+	4.0%

Graded trend rates for retired member medical contributions are consistent with the rates used for the June 30, 2021 valuation. Actual FY23 retired member medical contributions are reflected in the valuation.

### Changes in Assumptions Since the Prior Valuation

Effective for the June 30, 2022 valuation, the Board adopted the changes to the demographic and economic assumptions recommended by the actuary, based on the results of an experience study performed on the plan experience from July 1, 2017 to June 30, 2021. The changes in assumptions were adopted at the June 2022 Board meeting.

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 \$7,625,000 to \$8,635,000 for pension, and from \$5,531,000 to \$3,818,000 for healthcare (based on the most recent two years of actual administrative expenses paid from plan assets).

**Table 1: Salary Scales**

Peace Officer / Firefighter		Others	
Years of Service	Percent Increase	Years of Service	Percent Increase
< 1	8.50%	< 1	6.75%
1	7.75%	1	6.00%
2	7.25%	2	5.50%
3	7.00%	3	5.00%
4	6.75%	4	4.75%
5	6.25%	5	4.25%
6	5.75%	6	4.05%
7	5.50%	7	3.95%
8	5.25%	8	3.75%
9	5.05%	9	3.55%
10	4.95%	10	3.45%
11	4.85%	11	3.25%
12	4.75%	12	3.10%
13	4.65%	13	3.05%
14	4.55%	14	3.00%
15	4.45%	15	2.95%
16	4.35%	16	2.90%
17	4.25%	17+	2.85%
18	4.05%		
19	4.05%		
20+	3.85%		

## Table 2a: Turnover Rates for Peace Officer / Firefighter

### Select Rates during the First 5 Years of Employment

Years of Service	Male	Female
< 1	15.00%	15.00%
1	12.00%	8.00%
2	7.20%	6.40%
3	5.67%	5.60%
4	6.48%	7.20%

### Ultimate Rates after the First 5 Years of Employment

Age	Male	Female
< 30	2.40%	5.80%
30 - 34	2.00%	5.10%
35 - 39	1.60%	3.00%
40 - 44	1.30%	3.00%
45 - 49	1.50%	2.90%
50 - 54	3.00%	5.00%
55+	2.25%	1.80%

## Table 2b: Turnover Rates for Others

### Select Rates during the First 5 Years of Employment

Hire Age Under 35			Hire Age Over 35		
Years of Service	Male	Female	Years of Service	Male	Female
< 1	29.00%	29.00%	< 1	20.00%	20.00%
1	16.25%	20.00%	1	12.00%	15.00%
2	13.00%	16.00%	2	10.00%	12.50%
3	10.40%	12.80%	3	8.50%	10.00%
4	8.45%	10.40%	4	8.50%	9.00%

### Ultimate Rates after the First 5 Years of Employment

Age	Male	Female
< 30	7.80%	8.20%
30 - 34	7.00%	7.10%
35 - 39	5.70%	5.50%
40 - 44	4.50%	5.20%
45 - 49	4.20%	4.40%
50 - 54	3.60%	4.70%
55+	2.90%	4.90%

**Table 3a: Disability Rates for Peace Officer / Firefighter**

Age	Male	Female	Age	Male	Female
< 23	0.0179%	0.0112%	46	0.1247%	0.0780%
23	0.0244%	0.0153%	47	0.1337%	0.0836%
24	0.0310%	0.0194%	48	0.1462%	0.0914%
25	0.0374%	0.0234%	49	0.1588%	0.0993%
26	0.0440%	0.0275%	50	0.1714%	0.1071%
27	0.0505%	0.0316%	51	0.1839%	0.1150%
28	0.0526%	0.0329%	52	0.1965%	0.1228%
29	0.0548%	0.0343%	53	0.2294%	0.1434%
30	0.0570%	0.0356%	54	0.2624%	0.1640%
31	0.0591%	0.0370%	55	0.2954%	0.1846%
32	0.0612%	0.0383%	56	0.3283%	0.2052%
33	0.0634%	0.0397%	57	0.3613%	0.2258%
34	0.0657%	0.0411%	58	0.4112%	0.2570%
35	0.0679%	0.0425%	59	0.4611%	0.2882%
36	0.0702%	0.0439%	60	0.5110%	0.3194%
37	0.0724%	0.0453%	61	0.5610%	0.3506%
38	0.0757%	0.0473%	62	0.6109%	0.3818%
39	0.0789%	0.0493%	63	0.6109%	0.3818%
40	0.0822%	0.0514%	64	0.6109%	0.3818%
41	0.0854%	0.0534%	65	0.6109%	0.3818%
42	0.0886%	0.0554%	66	0.6109%	0.3818%
43	0.0977%	0.0611%	67	0.6109%	0.3818%
44	0.1066%	0.0667%	68	0.4073%	0.2546%
45	0.1157%	0.0723%	69	0.2036%	0.1273%
			70+	0.2036%	0.1273%

