



A component unit of the State of Alaska

Comprehensive Annual Financial Report

Fiscal Year Ended June 30, 2020 Mike Dunleavy, Governor

## Public Employees' Retirement System

## COMPREHENSIVE ANNUAL FINANCIAL REPORT

## A Component Unit of the State of Alaska

For the Fiscal Year Ended June 30, 2020



Mike Dunleavy, Governor

Prepared by

Department of Administration Division of Retirement and Benefits P.O. Box 110203 Juneau, AK 99811-0203

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# INTRODUCTORY SECTION





## Department of Administration

#### DIVISION OF RETIREMENT AND BENEFITS

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## LETTER OF TRANSMITTAL

December 15, 2020

The Honorable Mike Dunleavy, Governor Members of the Alaska State Legislature Alaska Retirement Management Board Employers and Plan Members

We are pleased to present the Comprehensive Annual Financial Report (CAFR) of the Public Employees' Retirement System (PERS) (System) for the fiscal year ended June 30, 2020. The CAFR is intended to fulfill the legal requirements of Alaska Statute (AS) 39.35.004(a)(8).

The CAFR provides comprehensive information on the financial operations of the System for the fiscal year. Responsibility for the accuracy, completeness, and fairness of the information presented rests with the management of the System. To the best of our knowledge and belief, the enclosed information is accurate in all material respects and is reported in a manner designed to fairly present the financial position and results of operations of the System for the year ended June 30, 2020. All disclosures necessary to enable the reader to gain an understanding of the System's activities have been included.

KPMG LLP, Certified Public Accountants, has issued an unmodified opinion on the System's basic financial statements for the year ended June 30, 2020. The independent auditor's report is located at the beginning of the Financial Section of this report.

The management's discussion and analysis (MD&A) is also located in the Financial Section of this report. The MD&A provides an analytical overview of the financial statements. This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it.

The CAFR is divided into five sections:

- **Introductory Section**, which contains the letter of transmittal, the organization chart of the Division, and a list of the members serving on the Alaska Retirement Management Board (Board);
- **Financial Section**, which contains the Independent Auditor's Report, MD&A, basic financial statements, required supplementary information, and additional information;
- **Investment Section**, which contains a report prepared by the investment consultant, a report on investment activity, investment results, and various investment schedules;
- Actuarial Section, which contains the Actuarial Certification letter and the results of the most current annual actuarial valuation; and
- **Statistical Section**, which includes additional information related to financial trends, demographic and economic information, and operating information.

## **Profile of the System**

The System was established in 1961 to provide pension benefits for eligible state and local government employees. Post-employment health care benefits were added July 1, 1975. Senate Bill 141, signed into law on July 27, 2005, closed the Defined Benefit (DB) Plan effective July 1, 2006, to new members and created a Defined Contribution Retirement (DCR) Plan for members first hired on or after July 1, 2006. Beginning in fiscal year 2007, the System consists of: (1) the DB Plan and (2) the DCR Plan. This report includes both plans. The DB Plan includes the pension plan and the Alaska Retiree Health Care Trust (Tiers I, II, and III). The DCR Plan includes the defined contribution retirement trust, occupational death and disability plan, retiree major medical plan, and the health reimbursement arrangement plan (Tier IV).

## **Reporting Entity**

The System is considered a component unit of the State of Alaska (State) for financial reporting purposes. Due to the closeness of the System's relationship to the State, it is included in the State CAFR as a fiduciary fund.

The Commissioner of the Department of Administration, appointed by the Governor, is responsible for administering the System. In order to meet the statutory requirements of administering the System, the Commissioner appoints the Plan Administrator of the Division of Retirement and Benefits (Division). The Plan Administrator is responsible for the daily operations of the System.

The Board, constituted effective October 1, 2005, replaced the Public Employees' Retirement Board (effective July 1, 2005) and the Alaska State Pension Investment Board (effective October 1, 2005).

## The Board is responsible for:

- adopting investment policies and developing investment objectives;
- providing a range of investment options and establishing the rules by which participants can direct their investments among those options, when applicable;
- establishing crediting rates for members' individual contribution accounts, when applicable;
- assisting in prescribing policies for the proper operation of the System;
- coordinating with the System Administrator to have actuarial valuations performed;
- reviewing actuarial assumptions and conducting experience analyses;
- contracting for an independent audit of actuarial valuations and external performance calculations; and
- reporting the financial condition of the Systems to the Governor, Legislature, and individual employers
  participating in the System.

## Major Initiatives / Changes

The System continues to make progress on several on-going projects. Most of these efforts are focused on improving customer service, technology, methods for employers to submit information, methods for members to obtain information, and continued compliance with accounting requirements of the Governmental Accounting Standards Board (GASB) and the Financial Accounting Standards Board (FASB), as applicable. While COVID-19 has impacted day-to-day and face-to-face interaction with members and employers, we continue to provide via teleworking the necessary services needed to meet the demand while maintaining appropriate security measures.

The System has undertaken a major project in upgrading our member benefits system. The Division recently signed a contract with Sagitec, an industry leader in pension and healthcare software systems. The Division has branded the new system Benefits and Retirement System, or BEARS. The System's staff is excited about the new system, the enhancements it provides, and looks forward to sharing more information with members and employers as we work toward implementation in 2023.

The System continues to pursue offering best in class health care benefits balanced by strong financial management and cost initiatives that focus on value. An example of this is the implementation of a Medicare Part D Employer Group Waiver Plan (EGWP), which increased federal subsidies to the System while reducing the actuarial accrued liability and enhancing member benefits. The System has also supported members in accessing necessary care through the implementation of certain emergency provisions in response to the COVID-19 pandemic.

The System continues to assess and retool its communication efforts, which include printed handbooks, newsletters, and website content. The System has developed new employee videos for employers to use and makes the plan information easy to access by members. While technology has enhanced our outreach, it does not replace in-person efforts to meet, discuss, and plan member benefits. The System strives to ensure that all communication material is clear, accurate, and user-friendly.

The System strives to provide the highest degree of customer service to all members. The Division continues to enhance and develop the central Member Services Section with the goals of improving phone service, provide faster processing of all customer requests, and improving member education services.

The System continues to offer a broad array of fairs and seminars directed toward both active members and employers, with the goal to assist employers with successful marketing of the plans, educating members about all benefits available from early career through to retirement, encouraging healthy living, and how to best use the health plan.

## **Funding Requirements**

The System's consulting actuary, Buck Global LLC, presented the results of the June 30, 2019, actuarial valuation report to the Plan Administrator, Division, and the Board. The assumptions and benefits are explained in the Actuarial Section of this report.

Based on the most recent valuation report dated May 7, 2020, the System's DB Plan has a funding ratio (actuarial value of DB Plan assets divided by actuarial liabilities for pension and postemployment healthcare benefits) of 78.4%. The DB Plan's unfunded actuarial accrued liability (actuarial liability minus actuarial value of DB plan assets) totals approximately \$4.8 billion. The unfunded liability continues to be addressed at all levels of the State. The Governor's budget proposes to provide funding to System's employers in order to maintain an appropriate level of employer contributions while also paying the actuarially determined contribution rate adopted by the Board.

#### Investments

On June 30, 2020, the DB Plan's investment portfolio was valued at \$17.1 billion and earned an average 3.87% return for the fiscal year ended June 30, 2020. The DCR Plan's investment portfolio was valued at \$2.1 billion for the fiscal year ended June 30, 2020. Over the past five years ending June 30, 2020, the DB Plan's investments earned an 6.46% return. The Board has statutory oversight of the System's investments and the Department of Revenue, Treasury Division, provides staff for the Board. Actual investing is performed by investment officers in the Treasury Division or by contracted external investment managers. The Board reviews and updates investment policies and strategies and is responsible for safeguarding invested assets.

## **Accounting System**

This CAFR has been prepared to conform to the principles of accounting and reporting established by the GASB. Specific accounting treatments are detailed in the Notes to Financial Statements found in the Financial Section of this report.

#### **Internal Controls**

Division management is responsible for establishing and maintaining a system of internal controls to protect System assets from loss, theft, or misuse and to ensure adequate accounting data is compiled for the preparation of financial statements in conformity with generally accepted accounting principles. The cost of internal control should not exceed anticipated benefits; the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements.

#### **Awards**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the System for its CAFR for the fiscal year ended June 30, 2019. The Certificate of Achievement is a prestigious national award that recognizes conformance with the highest standards of preparation of state and local government financial reports.

In order to be awarded a Certificate of Achievement, a government entity must publish an easily readable and efficiently organized CAFR. This report must satisfy both U.S. generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year. The Division is confident our current CAFR continues to meet the Certificate of Achievement Program's requirements and are submitting it to the GFOA for consideration.

Additionally, the Public Pension Coordinating Council (PPCC) awarded the Public Pension Standards Award for Funding and Administration certificate to the Division for the fiscal year ended June 30, 2020. This award signifies that the Alaska PERS complies with the standard benchmarks for public defined benefit systems in the United States. The standards require a high level for the following: comprehensive benefit program, funding adequacy, accepted actuarial and audit practices, investment policy and evaluation, and member communications.

The Public Pension Standards Award for Funding and Administration certificate is valid for a period of one year. The Division is confident the System will continue to meet the standards award requirements and will apply to the PPCC for consideration in 2021.

#### Acknowledgements

The preparation of this report is made possible by the dedicated services of the staff of the Department of Administration, Division of Retirement and Benefits and Division of Finance; Department of Law; and the Department of Revenue, Treasury Division. This report is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and as a means of determining responsible stewardship of the System's financial resources.

The report is available on the web at http://doa.alaska.gov/drb/pers/employee/resources/cafr.html and mailed to those who submit a formal request. This report forms the link between the System and the membership. The cooperation of the membership contributes significantly to the success of the System. We hope the employers and plan members find this report informative.

We are grateful to the Alaska Retirement Management Board, staff, advisors, and to the many people who have diligently worked to assure the successful operation of the System.

Respectfully submitted,

Kelly Tshibaka

Commissioner

Ajay Desai

Division Director

**Emily Ricci** 

Chief Health Policy Administrator

Jim Puckett

Deputy Director / Chief Pension Officer

Kevin Worley

Chief Financial Officer



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

# Alaska Public Employees' Retirement System

For its Comprehensive Annual Financial Report For the Fiscal Year Ended

June 30, 2019

Christopher P. Morrill

Executive Director/CEO



# **Public Pension Coordinating Council**

# Public Pension Standards Award For Funding and Administration 2020

Presented to

# Alaska Public Employees' Retirement System

In recognition of meeting professional standards for plan funding and administration as set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

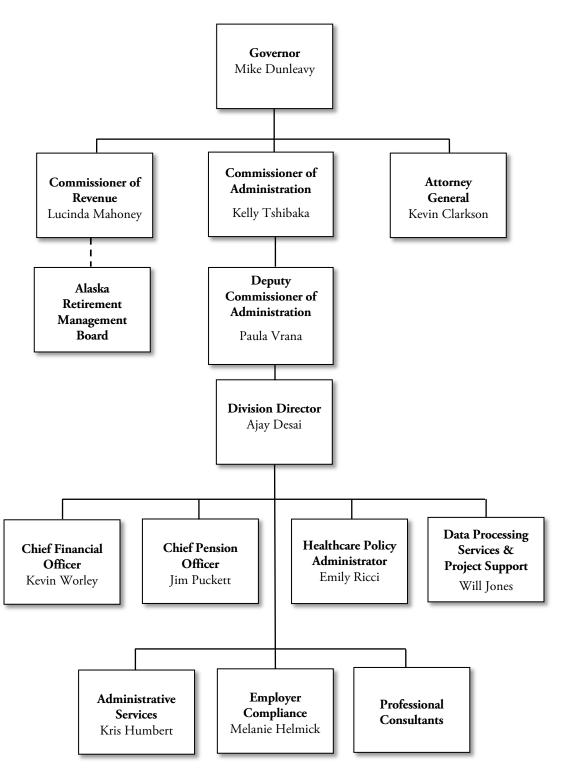
National Association of State Retirement Administrators (NASRA) National Conference on Public Employee Retirement Systems (NCPERS) National Council on Teacher Retirement (NCTR)

> Alan H. Winkle Program Administrator

Clan Helingle

## **ORGANIZATION CHART**

As of June 30, 2020



## Section Responsibilities

The **Member Services Section** is responsible for providing comprehensive retirement counseling to the participating members and employers in the plan. This section appoints members to retirement and maintains benefit payment information.

The **Health Plan Administration Section** is responsible for the administration of health, disability, and life insurance. This section provides benefits counseling and plan change information to the membership.

The **Financial Services Section** is responsible for maintaining the employee and employer records and accounts in each of the plans administered by the Division, producing financial statements and reports, and assuring compliance with Internal Revenue Service requirements.

The **Data Processing Services and Project Support Section** supports the information systems the System uses. Responsibilities include planning, development, data base design, programming, and operational support of the data processing systems, including the Local Area Network.

The **Administrative Services Section** is responsible for budget preparation, fiscal management of appropriations, procuring professional services, supplies, and equipment. The section manages the System's record center containing the members' physical records and performs other administrative functions such as legislative tracking and personnel management.

Consulting Actuary	Legal Counsel	Third-Party Healthcare Claim
Buck Global LLC	Kevin Dilg	Administrators
Denver, Colorado	Kevin Higgins	Aetna Life Insurance Company
Gabriel Roeder Smith	Jessica Leeah	Lexington, Kentucky
Denver, Colorado	Bill Milks	CHCS Services, Inc.
	Rebecca Polizzotto	Pensacola, Florida
Independent Auditors	Assistant Attorney Generals	Moda Health / Delta Dental of Alaska
KPMG LLP	Juneau, Alaska	Portland, Oregon
Anchorage, Alaska		PayFlex Systems USA, Inc.
	Jessie Alloway	Omaha, Nebraska
Benefits Consultants	Laura Fox	Optum Rx
Buck Global LLC	Andrew Hodlofski	Irvine, California
Denver, Colorado	Siobhan McIntyre	
The Segal Company	Jeff Pickett	Consulting Physicians
Greenwood Village, Colorado	Kate Vogel	Managed Medical Review Organizatio
	Margret Paton-Walsh	Novi, Michigan
IT Consultants	Rachel Witty	
Alaska IT Group	Laura Wolff	
Juneau, Alaska	Anchorage, AK	
Applied Microsystems, Inc.	-	
Computer Task Group	Ice Miller LLP	
Anchorage, Alaska	Indianapolis, Indiana	

A list of investment consultants can be found in the Investment Section on pages 86-87. Investment fees and commissions can be found on pages 95 and 102.

## Alaska Retirement Management Board

As of June 30, 2020

Robert M. ("Rob") Johnson, Chair, has been an attorney in Alaska for over 40 years. In private practice, Mr. Johnson was outside counsel for ARMB since its inception in 2005 until he recently retired from full-time practice. He also was sole outside counsel for ARMB's predecessor entities, the Alaska State Pension Investment Board and the PERS and TRS board. Mr. Johnson's law practice included many matters of state-wide importance including Exxon Valdez litigation, public sector labor disputes under the Public Employees Relations Act, and multi-year controversies involving valuation of the Trans-Alaska Pipeline System. His public employment included tenures as an assistant attorney general and director of petroleum revenue. Mr. Johnson received his law degree from Stanford and a B.A. in history from Claremont McKenna College.

Gayle W. Harbo, Secretary, retired after teaching mathematics in Fairbanks for 25 years. She also served as math department chair, as advanced placement coordinator, on the district curriculum, evaluation and budget committees, and twice as chair of the Lathrop Self-Evaluation for Accreditation Committee. Ms. Harbo is a member of Alpha Delta Kappa, AARP, National Retired Teachers of Alaska, Fairbanks Retired Teachers Association, National Council of Teacher Retirement Systems, NCTR Education Committee, and the Alaska Teachers' Retirement Board. She is also a co-manager of a family trust. Ms. Harbo was named Alaska Teacher of the Year in 1989. She holds a BS in Mathematics from North Carolina State University, and a Master's in Teaching from the University of Alaska, Fairbanks, and has completed an additional 40 hours in mathematics, counseling, law, and finance.

Lorne Bretz was appointed by Governor Dunleavy in March 2019. Lorne immigrated to Alaska in 1992, and with its vast beauty, it quickly became home. Volunteering in the community, hiking and off-road adventuring are some of Lorne's favorite hobbies. Mr. Bretz is the Plan Administrator for the Municipality of Anchorage Retiree Medical Funding Program Trust for Police Officers and Firefighters. He has a Master's in Business Administration, a Retirement Plans Associate designation and is a Certified Financial Planner professional. He has a passion for finances and a desire to support the needs of retirees and future retirees of the state he calls home.

Allen Hippler was appointed by Governor Dunleavy in March 2019. Allen Hippler is a Vice President of Commercial Lending at Northrim Bank, where he specializes in underwriting loans for Alaskan businesses. He has almost two decades of experience working in finance throughout the state, most notably Wasilla, Bethel, and Anchorage. Mr. Hippler has chaired the City of Bethel finance committee; was elected to and served on the Bethel City Council; and was named one of Alaska's 'Top Forty under Forty' in 2009. He is active with the Alaska Chamber of Commerce, and currently is Vice Chairman of that organization. Previous service to the State of Alaska includes working as a Commissioner of the Alaska Health Care Commission. Mr. Hippler holds a B.A. in Economics from the University of Dallas.

Lucinda Mahoney is the Commissioner of the Department of Revenue appointed by Governor Dunleavy in February 2020. Lucinda has over 30 years of broad business experience working for various companies in the State of Alaska. Her experience includes investment management, business valuations, treasury, debt, accounting, strategic planning, budgeting, process improvements, shared services, and Sarbanes Oxley consulting. Lucinda was previously the CFO for the Municipality of Anchorage. She also managed the Arctic Slope Regional Corporation Shared Services Center. Prior to that, she was a Director with KPMG LLP managing its business consulting practice in Alaska. Finally, she held various management positions at ARCO, a multibillion oil company. Lucinda has a Master's in Business Administration, University of Alaska; a Bachelor's in Business Administration with a concentration in Finance, University of Texas; and is a Certified Valuation Analyst with the National Association of Certified Valuation Analysts.

Kelly Tshibaka, Commissioner of the Department of Administration, was appointed by Governor Dunleavy in January 2019. Kelly Tshibaka is a born and raised Alaskan, having graduated from Stellar Secondary School in Anchorage in 1995. She has over sixteen years of leadership experience in federal government and intelligence oversight roles, including in audits, investigations, complex reviews, data analytics, and executive management. Most recently she was the Chief Data Officer for the United States Postal Service Office of the Inspector General where she was part of the executive team responsible for oversight of the US Postal Service, an agency with more than \$70 billion in annual revenue, \$13 billion in contracts, and 620,000 employees. Prior to that, she was the Acting Inspector General of the Federal Trade Commission, served as legal counsel to the Inspector General of the Office of the Director of National Intelligence, and performed sensitive reviews at the Department of Justice Office of the Inspector General. Tshibaka has dedicated her public service career to improving government agencies' efficiency and effectiveness. Tshibaka has a J.D. from Harvard Law School and a B.A. from Texas A&M University.

Norman West, CPA, is the Chief Financial Officer at Alaska USA Federal Credit Union with over 30 years of experience with employee benefit plans and management of large fixed-income securities portfolios of \$200 million to \$1 billion. Mr. West is responsible for the investment of the Credit Union's fixed income portfolio as well as accounting and related activities. He served on the boards of the Credit Union subsidiaries, including Alaska USA Mortgage, Alaska USA Trust Company, Alaska USA Insurance Brokers, and served as a trustee on the Alaska USA Federal Credit Union's defined benefit plan. Prior to his Alaska USA employment, Mr. West was the Trust Controller and Chief Investment Officer for the Alaska Teamsters Employer Service Corp., the administrator for the union's benefit plans. He previously practiced as a CPA in Alaska, Arizona, and Texas, and received training as an ERISA specialist in 1977. He has been active for many years in professional organizations as a member, officer, and presenter, and served as a volunteer in church and Boy Scouts most of his adult life. Mr. West is a graduate of Brigham Young University with a B.S. in Accounting. He resides in Palmer and is the father of eleven children.

**Bob Williams** began his teaching career as a Peace Corps teacher in Gambia, Africa. He is a nationally board-certified teacher, (NBCT, Math – AYA) and currently teaches Calculus and Geometry at Colony High School in Palmer. Mr. Williams is the Alaska 2009 Teacher of the Year, served as the president of the Alaska Council of Teachers of Mathematics from 2011-2013, and is the recipient of the Presidential Award for Excellence in Mathematics Teaching. He was one of five national recipients of the 2010 Horace Mann Teaching Excellence award and is a 2012 Aspen Teacher Leader Fellow. Mr. Williams has a B.S. in Petroleum Engineering from the University of Alaska, Fairbanks, an M.A. in Mathematics Education from Columbia University, and an M.Ed. in Educational Leadership from the University of Alaska, Anchorage.



# FINANCIAL SECTION





KPMG LLP Suite 600 701 West Eighth Avenue Anchorage, AK 99501

## **Independent Auditors' Report**

The Division of Retirement and Benefits and Members of the Alaska Retirement Management Board State of Alaska Public Employees' Retirement System:

We have audited the accompanying combining financial statements of the State of Alaska Public Employees' Retirement System (the System), a component unit of the State of Alaska, as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

## Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

## Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the State of Alaska Public Employees' Retirement System as of June 30, 2020, and the changes in fiduciary net position for the year then ended, in accordance with U.S. generally accepted accounting principles.

## Financial Section

#### Other Matters

## Prior-Year Comparative Information

We have previously audited the System's 2019 combining financial statements, and we expressed an unmodified opinion on those financial statements in our report dated October 23, 2019. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2019 is consistent, in all material respects, with the audited financial statements from which it has been derived.

## Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 17–27 and the schedules of changes in employer net pension and other postemployment benefits (OPEB) liabilities and related ratios, schedules of employer and nonemployer contributions, and schedules of investment returns on pages 52–67 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

## Supplemental Schedules

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The supplemental schedules on pages 81–82 are presented for purposes of additional analysis and are not a required part of the basic financial statements. The supplemental schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplemental schedules are fairly stated in all material respects in relation to the basic financial statements as a whole.



October 28, 2020

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Management's Discussion and Analysis (Unaudited)

June 30, 2020

This section presents management's discussion and analysis (MD&A) of the State of Alaska Public Employees' Retirement System's (the System) financial position and performance for the years ended June 30, 2020 and 2019. This section is presented as a narrative overview and analysis. Please read the MD&A in conjunction with the financial statements, notes to financial statements, required supplementary information, and supplemental schedules to better understand the financial condition and performance of the System during the fiscal years ended June 30, 2020 and 2019. Information for fiscal year 2018 is presented for comparative purposes.

### **Financial Highlights**

The System's financial highlights for the year ended June 30, 2020 were as follows:

- The System's fiduciary net position restricted for pension benefits, postemployment healthcare benefits, and individuals increased by \$291.2 million.
- The System's plan member and employer contributions increased by \$26.3 million when compared to fiscal year 2019.
- The State of Alaska (the State) directly appropriated \$159.1 million to the System.
- The System's net investment income decreased \$318.6 million when compared to fiscal year 2019, to \$777.4 million.
- The System's pension benefit expenditures totaled \$885.3 million.
- The System's postemployment healthcare benefit expenditures totaled \$440.5 million.

#### **Overview of the Financial Statements**

This discussion and analysis is intended to serve as an introduction to the System's financial statements. The System's financial statements are composed of three components: (1) combining statement of fiduciary net position, (2) combining statement of changes in fiduciary net position, and (3) notes to financial statements. This report also contains required supplementary information and other supplemental schedules.

Combining Statement of Fiduciary Net Position – This statement presents information regarding the System's assets, liabilities, and resulting net position restricted for pension benefits, postemployment healthcare benefits, and individuals. This statement reflects the System's investments at fair value, along with cash and cash equivalents, receivables, and other assets less liabilities at June 30, 2020.

Combining Statement of Changes in Fiduciary Net Position – This statement presents how the System's net position restricted for pension benefits, postemployment healthcare benefits, and individuals changed during the fiscal year ended June 30, 2020. This statement presents contributions and investment income during the period. Deductions for pension and postemployment healthcare benefits, refunds, and operating deductions are also presented.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Management's Discussion and Analysis (Unaudited)

June 30, 2020

The above statements represent resources available for investment and payment of benefits as of June 30, 2020, and the sources and uses of those funds during fiscal year 2020.

*Notes to Financial Statements* – The notes to financial statements are an integral part of the financial statements and provide additional detailed information and schedules that are essential to a full understanding of the System's financial statements.

Required Supplementary Information and Related Notes – The required supplementary information consists of 12 schedules and related notes concerning the funded status of the System and actuarial assumptions and methods used in the actuarial valuation.

Supplemental Schedules – Supplemental schedules include detailed information on administrative and investment deductions incurred by the System and payments to consultants (other than investment advisors) for professional services.

#### **Condensed Financial Information**

System net position (In thousands)

			Increase (		
Description	2020	2019	Amount	Percentage	2018
Assets:					
Cash and cash equivalents \$	193,689	370,358	(176,669)	(47.7)% \$	202,947
Contributions receivable	12,148	13,241	(1,093)	(8.3)	24,461
Due from State of Alaska General Fund	16,722	32,285	(15,563)	(48.2)	20,257
Other accounts receivable	137	3,773	(3,636)	(96.4)	249
Investments	19,195,879	18,734,141	461,738	2.5	18,361,435
Other assets	982	982	_		982
Total assets	19,419,557	19,154,780	264,777	1.4	18,610,331
Liabilities:					
Claims payable	35,336	44,369	(9,033)	(20.4)	45,677
Accrued expenses	2,977	11,455	(8,478)	(74.0)	4,292
Forfeiture payable to employers	653	2,164	(1,511)	(69.8)	35,173
Securities lending collateral payable	23,049	30,489	(7,440)	(24.4)	62,648
Total liabilities	62,015	88,477	(26,462)	(29.9)	147,790
Net position \$	19,357,542	19,066,303	291,239	1.5 % \$	18,462,541
_					· ·

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Management's Discussion and Analysis (Unaudited)

June 30, 2020

#### Condensed Financial Information (continued)

**Changes in system net position** (In thousands)

			-	Increase (		
Description		2020	2019	Amount	Percentage	2018
Net position, beginning of year	\$	19,066,303	18,462,541	603,762	3.3 % \$	17,557,277
Additions:						
Contributions – employers and						
plan members		770,926	744,612	26,314	3.5	702,576
Contributions – nonemployer						
State of Alaska		79,487	67,857	11,630	17.1	36,399
Net investment income		777,393	1,095,977	(318,584)	(29.1)	1,442,821
Employer Group Waiver Plan		33,212	7,076	26,136	369.4	_
Medicare Retiree Drug Subsidy		_	20,490	(20,490)	(100.0)	5,965
Pharmacy rebates		48,035	36,940	11,095	30.0	20,268
Other income	_	625	1,351	(726)	(53.7)	552
Total additions		1,709,678	1,974,303	(264,625)	(13.4)	2,208,581
Deductions:						
Pension and postemployment						
healthcare benefits		1,325,783	1,282,149	43,634	3.4	1,224,012
Refunds of contributions		59,891	60,610	(719)	(1.2)	54,854
Administrative	_	32,765	27,782	4,983	17.9	24,451
Total deductions	_	1,418,439	1,370,541	47,898	3.5	1,303,317
Increase in net position		291,239	603,762	(312,523)	51.8	905,264
Net position, end of year	\$	19,357,542	19,066,303	291,239	1.5 % \$	18,462,541

### Financial Analysis of the System

The statements of fiduciary net position as of June 30, 2020 and 2019 show net position restricted for pension benefits, postemployment healthcare benefits, and individuals of \$19,357,542,000 and \$19,066,303,000, respectively. The entire amount is available to cover the System's obligation to pay pension and postemployment healthcare benefits to its members and their beneficiaries, as well as administrative costs.

These amounts represent an increase in the System's net position restricted for pension benefits, postemployment healthcare benefits, and individuals of \$291,239,000 or 1.5%, from fiscal year 2019 to 2020 and of \$603,762,000 or 3.3%, from fiscal year 2018 to 2019. Over the long term, plan member, employer, and nonemployer contributions, as well as investment income earned, are anticipated to sufficiently fund the pension benefit and postemployment healthcare costs of the System.