**Table 3b: Disability Rates for Others**

Age	Male	Female	Age	Male	Female
< 23	0.0327%	0.0376%	46	0.1125%	0.1154%
23	0.0360%	0.0400%	47	0.1208%	0.1236%
24	0.0392%	0.0424%	48	0.1329%	0.1360%
25	0.0425%	0.0448%	49	0.1451%	0.1484%
26	0.0456%	0.0472%	50	0.1572%	0.1608%
27	0.0489%	0.0496%	51	0.1694%	0.1734%
28	0.0501%	0.0510%	52	0.1815%	0.1858%
29	0.0513%	0.0524%	53	0.2132%	0.2168%
30	0.0524%	0.0538%	54	0.2450%	0.2478%
31	0.0536%	0.0554%	55	0.2766%	0.2788%
32	0.0548%	0.0568%	56	0.3084%	0.3098%
33	0.0566%	0.0586%	57	0.3401%	0.3408%
34	0.0584%	0.0606%	58	0.4068%	0.4096%
35	0.0602%	0.0624%	59	0.4736%	0.4784%
36	0.0620%	0.0644%	60	0.5405%	0.5470%
37	0.0638%	0.0662%	61	0.6072%	0.6158%
38	0.0669%	0.0696%	62	0.6740%	0.6844%
39	0.0701%	0.0728%	63	0.8526%	0.8450%
40	0.0734%	0.0762%	64	1.0314%	1.0054%
41	0.0765%	0.0794%	65	1.2101%	1.1660%
42	0.0797%	0.0826%	66	1.3889%	1.3264%
43	0.0879%	0.0908%	67	1.5675%	1.4870%
44	0.0962%	0.0990%	68	1.0451%	0.9914%
45	0.1043%	0.1072%	69	0.5225%	0.4956%
			70+	0.5225%	0.4956%

**Table 4a: Retirement Rates for Peace Officer / Firefighter**

Age	Reduced		Unreduced	
	Male	Female	Male	Female
< 47	N/A	N/A	9.00%	7.50%
47	N/A	N/A	13.00%	18.50%
48	N/A	N/A	13.00%	18.50%
49	N/A	N/A	13.00%	18.50%
50	5.00%	5.00%	20.00%	21.00%
51	5.00%	5.00%	20.00%	21.00%
52	7.00%	7.00%	20.00%	21.00%
53	7.00%	7.00%	20.00%	21.00%
54	7.00%	7.00%	20.00%	21.00%
55	7.50%	7.50%	29.00%	20.00%
56	7.50%	7.50%	29.00%	20.00%
57	7.50%	7.50%	29.00%	20.00%
58	7.50%	7.50%	29.00%	20.00%
59	20.00%	20.00%	29.00%	20.00%
60 - 64	N/A	N/A	29.00%	31.50%
65 - 69	N/A	N/A	45.00%	45.00%
70+	N/A	N/A	100.00%	100.00%

**Table 4b: Retirement Rates for Others**

Age	Reduced		Unreduced	
	Male	Female	Male	Female
< 50	N/A	N/A	11.50%	11.50%
50	7.00%	8.50%	37.50%	40.50%
51	7.00%	8.50%	37.50%	40.50%
52	11.00%	8.50%	37.50%	40.50%
53	11.00%	8.50%	37.50%	40.50%
54	24.00%	16.50%	37.50%	40.50%
55	7.00%	6.50%	25.50%	24.00%
56	7.00%	6.50%	25.50%	24.00%
57	7.00%	6.50%	25.50%	24.00%
58	7.00%	6.50%	25.50%	24.00%
59	18.00%	22.00%	25.50%	24.00%
60 - 64	N/A	N/A	26.50%	24.50%
65 - 69	N/A	N/A	30.50%	28.50%
70 - 74	N/A	N/A	27.50%	27.50%
75 - 79	N/A	N/A	50.00%	50.00%
80+	N/A	N/A	100.00%	100.00%



## Section 6: Assessment of Risks (ASOP 51 Disclosures)

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)<sup>1</sup> 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, judgement, 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 be different than the 7.25% expected in the actuarial valuation
- Contribution Risk – potential that the contribution actually made will be different than the actuarially determined contribution
- 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 expected compared to the valuation mortality assumptions
- Salary Increase Risk – potential that future salaries will be different than expected in the actuarial valuation
- Inflation Risk – potential that the consumer price index (CPI) for urban wage earners and clerical workers for Anchorage is different than the 2.5% assumed in the valuation
- Other Demographic Risk – potential that other demographic experience will be different than expected

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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<sup>1</sup> 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.

### 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 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 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 by 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	2018	2019	2020	2021	2022
1. Retiree and Beneficiary Accrued Liability	\$ 9,591,758	\$ 10,076,528	\$ 10,472,466	\$ 10,774,140	\$ 11,426,889
2. Total Accrued Liability	\$ 14,606,033	\$ 15,039,180	\$ 15,279,525	\$ 15,419,975	\$ 16,093,679
3. Ratio, (1) ÷ (2)	65.7%	67.0%	68.5%	69.9%	71.0%

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	2018	2019	2020	2021	2022
1. Contributions	\$ 457,339	\$ 498,067	\$ 504,029	\$ 586,737	\$ 579,650
2. Benefit Payments	<u>812,877</u>	<u>848,019</u>	<u>895,523</u>	<u>930,006</u>	<u>962,357</u>
3. Cash Flow, (1) - (2)	\$ (355,538)	\$ (349,952)	\$ (391,494)	\$ (343,269)	\$ (382,707)
4. Fair Value of Assets	\$ 9,306,675	\$ 9,489,405	\$ 9,469,161	\$ 11,912,309	\$ 10,816,140
5. Ratio, (3) ÷ (4)	(3.8%)	(3.7%)	(4.1%)	(2.9%)	(3.5%)

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	2018	2019	2020	2021	2022
1. Fair Value of Assets	\$ 9,306,675	\$ 9,489,405	\$ 9,469,161	\$ 11,912,309	\$ 10,816,140
2. DB/DCR Payroll	\$ 2,267,338	\$ 2,347,306	\$ 2,373,078	\$ 2,406,757	\$ 2,442,007
3. Asset to Payroll Ratio, (1) ÷ (2)	410.5%	404.3%	399.0%	495.0%	442.9%
4. Accrued Liability	\$ 14,606,033	\$ 15,039,180	\$ 15,279,525	\$ 15,419,975	\$ 16,093,679
5. Liability to Payroll Ratio, (4) ÷ (2)	644.2%	640.7%	643.9%	640.7%	659.0%

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<sup>1</sup>

### 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, 2022	\$ 16,093,679	\$ 10,961,498	68.1%	\$ 5,132,181	\$ 796,666	644.2%
June 30, 2021	15,419,975	10,466,709	67.9%	4,953,266	858,641	576.9%
June 30, 2020	15,279,525	9,713,710	63.6%	5,565,815	930,061	598.4%
June 30, 2019	15,039,180	9,576,693	63.7%	5,462,487	1,004,467	543.8%
June 30, 2018	14,606,033	9,430,192	64.6%	5,175,841	1,049,152	493.3%
June 30, 2017	13,832,130	9,229,703	66.7%	4,602,427	1,159,599	396.9%
June 30, 2016	13,633,033	9,056,662	66.4%	4,576,371	1,247,884	366.7%
June 30, 2015	13,337,929	8,931,160	67.0%	4,406,769	1,322,925	333.1%
June 30, 2014	12,947,759	7,731,438	59.7%	5,216,321	1,412,237	369.4%
June 30, 2013	11,945,881	6,510,749	54.5%	5,435,132	1,514,034	359.0%
June 30, 2012	11,428,944	6,530,421	57.1%	4,898,523	1,569,710	312.1%
June 30, 2011	10,919,047	6,762,149	61.9%	4,156,898	1,611,744	257.9%
June 30, 2010	10,371,672	6,469,832	62.4%	3,901,840	1,661,170	234.9%
June 30, 2009	9,702,086	6,108,528	63.0%	3,593,558	1,662,781	216.1%
June 30, 2008	9,154,282	7,210,772	78.8%	1,943,510	1,657,186	117.3%
June 30, 2007	8,662,324	6,739,004	77.8%	1,923,320	1,689,969	113.8%
June 30, 2006	8,094,043	6,331,065	78.2%	1,762,978	1,676,318	105.2%

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

Change in methods reflected in 2014 and 2006 valuations.