During the 31st Alaska State Legislature and as part of the State's Fiscal Year 2020 Operating Budget, House Bill 39 appropriated \$159,055,000 from the General Fund and the Alaska Higher Education Investment Fund to the Department of Administration for deposit in the Defined Benefit Pension fund. The amount of the appropriation allocated to the State

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Management's Discussion and Analysis (Unaudited)

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as an employer is included in Contributions - Employer. The remaining appropriation is reported as Contributions - Nonemployer State of Alaska.

The investment of pension funds is a long-term undertaking. On an annual basis, the Alaska Retirement Management Board (the Board) reviews and adopts an asset allocation strategy to ensure the asset mix will remain at an optimal risk/return level given the System's constraints and objectives.

### System Asset Allocation

During fiscal years 2020 and 2019, the Board adopted the following asset allocation for the Defined Benefit Pension Plan (DB Plan), Alaska Retiree Healthcare Trust (ARHCT Plan), and Defined Contribution Retirement Pension Plan's (DCR Plan) retiree major medical insurance fund, health reimbursement arrangement fund, and occupational death and disability fund:

	2020		2019		
	Pension and Healthcare Trusts		Pension and Healt	hcare Trusts	
	Allocation	Range	Allocation	Range	
Broad domestic equity	26.0%	± 6%	24.0%	± 6%	
Global equity ex-U.S.	18.0	± 4	22.0	± 4	
Fixed income	24.0	± 10	10.0	± 5	
Opportunistic	8.0	± 4	10.0	± 5	
Real assets	13.0	± 7	17.0	± 8	
Absolute return	_		7.0	± 4	
Private equity	11.0	± 6	9.0	± 5	
Cash equivalents			1.0	+ 3/- 1	
Total	100.0%		100.0%		
Expected return 10-year geometric mean	N/A		6.60%		
Expected return 20-year geometric mean	7.13%		N/A		
Projected standard deviation	13.80		14.70		

For fiscal years 2020 and 2019, the DB Pension Plan's investments generated a 3.83% and 6.40% rate of return, respectively. For fiscal years 2020 and 2019, the Alaska Retiree Healthcare Trust Plan's investments generated a 3.90% and 6.44% rate of return, respectively.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Management's Discussion and Analysis (Unaudited)

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#### Contributions, Investment Income, and Other Additions

The additions required to fund retirement benefits are accumulated through a combination of employer and plan member contributions, State appropriation, investment income, and other additions as follows:

		Additions (In thousands)					
				Increase (decrease)			
		2020	2019	Amount	Percentage	2018	
Contributions – plan members	\$	183,638	179,604	4,034	2.2% \$	176,369	
Contributions – employers		587,288	565,008	22,280	3.9%	526,207	
Contributions – nonemployer							
State of Alaska		79,487	67,857	11,630	17.1	36,399	
Net investment income		777,393	1,095,977	(318,584)	(29.1)	1,442,821	
Employer group waiver plan		33,212	7,076	26,136	369.4	_	
Medicare retiree drug subsidy		_	20,490	(20,490)	(100.0)	5,965	
Pharmacy rebates		48,035	36,940	11,095	30.0	20,268	
Other income	_	625	1,351	(726)	(53.7)	552	
Total	\$	1,709,678	1,974,303	(264,625)	(13.4)% \$	2,208,581	

The System's employer contributions increased from \$565,008,000 in fiscal year 2019 to \$587,288,000 in fiscal year 2020, an increase of \$22,280,000 or 3.9%. The System's employer contributions increased from \$526,207,000 in fiscal year 2018 to \$565,008,000 in fiscal year 2019, an increase of \$38,801,000 or 7.4%. Employer contributions increases for fiscal year 2019 and 2020 are primarily due to underlaying salary increases.

The State provided \$79,487,000 and \$67,857,000 for fiscal years 2020 and 2019, respectively, in nonemployer contributions per Alaska Statute (AS) 39.35.280. The employer on-behalf amount (or additional State contributions as defined in AS 39.35.280) is calculated by the System's actuary. It is based on projected payroll and the difference between the actuarially determined contribution rate and the statutory effective rate. The employer effective contribution rate of 22.00% is established in AS 39.35.255(a).

The System's net investment income in fiscal year 2020 decreased by \$318,584,000 or 29.1% from amounts in fiscal year 2019. The System's net investment income in fiscal year 2019 decreased by \$346,844,000 or 24.0% from amounts in fiscal year 2018. Fiscal years 2020 and 2019 saw rates below the assumed rate of return. The investment returns received in fiscal year 2020 were lower than the returns seen in fiscal year 2019 due to market conditions, causing a decrease in returns in comparison to 2019. Over the long term, investment earnings play a significant role in funding plan benefits. The Board continues to look at investment classes and strategies best suited to meet the expected earnings returns to meet future benefit payments.

Effective January 1, 2019, the Division of Retirement and Benefits (the Division) implemented a group Medicare Part D prescription drug plan known as an enhanced Employer Group Waiver Plan (EGWP) for all Medicare-eligible members covered under the Plan. For fiscal year 2020, the Plan received \$33,212,000 in EGWP funds from the Center of Medicare

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Management's Discussion and Analysis (Unaudited)

June 30, 2020

and Medicaid Services (CMS) through the EGWP Plan Sponsor, OptumRx. For the period January 1 to June 30, 2019, the Plan received \$7,076,000 in EGWP funds from the Center of Medicare and Medicaid Services (CMS) through the EGWP Plan Sponsor, OptumRx.

The Plan also participates in the Medicare Part D retiree drug subsidy (RDS) program. A provision of Medicare Part D provides sponsors of postemployment healthcare funds the opportunity to receive an RDS payment if the sponsor's fund provides a prescription drug benefit that is actuarially equivalent to the Medicare Part D benefit. The RDS is equal to 28% of the amount of eligible prescription drug benefit costs of retirees who are eligible for, but not enrolled in, Medicare Part D, by virtue of continuing to be covered by the sponsor's fund. The Plan did not receive any RDS payments during fiscal year 2020 and \$20,490,000 in fiscal year 2019 due to the timing of filing for and receipt of the RDS.

Pharmacy rebates are reimbursed to the Plan by the third-party administrators. These rebates are recorded as revenue when received by the Plan. During fiscal year 2020, the Plan received \$48,035,000 compared to \$36,940,000 from fiscal year 2019 due to the timing of receipt of funds.

The DB Pension Plan's investment rates of return for the year ended June 30 were as follows:

	Year ended			
	2020	2019	2018	
Plan returns	3.83 %	6.40 %	9.61 %	
Broad domestic equity	2.62	8.41	15.21	
Global equity ex-U.S.	(3.59)	(0.08)	7.97	
Fixed income	7.31	6.34	(0.71)	
Opportunistic	0.52	7.21	5.64	
Real assets	2.06	6.08	7.56	
Absolute return	<del>_</del>	4.08	4.78	
Private equity	10.47	17.66	26.65	
Cash equivalents	_	2.50	1.51	
Actuarially assumed rate of return	7.38	7.38	8.00	

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Management's Discussion and Analysis (Unaudited)

June 30, 2020

The Alaska Retiree Healthcare Trust Plan's investment rates of return for the year ended June 30 were as follows:

	Year ended			
	2020	2019	2018	
Plan returns	3.90 %	6.44 %	9.66 %	
Broad domestic equity	2.62	8.41	15.23	
Global equity ex-U.S.	(3.59)	(0.09)	7.95	
Fixed income	7.37	6.34	(0.71)	
Opportunistic	0.51	7.20	5.63	
Real assets	2.36	6.20	7.66	
Absolute return	<del></del>	4.08	4.78	
Private equity	10.52	17.66	26.65	
Cash equivalents	_	2.50	1.58	
Actuarially assumed rate of return	7.38	7.38	8.00	

#### **Benefits and Other Deductions**

The primary deduction of the DB Plan is the payment of pension and other postemployment benefits, primarily healthcare. The primary deduction of the DCR Plan is the refund of contributions. These benefit payments, healthcare claims paid, refunds of contributions, and the cost of administering the System comprise the cost of operations as follows:

	<b>Deductions</b> (In thousands)					
			Increase (de	ecrease)		
	 2020	2019	Amount	Percentage	2018	
Pension benefits	\$ 885,252	837,381	47,871	5.7% \$	801,155	
Postemployment benefits	440,531	444,768	(4,237)	(1.0)	422,857	
Refunds of contributions	59,891	60,610	(719)	(1.2)	54,854	
Administrative	 32,765	27,782	4,983	17.9	24,451	
Total	\$ 1,418,439	1,370,541	47,898	3.5% \$	1,303,317	

The System's pension benefit payments in 2020 increased \$47,871,000 or 5.7% from fiscal year 2019 and increased \$36,226,000 or 4.5% from fiscal year 2018. The increase in pension benefits in fiscal year 2020 is the result of a continued increase in the number of retirees.

The System's postemployment healthcare benefit payments in fiscal year 2020 decreased \$4,237,000 or 1.0%, from fiscal year 2019 increased \$21,911,000 or 5.2%, from fiscal year 2018 to 2019. During fiscal year 2020, the System has seen a decrease in postemployment benefits as the number of retirees in the DB Plan continues to increase. The increase in retirees is offset by those retirees who transition over to Medicare due to age, and costs shift from the System to Medicare. The System continues to look at ways for cost containment while providing benefits applicable to the plan.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

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The System's refund of contributions decreased \$719,000 or 1.2%, from fiscal year 2019 to 2020 and increased \$5,756,000 or 10.5%, from fiscal year 2018 to 2019. The decrease in refunds is primarily in the DCR Plan, where refunds decreased \$352,000 between fiscal year 2019 to 2020 and increased \$6,840,000 between fiscal year 2018 to 2019. Changes in refunds are attributed to the refund of DCR member accounts. The System continues to look at ways to retain member contributions by emphasizing the low investment costs to members to maintain funds within the DCR Plan, with a number of investment options available.

Administrative deductions increased from 2019 to 2020 by \$4,983,000 or 17.9%. The increase is primarily the management and consulting fees paid related to the retirement system modernization project. The increase of \$3,331,000, or 13.6%, from fiscal year 2018 to 2019 is related to additional work by management consultants related to actuarial valuations and work related to the transition to EGWP on January 1, 2019.

## **Net Pension Liability**

Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Pension Plans, requires the DB Plan to report the total pension liability, fiduciary net position, and the net pension liability. The total pension liability represents the total obligation for the Plan's pension benefits related to costs incurred as a result of years of service, changes in benefit terms, changes in actuarial assumptions, and any differences between the actuarial assumptions and actual experience. The Plan's fiduciary net position represents the assets available to pay the Plan's future payment stream. The assets are derived from contributions received from participating employers, plan members, and nonemployer contributions, as well as investment earnings, less benefit payments during the year and the related costs to administer the Plan. The difference between the total pension liability and fiduciary net position is the net pension liability, or the unfunded portion of the total pension liability.

The components of the net pension liability of the participating employers were as follows (in thousands):

	 2020	2019
Total pension liability	\$ 15,370,337	14,963,635
Plan fiduciary net position	(9,469,161)	(9,489,405)
Employers' net pension liability	\$ 5,901,176	5,474,230
Plan fiduciary net position as a percentage of the total pension liability	61.61 %	63.42 %

#### Net OPEB (Asset) Liability

GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other than Penson Plans, requires the DB Other Postemployment Benefit (OPEB) Plans to report the total OPEB liability, fiduciary net position, and net OPEB liability for each plan. The total OPEB liability represents the total obligation for the Plan's postemployment healthcare benefits related to costs incurred as a result of years of service, changes in benefit terms, changes in actuarial assumptions, and any differences between the actuarial assumptions and actual experience. The Plan's fiduciary net position represents

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## Management's Discussion and Analysis (Unaudited)

June 30, 2020

the assets available to pay the OPEB Plan's future payment stream. The assets are derived from contributions received from participating employers, plan members, and nonemployer contributions, as well as investment earnings, less benefit payments during the year and the related costs to administer the Plans. The difference between the total OPEB liability and fiduciary net position is the net OPEB liability, or the unfunded or overfunded portion of the total OPEB liability.

The components of the net OPEB liability (asset) of the participating employers for the Plans as of June 30, 2020 were as follows (in thousands):

	_	Alaska Retiree Healthcare Trust Plan (ARHCT Plan)	Occupational Death and Disability (ODD Plan)	Retiree Medical Plan (RMP)	
Total OPEB liability Plan fiduciary net position	\$	7,360,653 (7,813,511)	14,831 (42,091)	148,662 (141,569)	
Employers' net OPEB liability (asset)	\$	(452,858)	(27,260)	7,093	
Plan fiduciary net position as a percentage of the total OPEB liability		106.15 %	283.80 %	95.23 %	

The components of the net OPEB liability (asset) of the participating employers for the Plans as of June 30, 2019 were as follows (in thousands):

	_	ARHCT Plan	ODD Plan	RMP	
Total OPEB liability	\$	7,916,072	12,280	142,162	
Plan fiduciary net position	_	(7,767,692)	(36,525)	(118,242)	
Employers' net OPEB liability (asset)	\$	148,380	(24,245)	23,920	
Plan fiduciary net position as a percentage of					
the total OPEB liability		98.13 %	297.43 %	83.17 %	

## **Funding**

Retirement benefits are financed by accumulations from employers, plan members, State nonemployer contributions, and income earned on System investments:

• The employer contribution rate is adopted and set by the Board annually based on actuarial determinations made by the System's consulting actuary as reviewed by the Board's contracted actuary. AS 39.35.255(a) sets the employer effective contribution rate at 22.00%. The difference between the actuarially determined contribution rate adopted by the Board and the statutory employer effective rate is paid by the State as a direct appropriation per AS 39.35.280.

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- AS 39.35.280 provides that additional State contributions are made each July 1 or soon after July 1 for the ensuing fiscal year that when combined with the total employer contributions are sufficient to pay the System's past service liability at the contribution rate adopted by the Board for that fiscal year.
- Plan member contributions are set by AS 39.35.160 for the DB Plan and AS 39.35.730 for the DCR Plan.
- The Board works with an external consultant to determine the proper asset allocation strategy.

## Legislation

During fiscal year 2020, the 31st Alaska State Legislature enacted one law that affects the System. Conference Committee Substitute First Special Session House Bill 205, Section 41(a), appropriates \$203.6 million from the General Fund to the Department of Administration for deposit in the System's defined benefit plan account as partial payment of the participating employers' contribution for fiscal year ending June 30, 2021.

This appropriation is to fund the difference between the statutory employer required contribution of 22% paid by participating employers for both defined benefit and defined contribution members and the actuarially determined contribution rate adopted by the Board for that fiscal year. This additional state contribution is specified in AS 39.35.280 – Additional State Contributions.

#### Economic Conditions, Future Contribution Rates, and Status of Unfunded Liability

Fiscal year 2020 had positive investment returns. Net investment income decreased from \$1,095,977,000 in fiscal year 2019, to \$777,393,000 in fiscal year 2020, a decrease of \$318,584,000 or 29.1%. The return on the System's investments was below the 7.38% actuarially assumed rate of return with the System's actual rate of return of 6.59% at June 30, 2020. The Board continues to work with its investment counsel and the Alaska Department of Revenue, Treasury Division, to diversify the portfolio of the System to maintain an optimal risk/return ratio.

The consulting actuary recommended an increase from the System's actuarially determined contribution rate of 27.58% in fiscal year 2019 to 28.62% in fiscal year 2020. The Board adopted the fiscal year 2020 actuarially determined contribution rate of 28.62%, which represented an increase of 1.04%. The statutory employer effective contribution rate remained at 22% for fiscal years 2020 and 2019.

The June 30, 2019 and 2018 actuarial valuation reports for the DB Plan reported funding ratios based on valuation assets of 78.4% and 76.9%, respectively, as well as unfunded liabilities of \$4.8 billion and \$5.15 billion, respectively.

For fiscal years 2019 and 2018, the DCR Plan's employer contribution rate was established by AS 39.35.255(a) at 22.00%. The DCR Plan's actuarially determined occupational death and disability rate was adopted by the Board for fiscal years 2020 and 2019 to be 0.72% and 0.76%, respectively, for peace officers/firefighters; and 0.26% and 0.26%, respectively, for all others. The DCR Plan retiree medical plan actuarially determined contribution rate was adopted by the Board for fiscal years 2020 and 2019 to be 1.32% and 0.94%, respectively.

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## Management's Discussion and Analysis (Unaudited)

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## Requests for Information

This financial report is designed to provide a general overview of the finances for all those with interest in the finances. Questions concerning any of the information provided in this report or requests for additional information should be addressed to:

State of Alaska Public Employees' Retirement System Division of Retirement and Benefits, Finance Section P.O. Box 110203 Juneau, Alaska 99811-0203

Questions concerning any of the investment information provided in this report or requests for additional investment information should be addressed to:

State of Alaska Department of Revenue, Treasury Division P.O. Box 110405 Juneau, Alaska 99811-0405

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## **Combining Statement of Fiduciary Net Position**

June 30, 2020

(With summarized financial information for June 30, 2019)

(In thousands)

			Oth	ner postemploym	ent benefit pla	ns		
	Defined	Defined	,	Occupational		Health		
	benefit	contribution	Alaska Retiree	death and	Retiree	reimbursement	System total	System total
	pension	pension	Healthcare Trust	disability	medical	arrangement	June 30, 2020	June 30, 2019
Assets:  Cash and cash equivalents:								
Short-term fixed-income pool	\$ 92,279	2,662	67,116	481	1,690	5,361	169,589	339,283
Empower money market fund –	0 )2,2/)	2,002	0,,110	101	1,000	3,501	10,,,00,	337,203
non-participant directed	_	1,051	_	_	_	_	1,051	586
Securities lending collateral	12,138	_	10,067	53	178	613	23,049	30,489
Total cash and cash equivalents	104,417	3,713	77,183	534	1,868	5,974	193,689	370,358
Receivables:								
Contributions	12,148	_	_	_	_	_	12,148	13,241
Due from State of Alaska General Fund	3,220	8,162	2,069	216	868	2,187	16,722	32,285
Other accounts receivable	137						137	3,773
Total receivables	15,505	8,162	2,069	216	868	2,187	29,007	49,299
Investments, at fair value:								
Fixed-income securities:								
Alternative Fixed Income Pool	290,484	_	241,381	1,284	4,313	14,826	552,288	_
Barclays Aggregate Bond Fund	1,449,452	_	1,204,374	6,407	21,513	73,955	2,755,701	_
Opportunistic Fixed Income Pool	307,489	_	255,512	1,359	4,565	15,693	584,618	_
U.S. Treasury Fixed Income Pool								1,873,352
Total fixed-income securities	2,047,425		1,701,267	9,050	30,391	104,474	3,892,607	1,873,352
Broad domestic equity:								
Large Cap Pool	2,369,546	_	1,969,003	10,476	35,182	120,938	4,505,145	3,621,803
Small Cap Pool	209,391		173,996	926	3,109	10,687	398,109	504,408
Total broad domestic equity	2,578,937		2,142,999	11,402	38,291	131,625	4,903,254	4,126,211
Global equity ex-U.S.:	1,471,536		1,222,791	6506	21,849	75,105	2,797,787	2 020 247
International Equity Pool	1,4/1,536	_	1,222,/91	6,506	21,849	/5,105	2,/9/,/8/	3,020,247
International Equity Small Cap Pool Emerging Markets Equity Pool	307,716	_	255,700	1,361	4,569	15,705	585,051	253,077 644,197
Total global equity ex-U.S.	1,779,252		1,478,491	7,867	26,418	90,810	3,382,838	3,917,521
Opportunistic:	1,//9,232		1,4/8,491	/,00/	20,418	90,810	3,302,030	3,917,321
Alternative Beta Pool	106,536	_	88,527	471	1,582	5,437	202,553	_
Alternative Equity Pool	101,493	_	84,337	449	1,507	5,180	192,966	885,227
Opportunistic Fixed Income Pool	101,423		64,557	447	1,507	5,180	1,72,700	484,429
Other Opportunities Pool	13,199	_	10,968	58	196	674	25,095	80,007
Tactical Allocation Strategies Pool	292,105	_	242,728	1,291	4,337	14,909	555,370	286,702
Total opportunistic	513,333		426,560	2,269	7,622	26,200	975,984	1,736,365
Private Equity Pool	1,166,939		969,682	5,159	17,326	59,558	2,218,664	1,880,043
Absolute Return Pool								1,028,881
Real assets:								
Real Estate Pools	474,697	_	395,445	2,104	7,066	24,289	903,601	1,009,300
Real Estate Investment Trust Pool	106,163	_	88,217	469	1,576	5,418	201,843	200,519
Infrastructure Private Pool	234,622	_	194,962	1,037	3,483	11,975	446,079	381,415
Infrastructure Public Pool	_	_	_	_	_	_	_	113,838
Master Limited Partnership Pool	_	_	_	_	_	_	_	366,914
Energy Pool	23,480	_	19,511	104	348	1,198	44,641	60,204
Farmland Pool	311,205	_	258,600	1,376	4,621	15,883	591,685	572,854
Timber Pool	126,091		104,777	557	1,872	6,436	239,733	244,103
Total real assets	1,276,258		1,061,512	5,647	18,966	65,199	2,427,582	2,949,147
Other investment funds:								
Participant directed at fair value:								
Collective investment funds	_	493,292	_	_	_	_	493,292	428,015
Pooled investment funds	_	825,612	_	_	_	_	825,612	745,642
Participant directed at contract value:								
Synthetic investment funds		76,046					76,046	48,964
Total other investment funds		1,394,950					1,394,950	1,222,621
Total investments	9,362,144	1,394,950	7,780,511	41,394	139,014	477,866	19,195,879	18,734,141
Other assets	15		967				982	982
Total assets	9,482,081	1,406,825	7,860,730	42,144	141,750	486,027	19,419,557	19,154,780
Liabilities:								
Claims payable			35,336	_	_	_	35,336	44,369
Accrued expenses	782	371	1,816	_	3	5	2,977	11,455
Forfeitures payable to employers		653		_	_		653	2,164
Securities lending collateral payable	12,138		10,067	53	178	613	23,049	30,489
Total liabilities	12,920	1,024	47,219	53	181	618	62,015	88,477
Net position restricted for								
pension benefits,  postemployment healthcare								
postemployment healthcare benefits, and individuals	\$ 9,469,161	1,405,801	7,813,511	42,091	141,569	485,409	19,357,542	19,066,303
veneral, and multividuals	- 2,102,101	1,100,001	7,013,711	12,071	111,505	105,405	17,077,772	17,000,000

See accompanying notes to financial statements.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Combining Statement of Changes In Fiduciary Net Position

Year ended June 30, 2020

(With summarized financial information for June 30, 2019)

(In thousands)

				Other postemployment benefit plans					
		Defined	Defined		Occupational		Health		
		benefit	contribution	Alaska Retiree	death and	Retiree	reimbursement	System total	System total
		pension	pension	Healthcare Trust	disability	medical	arrangement	June 30, 2020	June 30, 2019
Additions:									
Contributions:									
Employers	\$	350,028	62,715	107,298	4,387	17,846	45,014	587,288	565,008
Plan members		74,514	109,124	_	_	_	_	183,638	179,604
Nonemployer State of Alaska	_	79,487						79,487	67,857
Total contributions		504,029	171,839	107,298	4,387	17,846	45,014	850,413	812,469
Investment income:									
Net appreciation in fair value		261,863	55,335	221,506	1,176	3,961	13,608	557,449	844,321
Interest		43,895	165	35,233	176	576	2,020	82,065	50,167
Dividends		100,129	_	83,476	414	1,364	4,781	190,164	270,305
Total investment income		405,887	55,500	340,215	1,766	5,901	20,409	829,678	1,164,793
Less investment expense		28,074	746	22,307	109	359	1,265	52,860	70,048
Net investment income before									
securities lending activities		377,813	54,754	317,908	1,657	5,542	19,144	776,818	1,094,745
Securities lending income	_	383		312	1	5	18	719	1,501
Less securities lending expense		77	_	62	_	1	4	144	269
Net income from securities	_								
lending activities		306	_	250	1	4	14	575	1,232
Net investment income	_	378,119	54,754	318,158	1,658	5,546	19,158	777,393	1,095,977
Other income:							·		
Employer Group Waiver Plan		_	_	33,177	_	35	_	33,212	7,076
Medicare retiree drug subsidy		_	_	_	_	_	_	_	20,490
Pharmacy rebates		_	_	48,006	_	29	_	48,035	36,940
Miscellaneous income		148	19	458	_	_	_	625	1,351
Total other income		148	19	81,641		64		81,872	65,857
Total additions		882,296	226,612	507,097	6,045	23,456	64,172	1,709,678	1,974,303
Deductions:	_								
Pension and postemployment benefits		885,252	_	439,785	479	98	169	1,325,783	1,282,149
Refunds of contributions		10,271	49,620	_	_	_	_	59,891	60,610
Administrative		7,017	4,225	21,493	_	27	3	32,765	27,782
Total deductions	_	902,540	53,845	461,278	479	125	172	1,418,439	1,370,541
Net increase (decrease)	_	(20,244)	172,767	45,819	5,566	23,331	64,000	291,239	603,762
Net position restricted for pension benefits,									
postemployment healthcare benefits,									
and individuals:									
Balance, beginning of year		9,489,405	1,233,034	7,767,692	36,525	118,238	421,409	19,066,303	18,462,541
Balance, end of year	\$	9,469,161	1,405,801	7,813,511	42,091	141,569	485,409	19,357,542	19,066,303

See accompanying notes to financial statements.

#### State of Alaska

Public Employees' Retirement System (A Component Unit of the State of Alaska)

#### Notes to Financial Statements

June 30, 2020

#### (1) Description

The State of Alaska Public Employees' Retirement System (PERS or the System) is a component unit of the State of Alaska (the State). The System is administered by the Division of Retirement and Benefits within the Department of Administration. Benefit and contribution provisions are established by State law and may be amended only by the State legislature. The Alaska Retirement Management Board (the Board) is responsible for overseeing the management and investment of the System. The Board consists of nine trustees as follows, two trustees consisting of the commissioner of administration and the commissioner of revenue, two trustees who are members of the general public, one trustee who is employed as a finance officer for a political subdivision participating in either the PERS or Teachers' Retirement System (TRS), two trustees who are PERS members, and two trustees who are TRS members.

PERS acts as the common investment and administrative agency for the following multiple-employer plans:

Plan name	Type of plan
Defined Benefit Pension Plan	Cost-sharing, Defined Benefit Pension
Defined Contribution Pension Plan	Defined Contribution Pension
Defined Benefit Other Postemployment Benefits (OPEB)	
Alaska Retiree Healthcare Trust (ARHCT) Plan	Cost-sharing, Defined Benefit OPEB
Occupational Death and Disability (ODD) Plan	Cost-sharing, Defined Benefit OPEB
Retiree Medical Plan (RMP)	Cost-sharing, Defined Benefit OPEB
Defined Contribution Other Postemployment Benefits	
Healthcare Reimbursement Arrangement Plan	Defined Contribution OPEB

At June 30, 2020, the number of participating local government employers and public organizations, including the State, was as follows:

	Defined Benefit Pension	Defined Contribution Pension	OPEB plans
State of Alaska	1	1	1
Municipalities	72	73	73
School districts	52	52	52
Other	26	26	26
Total employers	151	152	152

Inclusion in the plans is a condition of employment for eligible State employees, except as otherwise provided for judges, elected officers, and certain employees of the Alaska Marine Highway System. Any local government in the State may elect to have its permanent general and peace officer and firefighter employees covered by the System.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

### Notes to Financial Statements

June 30, 2020

#### Defined Benefit Pension Plan

#### (a) General

The Defined Benefit Pension (DB) Plan provides pension benefits for eligible State and local government employees. Benefit and contribution provisions are established by State law and may be amended only by the State Legislature. With the passage of Senate Bill 141, the DB Plan is closed to all new members effective July 1, 2006.

The DB Plan's membership consisted of the following at June 30, 2020:

Inactive plan members or beneficiaries currently receiving benefits	36,140
Inactive plan members entitled to but not yet receiving benefits	7,208
Inactive plan members not entitled to benefits	10,575
Active plan members	11,162
Total DB Plan membership	65,085

#### (b) Pension Benefits

Members hired prior to July 1, 1986, with five or more paid-up years of credited service, are entitled to monthly pension benefits beginning at normal retirement age, 55, or early retirement age, 50. For members first hired after June 30, 1986, the normal and early retirement ages are 60 and 55, respectively. Members with 30 or more years of credited service (20 years for peace officers and firefighters) may retire at any age and receive a normal benefit.

The normal monthly pension benefit is based on years of service and average monthly compensation. For members hired prior to July 1, 1996, and all peace officers and firefighters, the average monthly compensation is based upon the members' three highest, consecutive years' salaries. For all other members hired after June 30, 1996, average monthly compensation is based upon the members' five highest, consecutive years' salaries.

The benefit related to all years of service prior to July 1, 1986, and for years of service through a total of 10 years for general members, is equal to 2.00% of the member's average monthly compensation for each year of service. The benefit for each year over 10 years of service subsequent to June 30, 1986 is equal to 2.25% of the member's average monthly compensation for the second 10 years and 2.50% for all remaining years of service. For peace officers and firefighters, the benefit for years of service through a total of 10 years is equal to 2.00% of the member's average monthly compensation and 2.50% for all remaining years of service.

Minimum benefits for members eligible for retirement are \$25 per month for each year of credited service.

Married members must receive their benefits in the form of a joint and survivor annuity unless their spouse consents to another form of benefit or another person is eligible for benefits under a qualified domestic relations order.

#### State of Alaska

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## **Notes to Financial Statements**

June 30, 2020

The DB Plan has two types of postretirement pension adjustments (PRPA). The automatic PRPA is issued annually to all eligible benefit recipients, when the cost of living increases in the previous calendar year. The automatic PRPA increase is paid beginning July 1 of each year. The discretionary PRPA may be granted to eligible recipients by the DB Plan's administrator if the funding ratio of the DB Plan meets or exceeds 105%. If both an automatic and discretionary PRPA are granted, and a retiree is eligible for both adjustments, the one that provides the retiree the greater increase will be paid.

#### (c) Contributions

Contribution requirements of the active plan members and the participating employers are actuarially determined and approved by the Board as an amount that, when combined, is expected to finance the costs of benefits earned by plan members during the year, with an additional amount to finance any unfunded accrued liability. The DB Plan's members' contribution rates are 7.50% for peace officers and firefighters, 9.60% for some school district employees, and 6.75% for general DB Plan members, as required by statute. The statutory employer effective rate is 22.00% of annual payroll, which for fiscal year 2020 is allocated 15.72% to the DB Pension Plan and 6.28% to the DB ARHCT Plan as determined by the actuary of the Plan. Alaska Statute (AS) 39.35.280 provides that the State, as a nonemployer contributing entity, contributes each July 1, or as soon after July 1 for the ensuing fiscal year, an amount that when combined with the total employer contributions is sufficient to pay the System's past service liability at the actuarially determined contribution rate adopted by the Board for that fiscal year. Additionally, there is a Defined Benefit Unfunded Liability (DBUL) amount levied against the Defined Contribution Retirement Pension (DCR) Plan payroll. The DBUL amount is computed as the difference between:

- (A) The amount calculated for the statutory employer contribution rate of 22.00% on eligible salary less
- (B) The total of the employer contributions for:
  - (1) The defined contribution employer matching amount
  - (2) Major medical
  - (3) Occupational death and disability
  - (4) Health reimbursement arrangement.

The difference is deposited based on an actuarial allocation into the DB Plan's pension and healthcare funds.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

### Notes to Financial Statements

June 30, 2020

#### (d) Refunds

DB Plan member contributions may be voluntarily or, under certain circumstances, involuntarily refunded to the member or a garnishing agency 60 days after termination of employment. Voluntary refund rights are forfeited on July 1 following the member's 75th birthday or within 50 years of the member's last termination date. Members who have had contributions refunded forfeit all retirement benefits, including postemployment healthcare benefits. Members are allowed to reinstate refunded service due to involuntary refunds by repaying the total involuntary refunded balance and accrued interest. Members are allowed to reinstate voluntarily refunded service by repaying the voluntarily refunded balance and accrued interest, as long as they reestablish an employee relationship with a participating DB Plan employer before July 1, 2010. Members who have not reestablished an employee relationship with a participating DB Plan employer by June 30, 2010 will not be eligible to reinstate voluntarily refunded service and will forfeit any claim to DB Plan membership rights. Balances previously refunded to members accrue interest at the rate of 7.0% per annum, compounded semiannually.

#### Defined Contribution Retirement Pension Plan

#### (a) General

The DCR Plan provides retirement benefits for eligible employees hired after July 1, 2006. Additionally, certain active members of the DB Plan were eligible to transfer to the DCR Plan if that member had not vested in the DB Plan. Benefit and contribution provisions are established by State law and may be amended only by the State Legislature.

At June 30, 2020, membership in the DCR Plan consisted of 2,235 peace officer and firefighter members and 21,243 other members.

#### (b) Retirement Benefits

A participating member is immediately and fully vested in that member's contributions and related earnings (losses). A member shall be fully vested in the employer contributions made on that member's behalf, and related earnings (losses), after five years of service. A member is partially vested in the employer contributions made on that member's behalf, and the related earnings, in the ratio of (a) 25% with two years of service; (b) 50% with three years of service; (c) 75% with four years of service; and (d) 100% with five years of service.

#### (c) Contributions

State statutes require an 8.0% contribution rate for DCR Plan members. Employers are required to contribute 5.0% of the member's compensation.

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#### Notes to Financial Statements

June 30, 2020

#### (d) Participant Distributions and Refunds of Contributions

A member is eligible to request a refund of contributions from their account 60 days after termination of employment.

#### (e) Participant Accounts

Participant accounts under the DCR Plan are self-directed with respect to investment options.

Each participant designates how contributions are to be allocated among the investment options. Each participant's account is credited with the participant's contributions and the appreciation or depreciation in unit value for the investment funds.

Record-keeping/administrative fees consisting of a fixed amount, applied in a lump sum each calendar year, and a variable amount, applied monthly, are deducted from each participant's account and applied pro rata to all the funds in which the employee participates. This fee is for all costs incurred by the record keeper and by the State. The investment management fees are netted out of the funds' performance.

#### Defined Benefit Other Postemployment Benefit Plans

#### (a) Alaska Retiree Healthcare Trust Plan

Beginning July 1, 2007, the ARHCT Plan, a healthcare trust fund of the State, was established. The ARHCT Plan is self-funded and provides major medical coverage to retirees of the DB Plan. The System retains the risk of loss of allowable claims for eligible members. The ARHCT Plan began paying member healthcare claims on March 1, 2008. Prior to that, healthcare claims were paid for by the Retiree Health Fund.

Membership in the plan consisted of the following at June 30, 2020:

Inactive plan members or beneficiaries currently receiving benefits	36,140
Inactive plan members entitled to but not yet receiving benefits	7,208
Inactive plan members not entitled to benefits	10,575
Active plan members	11,162
Total ARHCT Plan membership	65,085

#### (i) OPEB Benefits

Major medical benefits to cover medical expenses are provided to retirees and their surviving spouses at no premium cost for all members hired before July 1, 1986 (Tier 1), and disabled retirees. Members hired after June 30, 1986 (Tier 2), and their surviving spouses with 5 years of credited service (or 10 years of credited service for those first hired after June 30, 1996 [Tier 3]) must pay the full monthly premium if they are under

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#### **Notes to Financial Statements**

June 30, 2020

age 60 and will receive benefits at no premium cost if they are over age 60. Tier 3 members with between 5 and 10 years of credited service must pay the full monthly premium regardless of their age. Tier 2 and Tier 3 members with less than 5 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 25 years of peace officer membership service and all other members and their surviving spouses with 30 years of membership service receive benefits at no premium cost, regardless of their age or date of hire. Peace officers/firefighters who are disabled between 20 and 25 years must pay the full monthly premium.

#### (ii) Contributions

Employer contribution rates are actuarially determined and adopted by the Board. The 2018 statutory employer effective contribution rate is 22.00% of member's compensation, with 4.88% specifically allocated to ARHCT Plan.

#### (b) Occupational Death and Disability Plan

The Occupational Death and Disability Plan (ODD) provides death benefits for beneficiaries of plan participants and long-term disability benefits to all active members within the System. Members in the Death and Disability Plan consisted of the following at June 30, 2020:

Active plan members	23,378
Participating employers	152
Open claims	65

#### (i) Death Benefits

If (1) the death of an employee occurs before the employee's retirement and before the employee's normal retirement date, (2) the proximate cause of death is a bodily injury sustained or a hazard undergone while in the performance and within the scope of the employee's duties, and (3) the injury or hazard is not the proximate result of willful negligence of the employee, then a monthly survivor's pension shall be paid to the surviving spouse. If there is no surviving spouse or if the spouse later dies, the monthly survivor's pension shall be paid in equal parts to the dependent children of the employee.

If an active general DB Plan member dies from occupational causes, the spouse may receive a monthly pension equal to 40% of the DB Plan's member's salary. If an active peace officer or firefighter DB Plan member dies from occupational causes, the spouse may receive a monthly pension equal to 50% of the DB Plan's member's salary or 75% of the member's retirement benefit calculated as if the member had survived until normal retirement age, whichever is greater. When death is due to occupational causes

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## **Notes to Financial Statements**

June 30, 2020

and there is no surviving spouse, the DB Plan's member's dependent child(ren) may receive the monthly pension until they are no longer dependents. If the member does not have a spouse or dependent children at the time of death, a lump-sum death benefit is payable to the named beneficiary(ies). The amount of the occupational death pension changes on the date the DB Plan member's normal retirement would have occurred if the DB Plan member had lived. The new benefit is based on the DB Plan member's average monthly compensation at the time of death and the credited service, including service that would have accrued if the DB Plan member had lived and continued to work until normal retirement. If the death was from nonoccupational causes and the DB Plan member was vested, the spouse may receive a monthly 50% joint and survivor option benefit based on the member's credited service and average monthly compensation at the time of death. If the DB Plan member is not married or vested, a lump-sum death benefit is payable to the named beneficiary(ies).

The monthly survivor's pension benefit for survivors of DCR Plan employees who were not peace officers or firefighters is 40% of the employee's monthly compensation in the month in which the employee dies. The monthly survivor's pension for survivors of employees who were peace officers or firefighters is 50% of the monthly compensation in the month in which the employee dies. While the monthly survivor's pension is being paid, the employer shall make contributions on behalf of the employee's beneficiaries based on the deceased employee's gross monthly compensation at the time of occupational death.

#### (ii) Disability Benefits

Active DB Plan members who become permanently disabled due to occupational or nonoccupational causes receive disability benefits until normal retirement age, or when the service requirement for normal retirement is met. Although there are no minimum service requirements for DB Plan members to be eligible for occupational disability, DB Plan members must be vested to receive nonoccupational disability benefits. The monthly occupational disability benefit is equal to 40% of the DB Plan's salary at the time of the disability. The nonoccupational disability benefit is based on the DB Plan member's service and salary at the time of disability. At normal retirement age, a disabled general DB Plan member receives normal retirement benefits. A peace officer or firefighter DB Plan member may elect to receive normal retirement benefits calculated under the occupational disability benefit rules.

A DCR Plan member is eligible for an occupational disability benefit if employment is terminated because of a total and apparently permanent occupational disability before the member's normal retirement date. The occupational disability benefits accrue beginning the first day of the month following termination of employment as a result of the disability and are payable the last day of the month. If a final determination granting the benefit is not made in time to pay the benefit when due, a retroactive payment shall be made to cover the period of deferment.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

#### Notes to Financial Statements

June 30, 2020

#### (iii) Contributions

An employer shall contribute to each member's account based on the member's compensation. For fiscal year 2020, the rates are 0.72% for occupational death and disability for peace officers and firefighters and 0.26% for occupational death and disability for all other members.

#### (c) Retiree Medical Plan

The RMP is established under AS 39.35.880 – Medical Benefits. The Department of Administration, Division of Retirement and Benefits, which administers the System's health plans, finalized the Retiree Medical Plan for members eligible for the DCR Plan's health benefits plan in July 2016. The RMP provides major medical coverage to retirees of the DCR Plan. The RMP is self-insured. Members are not eligible to use the plan until they have at least 10 years of service and are Medicare age eligible.

Membership in the RMP was as follows at June 30, 2020:

Inactive plan members or beneficiaries currently receiving benefits	46
Inactive plan members entitled to but not yet receiving benefits	1,717
Inactive plan members not entitled to benefits	14,643
Active plan members	23,378
Total RMP membership	39,784

#### (i) OPEB Benefits

The medical benefits available to eligible persons means that an eligible person may not be denied medical coverage except for failure to pay the required premium. Major medical coverage, to cover medical expenses, takes effect on the first day of the month following the date of the RMP administrator's approval of the election and stops when the person who elects coverage dies or fails to make the required premium payment. The coverage for persons 65 years of age or older is the same as that available for persons under 65 years of age. The benefits payable to those persons 65 years of age or older supplement any benefits provided under the federal old age, survivors, and disability insurance program. The medical and optional insurance premiums owed by the person who elects coverage may be deducted from the health reimbursement arrangement account until the account balance becomes insufficient to pay the premiums; at this time, the person who elects coverage shall pay the premiums directly.

The cost of premiums for retiree major medical coverage for an eligible member or surviving spouse who is:

- (1) Not eligible for Medicare is an amount equal to the full monthly group premium for retiree major medical insurance coverage,
- (2) Eligible for Medicare is the following percentage of the premium:

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#### Notes to Financial Statements

June 30, 2020

- (a) 30% if the member had 10 or more, but less than 15, years of service
- (b) 25% if the member had 15 or more, but less than 20, years of service
- (c) 20% if the member had 20 or more, but less than 25, years of service
- (d) 15% if the member had 25 or more, but less than 30, years of service
- (e) 10% if the member had 30 or more years of service.

#### (ii) Contributions

Employer contribution rates are actuarially determined and adopted by the Board. The 2020 employer effective contribution rate is 1.32% of member's compensation.

#### **Defined Contribution Other Postemployment Benefit Plan**

#### (a) General

The Health Reimbursement Arrangement (HRA) Plan is established under AS 39.30.300. The Department of Administration, Division of Retirement and Benefits administers the System's health plans. The HRA Plan allows for medical care expenses to be reimbursed from individual savings accounts established for eligible persons. The HRA Plan became effective July 1, 2006, at which time contributions by employers began.

Membership in the plan was as follows as of June 30, 2020:

Inactive plan members or beneficiaries currently receiving benefits	63
Inactive plan members entitled to but not yet receiving benefits	1,717
Inactive plan members not entitled to benefits	14,643
Active plan members	23,378
Total HRA Plan membership	39,801

#### (b) OPEB Benefits

Persons who meet the eligibility requirements of AS 39.35.870 are eligible for reimbursements from the individual account established for a member under the HRA Plan but do not have to retire directly from the System.

The Plan Administrator may deduct the cost of monthly premiums from the HRA individual account for the RMP insurance on behalf of an eligible person who elected the retiree major medical insurance under AS 39.35.880. Upon application of an eligible person, the HRA Plan administrator shall reimburse the costs for medical care expenses defined in 26 USC 213(d). Reimbursement is limited to the medical expenses of (1) an eligible member, the spouse of an eligible member, and the dependent children of an eligible member; or (2) a

Public Employees' Retirement System (A Component Unit of the State of Alaska)

#### **Notes to Financial Statements**

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surviving spouse and the dependent children of an eligible member dependent on the surviving spouse. When the member's individual account balance is exhausted, any deductions from the HRA individual account end. If all eligible persons die before exhausting the member's individual account, the account balance reverts to the HRA Plan.

#### (c) Contributions

An employer shall contribute to the HRA Plan trust fund an amount equal to 3.00% of the average annual compensation of all employees of all employers in the TRS and PERS. The administrator maintains a record of each member to account for employer contributions on behalf of that member. The 2020 contribution amount was an annual contribution not to exceed \$2,121.60 and required for every pay period in which the employee is enrolled in the DCR Plan, regardless of the compensation paid during the year. An amount less than \$2,121.60 would be deposited to a member's account if that member worked less than a full year.

#### (2) Summary of Significant Accounting Policies

#### (a) Basis of Accounting

The accompanying financial statements have been prepared using the economic resources measurement focus and on the accrual basis of accounting in conformity with U.S. generally accepted accounting principles (GAAP), as prescribed by the Governmental Accounting Standards Board (GASB). Contributions are due to the System when employee services have been performed and paid. Contributions are recognized as revenue when due pursuant to statutory requirements. Benefits and refunds are recognized when due and payable and expenses are recorded when the corresponding liabilities are incurred, regardless of when contributions are received, or payment is made.

#### (b) Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions during the reporting period. Actual results could differ from those estimates.

#### (c) Defined Benefit Pension and OPEB Investments

The System owns shares in various investment pools that are administered by the State of Alaska, Department of Revenue, Division of Treasury (Treasury). The System's investment in the pools, except for the short-term fixed-income pool, is reported at fair value based on the net asset value reported by the Treasury. The short-term fixed-income pool maintains a share price of \$1. Each participant owns shares in the pool, the number of which fluctuates daily with contributions and withdrawals.

#### State of Alaska

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#### Notes to Financial Statements

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#### (d) Defined Contribution Participant – Directed Investments

The Board contracts with an external investment manager, through the Treasury, who is given the authority to invest in a wholly owned pooled environment to accommodate 13 participant-directed funds. Additionally, the Board contracts with external managers who manage a mix of collective investment funds. Income for the pooled investment and collective investment funds is credited to the fund's net asset value on a daily basis and allocated to pool participants daily on a pro rata basis.

Pooled participant-directed investment funds, held in trust, are stated at fair value based on the unit value as reported by the Trustees multiplied by the number of units held by the DCR Plan. The unit value is determined by the Trustees based on fair value of the underlying assets. Purchases and sales of securities are recorded on a trade-date basis. Underlying assets comprise domestic and international stocks, investment-grade bonds, federally guaranteed mortgages, money market instruments, and other cash equivalent instruments with maturities of less than one year, which include but are not limited to commercial paper, asset-backed securities, banker acceptances, certificates of deposit with ratings of A1/P1 or better as well as obligations of the U.S. government and its agencies, and repurchase agreements collateralized by U.S. Treasury instruments.

Collective Investment Funds, held in trust, are stated at fair value based on the unit value as reported by the Trustees multiplied by the number of units held by the DCR Plan. The unit value is determined by the Trustees based on fair value of the underlying assets. Purchases and sales of securities are recorded on a trade-date basis. Underlying assets comprised commingled investment funds, alongside other investors, through ownership of equity shares.

Synthetic Investment Contracts (SICs) are included in the Plan's statements at contract value. The Board's investment manager entered into the investment contracts, on behalf of the Board, with four financial institutions who provide wrap contracts that cover separately managed SIC portfolios. The accounts are credited with earnings and investment deposits, less administrative expenses charged by the financial institutions and investment withdrawals. They are fully benefit-responsive. There are no reserves against contract value for the credit risk of the contract issuer or otherwise. The crediting interest rate is based on the approximate rate of interest that will amortize differences between contract and market value over the portfolio's average duration.

#### (e) Contributions Receivable

Contributions from the System's members and employers applicable to payrolls received during July for wages paid for service through June 30 are accrued. These contributions are considered fully collectible, and accordingly, no allowance for uncollectible receivables is reflected in the financial statements.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

### Notes to Financial Statements

June 30, 2020

#### (f) Administrative Costs

Administrative costs are paid from contributions. The Board has established a funding policy objective that the required contributions be sufficient to pay the plan administrative expenses, normal costs, and past service costs.

#### (g) Other Income

Other income consists of Medicare Part D Retiree Drug Subsidy (RDS) rebates, Employer Group Waiver Plan (EGWP) rebates, pharmacy rebates, and other miscellaneous items. The RDS are rebates provided to the plan sponsor. The State has elected to voluntarily put the RDS back into the trust and are treated as a contribution for purposes of calculating the net OPEB liability. The EGWP and pharmacy rebates are provided to the plan through the third-party administrators and are treated as a reduction to the benefit payments for purposes of calculating the net OPEB liability. RDS, EGWP, and pharmacy rebates are recognized on a cash basis.

#### (b) Due from State of Alaska General Fund

Amounts due from the State of Alaska General Fund represent the amounts remitted by employers to the General Fund but not yet transmitted to the System.

#### (i) Federal Income Tax Status

The DB Plan and DCR Plan are qualified plans under Sections 401(a) and 414(d) of the Internal Revenue Code and are exempt from federal income taxes under Section 501(a).

#### (3) Investments

The Board is the investment oversight authority of the System's investments. As the fiduciary, the Board has the statutory authority to invest assets under the Prudent Investor Rule. Fiduciary responsibility for the Board's invested assets is pursuant to AS 37.10.210-390.

AS 37.10.071 provides that investments shall be made with the judgment and care under circumstances then prevailing that an institutional investor of ordinary professional prudence, discretion, and intelligence exercises in managing large investment portfolios.

Treasury provides staff for the Board. Treasury has created a pooled environment by which it manages investments of the Board. Additionally, Treasury manages a mix of pooled investment funds, collective investment funds and SICs for the DCR participant-directed pension plans under the Board's fiduciary responsibility.

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Actual investing is performed by investment officers in Treasury or by contracted external investment managers. The Board has developed investment guidelines, policies, and procedures for Treasury staff and external investment managers to adhere to when managing investments. Treasury manages the U.S. Treasury Fixed-Income Pool, Real Estate Investment Trust Pool, Treasury Inflation-Protected Securities Pool, in addition to acting as oversight manager for all externally managed investments. All other investments are managed by external management companies.

The short-term fixed-income pool is a State pool managed by Treasury that holds investments on behalf of the Board as well as other State funds.

#### Rate of Return

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. The annual money-weighted rate of return, net of investment expense, for the year ended June 30, 2020 for the DB Pension Plan is 4.03%, for the ARHCT Plan is 4.16%, for the ODD Plan is 4.28%, and for the RMP is 4.33%.

For additional information on securities lending, interest rate risk, credit risk, foreign exchange, derivatives, fair value, and counterparty credit risk, see the separately issued report on the Invested Assets of the State of Alaska Retirement and Benefits Plans at http://treasury.dor.alaska.gov/armb/Reports-and-Policies/Annual-Audited-Financial-Schedules.aspx.

#### (4) Net Pension Liability - Defined Benefit Pension Plan

The components of the net pension liability of the participating employers at June 30, 2019 were as follows (in thousands):

Total pension liability Plan fiduciary net position	\$ 15,370,337 (9,469,161)
Employers' net pension liability	\$ 5,901,176
Plan fiduciary net position as a percentage of the total pension liability	61.61%

Public Employees' Retirement System (A Component Unit of the State of Alaska)

### Notes to Financial Statements

June 30, 2020

#### (a) Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of June 30, 2019, using the following actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2020:

Inflation 2.50% per year

Salary increases For peace officer/firefighter, increases range from 7.75% to 2.75% based

on service. For all others, increases range from 6.75% to 2.75% based

on service.

Investment rate of return 7.38%, net of pension plan investment expenses. This is based

on an average inflation rate of 2.50% and a real return of 4.88%.

Mortality Pre-commencement and post-commencement mortality rates were

based upon the 2013–2017 actual mortality experience. Precommencement mortality rates were based on 100% of the RP-2014 employee table, benefit-weighted, rolled back to 2006,

and projected with MP-2017 generational improvement.

Post-commencement mortality rates were based

on 91% of male and 96% of female rates of the RP-2014 healthy annuitant table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement. Deaths are assumed to be occupational 75% of the time for peace

officer/firefighters, 40% of the time for all others.

The actuarial assumptions used in the June 30, 2019 actuarial valuation were based on the results of an actuarial experience study for the period from July 1, 2013 to June 30, 2017. As a result of this experience study, the Board adopted updated actuarial assumptions for the June 30, 2018 actuarial valuation to better reflect expected future experience. The assumptions used in the June 30, 2019 actuarial valuation are the same as those used in the June 30, 2018 valuation, except the amount included in the Normal Cost for administrative expenses was updated to reflect the most recent two years of actual administrative expenses paid from DB Pension Plan assets.

#### State of Alaska

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## **Notes to Financial Statements**

June 30, 2020

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return, excluding the inflation component of 2.36%, for each major asset class included in the pension plan's target asset allocation as of June 30, 2020 are summarized in the following table:

Asset class	Long-term expected real rate of return
Broad domestic equity	6.24%
Global equity (non-U.S.)	6.67
Aggregate bonds	(0.16)
Opportunistic	3.01
Real assets	3.82
Private equity	10.00
Cash equivalents	(1.09)

#### (b) Discount Rate

The discount rate used to measure the total pension liability was 7.38%. The projection of cash flows used to determine the discount rate assumed that employer and State contributions will continue to follow the current funding policy, which meets State statutes. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability in accordance with the method prescribed by GASB Statement No. 67. In the event benefit payments are not covered by the plan's fiduciary net position, a municipal bond rate would be used to discount the benefit payments not covered by the plan's fiduciary net position. The S&P Municipal Bond 20-Year High Grade Index rate was 2.66% as of June 30, 2020.

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## **Notes to Financial Statements**

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#### (c) Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the System, as of June 30, 2020, calculated using the discount rate of 7.38%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is one-percentage-point lower or one-percentage-point higher than the current rate (in thousands):

		1.00%	Current	1.00%	
		decrease	discount rate	increase	
	_	(6.38%)	(7.38%)	(8.38%)	
Net pension liability	\$	7,672,776	5,901,176	4,415,297	

#### (5) Net OPEB Liability (Asset)

The components of the net OPEB liability (asset) of the participating employers for each plan at June 30, 2020 were as follows (in thousands):

	_	ARHCT Plan	ODD Plan	RMP
Total OPEB liability	\$	7,360,653	14,831	148,662
Plan fiduciary net position		(7,813,511)	(42,091)	(141,569)
Employers' net OPEB (asset) liability	\$	(452,858)	(27,260)	7,093
Plan fiduciary net position as a percentage of the total OPEB liability	_	106.15%	283.80%	95.23%

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#### Notes to Financial Statements

June 30, 2020

#### (a) Actuarial Assumptions

The total OPEB liability for each plan was determined by actuarial valuations as of June 30, 2019, using the following actuarial assumptions, applied to all periods in the measurement, and rolled forward to the measurement date of June 30, 2020:

Inflation 2.50% per year

Salary increases Graded by service, from 7.75% to 2.75% for peace officer/firefighter

Graded by service, from 6.75% to 2.75% for all others

Investment rate of return 7.38%, net of postretirement healthcare plan investment expenses.

This is based on an average inflation rate of 2.50% and a real

return of 4.88%.

Healthcare cost trend rates Pre-65 medical: 7.0% grading down to 4.5% (ARHCT Plan and RMP) Post-65 medical: 5.4% grading down to 4.5%

Post-65 medical: 5.4% grading down to 4.5% Prescription drug: 8.0% grading down to 4.5%

EGWP: 8.0% grading down to 4.5%

Mortality

(ARHCT Plan, ODD Plan

and RMP)

Pre-commencement and post-commencement mortality rates were based upon the 2013–2017 actual mortality experience. Post-commencement mortality rates were based on 91% of the male rates and 96% of the female rates of the RP-2014 healthy annuitant table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement. The rates for pre-commencement mortality were 100% of the RP-2014 employee table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement.

(ODD Plan) Deaths are assumed to be occupational 75% of the time for peace

officers/firefighters, 40% of the time for all others. Disability mortality in accordance with the RP-2014 Disabled Table, benefit-weighted, rolled back to 2006, and projected with

MP-2017 generational improvement.

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#### **Notes to Financial Statements**

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The actuarial assumptions used in the June 30, 2019 actuarial valuation were based on the results of an actuarial experience study for the period from July 1, 2013 to June 30, 2017. As a result of this experience study, the Board adopted updated actuarial assumptions for the June 30, 2018 actuarial valuation to better reflect expected future experience. The assumptions used in the June 30, 2019 actuarial valuation are the same as those used in the June 30, 2018 valuation with the following exceptions:

- Per capita claims costs were updated to reflect recent experience. Retired member contribution trend rates were updated to reflect the ongoing shift in population from pre-Medicare to Medicare-eligible and a projection of expected future retiree contributions reflecting the 10% decrease from 2019 to 2020
- 2. The Further Consolidated Appropriations Act, 2020 that was signed in December 2019 made several changes, including the repeal of the Cadillac Tax.
- 3. The amount included in the Normal Cost for administrative expenses was updated to reflect the most recent two years of actual administrative expenses paid from postretirement healthcare plan assets.