<sup>1</sup> 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)**

<b>Valuation Date</b>	<b>Actuarial Accrued Liability</b>	<b>Valuation Assets</b>	<b>Assets as Pct. of Actuarial Accrued Liability</b>	<b>Unfunded Actuarial Accrued Liability (UAAL)</b>	<b>Active Member Payroll</b>	<b>UAAL as Pct. of Active Member Payroll</b>
June 30, 2022	\$ 6,657,069	\$ 8,979,943	134.9%	\$ (2,322,874)	\$ 796,666	(291.6%)
June 30, 2021	6,856,170	8,581,155	125.2%	(1,724,985)	858,641	(200.9%)
June 30, 2020	7,036,550	7,989,358	113.5%	(952,808)	930,061	(102.4%)
June 30, 2019	7,151,694	7,810,491	109.2%	(658,797)	1,004,467	(65.6%)
June 30, 2018	7,658,104	7,686,509	100.4%	(28,405)	1,049,152	(2.7%)
June 30, 2017	8,049,265	7,557,068	93.9%	492,197	1,159,599	42.4%
June 30, 2016	7,736,457	7,411,330	95.8%	325,127	1,247,884	26.1%
June 30, 2015	7,310,734	7,242,299	99.1%	68,435	1,322,925	5.2%
June 30, 2014	7,949,613	6,913,160	87.0%	1,036,453	1,412,237	73.4%
June 30, 2013	8,046,878	5,651,877	70.2%	2,395,001	1,514,034	158.2%
June 30, 2012	7,863,417	5,301,609	67.4%	2,561,808	1,569,710	163.2%
June 30, 2011	7,821,503	5,051,625	64.6%	2,769,878	1,611,744	171.9%
June 30, 2010	7,760,820	4,687,632	60.4%	3,073,188	1,661,170	185.0%
June 30, 2009	6,877,285	4,134,450	60.1%	2,742,835	1,662,781	165.0%
June 30, 2008	6,733,859	3,829,334	56.9%	2,904,525	1,657,186	175.3%
June 30, 2007	5,908,609	3,161,956	53.5%	2,746,653	1,689,969	162.5%
June 30, 2006	6,294,370	2,709,843	43.1%	3,584,527	1,676,318	213.8%

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)			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, 2022	\$ 1,220,552	\$ 12,209,639	\$ 2,663,488	\$ 10,961,498	100.0%	79.8%	0.0%
June 30, 2021	1,291,313	11,524,330	2,604,332	10,466,709	100.0%	79.6%	0.0%
June 30, 2020	1,336,269	11,210,836	2,732,420	9,713,710	100.0%	74.7%	0.0%
June 30, 2019	1,375,913	10,801,729	2,861,538	9,576,693	100.0%	75.9%	0.0%
June 30, 2018	1,411,881	10,300,818	2,893,334	9,430,192	100.0%	77.8%	0.0%
June 30, 2017	1,435,091	9,505,267	2,891,772	9,229,703	100.0%	82.0%	0.0%
June 30, 2016	1,458,830	9,147,818	3,026,385	9,056,662	100.0%	83.1%	0.0%
June 30, 2015	1,475,852	8,762,863	3,099,214	8,931,160	100.0%	85.1%	0.0%
June 30, 2014	1,486,335	8,264,683	3,196,741	7,731,438	100.0%	75.6%	0.0%
June 30, 2013	1,479,538	7,514,255	2,952,088	6,510,749	100.0%	67.0%	0.0%
June 30, 2012	1,459,943	7,057,967	2,911,034	6,530,421	100.0%	71.8%	0.0%
June 30, 2011	1,421,967	6,657,517	2,839,563	6,762,149	100.0%	80.2%	0.0%
June 30, 2010	1,388,029	6,268,461	2,715,182	6,469,832	100.0%	81.1%	0.0%
June 30, 2009	1,315,924	5,914,959	2,471,203	6,108,528	100.0%	81.0%	0.0%
June 30, 2008	1,242,288	5,606,402	2,305,592	7,210,772	100.0%	100.0%	15.7%
June 30, 2007	1,203,007	5,282,132	2,177,185	6,739,004	100.0%	100.0%	11.7%
June 30, 2006	1,157,755	4,933,609	2,002,679	6,331,065	100.0%	100.0%	12.0%