The long-term expected rate of return on postretirement healthcare plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of postretirement healthcare plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return, excluding the inflation component of 2.36%, for each major asset class included in the postretirement healthcare plan's target asset allocation as of June 30, 2020 are summarized in the following table:

Long-term expected real rate of return
6.24%
6.67
(0.16)
3.01
3.82
10.00
(1.09)

#### (b) Discount Rate

The discount rate used to measure the total OPEB liability as of June 30, 2020 was 7.38%. The projection of cash flows used to determine the discount rate assumed that employer and state contributions will continue to follow the current funding policy, which meets state statutes. Based on those assumptions, the postretirement

Public Employees' Retirement System
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#### Notes to Financial Statements

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healthcare plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on postretirement healthcare plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability in accordance with the method prescribed by GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other than Pension Plans*. In the event benefit payments are not covered by the plan's fiduciary net position, a municipal band rate would be used to discount the benefit payments not covered by the plan's fiduciary net position. The S&P Municipal Bond 20-Year High Grade Index rate was 2.66% as of June 30, 2020.

#### (c) Sensitivity of the Net OPEB Liability (Asset) to Changes in the Discount Rate

The following presents the net OPEB (asset) liability for each plan as of June 30, 2020, calculated using the discount rate of 7.38%, as well as what the respective plan's net OPEB liability (asset) would be if it were calculated using a discount rate that is one-percentage-point lower or one-percentage-point higher than the current rate (in thousands):

	1.00%	Current	1.00%
	decrease (6.38%)	discount rate (7.38%)	increase (8.38%)
ARHCT Plan \$	472,548	(452,858)	(1,219,368)
ODD Plan	(25,616)	(27,260)	(28,574)
RMP	43,942	7,093	(20,800)

#### (d) Sensitivity of the Net OPEB Liability (Asset) to Changes in the Healthcare Cost Trend Rates

The following presents the net OPEB liability (asset) for each plan as of June 30, 2020 calculated using the healthcare cost trend rates as summarized in the 2018 actuarial valuation reports as well as what the respective plan's net OPEB liability (asset) would be if it were calculated using trend rates that are one-percentage-point lower or one-percentage-point higher than the current healthcare cost trend rates (in thousands):

	 1.00% decrease	Current healthcare cost trend rate	1.00% increase
ARHCT Plan	\$ (1,309,240)	(452,858)	584,171
ODD Plan	N/A	N/A	N/A
RMP	(24,888)	7,093	50,594

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### Notes to Financial Statements

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#### (6) Claims Payable

The liability for claims payable and claims incurred but not reported, included in the claims payable amount on the statement of fiduciary net position, represent the estimated amounts necessary to settle all outstanding claims incurred as of the balance sheet date. The ARHCT and Retiree Medical Plan's reserve estimates are based primarily on historical development patterns adjusted for current trends that would modify past experience. Claims are reevaluated periodically to consider the effects of inflation, claims settlement trends, and other economic factors. The process of establishing loss reserves is subject to uncertainties that are normal, recurring, and inherent in the healthcare business.

Changes in the balances of claims liabilities are as follows (in thousands):

	 2020	2019
Total, beginning of year	\$ 44,369	45,677
Healthcare benefits Benefits paid	 439,883 (448,916)	444,270 (445,578)
Total, end of year	\$ 35,336	44,369

#### (7) Commitments and Contingencies

The Division is a defendant in various lawsuits. Although the outcome of these lawsuits is not presently determinable, in the opinion of the Division of Retirement and Benefits' counsel, the resolution of these matters will not have a material adverse effect on the financial condition of the Division.

#### (8) Employer Group Waiver Program

Effective January 1, 2019, the Division implemented a group Medicare Part D prescription drug plan known as an enhanced EGWP for all Medicare-eligible members covered under the ARHCT Plan and the RMP. The enhanced EGWP leverages increased federal subsidies to the ARHCT Plan and the RMP for prescription drugs covered by Medicare Part D while also providing coverage for medications not covered by Medicare Part D through a "wrap" of additional benefits. Moving to an enhanced EGWP has resulted in the ARHCT Plan and RMP receiving significantly higher subsidies, while simultaneously maintaining the prescription drug coverage retirees had prior to implementation of the enhanced EGWP. Currently, EGWP is the primary program used by the Division; however, there are still retirees that are covered by the RDS if they do not meet the requirements of EGWP.

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## **Notes to Financial Statements**

June 30, 2020

#### (9) Medicare Part D Retiree Drug Subsidy

One of the provisions of Medicare Part D provides sponsors of pension healthcare plans the opportunity to receive an RDS payment if the sponsor's plan provides a prescription drug benefit that is actuarially equivalent to the Medicare Part D benefit. The RDS is equal to 28% of the amount of eligible prescription drug benefit costs of retirees who are eligible for, but not enrolled in, Medicare Part D, by virtue of continuing to be covered by the sponsor's plan. The ARHCT Plan was approved for participation in the Medicare Part D program beginning calendar year 2006.

# REQUIRED SUPPLEMENTARY INFORMATION (Unaudited)

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Required Supplementary Information (Unaudited)

# Schedule of Changes in Employer Net Pension Liability and Related Ratios – Defined Benefit Pension Plan

(In thousands)

	2020	2019	2018	2017	2016	2015	2014	2013	2012
Total pension liability:			-					·	
Service cost	\$ 141,556	157,708	170,816	184,411	172,304	184,712	160,828	167,203	172,968
Interest	1,079,549	1,118,574	1,108,068	1,072,312	1,049,226	1,020,947	940,786	927,692	887,361
Differences between expected and									
actual experience	81,120	(243,120)	(302,874)	(184,252)	(118,947)	10,791	_	56,229	42,847
Changes of assumptions	_	502,790	_	_	_	541,390	_	_	_
Benefit payments, including refunds of									
member contributions	(895,523)	(848,019)	(812,877)	(777,187)	(742,174)	(696,542)	(651,917)	(634,187)	(593,279)
Net change in total pension liability	406,702	687,933	163,133	295,284	360,409	1,061,298	449,697	516,937	509,897
Total pension liability – beginning	14,963,635	14,275,702	14,112,569	13,817,285	13,456,876	12,395,578	11,945,881	11,428,944	10,919,047
Total pension liability – ending (a)	15,370,337	14,963,635	14,275,702	14,112,569	13,817,285	13,456,876	12,395,578	11,945,881	11,428,944
Plan fiduciary net position:									
Contributions – employer	350,028	350,601	299,665	263,597	235,360	226,136	206,204	179,976	182,695
Contributions – member	74,514	79,609	84,956	89,345	96,024	100,036	106,565	110,808	112,703
Contributions - nonemployer entity (State)	79,487	67,857	72,719	99,167	88,586	1,000,000	176,794	164,087	130,912
Total net investment income (loss)	378,119	540,088	725,310	1,048,006	(49,967)	253,311	1,207,484	738,656	1,650
Benefit payments, including refunds of									
member contributions	(895,523)	(848,019)	(812,877)	(777,187)	(742,175)	(696,542)	(651,917)	(610,247)	(570,883)
Administrative expenses	(7,017)	(7,429)	(6,250)	(7,526)	(7,243)	(7,553)	(8,223)	(7,120)	(6,743)
Other income	148	23	25	38	240	36	49	28	35
Net change in plan fiduciary									
net position	(20,244)	182,730	363,548	715,440	(379,175)	875,424	1,036,956	576,188	(149,631)
Plan fiduciary net position – beginning	9,489,405	9,306,675	8,943,127	8,227,687	8,606,862	7,731,438	6,694,482	6,118,294	6,267,925
Plan fiduciary net position - ending (b)	9,469,161	9,489,405	9,306,675	8,943,127	8,227,687	8,606,862	7,731,438	6,694,482	6,118,294
Plan's net pension liability (a)–(b)	\$ 5,901,176	5,474,230	4,969,027	5,169,442	5,589,598	4,850,014	4,664,140	5,251,399	5,310,650
Plan fiduciary net position as a									
percentage of the total									
pension liability	61.61 %	63.42 %	65.19 %	63.37 %	59.55 %	63.96 %	62.37 %	56.04 %	53.53 %
Covered payroll	\$ 1,004,467	1,049,152	1,159,599	1,247,884	1,322,925	1,412,237	1,405,198	1,534,665	1,522,399
Net pension liability as a percentage of									
covered payroll	587.49 %	521.78 %	428.51 %	414.26 %	422.52 %	343.43 %	331.92 %	342.19 %	348.83 %

This schedule is intended to present information for 10 years. Additional years will be displayed as they become available. See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Required Supplementary Information (Unaudited)

# Schedule of Employer and Nonemployer Contributions – Defined Benefit Pension Plan Last 10 Fiscal Years

(In thousands)

	2020	2019	2018	2017	2016
Actuarially determined contribution	\$ 429,322	414,243	395,663	368,766	566,615
Contributions in relation to the actuarially					
determined contribution	429,515	418,458	372,383	362,764	323,946
Contribution deficiency (excess)	\$ (193)	(4,215)	23,280	6,002	242,669
Covered payroll	\$ 1,004,467	1,049,152	1,159,599	1,247,884	1,322,925
Contributions as a percentage of					
covered payroll	42.76 %	39.89 %	32.11 %	29.07 %	24.49 %

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

#### State of Alaska

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Required Supplementary Information (Unaudited)

# Schedule of Employer and Nonemployer Contributions – Defined Benefit Pension Plan Last 10 Fiscal Years

(In thousands)

	2015	2014	2013	2012	2011
Actuarially determined contribution	\$ 529,264	358,718	382,889	351,674	220,419
Contributions in relation to the actuarially					
determined contribution	1,226,136	382,998	344,063	313,607	204,262
Contribution deficiency (excess)	\$ (696,872)	(24,280)	38,826	38,067	16,157
Covered payroll	\$ 1,412,237	1,405,198	1,534,665	1,522,399	1,559,938
Contributions as a percentage of					
covered payroll	86.82 %	27.26 %	22.42 %	20.60 %	13.09 %

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

# Required Supplementary Information (Unaudited) Schedule of Investment Returns – Defined Benefit Pension Plan

	2020	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return,							
net of investment expense	4.03 %	5.88 %	8.26 %	12.99 %	(0.36)%	3.12 %	18.43 %

This schedule is intended to present information for 10 years. Additional years will be displayed as they become available. See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

# Required Supplementary Information (Unaudited)

# Schedule of Changes in Employer Net OPEB Liability and Related Ratios – Alaska Retiree Healthcare Trust Plan

(In thousands)

		2020	2019	2018	2017
Total OPEB liability:	•				
Service cost	\$	95,615	119,782	110,333	114,109
Interest		577,711	684,429	647,310	623,599
Differences between expected and actual experience		(88,229)	(147,463)	(149,287)	(28,042)
Changes of assumptions		(766,624)	(965,602)	259,497	
Benefit payments, including refunds of					
member contributions		(407,069)	(420,429)	(413,273)	(405,872)
EGWP rebates		33,177	7,066		
Net change in total OPEB liability		(555,419)	(722,217)	454,580	303,794
Total OPEB liability – beginning		7,916,072	8,638,289	8,183,709	7,879,915
Total OPEB liability – ending (a)		7,360,653	7,916,072	8,638,289	8,183,709
Plan fiduciary net position:					
Contributions – employer		107,298	102,266	85,731	124,541
Contributions – RDS			20,481	5,965	
Total net investment income		318,157	449,098	598,342	859,980
Benefit payments:		(439,785)	(444,143)	(422,378)	(405,872)
EGWP rebates		33,177	7,066		
Pharmacy rebates		48,006	36,921	20,268	
ASO fees		(15,290)	(13,207)	(11,163)	
Net benefit payments		(373,892)	(413,363)	(413,273)	(405,872)
Administrative expenses, net of ASO fees		(6,203)	(3,665)	(3,822)	(15,960)
Other		459	874	106	43,009
Total Administrative expenses and other		(5,744)	(2,791)	(3,716)	27,049
Net change in plan fiduciary net position		45,819	155,691	273,049	605,698
Plan fiduciary net position – beginning		7,767,692	7,612,001	7,338,952	6,733,254
Plan fiduciary net position – ending (b)		7,813,511	7,767,692	7,612,001	7,338,952
Plan's net OPEB liability					
(asset) (a)–(b)	\$	(452,858)	148,380	1,026,288	844,757
Plan fiduciary net position as a		_			
percentage of the total OPEB liability		106.15%	98.13%	88.12%	89.68%
Covered payroll	\$	1,004,467	1,049,152	1,159,599	1,247,884
Net OPEB liability as a percentage of					
covered payroll		(45.08%)	14.14%	88.50%	67.70%

This schedule is intended to present information for 10 years. Additional years will be displayed as they become available. See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

# Required Supplementary Information (Unaudited)

# Schedule of Employer and Nonemployer Contributions – Alaska Retiree Healthcare Trust Plan Last 10 Fiscal Years

(In thousands)

	2020	2019	2018	2017	2016
Actuarially determined contribution	\$ 114,783	99,083	71,251	133,845	790,824
Contributions in relation to the actuarially					
determined contribution	107,298	102,266	85,731	124,541	193,564
Contribution deficiency (excess)	\$ 7,485	(3,183)	(14,480)	9,304	597,260
Covered payroll	\$ 1,004,467	1,049,152	1,159,599	1,247,884	1,322,925
Contributions as a percentage of					
covered payroll	10.68 %	9.75 %	7.39 %	9.98 %	14.63 %

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

#### State of Alaska

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Required Supplementary Information (Unaudited)

# Schedule of Employer and Nonemployer Contributions – Alaska Retiree Healthcare Trust Plan Last 10 Fiscal Years

(In thousands)

	2015	2014	2013	2012	2011
Actuarially determined contribution	\$ 782,258	783,827	612,792	498,433	525,075
Contributions in relation to the actuarially					
determined contribution	171,028	340,458	373,205	334,941	362,188
Contribution deficiency (excess)	\$ 611,230	443,369	239,587	163,492	162,887
Covered payroll	\$ 1,412,237	1,405,198	1,534,665	1,522,399	1,559,938
Contributions as a percentage of					
covered payroll	12.11 %	24.23 %	24.32 %	22.00 %	23.22 %

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Required Supplementary Information (Unaudited)

## Schedule of Investment Returns - Alaska Retiree Healthcare Trust Plan

	2020	2019	2018	2017
Annual money-weighted rate of return,				
net of investment expense	4.16 %	6.03 %	8.35 %	12.69 %

This schedule is intended to present information for 10 years. Additional years will be displayed as they become available. See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Required Supplementary Information (Unaudited)

# Schedule of Changes in Employer Net OPEB Liability and Related Ratios – Occupational Death and Disability Plan

(In thousands)

	2020	2019	2018	2017
Total OPEB liability:				
Service cost	\$ 4,808	3,870	3,565	3,419
Interest	1,244	1,205	1,275	977
Differences between expected and actual experience	(3,022)	(3,252)	(5,625)	(470)
Changes in assumptions	_	(528)	_	_
Benefit payments, including refunds of				
member contributions	(479)	(398)	(392)	(313)
Net change in total OPEB liability	2,551	897	(1,177)	3,613
Total OPEB liability – beginning	12,280	11,383	12,560	8,947
Total OPEB liability – ending (a)	14,831	12,280	11,383	12,560
Plan fiduciary net position:				
Contributions – employer	4,387	4,083	2,215	2,196
Total net investment income	1,658	2,036	2,233	2,938
Benefit payments, including refunds of				
member contributions	(479)	(398)	(392)	(313)
Administrative expenses		(1)		(18)
Net change in plan fiduciary net position	5,566	5,720	4,056	4,803
Plan fiduciary net position – beginning	36,525	30,805	26,749	21,946
Plan fiduciary net position – ending (b)	42,091	36,525	30,805	26,749
Plan's net OPEB asset (a)–(b)	\$ (27,260)	(24,245)	(19,422)	(14,189)
Plan fiduciary net position as a				
percentage of the total OPEB asset	283.80 %	297.43 %	270.62 %	212.97 %
Covered payroll	\$ 1,342,839	1,218,186	1,131,411	1,059,791
Net OPEB asset as a percentage of				
covered payroll	(2.03)%	(1.99)%	(1.72)%	(1.34)%

This schedule is intended to present information for 10 years. Additional years will be displayed as they become available. See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Required Supplementary Information (Unaudited)

# Schedule of Employer and Nonemployer Contributions – Occupational Death and Disability Plan

## **Last 10 Fiscal Years**

(In thousands)

	2020	2019	2018	2017	2016
Actuarially determined contribution	\$ 4,321	3,944	2,190	2,226	2,601
Contributions in relation to the actuarially					
determined contribution	4,387	4,083	2,215	2,196	3,104
Contribution deficiency (excess)	\$ (66)	(139)	(25)	30	(503)
Covered payroll	\$ 1,342,839	1,218,186	1,131,441	1,059,791	867,000
Contributions as a percentage of					
covered payroll	0.33 %	0.34 %	0.20 %	0.21 %	0.36 %

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Required Supplementary Information (Unaudited)

# Schedule of Employer and Nonemployer Contributions – Occupational Death and Disability Plan

## **Last 10 Fiscal Years**

(In thousands)

	_	2015	2014	2013	2012	2011
Actuarially determined contribution	\$	2,337	2,080	1,328	1,085	1,852
Contributions in relation to the actuarially						
determined contribution	_	2,790	2,372	1,541	1,582	1,852
Contribution deficiency (excess)	\$	(453)	(292)	(213)	(497)	
Covered payroll	\$	778,980	678,840	590,380	558,760	459,521
Contributions as a percentage of						
covered payroll		0.36 %	0.35 %	0.26 %	0.28 %	0.40 %

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Required Supplementary Information (Unaudited)

# Schedule of Investment Returns – Occupational Death and Disability Plan

	2020	2019	2018	2017
Annual money-weighted rate of return,				
net of investment expense	4.28 %	6.22 %	8.06 %	11.97 %

This schedule is intended to present information for 10 years. Additional years will be displayed as they become available. See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Required Supplementary Information (Unaudited)

# Schedule of Changes in Employer Net OPEB Liability and Related Ratios – Retiree Medical Plan

(In thousands)

		2020	2019	2018	2017
Total OPEB liability:	•				
Service cost	\$	15,726	13,465	12,269	10,394
Interest		11,651	10,093	7,916	6,425
Differences between expected and actual experience		42	(1,340)	(724)	(46)
Change of assumptions		(20,884)	7,303	6,623	_
Benefit payments		(69)	(109)	(41)	_
EGWP rebates		34	10		
Net change in total OPEB liability		6,500	29,422	26,043	16,773
Total OPEB liability – beginning		142,162	112,740	86,697	69,924
Total OPEB liability – ending (a)		148,662	142,162	112,740	86,697
Plan fiduciary net position:					
Contributions – employer		17,846	11,736	11,657	12,280
Contributions – RDS			9		
Total net investment income		5,546	6,591	6,919	8,506
Benefit payments		(98)	(128)	(41)	
EGWP rebates		35	10	_	
Pharmacy rebates		29	19		
Net benefit payments		(34)	(99)	(41)	
Administrative expenses		(27)	(14)	(4)	(12)
Other				2	1
Net change in plan fiduciary net position		23,331	18,223	18,533	20,775
Plan fiduciary net position – beginning		118,238	100,015	81,482	60,707
Plan fiduciary net position – ending (b)		141,569	118,238	100,015	81,482
Plan's net OPEB liability (a)–(b)	\$	7,093	23,924	12,725	5,215
Plan fiduciary net position as a					
percentage of the total OPEB liability		95.23 %	83.17 %	88.71 %	93.98 %
Covered payroll	\$	1,342,839	1,218,186	1,131,441	1,059,791
Net OPEB liability as a percentage of					
covered payroll		0.53 %	1.96 %	1.12 %	0.49 %

This schedule is intended to present information for 10 years. Additional years will be displayed as they become available. See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Schedule of Employer and Nonemployer Contributions – Retiree Medical Plan

## **Last 10 Fiscal Years**

(In thousands)

	2020	2019	2018	2017	2016
Actuarially determined contribution	\$ 17,725	11,451	11,654	12,506	16,907
Contributions in relation to the actuarially					
determined contribution	17,846	11,736	11,657	12,280	16,184
Contribution deficiency (excess)	\$ (121)	(285)	(3)	226	723
Covered payroll	\$ 1,342,839	1,218,186	1,131,441	1,059,791	867,000
Contributions as a percentage of					
covered payroll	1.33 %	0.96 %	1.03 %	1.16 %	1.87 %

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Schedule of Employer and Nonemployer Contributions – Retiree Medical Plan

## **Last 10 Fiscal Years**

(In thousands)

	2015	2014	2013	2012	2011
Actuarially determined contribution	\$ 15,190	3,937	3,365	3,464	3,229
Contributions in relation to the actuarially					
determined contribution	14,552	3,708	3,195	2,850	2,527
Contribution deficiency (excess)	\$ 638	229	170	614	702
Covered payroll	\$ 778,980	678,840	590,380	558,760	459,521
Contributions as a percentage of					
covered payroll	1.87 %	0.55 %	0.54 %	0.51 %	0.55 %

See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Required Supplementary Information (Unaudited) Schedule of Investment Returns – Retiree Medical Plan

	2020	2019	2018	2017
Annual money-weighted rate of return,				
net of investment expense	4.33 %	6.21 %	7.89 %	11.93 %

This schedule is intended to present information for 10 years. Additional years will be displayed as they become available. See accompanying notes to required supplementary information (unaudited) and independent auditors' report.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Notes to Required Supplementary Information (Unaudited)

June 30, 2020

#### (1) Actuarial Assumptions and Methods

The actuarial valuation was prepared by Buck. The significant actuarial methods and assumptions used in the defined benefit pension and postemployment healthcare benefit plan valuation as of June 30, 2019 are as follows:

(a) Actuarial cost method – Liabilities and contributions are computed using the Entry Age Normal Cost Method.

Effective June 30, 2018, the Board adopted a layered unfunded accrued actuarial liability (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. Layer #2 equals the change in UAAL at June 30, 2018 due to the experience study and EGQP 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 of Alaska (the 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 UAAL 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 UAAL.

(b) 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 value 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.

## Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Notes to Required Supplementary Information (Unaudited)

June 30, 2020

- (c) Valuation of retiree medical and prescription drug benefits 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 nonprescription 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.
- (d) Investment return -7.38% per year, net of expenses
- (e) Salary scale Rates based upon the 2013–2017 actual experience. Inflation 2.50% per year and productivity 0.25% per year.
- (f) Payroll growth 2.75% per year (inflation + productivity)
- (g) 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.
- (h) Mortality (pre-termination) Mortality rates based upon 2013–2017 actual experience, 100% (male and female) of RP-2014 healthy annuitant table with MP-2017 generational improvement.
- (i) Mortality (post-termination) Mortality rates based upon the 2013–2017 actual experience. 91% of male and 96% of female rates of RP-2014 health annuitant table with MP-2017 generational improvement.
- (j) Total turnover Based upon the 2013–2017 actual experience
- (k) Disability Incidence rates based on 2013–2017 actual experience. Post-disability mortality in accordance with the RP-2014 disability table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement. Disabilities are assumed to be occupational 75% of the time for Peace Officer/Firefighters, 40% of the time for others.
- (l) Retirement Retirement rates based on the 2013–2017 actual experience. 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.
- (m) Spouse age difference Males are assumed to be three years older than their wives. Females are assumed to be two years younger than husbands.
- (n) Percent married for pension For others, 75% of male members and 70% female members are assumed to be married. For peace officer/firefighters, 85% of male members and 60% of female members are assumed to be married.

## Financial Section

#### State of Alaska

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Notes to Required Supplementary Information (Unaudited)

June 30, 2020

- (o) Dependent spouse medical coverage election Applies to members who do not have a double medical coverage. For others, 65% of male members and 60% female members are assumed to be married and covered a dependent spouse. For peace officer/firefighters, 75% of male members and 50% of female members are assumed to be married and cover a dependent spouse.
- (p) Dependent children Benefits to 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).
- (q) Contribution refunds For others, 5% of terminating members with vested benefits are assumed to have their contributions refunded. For peace officers/firefighters, 10% of terminating members with vested benefits are assumed to have their contributions refunded; 100% of those with nonvested benefits are assumed to have their contributions refunded.
- (r) 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. Nonvested 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.
- (s) Active 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 includes the following percentage assumptions (which were developed based on the five years of rehire loss experience through June 30, 2017): For projections, these assumptions were assumed to grade to zero uniformly over a 20-year period. Pension 18.77% and Healthcare 17.09%.
- (t) 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.
- (u) Alaska Cost of Living Allowance (COLA) Of those benefit recipients who are eligible for the COLA, 70% of others and 65% of peace officer/firefighters are assumed to remain in Alaska and receive the COLA.
- (v) Postretirement pension adjustment (PRPA) 50% and 75% assumed inflation, or 1.25% and 1.875%, respectively, is valued for the annual automatic PRPA as specified in the statute.
- (w) Expenses The investment return assumption is net of investment expenses. The Normal Cost as of June 30, 2019 was increased by the following amounts for administrative expenses (for projections, the percentage increase was assumed to remain constant in future years): Pension \$6,839,000 and Healthcare \$3,744,000.
- (x) Part-time status Part-time employees are assumed to earn 1.00 years of credited service per year for peace officer/firefighter and 0.75 years of credited service per year for other members.
- (y) Re-employment option All re-employed retirees are assumed to return to work under the standard option.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Notes to Required Supplementary Information (Unaudited)

June 30, 2020

- (z) 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). Claims service is used for vesting and eligibility purposes.
- (aa) 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.
- (bb) Per capita claims cost Sample claims cost rates adjusted to age 65 for FY20 medical and prescription drug benefits are shown below:

<u>-</u>	Medical	Prescription drugs
Pre-Medicare \$	14,464	3,263
Medicare Parts A and B	1,534	3,501
Medicare Part B only	4,880	3,501
Medicare Part D – EGWP	N/A	1,044

Members are assumed to attain Medicare eligibility at age 65. All costs are for the 2020 fiscal year (July 1, 2019–June 30, 2020).

The EGWP subsidy is assumed to increase in future years by the trend rates shown on the following page. 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.

- (cc) Third-party administrator fees \$348 per person per year; assumed to increase at 4.5% per year.
- (dd) Medicare Part B Only It's assumed that 5% of actives hired before April 1, 1986 and current retirees who are not yet Medicare eligible will not be eligible for Medicare Part A.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Notes to Required Supplementary Information (Unaudited)

June 30, 2020

(ee) 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, 7.0% is applied to the FY20 pre-Medicare medical claims costs to get the FY21 medical claims costs:

Fiscal year	Medical Pre-65	Medical Post-65	Prescription drugs/EGWP
2020	7.0%	5.4%	8.0%
2021	6.5	5.4	7.5
2022	6.3	5.4	7.1
2023	6.1	5.4	6.8
2024	5.9	5.4	6.4
2025	5.8	5.4	6.1
2026	5.6	5.4	5.7
2027-2040	5.4	5.4	5.4
2041	5.3	5.3	5.3
2042	5.2	5.2	5.2
2043	5.1	5.1	5.1
2044	5.1	5.1	5.1
2045	5.0	5.0	5.0
2046	4.9	4.9	4.9
2047	4.8	4.8	4.8
2048	4.7	4.7	4.7
2049	4.6	4.6	4.6
2050+	4.5	4.5	4.5

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.

#### (ff) Aging factors:

Age	Medical	Prescription drugs
<45	2.0%	4.5%
45–54	2.5	3.5
55–64	2.5	1.5
65–74	3.0	2.0
75–84	2.0	(0.5)
85–94	0.3	(2.5)
95+	_	<u> </u>

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Notes to Required Supplementary Information (Unaudited)

June 30, 2020

(gg) Retired member contributions for medical benefits – Currently contributions are required for System members who are under age 60 and have less than 30 years of service (25 for peace officers/ firefighters). Eligible Tier 1 members are exempt from contribution requirements. Annual FY20 contributions based on monthly rates shown below for calendar 2020 are assumed based on the coverage category for current retirees. The composite rate shown is used for current active and inactive members 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, the System values one-third of the annual retiree contribution is used to estimate the per-child rate based upon the assumed number of children in rates where children are covered.

	Calenda	Calendar 2019	
Coverage category	 Annual contribution	Monthly contribution	Monthly contribution
Retiree only	\$ 8,892	741	823
Retiree and spouse	17,784	1,482	1,647
Retiree and child(ren)	12,564	1,047	1,163
Retiree and family	21,456	1,788	1,987
Composite	13,212	1,101	1,223

(hh) 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, 0.0% is applied to the FY20 retired member medical contributions to get the FY21 retired member medical contributions.

	Trend
Fiscal year	assumption
2020	%
2021	_
2022	_
2023 +	4.0

Graded trend rates for retired member medical contributions were updated to the rates shown above for the June 30, 2019 valuation to reflect the ongoing shift in population from per-Medicare to Medicare eligible and projection of expected future retiree contributions reflecting the 10% decrease from 2019 to 2020. Actual FY20 retired member medical contributions are reflected in the valuation.

(ii) Healthcare participation – 100% of System paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible. 20% of non-System paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.

## Financial Section

#### State of Alaska

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Notes to Required Supplementary Information (Unaudited)

June 30, 2020

The significant actuarial methods and assumptions used in the defined contribution occupational death and disability and retiree medical benefit plan valuation as of June 30, 2019 are as follows:

- (a) Actuarial cost method Liabilities and contributions are computed using the Entry Age Normal Actuarial Cost Method. Each year's difference between actual and expected unfunded actuarial accrued liability is amortized over 25 years as a level percentage of expected payroll. However, in keeping with Governmental Accounting Standards Board (GASB) requirements in effect when the plan was adopted, the net amortization period will not exceed 30 years. Under the new accounting standards (GASB Statement Nos. 74 and 75), the GASB requirements will not directly control amortization periods used for funding the plan.
- (b) Valuation of assets Effective June 30, 2006, the asset valuation method recognizes 20% of the investment gain or loss in each of the current and preceding four years. This method was phased in over five years. Fair value of assets was \$0 as of June 30, 2006. All assets are valued at fair value. Assets are accounted for on an accrued basis and are taken directly from audited financial statements. Valuation assets are constrained to a range of 80% to 120% of fair value of assets.
- (c) Valuation of retiree medical and prescription drug benefits Due to the lack of experience for the Defined Contribution Retirement (DCR) retiree medical plan only, base claims costs are based on those described in the actuarial valuation as of June 30, 2019 for PERS Defined Benefit (DB) retiree medical plan covering TRS and PERS. The DB rates were used with some adjustments. The claim costs were adjusted to reflect the differences between the DCR medical plan and the DB medical plan. These differences include network steerage, different coverage levels, different Medicare coordination for medical benefits, and an indexing of the retiree out-of-pocket dollar amounts. To account for higher initial copays, deductibles, and out-of-pocket limits, upcoming FY20 claims costs were reduced 2.1% for medical and 10.4% for prescription drugs. In addition, to account for the difference in Medicare coordination, projected FY20 medical claims costs for Medicare eligible retirees were further reduced 29.3%. The medical and prescription drug percentages were reduced 0.2% in each future year for the DCR medical benefits to reflect the fact that the medical benefit to be offered to DCR members will have an annual indexing of member cost-sharing features, such as deductibles and out-of-pocket amounts.

The State transitioned to EGWP for DCR participants effective January 1, 2019. The estimated 2020 reimbursements under EGWP were provided by Segal Consulting (who worked with the EGWP administrator, Optum, to develop those estimates).

- (d) Investment return 7.38% per year, net of investment expenses
- (e) Salary scale Salary scale rates based upon the 2013–2017 actual experience. Inflation 2.50% per year. Productivity 0.25% per year.
- (f) Payroll growth 2.75% per year (inflation + productivity)
- (g) 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.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Notes to Required Supplementary Information (Unaudited)

June 30, 2020

- (h) Mortality (pre-commencement) Mortality rates based upon 2013–2017 actual experience, 100% of male and female of RP-2014 employee table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement.
- (i) Mortality (post-commencement) Mortality rates based upon 2013–2017 actual experience, 91% of male and 96% of female rates of the RP-2014 healthy annuitant table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement.
- (j) Total turnover Select and ultimate rates based upon the 2013–2017 actual experience
- (k) Disability Incidence rates based upon the 2013–2017 actual experience. Post-disability mortality in accordance with the RP-2014 disabled table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement. Disabilities are assumed to be occupational 75% of the time for peace officer/firefighters, 40% of the time for others. For peace officer/firefighters, members are assumed to take the monthly annuity 100% of the time.
- (l) Retirement Retirement rates based upon the 2013–2017 actual experience
- (m) Spouse age difference Males are assumed to be three years older than their wives. Females are assumed to be two years younger than husbands.
- (n) Percent married for occupational death and disability For others, 75% of male members and 70% female members are assumed to be married. For peace officer/firefighters, 85% of male members and 60% of female members are assumed to be married.
- (o) Dependent spouse medical coverage election Applies to members who do not have dual medical coverage. For others 65% of male members and 60% female members are assumed to be married and cover a dependent spouse. For peace officer/firefighters, 75% of male members and 50% of female members are assumed to be married and cover a dependent spouse.
- (p) Part-time status Part-time employees are assumed to earn 1.00 years of credited service per year for peace officer/firefighters and 0.75 years of credited service per year for other members.
- (q) Peace officer/firefighter occupational disability retirement benefit commencement The occupational disability retirement benefit is assumed to be first payable from the member's DC account and the retirement benefit payable from the occupational death and disability trust will commence five years later.

## Financial Section

#### State of Alaska

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Notes to Required Supplementary Information (Unaudited)

June 30, 2020

(r) Per capita claims cost – Sample claims cost rates (before base claims cost adjustments described below) adjusted to age 65 for FY20 medical and prescription drug benefits are shown below:

	 Medical	Prescription drugs
Pre-Medicare	\$ 14,464	3,263
Medicare Parts A and B	1,564	3,501
Medicare Part D - EGWP	N/A	1,044

Members are assumed to attain Medicare eligibility at age 65. All other costs are for the 2020 fiscal year (July 1, 2019–June 30, 2020).

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.

- (s) Third-party administrator fees \$348 per person per year; assumed trend rate of 4.5% per year
- (t) Base claims cost adjustments Due to higher initial copays, deductibles, out of pocket limits, and member cost sharing compared to the DB medical plan, the following cost adjustments are applied to the per capita claims cost rates: 0.979 for the pre-Medicare plan and 0.686 for the Medicare medical plan and Medicare coordination method (2.1% reduction for the medical plan and 29.3% reduction for the coordination method), and 0.896 for the prescription drug plan.
- (u) Administrative expenses Beginning with the June 30, 2018 valuation, the normal cost is increased for administrative expenses expected to be paid for plan assets during the year. The amounts included in the June 30, 2018 normal cost, which are based on the average of actual administrative expenses during the last two fiscal years, are \$600 for occupational death and disability and \$8,750 for retiree medical.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Notes to Required Supplementary Information (Unaudited)

June 30, 2020

(v) Healthcare cost trend – The table below shows the rates used to project the cost from the shown fiscal year to the next fiscal year. For example, 7.0% is applied to the FY20 pre-Medicare medical claims cost to get the FY21 medical claims costs:

Fiscal year	Medical Pre-65	Medical Post-65	Prescription drugs/EGWP
2020	7.0%	5.4%	8.0%
2021	6.5	5.4	7.5
2022	6.3	5.4	7.1
2023	6.1	5.4	6.8
2024	5.9	5.4	6.4
2025	5.8	5.4	6.1
2026	5.6	5.4	5.7
2027-2040	5.4	5.4	5.4
2041	5.3	5.3	5.3
2042	5.2	5.2	5.2
2043	5.1	5.1	5.1
2044	5.1	5.1	5.1
2045	5.0	5.0	5.0
2046	4.9	4.9	4.9
2047	4.8	4.8	4.8
2048	4.7	4.7	4.7
2049	4.6	4.6	4.6
2050+	4.5	4.5	4.5

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.

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Notes to Required Supplementary Information (Unaudited)

June 30, 2020

#### (w) Aging factors:

Age	Medical	Prescription drugs
<45	2.0%	4.5%
45–54	2.5	3.5
55–64	2.5	1.5
65–74	3.0	2.0
75–84	2.0	(0.5)
85–94	0.3	(2.5)
95+	<del></del>	_

#### (x) Retiree medical participation:

Decre	ment due to disability	Decrement due to retirement		t
Age	Percent participation	Age	Percent parti	cipation
<56	75.0%	55		50.0%
56	77.5	56		55.0
57	80.0	57		60.0
58	82.5	58		65.0
59	85.0	59		70.0
60	87.5	60		75.0
61	90.0	61		80.0
62	92.5	62		85.0
63	95.0	63		90.0
64	97.5	64		95.0
65+	100.0	65+	Years of se	ervice
			<15	75.0%
			15–19	80.0
			20-24	85.0
			25–29	90.0
			30+	95.0

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

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Notes to Required Supplementary Information (Unaudited)

June 30, 2020

(y) Imputed data – Data changes from the prior year that are deemed to have immaterial impact on liabilities and contribution rates are assumed to be correct in the current year's client data. Nonvested 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.

#### (2) Changes in Actuarial Assumptions, Methods, and Benefits Since the Prior Valuation

Defined Benefit Pension and Postemployment Healthcare Benefit Plan

(a) Changes in Methods Since the Prior Valuation – June 30, 2018 to June 30, 2019

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

#### (b) Changes in Assumptions Since the Prior Valuation – June 30, 2018 to June 30, 2019

Healthcare claim costs are updated annually. Retired member contribution trend rates were updated to reflect the ongoing shift in population from pre-Medicare to Medicare-eligible and a projection of expected future retiree contributions reflecting the 10% decrease from 2019 to 2020. The Further Consolidated Appropriations Act, 2020 that was signed in December 2019 made several changes, including the repeal of the Cadillac Tax. The repeal of the Cadillac Tax reduced the plan's liabilities as of June 30, 2019 by approximately \$36.3M. The amounts included in the Normal Cost for administrative expenses were updated based on the most recent two years of actual administrative expenses paid from plan assets.

#### (c) Changes in Benefit Provisions Since the Prior Valuation – June 30, 2018 to June 30, 2019

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

Defined Contribution Occupational Death and Disability and Retiree Medical Benefits Plan

#### (a) Changes in Methods Since the Prior Valuation – June 30, 2018 to June 30, 2019

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

#### (b) Changes in Assumptions Since the Prior Valuation – June 30, 2018 to June 30, 2019

Healthcare claim costs are updated annually. The Further Consolidated Appropriations Act, 2020 that was signed in December 2019 made several changes, including the repeal of the Cadillac Tax. The repeal of the Cadillac Tax reduced the plan's liabilities as of June 30, 2019 by approximately \$925,000. The amounts included in Normal Cost for administrative expenses were updated based on the last two years of actual administrative expenses paid from plan assets. There were no other changes in actuarial assumptions since the prior valuation.

#### (c) Changes in Benefit Provisions Since the Prior Valuation – June 30, 2018 to June 30, 2019

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

## **SUPPLEMENTAL SCHEDULES**

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Schedule of Administrative and Investment Deductions

Years ended June 30, 2020 and 2019

(In thousands)

			Tot	als
	Administrative	Investment	2020	2019
Personal services:				
Wages \$	5,292	2,355	7,647	5,201
Benefits	3,151	1,089	4,240	3,106
Total personal services	8,443	3,444	11,887	8,307
Travel:				
Transportation	5	11	16	81
Per diem	1	3	4	15
Total travel	6	14	20	96
Contractual services:				
Management and consulting	18,502	1,828	20,330	22,801
Investment and manager fees	_	46,561	46,561	62,288
Accounting and auditing	175	21	196	208
Data processing	3,852	677	4,529	2,077
Communications	140	21	161	110
Advertising and printing	52	1	53	61
Rentals/leases	412	90	502	464
Legal	330	69	399	513
Medical specialists	31	_	31	56
Repairs and maintenance	8	2	10	95
Transportation	221	2	223	157
Securities lending expense	_	144	144	269
Other professional services	557	26	583	381
Total contractual services	24,280	49,442	73,722	89,480
Other:				
Equipment	12	16	28	99
Supplies	24	88	112	117
Total other	36	104	140	216
Total administrative and				
investment deductions \$	32,765	53,004	85,769	98,099

See accompanying independent auditors' report.

## Financial Section

#### State of Alaska

Public Employees' Retirement System (A Component Unit of the State of Alaska)

## Schedule of Payments to Consultants Other Than Investment Advisors

Years ended June 30, 2020 and 2019

(In thousands)

Firm	Services	2020	2019
Buck Global LLC (formerly Conduent	Actuarial services	\$ 503	709
Human Resources Services)			
KPMG LLP	Auditing services	104	173
State Street Bank and Trust	Custodial banking services	920	1,025
Alaska IT Group	Data processing services	214	351
Applied Microsystems Incorporated	Data processing services	386	385
International Business Machine	Data processing services	20	35
Resource Data Incorporation	Data processing services	_	41
SHI International Corporation	Data processing services	63	287
Sungard Availability Services	Data processing services	27	33
State of Alaska, Department of Law	Legal services	387	499
Agnew Beck Consulting	Management consulting services	9	28
Linea Solutions Incorporated	Management consulting services	236	76
The Segal Company Incorporated	Management consulting services	254	294
Managed Medical Review Organization	Management consulting services	 27	44
		\$ 3,150	3,980

This schedule presents payments to consultants receiving greater than \$10,000. See accompanying independent auditors' report.

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# INVESTMENT SECTION



## Callan

Callan Associates Inc. 1900 16<sup>th</sup> Street Suite 1175 Denver, CO 80202



October 23, 2020

Alaska Retirement Management Board State of Alaska, Department of Revenue Treasury Division 333 Willoughby Avenue, 11<sup>th</sup> Floor Juneau, Alaska 99801

Dear Board Members:

This letter reviews the investment performance of assets under the purview of the Alaska Retirement Management Board (ARMB) for the fiscal year ended June 30, 2020.

Callan LLC (Callan) calculates time-weighted performance statistics based primarily on underlying custodial data provided by the Board's custodian, State Street Bank and Trust Company. Additional manager-level data is obtained directly from the Department of Revenue. The performance calculations were made using a time-weighted return methodology based upon market values reported by these sources.

Callan serves as the ARM Board's (Board) independent general investment consultant and evaluates ARMB's performance in relation to market benchmarks, appropriate manager peer groups and other public pension systems. The performance calculations are made using a methodology broadly similar to the Global Investment Performance Standards.

ARMB purposely seeks to invest assets prudently, expertly, and according to governing law and industry practices. The objective of this approach is to responsibly invest Plan assets that, in combination with contributions, will be sufficient to pay promised benefits to members and beneficiaries. In pursuit of this objective, the ARMB periodically evaluates liabilities, expected contributions and potential earnings. This analysis considers a wide range of potentially viable investment strategies. With thoughtful consideration of multiple factors, the Board selects a strategic investment policy that balances long-term growth potential and acceptable risk. A policy benchmark is constructed that mirrors the Board's strategic decision regarding asset allocation policy. The custom policy benchmark comprises equity, fixed income, real estate and other market indices weighted in proportions corresponding to the ARMB's investment policy.

## **Investment Section**

#### 2020 Fiscal Year Market Overview

Despite a steep drop in the U.S. equity market during the first quarter of calendar year 2020 due to the COVID-19 pandemic, the U.S. equity markets finished fiscal year 2020 with a gain for the eleventh consecutive fiscal year. The Russell 3000 Index, a measure of broad U.S. equity, returned 6.53% in the period ended June 30, 2020. Non-U.S. stocks trailed their U.S. counterparts as major economies outside of the U.S. struggle to find growth while battling a global pandemic. The MSCI ACWI ex-U.S. IMI (Net) index, a broad benchmark reflecting developed and emerging markets but excluding U.S. equities dropped -4.74%. A broad measure of the total global equity market (including the U.S.), the MSCI All Country World Index (Net), rose 2.11%.

The Federal Reserve acted quickly to backstop the U.S. economy in the face of COVID-19, slashing interest rates and flattening the yield curve across all maturities. The Bloomberg U.S. Aggregate Bond Index, a widely-used gauge of the investment grade domestic U.S. bond market, climbed 8.74%. Prospective returns appear bleak given this low rate environment. Private real estate, as measured by the NCREIF Property Index, was positive for the ninth fiscal year in a row. In fiscal year 2020, the NCREIF Property Index returned 2.69% as the retail and hotel sectors faced increased pressure from the COVID-induced economic slowdown. Publicly traded real estate, as measured by the FTSE NAREIT All Equity Index, meaningfully lagged the private markets, dipping -6.47%.

ARMB's actual asset groupings delivered the following one-year returns through June 30, 20201:

Domestic Stocks:	2.62%
Global ex-U.S. Stocks:	(3.59%)
Opportunistic:	0.52%
Fixed Income:	7.31%
Real Assets:	2.06%
Private Equity:	10.47%

For the fiscal year ended 30 June 2020, the Public Employees Retirement System (PERS) had a time-weighted total return of 3.83%. The Teachers Retirement System (TRS) had a time-weighted total return of 3.83%. Both systems' gross return trailed their strategic policy target return of 4.64% but exceeded the median return for Callan's Public Fund Sponsor database of 3.26%.

Over longer trailing periods, PERS and TRS have outperformed their target index returns. PERS's 5-year annualized return was 6.46%. TRS also returned 6.46% over this same period. The 5-year annualized benchmark return for both Plans was 6.24%. The seven-year annualized return was 7.64% for PERS and 7.65% for TRS. Both were above the 7-year target return of 7.18%. Over 28.75 years – the longest period of available data – PERS and TRS achieved annualized total returns of 7.60% and 7.65%, respectively. Both exceeded the corresponding policy benchmark return of 7.49%.

<sup>&</sup>lt;sup>1</sup>Note PERS asset class returns are used to represent the asset class performance of all plans.

The 2020 fiscal-year returns of the PERS and TRS pension ("DB") and health care ("HC") programs are listed in the table below.

	PERS DB	PERS HC	TRS DB	TRS HC
FY 2020	3.83%	3.90%	3.82%	3.90%

The pension and health care systems are well diversified and currently have asset allocation policies that, in our opinion, are consistent with achieving a long-term "real" (above inflation) return of 4.5%.

In summary, fiscal 2020 was a year in which the ARMB's Total Fund returns were positive, as were those of most broad asset class returns. Only international stocks posted a loss in fiscal 2020. PERS and TRS produced higher returns than the average public fund, both ranking in the 41st percentile within the Public Fund Sponsor peer group for the one-year period ended June 30, 2020.

Sincerely,

Paul Erlendson Senior Vice President

c: Zach Hanna Steven Center

## Investment Section

### Department of Revenue **Treasury Division Staff** As of June 30, 2020

Commissioner Lucinda Mahoney **Chief Investment Officer** 

Bob G. Mitchell

**Deputy Commissioner** 

Mike Barnhill

Comptroller Kayla Wisner, CPA

Treasury Division Director Cash Management Pamela Leary, CPA

Jesse Blackwell

ARMB Liaison Officer Stephanie Alexander

**Investment Officers** 

Casey Colton Nicholas Orr Emily Howard Sean Howard Josh McLin Shane Carson Kevin Elliot Stephanie Pham Kevin Liu Stephen Sikes Mark Moon Victor Djajalie Michelle Prebula Zachary Hanna

### **External Money Managers and Consultants**

#### **Domestic Equity Small Capitalization**

ArrowMark Partners

Denver, CO

BMO Global Asset Management

Chicago, IL

Frontier Capital Management

Boston, MA

Jennison Associates LLC

New York, NY

Sycamore Capital Management

Cincinnati, OH

T. Rowe Price Investment Services

Baltimore, MD

#### Domestic Equity Micro Capitalization

DePrince, Race & Zollo, Inc.

Winter Park, FL

Lord Abbett & Co.

Jersey City, NJ

Zebra Capital Management

Stanford, CT

#### International Small Capitalization

Mondrian Investment Partners

London, England

Schroders Investment Management NA

London, England

#### **Emerging Market Income**

Lazard Asset Management

New York, NY

#### International Fixed Income

Mondrian Investment Partners

London, England

Schroder Investment Management NA

New York, NY

#### High Yield/Convertible Bond/Tactical Bond

Fidelity Investment Asset Management

Smithfield, RI

MacKay Shields LLC

New York, NY

#### **Tactical Asset Allocation**

PineBridge Investments

New York, NY

McKinley Capital Management, Inc.

Anchorage, AK

Fidelity Investment Asset Management

Smithfield, RI

#### International Equity - MSCI ACWI Ex-U.S. IMI (Net), Emerging Markets, Non U.S., and Global Equity

Arrowstreet Capital, LP

Boston, MA

BlackRock

San Francisco, CA

Baille Gifford Overseas Ltd.

Edinburgh, Scotland

Brandes Investment Partners, L.P.

San Diego, CA

Capital Group Trust Co.

Los Angeles, CA

DePrince, Race & Zollo, Inc

Winter Park, FL

Lazard Asset Management

New York, NY

Legal and General Investment Management America

Chicago, IL

Parametric Clifton

Seattle, WA

State Street Global Advisors

San Francisco, CA

#### Alternate Beta

J.P. Morgan Asset Management

New York, NY

Man Group

London, UK

Zebra Capital Management

Stanford, CT

#### Alternate Fixed Income

Crestline Investors, Inc

Fort Worth, TX

Prisma Capital

New York, NY

#### Alternative Equity

Analytic Investors

Los Angeles, CA

State Street Global Advisors

San Francisco, CA

#### **Tactical Fixed Income**

Fidelity Investment Asset Management

Merrimack, NH

#### **Taxable Municipal Bonds**

Western Asset Management Company

Pasadena, CA

#### **External Money Managers and Consultants (cont.)**

#### **Private Equity**

Abbott Capital Management, L.P.

New York, NY

Angelo, Gordon & Co.

New York, NY

Advent International,

Boston, MA

Clearlake Capital

Santa Monica, CA

**Dyal Capital Partners** 

New York, NY

Glendon Capital

Santa Monica, CA

KKR Lending Partners

New York, NY

Lexington Partners

New York, NY

Merit Capital Partners

Chicago, IL

Neuberger Berman

New York, NY

New Mountain Partners

New York, NY

NGP

Irvine, TX

Onex

New York, NY

Pathway Capital Management, LLC

Irvine, CA

Summit Partners

Boston, MA

The Jordan Company

New York, NY

Warburg Pincus

New York, NY

#### Supplemental Benefits System, Deferred Compensation Plan and **Defined Contribution Plan**

BlackRock

San Francisco, CA

Baillie Gifford Overseas Ltd

Edinburgh, Scotland

Brandes Investment Partners

San Diego, CA

Northern Trust

Chicago, IL

State Street Global Advisors

Boston, MA

T. Rowe Price Investment Services

Baltimore, MD

#### **Investment Consultants**

Callan Associates, Inc.

Denver, CO

The Townsend Group

San Francisco, CA

#### **Investment Advisory Council**

Jerrold Mitchell

Wayland, MA

Ruth Ryerson

Colorado, CO

William Jennings

Colorado Springs, CO

#### **Independent Auditors**

KPMG, LLP

Anchorage, AK

#### Actuaries

Buck Global, LLC

Denver, CO

Gabriel Roeder Smith

Denver, CO

Master Limited Partnerships

Advisory Research

St. Louis, MO

Tortoise Capital Advisors LLC

Leawood KS

#### Global Master Custodian

State Street Bank & Trust Co.

Boston, MA

#### Real Assets - Real Estate Core Separate Accounts

LaSalle Investment Management

Chicago, IL

Sentinel Real Estate Corporation

New York, NY

UBS Realty Investors, LLC

Hartford, CT

#### Real Assets - Energy

EIG Global Energy Partners

Washington, DC

#### Real Assets - Infrastructure

Brookfield Investment Management

New York, NY

**IFM** 

New York, NY

JP Morgan Asset Management

New York, NY

Lazard Asset Management

New York, NY

#### Real Estate - Commingled Real Estate Funds

Almanac Realty Investors

New York, NY

BlackRock Realty

New York, NY

Clarion Partners

New York, NY Colony NorthStar Capital

Los Angeles, CA

Coventry Real Estate Fund II, LLC

New York, NY

J.P. Morgan Investment Management Inc.

New York, NY

KKR & Co.

New York, NY

Silverpeak Real Estate Partners New York, NY

Tishman Speyer Properties

New York NY

UBS Realty Investors, LLC

Hartford, CT

#### Real Assets - Farmland and Timber

Hancock Agricultural Investment Group

Boston, MA

Hancock Timber Resource Group

Boston, MA

Timberland Investment Resources LLC Atlanta, GA

UBS Farmland Investors, LLC Hartford, CT

## **Investment Section**

## Public Employees' Retirement System Investment Report

#### **INVESTMENTS**

The investment goals of the State of Alaska Public Employees' Retirement System are the long-term return and sustainability of the pension funds under management. Annually, the Alaska Retirement Management Board (ARMB) sets its asset allocation strategy in order to reflect changes in the marketplace while still retaining an expected optimal risk/return level within the set constraints and objectives of the ARMB.

The ARMB categorizes its investments into eight asset classes: Broad Domestic Equities, Global Equities Ex-U.S., Fixed Income, Opportunistic, Real Estate, and Private Equity. The performance of each asset class is compared with a benchmark comprised of one or more market indices. The performance for the total portfolio is compared with its policy portfolio, determined by calculating the weighted performance of the underlying asset class benchmarks at the portfolio's target asset allocation. The asset class benchmarks are illustrated below:

Asset Class	Benchmark			
Broad Domestic Equity	Russell 3000 Index			
Global Equities Ex-U.S.	MSCI ACWI Ex-U.S. IMI Net Index			
Fixed Income	95% Bloomberg Barclays U.S. Aggregate Index			
	5% 3-Month Treasury Bill			
Opportunistic	60% Russell 1000 Index			
	40% Bloomberg Barclays U.S. Aggregate Index			
Real Assets	37.5% NFI-ODCE Index			
	10% FTSE-NAREIT			
	25% NCREIF Farmland Index			
	10% NCREIF Timberland Index			
	17.5% CPI+4%			
Private Equity	1/3 S&P 500 Index			
	1/3 Russell 2000 Index			
	1/3 MSCI EAFE Net Index			

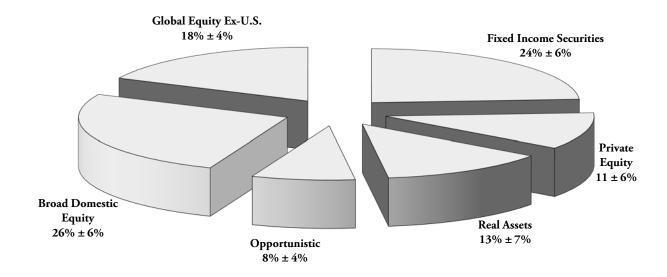
The target asset allocation is determined by the ARMB, utilizing capital market assumptions provided by its independent general investment consultant, Callan LLC. During the 2020 fiscal year, the ARMB's target asset allocation was 26% Broad Domestic Equity, 18% Global Equities Ex-U.S., 24% Fixed Income, 8% Opportunistic, 13% Real Assets, and 11% Private Equity. Over the next 20 years, the target asset allocation is expected to generate a return of 7.13% with a standard deviation of 13.8%.