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)			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, 2022	\$ 0	\$ 5,188,441	\$ 1,468,628	\$ 8,979,943	100.0%	100.0%	100.0%
June 30, 2021	0	5,260,804	1,595,366	8,581,155	100.0%	100.0%	100.0%
June 30, 2020	0	5,306,689	1,729,861	7,989,358	100.0%	100.0%	100.0%
June 30, 2019	0	5,304,790	1,846,904	7,810,491	100.0%	100.0%	100.0%
June 30, 2018	0	5,546,497	2,111,607	7,686,509	100.0%	100.0%	100.0%
June 30, 2017	0	5,671,509	2,377,756	7,557,068	100.0%	100.0%	79.3%
June 30, 2016	0	5,393,537	2,342,920	7,411,330	100.0%	100.0%	86.1%
June 30, 2015	0	5,159,283	2,151,451	7,242,299	100.0%	100.0%	96.8%
June 30, 2014	0	5,455,114	2,494,499	6,913,160	100.0%	100.0%	58.5%
June 30, 2013	0	5,298,380	2,748,498	5,651,877	100.0%	100.0%	12.9%
June 30, 2012	0	5,026,080	2,837,337	5,301,609	100.0%	100.0%	9.7%
June 30, 2011	0	4,812,845	3,008,658	5,051,625	100.0%	100.0%	7.9%
June 30, 2010	0	4,581,806	3,179,014	4,687,632	100.0%	100.0%	3.3%
June 30, 2009	0	4,232,394	2,644,891	4,134,450	100.0%	97.7%	0.0%
June 30, 2008	0	4,166,270	2,567,589	3,829,334	100.0%	91.9%	0.0%
June 30, 2007	0	3,684,906	2,223,703	3,161,956	100.0%	85.8%	0.0%
June 30, 2006	0	3,990,202	2,304,168	2,709,843	100.0%	67.9%	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	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Active Members</b>										
1. Number	20,955	19,297	17,660	16,105	14,719	13,434	12,152	11,033	9,888	8,795
2. Average Age	50.39	50.90	51.34	51.74	52.10	52.52	52.84	53.21	53.51	53.78
3. Average Credited Service	14.00	14.64	15.29	15.95	16.57	17.21	17.80	18.38	18.96	19.52
4. Average Entry Age	36.39	36.26	36.05	35.79	35.53	35.30	35.04	34.83	34.55	34.26
5. Average Annual Earnings	\$ 69,211	\$ 71,651	\$ 73,248	\$ 75,717	\$ 76,902	\$ 77,813	\$ 82,192	\$ 83,757	\$ 86,316	\$ 89,603
6. Number Vested	19,670	18,381	16,996	15,607	14,314	13,103	11,868	10,791	9,675	8,604
7. Percent Who Are Vested	93.9%	95.3%	96.2%	96.9%	97.2%	97.5%	97.7%	97.8%	97.8%	97.8%
<b>Retirees, Disabilitants, and Beneficiaries</b>										
1. Number	29,865	31,099	32,145	33,353	34,347	35,454	36,310	37,106	37,717	38,243
2. Average Age	67.76	68.15	68.60	69.02	69.42	69.85	70.29	70.77	71.17	71.61
3. Average Years Since Retirement	N/A	N/A	11.27	11.48	11.71	11.87	12.14	12.45	12.66	12.94
4. Average Monthly Pension Benefit	\$ 1,747	\$ 1,800	\$ 1,841	\$ 1,868	\$ 1,898	\$ 1,933	\$ 1,994	\$ 2,041	\$ 2,076	\$ 2,180
<b>Vested Terminations (vested at termination, not refunded contributions, and not commenced benefit)</b>										
1. Number	6,230	6,167	6,304	6,160	5,962	5,660	5,499	5,327	5,135	4,955
2. Average Age	50.84	51.15	51.80	52.08	52.45	52.56	53.06	53.52	53.92	54.37
3. Average Monthly Pension Benefit	\$ 863	\$ 897	\$ 991	\$ 1,042	\$ 1,080	\$ 1,087	\$ 1,123	\$ 1,158	\$ 1,205	\$ 1,258
<b>Non-Vested Terminations (not vested at termination and not refunded contributions)</b>										
1. Number	13,162	12,713	12,339	11,880	11,506	11,192	10,921	10,642	10,432	10,223
2. Average Account Balance	\$ 5,578	\$ 5,765	\$ 5,981	\$ 6,212	\$ 6,462	\$ 6,558	\$ 6,923	\$ 7,060	\$ 7,325	\$ 7,573
<b>Total Number of Members</b>	<b>70,212</b>	<b>69,276</b>	<b>68,448</b>	<b>67,498</b>	<b>66,534</b>	<b>65,740</b>	<b>64,882</b>	<b>64,108</b>	<b>63,172</b>	<b>62,216</b>

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.