## Public Employees' Retirement System Schedule of Investment Results Fiscal Years Ended June 30

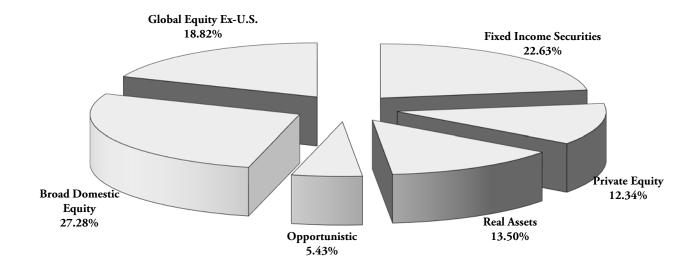
			li .		li de la companya de	Annua	lized
	2016	2017	2018	2019	2020	3 Year	5 Year
Total Fund							
PERS Custom Composite Index Actuarial Earnings Rate Broad Domestic Equity	(0.36%) - 8.00	13.35% - 8.00	9.61% - 8.00	6.40% 5.65 7.38	3.83% 4.64 7.38	6.59% 6.17 7.38	6.46% 6.24 7.38
PERS Custom Composite Index	0.58 2.14	18.55 18.51	15.21 14.78	8.41 8.98	2.62 6.53	8.62 10.04	8.85 10.03
Fixed Income PERS Custom Composite Index	5.15 4.79	2.91 0.02	(0.71) (0.76)	6.34 6.19	7.31 7.67	4.25 4.30	4.16 3.47
Opportunistic							
PERS Custom Composite Index	-	-	5.64 8.39	7.21 9.72	0.52 9.32	4.42 9.14	-
Real Assets PERS Custom Composite Index	4.76 8.87	5.98 5.66	7.53 4.29	6.08 7.23	2.06 1.19	5.20 4.21	5.27 5.41
Global Equity Ex-US PERS MSCI ACWI ex-US	(9.15) (9.80)	20.41 21.00	7.97 7.75	(0.08) 0.26	(3.59) (4.74)	1.32 0.96	2.62 2.16
Private Equity PERS Custom Composite Index	4.71 (4.41)	17.04 21.04	26.65 12.92	17.66 2.71	10.47 (1.35)	18.08 4.59	15.07 5.77
Absolute Return PERS 3-month Treasury Bill +5%	(3.09) 5.19	8.47 5.49	4.78 5.18	4.08 1.15	-	- -	- -
Alternative Equity PERS Custom Composite Index	3.41 2.09	11.38 15.07	- -	- -	-	- -	-
Cash Equivalent PERS 3-month Treasury Bill	0.55 0.19	0.79 0.49	1.51 1.36	2.50 2.31	-	- -	-

MSCI ACWI =Morgan Stanley Capital International All Country World Index Returns for periods longer than one year are reported on an annualized basis. Basis of calculation: Time-Weighed rate of return based on the market rate of return.

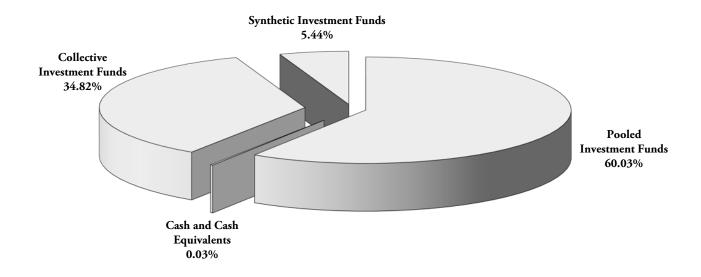
## **Policy**



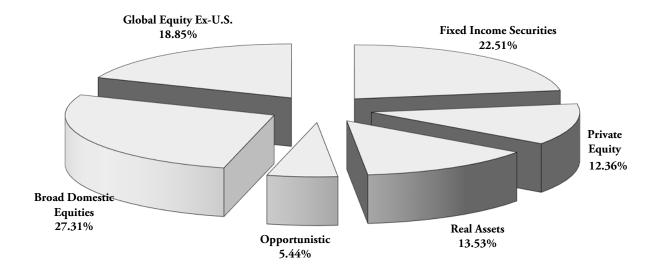
#### Actual - Defined Benefit Pension



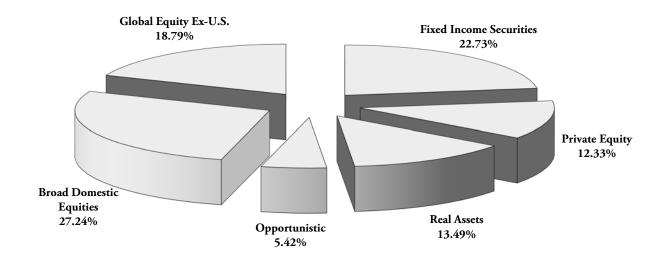
### Actual - Defined Contribution Participant Directed



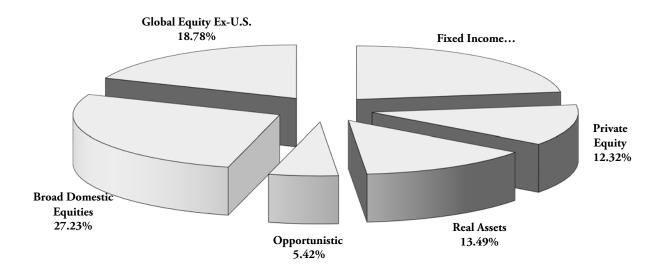
#### Actual - Defined Benefit Alaska Retiree Healthcare Trust



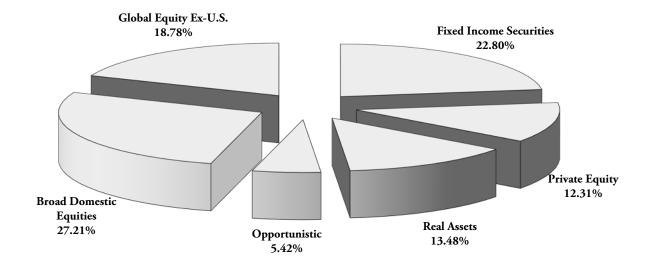
#### Actual — Health Reimbursement Arrangement



### Actual — Occupational Death & Disability



#### Actual — Retiree Medical Plan



## **Investment Section**

### Alaska Retirement Management Board Top Ten Holdings by Asset Type June 30, 2020

Invested assets under the fiduciary responsibility of the Alaska Retirement Management Board (ARMB) ARMB have been commingled in various investment pools to manage the overall cost of the program. Using investment pools increases investment efficiency in three ways. First, combining individual funds' cash inflows and outflows to offset each other reduces the amount of cash on hand needed to support daily operations. Second, pooling investments significantly reduces accounting, budgeting, and administrative costs. Finally, the ARMB can achieve economies of scale by making available investment options that could not otherwise be practically provided for smaller retirement funds. Below are the ten largest fixed income and equity holdings.

#### **Fixed Income**

Rank	Largest Fixed Income Holdings	Market Value	Par Value
1	FNCL Pool RA15683	\$133,307,490	\$125,772,323
2	FNMA Pool CA4792	71,580,949	67,779,397
3	U.S. Treasury 2.125% 8/15/2021	68,638,169	67,179,123
4	U.S. Treasury 0.250% 6/15/2023	64,354,586	64,219,123
5	U.S. Treasury 1.250% 7/31/2023	54,768,621	53,022,603
6	U.S. Treasury 3.000% 5/15/2042	44,548,699	33,460,866
7	U.S. Treasury 2.875% 5/15/2028	42,326,186	35,864,900
8	U.S. Treasury 2.250% 8/15/2049	40,414,730	33,605,648
9	U.S. Treasury 4.000% 6/1/2049	37,099,610	35,018,023
10	U.S. Treasury 3.500% 2/15/2039	32,017,742	22,631,128

#### **Equities**

Rank	Largest Equity Holdings	Market Value	Par Value
1	Microsoft Corp.	\$187,460,161	\$921,135
2	Apple Inc.	179,738,676	492,705
3	Amazon.com Inc.	142,143,653	51,523
4	Facebook Inc. Class A	70,392,923	310,005
5	Alphabet Inc. CL A	54,495,751	38,430
6	Alphabet Inc. CL C	47,400,840	33,532
7	Johnson & Johnson	47,196,707	335,609
8	Berkshire Hathaway Inc.	47,188,094	264,344
9	UnitedHealth Group Inc.	44,460,374	150,739
10	JPMorgan Chase & Co	41,782,255	444,209

Additional investment information may be obtained from the Department of Revenue, Treasury Division, P.O. Box 110405, Juneau, Alaska 99811-0405.

## Public Employees' Retirement System Schedule of Investment Management Fees Year Ended June 30, 2020

		Fair Value	Fees
Investment Management			
Total Fixed Income	\$	1,127,373,124	\$ 7,573,067
Total Opportunistic		979,571,651	5,168,896
Total Broad Domestic Equity		4,903,253,723	777,913
Total Global Equity Ex-U.S.		3,382,835,859	6,950,562
Total Private Equity		2,016,529,963	9,556,670
Total Real Assets		2,425,470,719	16,533,509
Custodian			
State Street Bank			838,998
Investment Advisory and Pe	rform	ance	
Callan Associates			356,040
Investment Advisory Council			33,973
Total Investment Advisory	and Pe	rformance	 390,013
Participant Directed			
Cus to dia l			98,699
Investment Management			226,631
Synthetic Investment Contract	Wrap	Fees	 108,686
Total Participant Directed	•		434,016
	\$	14,835,035,039	\$ 48,223,644

## **Investment Section**

## Public Employees' Retirement System Investment Summary Schedule June 30, 2020

	Asset Al	location		Total
Investments (at Fair Value)	Policy	Range Fair Value		Assets
Fixed Income Securities				
Short-term Fixed Income Pool			\$ 92,242,016	
Securities Lending Cash Pool			36,673	
Opportunistic Fixed Income Pool			307,488,861	
ARMB US Aggregate Fixed Income			1,449,451,869	
Alternative Fixed Income			290,484,417	
Total Fixed Income Securities	24.00%	± 6%	2,139,703,836	22.63%
Opportunistic				
Alternative Equity Strategies Pool			101,492,858	
Tactical Allocation Strategies Pool			292,104,815	
Other Opportunities Pool			13,199,317	
Alternative Beta Pool			106,535,860	
Total Opportunistic	8.00%	± 4%	513,332,850	5.43%
Broad Domestic Equity				
Large Cap Pool			2,369,545,696	
Small Cap Pool			209,391,499	
Total Broad Domestic Equity	26.00%	± 6%	2,578,937,195	27.28%
Global Equity Ex-U.S.				
International Equity Pool			1,471,535,894	
Emerging Markets Equity Pool			307,715,542	
Total Global Equity Ex-U.S.	18.00%	± 4%	1,779,251,436	18.82%
Private Equity				
Private Equity Pool			1,166,939,170	
Total Private Equity	11.00%	± 6%	1,166,939,170	12.34%
Real Assets				
Real Estate Pool			474,696,858	
Real Estate Investment Trust Pool			106,163,028	
Infrastructure Private Pool			234,622,190	
Energy Pool			23,480,071	
Farmland Pool			311,205,498	
Timber Pool			126,090,785	
Total Real Assets	13.00%	± 7%	1,276,258,430	13.50%
Total Invested Assets	100.00%		\$ 9,454,422,917	100.00%

## Public Employees' Retirement System Investment Summary Schedule June 30, 2020

Asset All			
Policy	Range	Fair Value	% of Total Assets
100.00%	0%	\$ 2,662,199	
100.0070	0,70		0.19%
		7,292,101	
		6,379,363	
		2,983,957	
		11,967,233	
		38,381,644	
		65,986,935	
		70,179,786	
		85,789,860	
		100,270,739	
		128,137,545	
		152,468,145	
		825,612,273	59.07%
		13,717,037	
		57,114,631	
		75,081,120	
		56,511,643	
		84,014,828	
		56,319,091	
		4,006,470	
		52,918,409	
		93,608,519	
		493,291,748	35.30%
		76.045.505	
			5.44%
	100.00%		100.00% 0% \$ 2,662,199 2,662,199 7,292,101 6,379,363 2,983,957 11,967,233 38,381,644 65,986,935 70,179,786 85,789,860 100,270,739 128,137,545 152,468,145 153,159,067 2,050,335 565,563 825,612,273 13,717,037 57,114,631 75,081,120 56,511,643 84,014,828 56,319,091 4,006,470 52,918,409 93,608,519

<sup>(1)</sup> Pooled Investment Funds, Collective Investment Funds and Synthetic Investment Funds are participant directed and therefore are not subject to an asset allocation.

1,397,611,725

Total Invested Assets

100.00%

## Public Employees' Retirement System Investment Summary Schedule June 30, 2020

Defined Benefit - Alaska Retiree Health Care Trust				
Asset Al	location		Total	
Policy	Range	Fair Value	Assets	
		\$ 67,085,088		
		30,416		
		255,511,608		
		1,204,373,972		
		241,381,558		
24.00%	± 6%	1,768,382,642	22.51%	
		84,336,724		
		242,728,048		
		10,968,133		
		88,527,268		
8.00%	± 4%	426,560,173	5.44%	
		1,969,002,807		
		173,996,412		
26.00%	± 6%	2,142,999,219	27.31%	
		1,222,790,643		
		255,699,971		
18.00%	± 4%	1,478,490,614	18.85%	
		969,682,292		
11.00%	± 6%	969,682,292	12.36%	
		395,444,811		
		88,217,459		
		194,962,162		
		19,511,051		
		258,599,992		
		104,776,671		
13.00%	± 7%	1,061,512,146	13.53%	
100.00%		\$ 7,847,627,086	100.00%	
	Asset All Policy  24.00%  8.00%  18.00%  11.00%	Asset Allocation Policy Range  24.00% ± 6%  8.00% ± 4%  18.00% ± 4%  11.00% ± 6%	Policy   Range   Fair Value   \$ 67,085,088   30,416   255,511,608   1,204,373,972   241,381,558   1,768,382,642     242,728,048   10,968,133   88,527,268   8.00%   ± 4%   426,560,173     1,969,002,807   173,996,412   2,142,999,219     18.00%   ± 4%   1,222,790,643   255,699,971   1,478,490,614     1,222,790,643   255,699,971   1,478,490,614     1,222,790,643   2,142,999,219     1,478,490,614     1,222,790,643   2,142,999,219     1,478,490,614     1,222,790,643   2,142,999,219     1,478,490,614     1,222,790,643   2,142,999,219     1,478,490,614     1,222,790,643   2,142,999,219     1,478,490,614     1,222,790,643   2,142,999,219     1,478,490,614     1,222,790,643     1,222,790,643     1,222,790,643     2,142,999,219     1,478,490,614     1,222,790,643     1,222,790,643     2,142,999,219     1,478,490,614     1,222,790,643     1,222,790,643     2,142,999,219     1,222,790,219     1,222,790,219     1,222,790,219     1,222,790,219     1,222,790,219     1,222,790,219     1,222,790,219     1,222,790,219     1,222,790,219     1,222,790,219     1,222,790,219	

483,226,737

100.00%

### Public Employees' Retirement System Investment Summary Schedule June 30, 2020

	Health Reimbursement Arrangement					
Investments (at Fair Value)	Asset Al Policy	location Range	Fair Value	Total Assets		
Fixed Income Securities	Torrey	Kange	raii value	7133613		
Short-term Fixed Income Pool			\$ 5,359,131			
Securities Lending Cash Pool			1,852			
Opportunistic Fixed Income Pool			15,693,700			
ARMB US Aggregate Fixed Income			73,954,819			
Alternative Fixed Income			14,825,823			
Total Fixed Income Securities	24.00%	± 6%	109,835,325	22.73%		
Opportunistic						
Alternative Equity Strategies Pool			5,180,020			
Tactical Allocation Strategies Pool			14,908,525			
Other Opportunities Pool			673,670			
Alternative Beta Pool			5,437,406			
Total Opportunistic	8.00%	± 4%	26,199,621	5.42%		
Broad Domestic Equity						
Large Cap Pool			120,937,519			
Small Cap Pool			10,686,980			
Total Broad Domestic Equity	26.00%	± 6%	131,624,499	27.24%		
Global Equity Ex-U.S.						
International Equity Pool			75,104,650			
Emerging Markets Equity Pool			15,705,270			
Total Global Equity Ex-U.S.	18.00%	± 4%	90,809,920	18.79%		
Private Equity						
Private Equity Pool			59,558,559			
Total Private Equity	11.00%	± 6%	59,558,559	12.33%		
Real Assets						
Real Estate Pool			24,288,495			
Real Estate Investment Trust Pool			5,418,378			
Infrastructure Private Pool			11,974,711			
Energy Pool			1,198,382			
Farmland Pool			15,883,391			
Timber Pool			6,435,456			
Total Real Assets	13.00%	± 7%	65,198,813	13.49%		

100.00%

Total Invested Assets

# **Investment Section**

### Public Employees' Retirement System Investment Summary Schedule June 30, 2020

	Occupational Death and Disability							
	Asset Al	location		Total				
Investments (at Fair Value)	Policy	Range	Fair Value	Assets				
Fixed Income Securities								
Short-term Fixed Income Pool			\$ 480,828					
Securities Lending Cash Pool			160					
Opportunistic Fixed Income Pool			1,359,446					
ARMB US Aggregate Fixed Income			6,406,204					
Alternative Fixed Income			1,284,267					
Total Fixed Income Securities	24.00%	± 6%	9,530,905	22.76%				
Opportunistic								
Alternative Equity Strategies Pool			448,712					
Tactical Allocation Strategies Pool			1,291,431					
Other Opportunities Pool			58,356					
Alternative Beta Pool			471,008					
Total Opportunistic	8.00%	± 4%	2,269,507	5.42%				
Broad Domestic Equity								
Large Cap Pool			10,476,054					
Small Cap Pool			925,746					
Total Broad Domestic Equity	26.00%	± 6%	11,401,800	27.23%				
Global Equity Ex-U.S.								
International Equity Pool			6,505,842					
Emerging Markets Equity Pool			1,360,448					
Total Global Equity Ex-U.S.	18.00%	± 4%	7,866,290	18.78%				
Private Equity								
Private Equity Pool			5,159,182					
Total Private Equity	11.00%	± 6%	5,159,182	12.32%				
Real Assets								
Real Estate Pool			2,103,959					
Real Estate Investment Trust Pool			469,360					
Infrastructure Private Pool			1,037,294					
Energy Pool			103,808					
Farmland Pool			1,375,878					
Timber Pool			557,463					
Total Real Assets	13.00%	± 7%	5,647,762	13.49%				
Total Invested Assets	100.00%		\$ 41,875,446	100.00%				

### Public Employees' Retirement System Investment Summary Schedule June 30, 2020

		-				
	Asset Al	location		Total		
Investments (at Fair Value)	Policy	Range		Fair Value	Assets	
Fixed Income Securities		·	<u></u>			
Short-term Fixed Income Pool			\$	1,689,716		
Securities Lending Cash Pool				537		
Opportunistic Fixed Income Pool				4,565,469		
ARMB US Aggregate Fixed Income				21,512,738		
Alternative Fixed Income				4,312,994		
Total Fixed Income Securities	24.00%	± 6%		32,081,454	22.80%	
Opportunistic						
Alternative Equity Strategies Pool				1,506,925		
Tactical Allocation Strategies Pool				4,337,053		
Other Opportunities Pool				195,978		
Alternative Beta Pool				1,581,801		
Total Opportunistic	8.00%	± 4%		7,621,757	5.42%	
Broad Domestic Equity						
Large Cap Pool				35,182,050		
Small Cap Pool				3,108,960		
Total Broad Domestic Equity	26.00%	± 6%		38,291,010	27.21%	
Global Equity Ex-U.S.						
International Equity Pool				21,848,766		
Emerging Markets Equity Pool				4,568,835		
Total Global Equity Ex-U.S.	18.00%	± 4%		26,417,601	18.78%	
Private Equity						
Private Equity Pool				17,326,238		
Total Private Equity	11.00%	± 6%		17,326,238	12.31%	
Real Assets						
Real Estate Pool				7,065,789		
Real Estate Investment Trust Pool				1,576,265		
Infrastructure Private Pool				3,483,575		
Energy Pool				348,623		
Farmland Pool				4,620,653		
Timber Pool				1,872,145		
Total Real Assets	13.00%	± 7%		18,967,050	13.48%	
Total Invested Assets	100.00%		\$	140,705,110	100.00%	

# **Investment Section**

### Public Employees' Retirement System Recaptured Commission Fees Year Ended June 30, 2020

Fund	Broad Domestic Equity Pool	Global Equity Ex-U.S.	Opportunistic	Real Assets	Total
Defined Benefit Plan – Pension	\$ 3,034	104	1,677	50	4,865
Postemploy ment Benefit – Alaska Retiree Healthcare Trust	2,503	86	1,377	40	4,006
Postemploy ment Benefit – Health Reimbursement Arrangement	134	5	80	2	221
Postemployment Benefit – Retiree Medical Plan	38	1	23	1	63
Postemployment Benefit - Occupational Death & Disability	12	-	7	-	19
Total Recapture Commission Fees	\$ 5,721	196	3,164	93	9,174

The ARMB's Commission Recapture program has been in place since 1995, first working with various brokers then switching to the State Street program in 2005. Under a commission recapture program, a portion of the commissions and mark-ups on trades (placed through the State Street broker network) flow directly back to the fund.

The program allows managers to place trades for commission recapture purposes. The ARMB has established direction percentages for the managers to strive for, but is only requiring best efforts to meet them given their fiduciary obligation to achieve best execution of transactions.

The current rebate arrangement with State Street Global Markets (SSGM) is: 90% of the commissions received in excess of executing the brokers' execution-only rates; 100% of commissions in excess of its execution-only rates for all trading directed through SSGM.



# ACTUARIAL SECTION





May 7, 2020

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, 2019 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, 2019. 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, 2019.

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 overall funded status is expected to increase to 100% after 25 years.

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 because of failure to understand applicable assumptions, methods or inapplicability of the report for that purpose. Because of the risk of misinterpretation of actuarial results, you should ask Buck to review any statement you wish to make on the results contained in this report. Buck will not accept any liability for any such statement made without the review by Buck.

# **Actuarial Section**

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. 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, 2013 to June 30, 2017. Based on that experience study, the Board adopted new assumptions effective beginning with the June 30, 2018 valuation to better reflect expected future experience. Based on our annual analysis of recent claims experience, changes were made to the per capita claim cost rates effective June 30, 2019 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.

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. Separate GASB 67 and GASB 74 reports as of June 30, 2019 have been prepared. We have also prepared the member data tables shown in Section 4 of this report for the Statistical Section of the CAFR, and the summary of actuarial assumptions, and analysis of financial experience for the Actuarial Section of the CAFR. Please see our separate GASB 67 and GASB 74 reports for other information needed for the CAFR.

#### **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 retiree medical portion of PERS. See Section 6 of this report for further details regarding ASOP 51.

This report was prepared under my supervision and in accordance with all applicable Actuarial Standards of Practice. I am a Fellow of the Society of Actuaries, an Enrolled Actuary, a Fellow of the Conference of Consulting Actuaries and a Member of the American Academy of Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

I am available to discuss this report with you at your convenience. I can be reached at 602-803-6174.

Respectfully submitted,

DILK!

David J. Kershner, FSA, EA, MAAA, FCA

Principal Buck

# **Actuarial Section**

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 herby affirms his qualification to render opinions in such matters in accordance with the Qualification Standards of the American Academy of Actuaries.

Scott Young, FSA, EA, MAAA

Scott young

Director Buck

# Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### 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.

#### **A.** Actuarial Method – Entry Age Normal Cost

Liabilities and contributions shown in the report are computed using the Entry Age Normal Actuarial Cost Method.

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 20141. 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.

<sup>&</sup>lt;sup>1</sup> Layer #1 is referred to as "initial amount" in Section 1.2 and 1.3 of the Actuarial Valuation

### Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### **Description of Actuarial Methods and Valuation Procedures**

#### B. 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 value method recognizes 20% of the gain or loss each year, for a period of 5 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.

#### C. Valuation of Retiree Medical and Prescription Drug Benefits

This section outlines the detailed methodology used to develop 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, 2018 to June 30, 2019.

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 2017 through June 2019 (FY18 through FY19) 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.

# Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### Description of Actuarial Methods and Valuation Procedures

Aetna provided a snapshot file as of July 1, 2019 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 that 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 FY20 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 FY18 through FY19.
  - 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 FY20).
  - Because the reports provided this year 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 5% of actives hired before 4/1/1986 and current
    retirees who are not yet Medicare eligible will not be eligible for Medicare Part A.

### Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### Description of Actuarial Methods and Valuation Procedures

- Based upon a reconciliation of valuation census data to the snapshot eligibility files provided by Aetna as of
  July 1, 2018, and July 1, 2019, 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 Aetna for years through 2018 and Optum for January-June 2019, rebates were assumed to be 12% of prescription drug claims for FY18 and 17% of prescription drug claims for FY19.
- 2. Develop estimated EGWP reimbursements Segal provided estimated 2019 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. Due to group size and demographics, we did not make any 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 FY20 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 6/30/17 valuation as outlined below. Note also that 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:

A las ka-Specific and National Average Weighted Trend from Experience Period to Valuation Year

Experience Period	Medical	Prescription	Weighting Factors
FY18 to FY19	6.2% Pre-Medicare / 4.0% Medicare	8.0%	50%
FY19 to FY20	7.3% Pre-Medicare / 4.6% Medicare	1.2%	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. Develop separate administration costs – no adjustments were made for internal administrative costs. Third party retiree plan administration fees for FY20 are based upon total fees projected to 2020 by Segal based on actual FY19 fees. The annual per participant per year administrative cost rate for medical and prescription benefits is \$348.

# Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### Description of Actuarial Methods and Valuation Procedures

#### D. 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 of the following 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 valuation results included in the report reflect the repeal of this tax. The removal of the Cadillac Tax created an actuarial gain of approximately \$36.3M.

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.

We have not identified any other specific provision of health care 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.

#### E. 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:

- Some records provided on the Aetna data were associated with a participant social security number not listed on
  the RIN-to-SSN translation file. We reconciled those participants with the pension valuation data as either a
  surviving spouse or a retiree in the appropriate plan based on account structure information in the Aetna data.
- 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.

## Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### Description of Actuarial Methods and Valuation Procedures

- 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.

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.

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# Public Employees' Retirement System

# Defined Benefit Retirement Plan

#### Description of Actuarial Methods and Valuation Procedures

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

	Medical			Prescription Drugs (Rx)				
	P	re-Medicare		Medicare	P	re-Medicare		Medicare
A. Fiscal 2018								
1. Incurred Claims	\$	228,572,782	\$	72,875,570	\$	65,406,973	\$	178,763,430
2. A djus tments for Rx Rebates						(7,848,837)		(21,451,612)
3. Net incurred claims	\$	228,572,782	\$	72,875,570	\$	57,558,136	\$	157,311,818
4. Average Enrollment		21,920		40,560		21,920		40,560
5. Claim Cost Rate (3) / (4)		10,428		1,797		2,626		3,878
6. Trend to Fiscal 2020		1.140		1.088		1.093		1.093
7. Fis cal 2020 Incurred Cost Rate (5) x (6)	\$	11,883	\$	1,955	\$	2,780	\$	4,239
B. Fiscal 2019								
1. Incurred Claims	\$	230,731,518	\$	80,855,220	\$	63,846,605	\$	183,281,273
2. A djustments for Rx Rebates		-				(10,853,923)		(31,157,816)
3. Net incurred claims	\$	230,731,518	\$	80,855,220	\$	52,992,682	\$	152,123,456
4. Average Enrollment		20,625		42,843		20,625		42,843
5. Claim Cost Rate (3) / (4)		11,187		1,887		2,569		3,551
6. Trend to Fiscal 2020		1.073		1.046		1.012		1.012
7. Fis cal 2020 Incurred Cost Rate (5) x (6)	\$	12,003	\$	1,974	\$	2,600	\$	3,593
		Med	lical			Prescription	ı Drı	igs (Rx)
	P	re-Medicare		Medicare	P	re-Medicare		Medicare
C. Incurred Cost Rate by Fiscal Year								
1. Fis cal 2018 A. (7)		11,883		1,955		2,870		4,239
2. Fis cal 2019 B. (7)		12,003		1,974		2,600		3,593
D. Weighting by Fiscal Year								
1. Fis cal 2018		50%		50%		50%		50%
2. Fis cal 2019		50%		50%		50%		50%
E. Fiscal 2020 Incurred Cost Rate								
1. Rate at Average Age Cx D	\$	11,943	\$	1,964	\$	2,735	\$	3,916
2. Average Aging Factor	Ÿ	0.826	Ψ	1.256	Ψ	0.838	٣	1.119
3. Rate at Age 65 (1) / (2)	\$	14,646	\$	1,564	\$	3,263	\$	3,501
-								2,5
F. Development of Part A&B and Part B Only Cost from Pooled Rate Above								
1. Part A &B Average Enrollment				42,469				
2. Part B Only Average Enrollment				374				
3. Total Medicare Average Enrollment B(4)				42,843				
4. Cost ratio for those with Part B only to those with Part A &B				3.180				
5. Factor to determine cost for those with Parts A&B								
(2) / (3) x (4) + (1) / (3) x 1.00				1.019				
6. Medicare per capita cost for all participants: E(3)			\$	1,564				
7. Cost for those eligible for Parts A&B: (6) / (5)			\$	1,534				
8. Cost for those eligible for Part B only: (7) x (4)			\$	4,880				

## Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### Description of Actuarial Methods and Valuation Procedures

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, 2019 through June 30, 2020

Age	Medical and Medicare Parts A & B	Medical and Medicare Part B Only	Prescription Drug	Medicare EGWP Subsidy
45	\$ 8,827	\$ 8,827	\$ 1,993	\$ —
50	9,987	9,987	2,368	_
55	11,299	11,299	2,812	_
60	12,784	12,784	3,029	_
65	1,534	4,880	3,501	1,044
70	1,779	5,657	3,865	1,152
75	2,062	6,558	4,267	1,272
80	2,277	7,240	4,162	1,241

#### Changes in Methods Since the Prior Valuation

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

# Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### Summary of Actuarial Assumptions and Changes in Assumptions

The demographic and economic assumptions used in the June 30, 2019 valuation are described below. Unless noted otherwise, these assumptions were adopted by the Board in January 2019 based on the experience study for the period July 1, 2013 to June 30, 2017.

1. Investment Return 7.38% per year, net of investment expenses.

2. Salary Scale Salary scale rates based on upon the 2013-2017 actual experience. (See Table 1).

Inflation – 2.50% per year. Productivity – 0.25% per year.

3. Payroll Growth 2.75% per year. (Inflation + Productivity).

4. 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.

5. Mortality Mortality rates based upon the 2013-2017 actual experience.

(Pre-commencement)

100% (male and female) of RP-2014 employee table, benefit-weighted, rolled back

to 2006, and projected with MP-2017 generational improvement.

6. Mortality Mortality rates based upon the 2013-2017 actual experience.

(Post-commencement) 91% of male and 96% of female rates of RP-2014 healthy annuitant table, benefit-

weighted, rolled back to 2006, and projected with MP-2017 generational

improvement.

7. Turnover Based upon the 2013-2017 actual experience. (See Tables 2 and 3).

8. Disability Incidence rates based on 2013-2017 actual experience (See Table 4).

Post-disability mortality in accordance with the RP-2014 disabled table, benefit-weighted, rolled back to 2006 and projected with MP-2017 generational improvement. Disabilities are assumed to be occupational 75% of the time for Peace

Officer/Firefighters, 40% of the time for Others.

9. Retirement rates based upon the 2013-2017 actual experience (See Tables 5 and 6).

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.

10. Spouse Age Difference Males are assumed to be three years older than their wives. Females are assumed

to be two years younger than husbands.

11. Percent Married for

Pension

For Others, 75% of male members and 70% female members are assumed to be married. For Peace Officer/Firefighters, 85% of male members and 60% of

female members are assumed to be married

# Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### Summary of Actuarial Assumptions and Changes in Assumptions

12.	Dependent Spouse
	Medical Coverage
	Election

Applies to members who do not have dual medical coverage. For Others, 65% of male members and 60% female members are assumed to be married and cover a dependent spouse. For Peace Officer/Firefighters, 75% of male members and 50% of female members are assumed to be married and cover a dependent spouse.

13. Dependent Children

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).

14. Contribution Refunds

For Others, 5% of terminating members with vested benefits are assumed to have their contributions refunded.

For Peace Officers/Firefighters, 10% 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.

15. 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.

16. Active 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 percentage assumptions (which were developed based on the 5 years of rehire loss experience through June 30, 2017). For projections, these assumptions were assumed to grade to zero uniformly over a 20-year period. – Pension 18.77% – Healthcare 17.09%.

17. 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.

18. Alaska Cost-of-Living Adjustments (COLA) Of those benefit recipients who are eligible for the COLA, 70% of Others and 65% Peace Officers/Firefighters are assumed to remain in Alaska and receive the COLA.

19. Post-Retirement 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.

20. Expenses

The investment return assumption is net of investment expenses. The Normal Cost as of June 30, 2019 was increased by the following amounts for administrative expenses (for projections, the percentage increase was assumed to remain constant in future years): – Pension: \$6,839,000 – Healthcare: \$3,744,000

# Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### Summary of Actuarial Assumptions and Changes in Assumptions

21. Part-Time Status Part-time employees are assumed to earn 1.00 years of credited service per year for

Peace Officer/Firefighter and 0.75 years for credited service per year for Other

members.

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

23. 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.

24. 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.

25. Per Capita Claims Cost Sample claims cost rates adjusted to age 65 for FY20 medical and prescription are

shown below:

	 Medical	_	Prescription Drugs
Pre-Medicare	\$ 14,464	\$	3,263
Medicare Parts A & B	1,534		3,501
Medicare Part B Only	4,880		3,501
Medicare Part D - EGWP	N/A		1,044

Members are assumed to attain Medicare eligibility at age 65. All other costs are for the 2020 fiscal year (July 1, 2019 – June 30, 2020).

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.

- 26. Third Party
  Administrator Fees
- \$348 per person per year; assumed to increase at 4.5% per year.
- 27. Medicare Part B Only

We assume that 5% of actives hired before April 1, 1986 and current retirees who are not yet Medicare eligible will not be eligible for Medicare Part A.

28. Health 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, 7.0% is applied to the FY20 pre-Medicare medical claims costs to get the FY21 medical claims costs.

#### Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### Summary of Actuarial Assumptions and Changes in Assumptions

Fiscal year	Medical pre-65	Medical post-65	Prescription Drugs / EGWP
2020	7.0%	5.4%	8.0%
2021	6.5	5.4	7.5
2022	6.3	5.4	7.1
2023	6.1	5.4	6.8
2024	5.9	5.4	6.4
2025	5.8	5.4	6.1
2026	5.6	5.4	5.7
2027-2040	5.4	5.4	5.4
2041	5.3	5.3	5.3
2042	5.2	5.2	5.2
2043	5.1	5.1	5.1
2044	5.1	5.1	5.1
2045	5.0	5.0	5.0
2046	4.9	4.9	4.9
2047	4.8	4.8	4.8
2048	4.7	4.7	4.7
2049	4.6	4.6	4.6
2050+	4.5	4.5	4.5

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.

29. Aging Factors

Age	Medical	Prescription drugs
0–44	2.0%	4.5%
45-54	2.5	3.5
55-64	2.5	1.5
65–74	3.0	2.0
75–84	2.0	(0.5)
85–95	0.3	(2.5)
95 +	_	_

30. 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 FY20 contributions based on monthly rates shown below for calendar 2020 are assumed based on the coverage category for current retirees. The composite rate shown is used for current active and inactive members 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 upon the assumed number of children in rates where children are covered.

# Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### Summary of Actuarial Assumptions and Changes in Assumptions

	Caler	Calendar 2019	
Coverage category	Annual contribution	Monthly contribution	Monthly contribution
Retiree only	\$ 8,892	\$ 741	\$ 823
Retiree and spouse	17,784	1,482	1,647
Retiree and child(ren)	12,564	1,047	1,163
Retiree and family	21,456	1,788	1,987
Composite	13,212	1,101	1,223

31. 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, 0.0% is applied to the FY20 retired member medical contributions to get the FY21 retired member medical contributions.

#### **Trend Assumptions**

Fiscal year:	
2020	%
2021	_
2022	_
2023 +	4.0

Graded trend rates for retired member medical contributions were updated to the rates shown above for the June 30, 2019 valuation to reflect the ongoing shift in population from pre-Medicare to Medicare-eligible and a projection of expected future retiree contributions reflecting the 10% decrease from 2019 to 2020. Actual FY20 retired member medical contributions are reflected in the valuation.

- 32. Healthcare Participation
- 100% of system paid members and their spouses are assumed to elect the healthcare benefits as soon as they are eligible. 20% of non-system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible
- 33. Changes in Assumptions
  Since the Prior Valuation

Healthcare claim costs are updated annually as described in Section 5.2. Retired member contribution trend rates were updated to reflect the ongoing shift in population from pre-Medicare to Medicare-eligible and a projection of expected future retiree contributions reflecting the 10% decrease from 2019 to 2020. The Further Consolidated Appropriations Act, 2020 that was signed in December 2019 made several changes, including the repeal of the Cadillac Tax. The repeal of the Cadillac Tax reduced the plan's liabilities as of June 30, 2019 by approximately \$36.3M. The amounts included in the Normal Cost for administrative expenses were changed to \$6,839,000 for pension and \$3,744,000 for healthcare (based on the most recent two years of actual administrative expenses paid from plan assets). No adjustment was made to reflect participants who terminate employment before the valuation date and are subsequently rehired after the valuation date.

# Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### Summary of Actuarial Assumptions and Changes in Assumptions

Table 1 Alaska PERS Salary Scale

Peace Officer/Firefighter:		Others:	
Years of Service	Percent Increase	Years of Service	Percent Increase
0	7.75%	0	6.75%
1	7.25	1	6.25
2	6.75	2	5.75
3	6.25	3	5.25
4	5.75	4	4.75
5	5.25	5	4.25
6	4.75	6	3.75
7	4.25	7	3.65
8	3.75	8	3.55
9	3.65	9	3.45
10	3.55	10	3.35
11	3.45	11	3.25
12	3.35	12	3.15
13	3.25	13	3.05
14	3.15	14	2.95
15	3.05	15	2.85
16	2.95	16	2.75
17	2.85	17	2.75
18	2.75	18	2.75
19	2.75	19	2.75
20+	2.75	20+	2.75

# Public Employees' Retirement System

### Defined Benefit Retirement Plan

Summary of Actuarial Assumptions and Changes in Assumptions

#### Table 2 Alaska PERS Turnover Assumptions

#### Peace Officer/Firefighter:

Years of Service	Male (rounded)	Female (rounded)
0	0.15	0.15
1	0.12	0.08
2	0.07	0.06
3	0.06	0.06
4	0.06	0.07

#### Members with 5 or more years of service

Age	Male	Female	Age	Male	Female
20	0.047000	0.068000	40	0.016800	0.033900
21	0.047000	0.068000	41	0.016700	0.033700
22	0.047000	0.068000	42	0.016700	0.033600
23	0.044600	0.068000	43	0.017100	0.033300
24	0.042200	0.068000	44	0.017600	0.033100
25	0.039800	0.068000	45	0.018100	0.032800
26	0.037400	0.068000	46	0.018500	0.032500
27	0.035000	0.068000	47	0.019000	0.032300
28	0.033200	0.066300	48	0.022200	0.031900
29	0.031400	0.064600	49	0.025300	0.031500
30	0.029600	0.062900	50	0.031800	0.064200
31	0.027900	0.061200	51	0.042400	0.063200
32	0.026100	0.059500	52	0.042400	0.061900
33	0.025000	0.053600	53	0.042400	0.060400
34	0.023900	0.047700	54	0.042400	0.030000
35	0.022800	0.041800	55+	0.030000	0.020000
36	0.021700	0.036000			
37	0.020600	0.030100			
38	0.020500	0.029900			
39	0.020400	0.029800			

# Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### Summary of Actuarial Assumptions and Changes in Assumptions

# Table 3 Alaska PERS Turnover Assumptions

#### Others:

	Hire A	ge < 35	Hire Age > 35		
Years of Service	Male (rounded)	Female (rounded)	Male (rounded)	Female (rounded)	
0	0.29	0.29	0.20	0.20	
1	0.16	0.20	0.12	0.15	
2	0.13	0.16	0.10	0.13	
3	0.10	0.13	0.09	0.10	
4	0.08	0.10	0.09	0.09	

#### Members with 5 or more years of service

Age	Male	Female	_	Age	Male	Female
20	0.114000	0.129900		40	0.048600	0.056500
21	0.114000	0.129900		41	0.047100	0.055100
22	0.114000	0.129900		42	0.045600	0.053800
23	0.108300	0.122100		43	0.045000	0.051900
24	0.102600	0.114300		44	0.044400	0.049900
25	0.096900	0.106500		45	0.043900	0.048000
26	0.091200	0.098700		46	0.043300	0.046000
27	0.085500	0.090900		47	0.042700	0.044100
28	0.083000	0.087200		48	0.042600	0.044000
29	0.080500	0.083400		49	0.042400	0.043900
30	0.078000	0.079700		50	0.036300	0.044500
31	0.075400	0.076000		51	0.036000	0.044300
32	0.072900	0.072300		52	0.035600	0.044000
33	0.069900	0.068800		53	0.035200	0.043700
34	0.066900	0.065300	_	54	0.041700	0.062000
35	0.063900	0.061700		55+	0.030000	0.050000
36	0.061000	0.058200				
37	0.058000	0.054700				
38	0.056300	0.053500				
39	0.054700	0.052300				

# Public Employees' Retirement System Defined Benefit Retirement Plan

#### Summary of Actuarial Assumptions and Changes in Assumptions

Table 4 Alaska PERS Disability Table

Age         Male         Female         Male         Female           20         0.000179         0.000112         0.000327         0.000376           21         0.000179         0.000112         0.000327         0.000376           22         0.000179         0.000112         0.000327         0.000376           23         0.000244         0.000153         0.000360         0.000400           24         0.000310         0.000194         0.000392         0.000424           25         0.000374         0.000234         0.000425         0.000482           26         0.000440         0.000275         0.000456         0.000472           27         0.000505         0.000316         0.000489         0.000496           28         0.000526         0.000329         0.000501         0.000510           29         0.000548         0.000343         0.000513         0.000524           30         0.000570         0.000356         0.000524         0.000538           31         0.000570         0.000370         0.000536         0.000548           32         0.000612         0.000370         0.000536         0.000548           33         0.000627 <th></th> <th>Peace Officer</th> <th>/ Firefighter Rate</th> <th colspan="3">Other Member Rate</th>		Peace Officer	/ Firefighter Rate	Other Member Rate		
21         0.000179         0.000112         0.000327         0.000376           22         0.000179         0.000112         0.000327         0.000376           23         0.000244         0.000153         0.000392         0.000420           24         0.000310         0.000194         0.000392         0.000448           25         0.000374         0.000234         0.000425         0.000448           26         0.000440         0.000275         0.000456         0.000472           27         0.000505         0.000316         0.000489         0.000496           28         0.000526         0.000329         0.000501         0.000510           29         0.000548         0.0003343         0.000513         0.000524           30         0.000570         0.000356         0.000524         0.000538           31         0.000591         0.000370         0.000536         0.000544         0.000538           32         0.000612         0.000333         0.000548         0.000568           33         0.000657         0.000411         0.000548         0.000568           34         0.000657         0.000411         0.000584         0.00066	Age	Male	Female	Male	Female	
22         0.000179         0.000112         0.000327         0.000376           23         0.000244         0.000153         0.000360         0.000400           24         0.000310         0.000194         0.000392         0.000424           25         0.000374         0.000234         0.000425         0.000482           26         0.000440         0.000275         0.000486         0.000472           27         0.000505         0.000316         0.000489         0.000496           28         0.000526         0.000329         0.000501         0.000510           29         0.000548         0.000343         0.000513         0.000524           30         0.000570         0.000356         0.000524         0.00053           31         0.000591         0.000370         0.000536         0.00054           32         0.000612         0.000383         0.000548         0.000568           33         0.000634         0.000370         0.000566         0.000586           34         0.000657         0.000411         0.000584         0.000666           35         0.000679         0.000425         0.000602         0.000644           37         0.0	20	0.000179	0.000112	0.000327	0.000376	
23         0.000244         0.000153         0.000360         0.000400           24         0.000310         0.000194         0.000392         0.000424           25         0.000374         0.000234         0.000425         0.000448           26         0.000440         0.000275         0.000486         0.000472           27         0.000505         0.000316         0.000489         0.000510           28         0.000526         0.000329         0.000501         0.000510           29         0.000548         0.000343         0.000513         0.000524           30         0.000570         0.000356         0.000524         0.000538           31         0.000591         0.000370         0.000536         0.000548           32         0.00612         0.000333         0.000548         0.000568           33         0.000612         0.000333         0.000548         0.000566           34         0.000657         0.000411         0.000566         0.000586           34         0.000657         0.000411         0.000566         0.00062           35         0.000679         0.000433         0.00062         0.000644           37         0.00	21	0.000179	0.000112	0.000327	0.000376	
24         0.000310         0.000194         0.000392         0.000424           25         0.000374         0.000234         0.000425         0.000448           26         0.000440         0.000275         0.000456         0.000496           27         0.000505         0.000316         0.000489         0.000496           28         0.000526         0.000329         0.000501         0.000510           29         0.000548         0.000333         0.000513         0.000524           30         0.000570         0.000356         0.000524         0.000538           31         0.000591         0.000370         0.000536         0.00054           32         0.000612         0.000383         0.000548         0.000568           33         0.000634         0.000397         0.000566         0.000586           34         0.000657         0.000411         0.000584         0.000568           35         0.000679         0.000425         0.000602         0.000624           36         0.000702         0.000433         0.00062         0.000644           37         0.000757         0.000453         0.00062         0.000644           37         0.00	22	0.000179	0.000112	0.000327	0.000376	
25         0.000374         0.000234         0.000425         0.000448           26         0.000440         0.000275         0.000456         0.000472           27         0.000505         0.000316         0.000489         0.000496           28         0.000526         0.000329         0.000501         0.000510           29         0.000548         0.000336         0.000524         0.000538           30         0.000570         0.000356         0.000524         0.000538           31         0.000591         0.000370         0.000536         0.000548         0.00058           32         0.000612         0.000383         0.000548         0.000586           34         0.000657         0.000411         0.000584         0.000666           35         0.000679         0.000425         0.000602         0.000624           36         0.000724         0.000439         0.000620         0.000644           38         0.000757         0.000433         0.000620         0.000644           38         0.000724         0.000433         0.000620         0.000664           38         0.000757         0.000433         0.000669         0.000669	23	0.000244	0.000153	0.000360	0.000400	
26         0.000440         0.000275         0.000456         0.000472           27         0.000505         0.000316         0.000489         0.000496           28         0.000526         0.000329         0.000501         0.000510           29         0.000548         0.000343         0.000513         0.000524           30         0.000570         0.000356         0.000524         0.000538           31         0.000591         0.000370         0.000536         0.00058           32         0.000612         0.000383         0.000548         0.000568           33         0.00634         0.000397         0.000566         0.000586           34         0.000657         0.000411         0.000584         0.000606           35         0.000679         0.000439         0.000602         0.000644           37         0.000724         0.000439         0.000620         0.000644           38         0.000757         0.000473         0.000669         0.000669           39         0.000789         0.000493         0.000701         0.000728           40         0.00082         0.000441         0.000734         0.000765         0.000794 <t< td=""><td>24</td><td>0.000310</td><td>0.000194</td><td>0.000392</td><td>0.000424</td></t<>	24	0.000310	0.000194	0.000392	0.000424	
27         0.000505         0.000316         0.000489         0.000496           28         0.000526         0.000329         0.000501         0.000510           29         0.000548         0.000343         0.000513         0.000524           30         0.000570         0.000356         0.000524         0.000538           31         0.000591         0.000383         0.000546         0.000556           32         0.000612         0.000383         0.000548         0.000566           34         0.000657         0.00411         0.000584         0.000606           35         0.000679         0.00425         0.000602         0.000624           36         0.000702         0.000439         0.000620         0.000644           37         0.000724         0.00433         0.000638         0.00062           38         0.000757         0.000473         0.000638         0.000662           38         0.000757         0.000473         0.000669         0.000696           39         0.000789         0.000493         0.000701         0.000728           40         0.000822         0.000514         0.000734         0.000728           41         0.000	25	0.000374	0.000234	0.000425	0.000448	
28         0.000526         0.000329         0.000501         0.000510           29         0.000548         0.000343         0.000513         0.000524           30         0.000570         0.000356         0.000524         0.000538           31         0.000591         0.000370         0.000536         0.000554           32         0.000612         0.000383         0.000548         0.000588           34         0.000657         0.000411         0.000584         0.0006062           35         0.000679         0.000425         0.000602         0.000624           36         0.000702         0.000439         0.000620         0.000644           37         0.000724         0.000453         0.000638         0.000662           38         0.000757         0.000473         0.000638         0.000662           38         0.000757         0.000473         0.000669         0.000696           39         0.000789         0.000473         0.000701         0.000728           40         0.000822         0.000514         0.000734         0.000762           41         0.000887         0.00054         0.000797         0.000826           43         0	26	0.000440	0.000275	0.000456	0.000472	
29         0.000548         0.000343         0.000513         0.000524           30         0.000570         0.000356         0.000524         0.000538           31         0.000591         0.000370         0.000536         0.000554           32         0.000612         0.000383         0.000548         0.000568           33         0.000634         0.000397         0.000566         0.000586           34         0.000657         0.000411         0.000584         0.000606           35         0.000679         0.000425         0.000602         0.000624           36         0.000702         0.000439         0.000620         0.000644           37         0.000724         0.000453         0.000638         0.000662           38         0.000757         0.000473         0.000669         0.000696           39         0.000789         0.000493         0.000701         0.000728           40         0.000822         0.000514         0.000734         0.000762           41         0.000854         0.000534         0.000797         0.000826           43         0.000977         0.000611         0.000879         0.000826           43         0	27	0.000505	0.000316	0.000489	0.000496	
30         0.000570         0.000356         0.000524         0.000538           31         0.000591         0.000370         0.000536         0.000554           32         0.000612         0.000383         0.000548         0.000568           33         0.000634         0.000397         0.000566         0.000586           34         0.000657         0.000411         0.000584         0.000606           35         0.000679         0.000425         0.000602         0.000624           36         0.000702         0.000439         0.000620         0.000644           37         0.000724         0.000453         0.000638         0.000662           38         0.000757         0.000473         0.000669         0.000696           39         0.000789         0.000493         0.000701         0.000728           40         0.000822         0.000514         0.000734         0.000762           41         0.000854         0.000534         0.000765         0.000794           42         0.000887         0.00054         0.000797         0.000826           43         0.000797         0.000611         0.000899         0.000999           45         0.	28	0.000526	0.000329	0.000501	0.000510	
31         0.000591         0.000370         0.000536         0.000554           32         0.000612         0.000383         0.000548         0.000568           33         0.000634         0.000397         0.000566         0.000586           34         0.000657         0.000411         0.000584         0.000606           35         0.000679         0.000425         0.000622         0.000624           36         0.000702         0.000439         0.000620         0.000644           37         0.000724         0.000453         0.000638         0.000662           38         0.000757         0.000473         0.000669         0.000696           39         0.000789         0.000514         0.000734         0.000762           41         0.000822         0.000514         0.000734         0.000765         0.000794           42         0.000887         0.000534         0.000797         0.000826           43         0.000977         0.000611         0.000879         0.000990           45         0.001157         0.000723         0.001043         0.001072           46         0.001247         0.000780         0.001125         0.001154	29	0.000548	0.000343	0.000513	0.000524	
32         0.000612         0.000383         0.000548         0.000568           33         0.000634         0.000397         0.000566         0.000586           34         0.000657         0.000411         0.000584         0.000606           35         0.000679         0.000425         0.000620         0.000624           36         0.000702         0.000439         0.000638         0.000662           38         0.000757         0.000473         0.000699         0.000696           39         0.000789         0.000493         0.000701         0.000728           40         0.000822         0.000514         0.000734         0.000762           41         0.000854         0.000534         0.000797         0.000826           43         0.000977         0.000611         0.000879         0.00098           44         0.001066         0.000667         0.000962         0.000990           45         0.001157         0.000723         0.001043         0.001072           46         0.001247         0.000780         0.00125         0.001154           47         0.001337         0.000836         0.001208         0.001236           48         0.0	30	0.000570	0.000356	0.000524	0.000538	
33         0.000634         0.000397         0.000566         0.000586           34         0.000657         0.000411         0.000584         0.000606           35         0.000679         0.000425         0.000602         0.000624           36         0.000702         0.000439         0.000620         0.000644           37         0.000724         0.000453         0.000638         0.000696           38         0.000757         0.000473         0.000669         0.000696           39         0.000789         0.000493         0.000701         0.000728           40         0.000822         0.000514         0.000734         0.000762           41         0.000854         0.000534         0.000797         0.000826           43         0.000977         0.000611         0.000879         0.000908           44         0.001666         0.000667         0.000962         0.000990           45         0.001157         0.000723         0.001043         0.001072           46         0.001247         0.000866         0.001208         0.001236           48         0.001588         0.000993         0.001451         0.001484           50         0	31	0.000591	0.000370	0.000536	0.000554	
34         0.000657         0.000411         0.000584         0.000606           35         0.000679         0.000425         0.000602         0.000624           36         0.000702         0.000439         0.000620         0.000644           37         0.000724         0.000453         0.000688         0.000662           38         0.000757         0.000473         0.000669         0.000696           39         0.000789         0.000493         0.000701         0.000728           40         0.000822         0.000514         0.000734         0.000762           41         0.000854         0.000534         0.000795         0.000826           43         0.000977         0.000611         0.000879         0.000826           43         0.001066         0.000667         0.000962         0.000990           45         0.001157         0.000723         0.001043         0.001072           46         0.001247         0.000780         0.001125         0.001154           47         0.001337         0.000866         0.001208         0.00128         0.001236           48         0.001462         0.000993         0.001451         0.001484	32	0.000612	0.000383	0.000548	0.000568	
35         0.000679         0.000425         0.000602         0.000624           36         0.000702         0.000439         0.000620         0.000644           37         0.000724         0.000453         0.000638         0.000662           38         0.000757         0.000473         0.000669         0.000696           39         0.000789         0.000493         0.000701         0.000728           40         0.000822         0.000514         0.000734         0.000765           41         0.000854         0.000534         0.000797         0.000826           43         0.000977         0.000611         0.000879         0.000908           44         0.001066         0.000667         0.000962         0.000990           45         0.001157         0.000723         0.001043         0.001072           46         0.001247         0.000780         0.001125         0.001154           47         0.001337         0.000836         0.001208         0.001236           48         0.001462         0.000914         0.001329         0.001360           49         0.001588         0.000993         0.001451         0.001608           51         0	33	0.000634	0.000397	0.000566	0.000586	
36         0.000702         0.000439         0.000620         0.000644           37         0.000724         0.000453         0.000638         0.000662           38         0.000757         0.000473         0.000669         0.000696           39         0.000789         0.000493         0.000701         0.000728           40         0.000822         0.000514         0.000734         0.000762           41         0.000854         0.000534         0.000797         0.000826           43         0.000977         0.000611         0.000879         0.00098           44         0.001066         0.000667         0.000962         0.000990           45         0.001157         0.000723         0.001043         0.001072           46         0.001247         0.000780         0.001125         0.001154           47         0.001337         0.000836         0.001208         0.001236           48         0.001462         0.000914         0.001329         0.001360           49         0.001588         0.000993         0.001451         0.001484           50         0.001714         0.001071         0.001572         0.001608           51         0.	34	0.000657	0.000411	0.000584	0.000606	
37         0.000724         0.000453         0.000638         0.000662           38         0.000757         0.000473         0.000669         0.000696           39         0.000789         0.000493         0.000701         0.000728           40         0.000822         0.000514         0.000734         0.000762           41         0.000854         0.000534         0.000797         0.000826           43         0.000977         0.000611         0.000879         0.000908           44         0.001066         0.000667         0.000962         0.000990           45         0.001157         0.000723         0.001043         0.001072           46         0.001247         0.000780         0.001125         0.001154           47         0.001337         0.000836         0.001208         0.001236           48         0.001462         0.000993         0.001451         0.001484           50         0.001714         0.001071         0.001572         0.001608           51         0.001839         0.001150         0.001694         0.001734           52         0.001965         0.001228         0.001815         0.001858           53         0	35	0.000679	0.000425	0.000602	0.000624	
38         0.000757         0.000473         0.000669         0.000696           39         0.000789         0.000493         0.000701         0.000728           40         0.000822         0.000514         0.000734         0.000762           41         0.000854         0.000534         0.000795         0.000794           42         0.000887         0.000554         0.000797         0.000826           43         0.000977         0.000611         0.000879         0.000908           44         0.001066         0.000667         0.000962         0.000990           45         0.001157         0.000723         0.001043         0.001072           46         0.001247         0.000780         0.001125         0.001154           47         0.001337         0.000836         0.001208         0.001236           48         0.001462         0.000914         0.001329         0.001360           49         0.001588         0.000993         0.001451         0.001608           51         0.001839         0.001150         0.001694         0.001734           52         0.001965         0.001228         0.001815         0.001858           53         0	36	0.000702	0.000439	0.000620	0.000644	
39         0.000789         0.000493         0.000701         0.000728           40         0.000822         0.000514         0.000734         0.000762           41         0.000854         0.000534         0.000795         0.000794           42         0.000887         0.000554         0.000797         0.000826           43         0.000977         0.000611         0.000879         0.000908           44         0.001066         0.000667         0.000962         0.000990           45         0.001157         0.000723         0.001043         0.001072           46         0.001247         0.000780         0.001125         0.001154           47         0.001337         0.000836         0.001208         0.001236           48         0.001462         0.000914         0.001329         0.001360           49         0.001588         0.000993         0.001451         0.001484           50         0.001714         0.001071         0.001572         0.001608           51         0.001839         0.001150         0.001694         0.001734           52         0.001965         0.001228         0.001815         0.001858           53         0	37	0.000724	0.000453	0.000638	0.000662	
40         0.000822         0.000514         0.000734         0.000762           41         0.000854         0.000534         0.000765         0.000794           42         0.000887         0.000554         0.000797         0.000826           43         0.000977         0.000611         0.000879         0.000908           44         0.001066         0.000667         0.000962         0.000990           45         0.001157         0.000723         0.001043         0.001072           46         0.001247         0.000780         0.001125         0.001154           47         0.001337         0.000836         0.001208         0.001236           48         0.001462         0.000914         0.001329         0.001360           49         0.001588         0.000993         0.001451         0.001484           50         0.001714         0.001071         0.001572         0.001608           51         0.001839         0.001150         0.001694         0.001734           52         0.001965         0.001228         0.001815         0.001858           53         0.002294         0.001434         0.002132         0.002168	38	0.000757	0.000473	0.000669	0.000696	
41       0.000854       0.000534       0.000765       0.000794         42       0.000887       0.000554       0.000797       0.000826         43       0.000977       0.000611       0.000879       0.000908         44       0.001066       0.000667       0.000962       0.000990         45       0.001157       0.000723       0.001043       0.001072         46       0.001247       0.000780       0.001125       0.001154         47       0.001337       0.000836       0.001208       0.001236         48       0.001462       0.000914       0.001329       0.001360         49       0.001588       0.000993       0.001451       0.001484         50       0.001714       0.001071       0.001572       0.001608         51       0.001839       0.001150       0.001694       0.001734         52       0.001965       0.001228       0.001815       0.001858         53       0.002294       0.001434       0.002132       0.002168	39	0.000789	0.000493	0.000701	0.000728	
42       0.000887       0.000554       0.000797       0.000826         43       0.000977       0.000611       0.000879       0.000908         44       0.001066       0.000667       0.000962       0.000990         45       0.001157       0.000723       0.001043       0.001072         46       0.001247       0.000780       0.001125       0.001154         47       0.001337       0.000836       0.001208       0.001236         48       0.001462       0.000914       0.001329       0.001360         49       0.001588       0.000993       0.001451       0.001484         50       0.001714       0.001071       0.001572       0.001608         51       0.001839       0.001150       0.001694       0.001734         52       0.001965       0.001228       0.001815       0.001858         53       0.002294       0.001434       0.002132       0.002168	40	0.000822	0.000514	0.000734	0.000762	
43         0.000977         0.000611         0.000879         0.000908           44         0.001066         0.000667         0.000962         0.000990           45         0.001157         0.000723         0.001043         0.001072           46         0.001247         0.000780         0.001125         0.001154           47         0.001337         0.000836         0.001208         0.001236           48         0.001462         0.000914         0.001329         0.001360           49         0.001588         0.000993         0.001451         0.001484           50         0.001714         0.001071         0.001572         0.001608           51         0.001839         0.001150         0.001694         0.001734           52         0.001965         0.001228         0.001815         0.001858           53         0.002294         0.001434         0.002132         0.002168	41	0.000854	0.000534	0.000765	0.000794	
44         0.001066         0.000667         0.000962         0.000990           45         0.001157         0.000723         0.001043         0.001072           46         0.001247         0.000780         0.001125         0.001154           47         0.001337         0.000836         0.001208         0.001236           48         0.001462         0.000914         0.001329         0.001360           49         0.001588         0.000993         0.001451         0.001484           50         0.001714         0.001071         0.001572         0.001608           51         0.001839         0.001150         0.001694         0.001734           52         0.001965         0.001228         0.001815         0.001858           53         0.002294         0.001434         0.002132         0.002168	42	0.000887	0.000554	0.000797	0.000826	
45         0.001157         0.000723         0.001043         0.001072           46         0.001247         0.000780         0.001125         0.001154           47         0.001337         0.000836         0.001208         0.001236           48         0.001462         0.000914         0.001329         0.001360           49         0.001588         0.000993         0.001451         0.001484           50         0.001714         0.001071         0.001572         0.001608           51         0.001839         0.001150         0.001694         0.001734           52         0.001965         0.001228         0.001815         0.001858           53         0.002294         0.001434         0.002132         0.002168	43	0.000977	0.000611	0.000879	0.000908	
46       0.001247       0.000780       0.001125       0.001154         47       0.001337       0.000836       0.001208       0.001236         48       0.001462       0.000914       0.001329       0.001360         49       0.001588       0.000993       0.001451       0.001484         50       0.001714       0.001071       0.001572       0.001608         51       0.001839       0.001150       0.001694       0.001734         52       0.001965       0.001228       0.001815       0.001858         53       0.002294       0.001434       0.002132       0.002168	44	0.001066	0.000667	0.000962	0.000990	
47       0.001337       0.000836       0.001208       0.001236         48       0.001462       0.000914       0.001329       0.001360         49       0.001588       0.000993       0.001451       0.001484         50       0.001714       0.001071       0.001572       0.001608         51       0.001839       0.001150       0.001694       0.001734         52       0.001965       0.001228       0.001815       0.001858         53       0.002294       0.001434       0.002132       0.002168	45	0.001157	0.000723	0.001043	0.001072	
48       0.001462       0.000914       0.001329       0.001360         49       0.001588       0.000993       0.001451       0.001484         50       0.001714       0.001071       0.001572       0.001608         51       0.001839       0.001150       0.001694       0.001734         52       0.001965       0.001228       0.001815       0.001858         53       0.002294       0.001434       0.002132       0.002168	46	0.001247	0.000780	0.001125	0.001154	
49         0.001588         0.000993         0.001451         0.001484           50         0.001714         0.001071         0.001572         0.001608           51         0.001839         0.001150         0.001694         0.001734           52         0.001965         0.001228         0.001815         0.001858           53         0.002294         0.001434         0.002132         0.002168	47	0.001337	0.000836	0.001208	0.001236	
50       0.001714       0.001071       0.001572       0.001608         51       0.001839       0.001150       0.001694       0.001734         52       0.001965       0.001228       0.001815       0.001858         53       0.002294       0.001434       0.002132       0.002168	48	0.001462	0.000914	0.001329	0.001360	
51       0.001839       0.001150       0.001694       0.001734         52       0.001965       0.001228       0.001815       0.001858         53       0.002294       0.001434       0.002132       0.002168	49	0.001588	0.000993	0.001451	0.001484	
52       0.001965       0.001228       0.001815       0.001858         53       0.002294       0.001434       0.002132       0.002168	50	0.001714	0.001071	0.001572	0.001608	
53 0.002294 0.001434 0.002132 0.002168	51	0.001839	0.001150	0.001694	0.001734	
		0.001965	0.001228	0.001815	0.001858	
54 0.002624 0.001640 0.002450 0.002478		0.002294				
	54	0.002624	0.001640	0.002450	0.002478	

# Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### Summary of Actuarial Assumptions and Changes in Assumptions

Table 5 Alaska PERS Peace Officer / Firefighter Retirement Table

#### Retirement Rate

	Reduc	ced Rates	Unreduced Rates		
Age at Retirement	Male	Female	Male	Female	
<47	N/A	N/A	0.0880	0.0600	
47	N/A	N/A	0.0880	0.1500	
48	N/A	N/A	0.1430	0.1500	
49	N/A	N/A	0.1430	0.1500	
50	0.0500	0.0500	0.1650	0.1500	
51	0.0500	0.0700	0.1650	0.1500	
52	0.0700	0.0700	0.2035	0.1500	
53	0.0700	0.0700	0.2035	0.1500	
54	0.0700	0.3500	0.2035	0.2500	
55	0.0700	0.0800	0.2750	0.2000	
56	0.0700	0.0800	0.2750	0.1500	
57	0.0700	0.0800	0.2750	0.1500	
58	0.0700	0.0800	0.2750	0.1500	
59	0.2000	0.2000	0.2750	0.1500	
60	N/A	N/A	0.3300	0.2500	
61	N/A	N/A	0.2750	0.2000	
62	N/A	N/A	0.2750	0.3000	
63	N/A	N/A	0.2750	0.5000	
64	N/A	N/A	0.2200	0.5000	
65	N/A	N/A	0.2200	0.5000	
66	N/A	N/A	0.2750	0.5000	
67	N/A	N/A	0.5500	0.5000	
68	N/A	N/A	0.5500	0.5000	
69	N/A	N/A	0.5500	0.5000	
70	N/A	N/A	1.0000	1.0000	
71	N/A	N/A	1.0000	1.0000	
72	N/A	N/A	1.0000	1.0000	
73	N/A	N/A	1.0000	1.0000	
74	N/A	N/A	1.0000	1.0000	
75	N/A	N/A	1.0000	1.0000	

# Public Employees' Retirement System Defined Benefit Retirement Plan

Summary of Actuarial Assumptions and Changes in Assumptions

#### Table 6 Alaska PERS Other Retirement Table

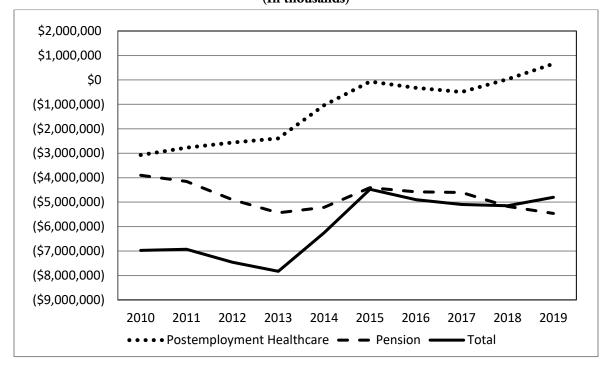
#### **Retirement Rates**

	Re	duced	Unreduced		
Age at Retirement	Male	Female	Male	Female	
<50	N/A	N/A	0.1100	0.1100	
50	0.0600	0.0800	0.3300	0.3850	
51	0.0600	0.0800	0.3575	0.3850	
52	0.0900	0.0800	0.3575	0.3850	
53	0.0600	0.0800	0.3575	0.3850	
54	0.2000	0.1500	0.3850	0.3850	
55	0.0600	0.0600	0.3300	0.3300	
56	0.0600	0.0600	0.2200	0.2200	
57	0.0600	0.0600	0.2200	0.1980	
58	0.0600	0.0600	0.2200	0.1980	
59	0.1500	0.2000	0.2200	0.1980	
60	N/A	N/A	0.2200	0.2310	
61	N/A	N/A	0.2200	0.2200	
62	N/A	N/A	0.2200	0.2200	
63	N/A	N/A	0.2200	0.2200	
64	N/A	N/A	0.2200	0.2200	
65	N/A	N/A	0.2475	0.2860	
66	N/A	N/A	0.2750	0.2860	
67	N/A	N/A	0.2200	0.2420	
68	N/A	N/A	0.2475	0.2420	
69	N/A	N/A	0.2750	0.2420	
70	N/A	N/A	0.2750	0.2420	
71	N/A	N/A	0.2750	0.2420	
72	N/A	N/A	0.2750	0.2750	
73	N/A	N/A	0.2750	0.2750	
74	N/A	N/A	0.2750	0.3850	
75-79	N/A	N/A	0.5500	0.5500	
80+	N/A	N/A	1.0000	1.0000	

# Public Employees' Retirement System Defined Benefit Retirement Plan Funding Excess/(Unfunded Liability) (In thousands)

Actuarial Valuation Year Ended June 30	Postemployment Healthcare	Pension	Total Funding Excess/ (Unfunded Liability)	Funded Ratio
2010	\$ (3,073,188)	\$ (3,901,840)	\$ (6,975,028)	61.5%
2011	(2,769,878)	(4,156,898)	(6,926,776)	63.0
2012	(2,561,808)	(4,898,523)	(7,460,331)	61.3
2013	(2,395,001)	(5,435,132)	(7,830,133)	60.8
2014	(1,036,453)	(5,216,321)	(6,252,774)	70.1
2015	(68,435)	(4,406,769)	(4,475,204)	75.4
2016	(325,127)	(4,576,371)	(4,901,498)	70.0
2017	(492,197)	(4,602,427)	(5,094,624)	74.4
2018	28,405	(5,175,841)	(5,147,436)	76.0
2019	658,797	(5,462,487)	(4,803,690)	77.8

# 10-YEAR TREND OF UNFUNDED LIABLITY (In thousands)



# Public Employees' Retirement System Defined Benefit Retirement Plan Employer Contribution Rates

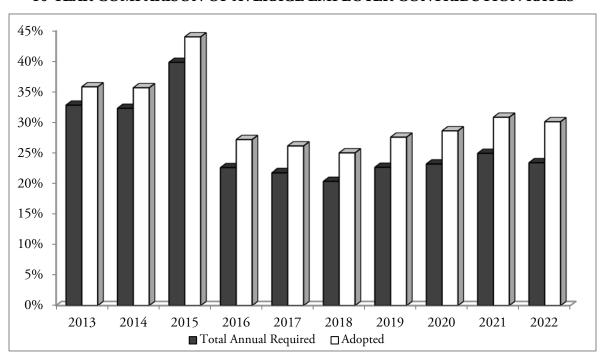
Year Ended June 30	Actuarial Valuation Year Ended June 30	Normal Cost <sup>1</sup>	Past Service	Total Annual Required	Adopted
2013	2010	8.67%	24.16%	32.86%	35.84%
2014	2011	8.12	24.19	32.31	35.68
2015	2012	6.82	33.03	39.85	44.03
2016	2013	6.05	16.53	22.58	27.19
2017	2014	5.76	16.02	21.78	26.14
2018	2015	5.10	15.28	20.38	25.01
2019	2016	6.11	16.53	22.64	27.58
2020	2017	5.74	17.44	23.18	28.62
2021	2018	6.70	18.23	24.93	30.85
2022	2019	5.70	17.69	23.39	30.11

<sup>&</sup>lt;sup>1</sup> Also referred to as the consolidated rate.

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 year "roll-forward" approach and 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.

Valuations are used to set contribution rates in future years.

#### 10-YEAR COMPARISON OF AVERAGE EMPLOYER CONTRIBUTION RATES



# Public Employees' Retirement System Defined Benefit Retirement Plan Schedule of Active Member Valuation Data

Valuation Date	Number	Annual Earnings (In thousands)	Annual Average Earnings	Percent Increase in Average Earnings	Number of Participating Employers			
	All Others							
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			
June 30, 2012	20,566	1,305,337	63,471	4.6	160			
June 30, 2011	22,118	1,342,122	60,680	4.7	160			
June 30, 2010	24,054	1,393,803	57,945	4.5	160			
		Peace Off	icer / Firefighter					
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			
June 30, 2012	2,164	197,544	91,286	4.1	160			
June 30, 2011	2,275	199,537	87,709	8.6	160			
June 30, 2010	2,388	192,895	80,777	2.8	160			

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

# **Actuarial Section**

# Public Employees' Retirement System Defined Benefit Retirement Plan Schedule of Benefit Recipients Added to and Removed from Rolls

	Added to Rolls		Removed from Rolls		Rolls - End of Year		Percent Increase	Average	
Year Ended	No.1	Annual Pension Benefits <sup>1</sup>	Annual Pension No.1 Benefits1		No.	Annual Pension Benefits	in Annual Pension Benefits	Annual Pension Benefits	
All Others									
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	43,316,673	673	10,533,376	32,067	699,761,583	5.4%	21,822	
June 30, 2017	1,699	44,619,382	816	14,610,212	31,032	663,978,286	4.7	21,398	
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	601,658,756	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	
June 30, 2012	1,679	37,855,250	636	5,344,239	25,644	488,754,027	7.1	19,059	
June 30, 2011	1,595	37,100,217	554	6,897,899	24,601	456,243,016	7.1	18,546	
June 30, 2010	1,667	35,089,579	517	8,712,630	23,560	426,040,698	6.6	18,083	
Peace Officer / Firefighter									
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	166	6,971,580	54	2,132,027	3,315	118,111,073	4.3	35,629	
June 30, 2016	137	6,618,744	49	1,594,392	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	(145,769)	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	
June 30, 2012	179	5,246,271	41	(177,568)	2,896	94,924,334	6.1	32,778	
June 30, 2011	114	3,772,720	33	116,090	2,758	89,500,495	4.3	32,451	
June 30, 2010	118	3,593,724	46	1,413,071	2,677	85,843,865	2.6	32,067	

<sup>&</sup>lt;sup>1</sup> Numbers are estimated and include other internal transfers.

# Public Employees' Retirement System Defined Benefit Retirement Plan Analysis of Financial Experience

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

T. C	Change in Employer/State Contribution Rate During Fiscal Year Total						
Type of (Gain) or Loss	2019	2018	2017	2016	2015		
Health Claims	(2.39)%	(1.75)%	(2.90)%	1.02%	(3.65)%		
Salary Experience	(0.17)	(0.37)	(0.42)	(0.35)	(0.32)		
Investment Experience	0.92	1.12	1.36	1.40	0.45		
Demographic Experience and Miscellaneous	(0.08)	(1.88)	(1.97)	0.13	0.34		
Contribution Shortfall	0.13	0.25	0.04	_	_		
(Gain) or Loss During Year From Experience	(1.25)	(2.63)	(3.89)	2.20	(3.18)		
Assumption / Method Changes and EGWP	_	4.10	3.41	2.85	_		
System Benefit Changes	_	_	_	_	_		
Composite (Gain) or Loss During Year	(1.25)	1.47	(0.48)	5.05	(3.18)		
Beginning Employer/State Contribution Rate	24.64	23.17	23.65	18.60	21.78		
Ending Valuation Year Employer/State Contribution Rate	<u>23.39</u> %	<u>24.64</u> %	<u>23.17</u> %	<u>23.65</u> %	<u>18.60</u> %		
Fiscal Year Employer/State Contribution Rate	24.01%	24.93%	23.18%	22.64%	20.38%		
Fiscal Year for Which Rate Applies	FY22	FY21	FY20	FY19	FY18		

NOTE: In the second session of the 28th Alaska legislature, the legislature changed the actuarial methodology from level dollar amortization to level percent of pay. The June 30, 2013 PERS actuarial valuation report was not updated for this change, but specific revisions for the amortization change were presented to reflect the change in amortization. The change in the amortization resulted in an adjusted FY16 employer/state contribution rate of 22.58%.

### Public Employees' Retirement System Defined Benefit Retirement Plan Analysis of Financial Experience

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

	Change in Employer/State Contribution Rate During Fiscal Year						
Tr. C		Pension		Healthcare			
Type of (Gain) or Loss	2019	2018	2017	2019	2018	2017	
Health Claims	N/A	N/A	N/A	(2.39)%	(1.75)%	(2.90)%	
Salary Experience	(0.17)%	(0.37)%	(0.42)%	N/A	N/A	N/A	
Investment Experience	0.52	0.63	0.75	0.40	0.49	0.61	
Demographic Experience and Miscellaneous	(0.91)	(0.24)	(1.01)	0.83	(1.64)	(0.96)	
Contribution Shortfall	0.11	0.17	0.18	0.02	(0.08)	(0.14)	
(Gain) or Loss During Year From Experience	(0.11)	0.19	(0.50)	(1.14)	(2.82)	(3.39)	
Assumption and Method Changes	_	1.98	_	_	2.12	3.41	
System Benefit Changes	_	_	_	_	_		
Composite (Gain) or Loss During Year	(0.11)	2.17	(0.50)	(1.14)	0.70	0.02	
Beginning Employer/State Contribution Rate	20.38	18.21	18.71	4.26	4.96	4.94	
Ending Valuation year Employer/State Contribution Rate	<u>20.27</u> %	<u>20.38</u> %	<u>18.21</u> %	<u>3.12</u> %	<u>4.26</u> %	<u>4.96</u> %	
Fiscal Year Employer/State Contribution Rate	20.89%	20.66%	18.29%	3.12%	4.27%	4.89%	
Fiscal Year for Which Rate Applies	FY22	FY21	FY20	FY22	FY21	FY20	

# Public Employees' Retirement System

#### Defined Benefit Retirement Plan

#### Summary of Plan Provisions and Changes in Plan Provisions

#### 1. Effective Date

January 1, 1961, with amendments through June 30, 2019. 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.

#### 2. 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.

#### 3. Employers Included

Currently there are 155 employers participating in PERS, including the State of Alaska and 154 political subdivisions and public organizations. Two additional political subdivisions participate in PERS for healthcare benefits only.

#### 4. 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.

# Public Employees' Retirement System

# Defined Benefit Retirement Plan Summary of Plan Provisions and Changes in Plan Provisions

#### 5. 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 upon 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 10 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.

## Public Employees' Retirement System

## Defined Benefit Retirement Plan

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## 6. 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, each PERS employer will pay a simple uniform contribution rate of 22% of member payroll.

#### 7. 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 employer contribution (22%) will be sufficient to pay the total contribution rate adopted by The Alaska Retirement Management Board.

#### 8. 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.

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**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.

#### 9. 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 60 or early retirement at age 55 if they were hired 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 the 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 the 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 the Teachers' Retirement System (TRS); or
  - 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, actuarially reduced benefits when they reach early retirement age and complete the service required.

Members may elect an early retirement or a joint and survivor option. Members who entered PERS prior to July 1, 1996 may also select a 66-2/3 last survivor option and 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

## Public Employees' Retirement System

## Defined Benefit Retirement Plan Summary of Plan Provisions and Changes in Plan Provisions

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 10 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%.

**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, if a member is otherwise eligible to retire, 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.

#### 10. 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 under PERS, TRS, or the University of Alaska's Optional Retirement Plan 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.

## Public Employees' Retirement System

## Defined Benefit Retirement Plan

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#### 11. 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.

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	Amount
Deductible (single/family)	\$150 / \$450
Coinsurance - most services	20%
Outpatient surgery/testing	0%
Maximum Out-of-Pocket (single/family, excl. 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 will be through a Medicare Part D EGWP arrangement.

#### 12. 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

## Public Employees' Retirement System

## Defined Benefit Retirement Plan Summary of Plan Provisions and Changes in Plan Provisions

retirement. Peace Officer/Firefighter members may elect to retain the disability benefit formula for the calculation of their normal retirement benefits.

**Nonoccupational 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.

#### 13. 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.

**Nonoccupational 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 Nonoccupational 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.

#### 14. 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

## Public Employees' Retirement System Defined Benefit Retirement Plan

## Summary of Plan Provisions and Changes in Plan Provisions

year. PRPAs are calculated by multiplying the recipient's base benefit, including past PRPAs, excluding the Alaska COLA, times:

- a. 75% of the CPI increase in the preceding calendar year or 9%, whichever is less, if the recipient is at least age 65 or on PERS disability; or
- b. 50% of the CPI increase in the preceding calendar year or 6%, whichever is less, if the recipient is at least age 60, or 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 first entered PERS 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.

#### 15. Alaska Cost of Living Allowance

Eligible benefit recipients who reside in Alaska receive an Alaska cost of living allowance (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.

#### 16. Changes in Benefit Provisions Valued Since the Prior Valuation

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



May 7, 2020

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 Defined Contribution Retirement (PERS DCR) Plan as of June 30, 2019 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, 2019. The actuary did not verify the data submitted, but did perform tests for consistency and reasonableness.

All costs, liabilities and other factors under PERS DCR were determined in accordance with generally accepted actuarial principles and procedures. An actuarial cost method is used to measure the actuarial liabilities which we believe is reasonable. Buck is solely responsible for the actuarial data and actuarial results presented in this report. This report fully and fairly discloses the actuarial position of PERS DCR as of June 30, 2019.

PERS DCR is funded by Employer Contributions in accordance with the funding policy adopted by the Alaska Retirement Management Board (Board). The funding objective for PERS DCR is to pay required contributions that remain level as a percent of PERS DCR compensation. The Board has also established a funding policy objective that the required contributions be sufficient to pay the Normal Costs of active plan members, plan expenses, and amortize the Unfunded Actuarial Accrued Liability as a level percent of PERS DCR compensation over closed layered 25-year periods. This objective is currently being met and is projected to continue to be met as required by the Alaska State statutes. Absent future gains/losses, actuarially determined contributions are expected to remain level as a percent of pay and the overall funded status 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 DCR. Use of this report, for any other purpose or by anyone other than the Board or staff of the State of Alaska may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods or inapplicability of the report for that purpose. Because of the risk of misinterpretation of actuarial results, you should ask Buck to review any statement you wish to make on the results contained in this report. Buck will not accept any liability for any such statement made without the review by Buck.

## **Actuarial Section**

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. 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, 2013 to June 30, 2017. Based on that experience study, the Board adopted new assumptions effective beginning with the June 30, 2018 valuation to better reflect expected future experience. Based on our annual analysis of recent claims experience, changes were made to the per capita claims cost rates effective June 30, 2019 to better reflect expected future healthcare experience. A summary of the actuarial assumptions and methods used in this actuarial valuation is shown in Sections 4.2 and 4.3.

Governmental Accounting Standards Board (GASB) Statement No. 74 (GASB 74) was effective for PERS DCR beginning with fiscal year ending June 30, 2017, and GASB 75 was effective beginning with fiscal year ending June 30, 2018. Separate GASB 74 and GASB 75 reports have been prepared.

#### 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 retiree medical portion of PERS DCR. We also believe ASOP 51 does not apply to the occupational death and disability portion of PERS DCR. Therefore, information related to ASOP 51 is not included in this report. However, it may be beneficial to review the ASOP 51 information provided in the PERS valuation report for information on risks that may also relate to the occupational death and disability benefits provided by this plan.

This report was prepared under my supervision and in accordance with all applicable Actuarial Standards of Practice. I am a Fellow of the Society of Actuaries, an Enrolled Actuary, a Fellow of the Conference of Consulting Actuaries and a Member of the American Academy of Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

I am available to discuss this report with you at your convenience. I can be reached at 602-803-6174.

Respectfully submitted,

David J. Kershner, FSA, EA, MAAA, FCA

Principal Buck

## **Actuarial Section**

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 herby affirms his qualification to render opinions in such matters in accordance with the Qualification Standards of the American Academy of Actuaries.

Scott Young, FSA, EA, MAAA

Director Buck

## Public Employees' Retirement System

## Defined Contribution Retirement Plan Description of Actuarial Methods and Valuation Procedures

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

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

#### Valuation of Liabilities

#### A. Actuarial Method – Entry Age Normal Cost

Liabilities and contributions shown in the report are computed using the Entry Age Normal Actuarial Cost Method. Each year's difference between actual and expected unfunded actuarial accrued liability is amortized over 25 years as a level percentage of expected payroll. However, in keeping with GASB requirements in effect when the plan was adopted, the net amortization period will not exceed 30 years. Under the new accounting standards (GASB 74 and 75), the GASB requirements will not directly control amortization periods used for funding of the plan.

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

The actuarial accrued liability for beneficiaries and disabled members currently receiving benefits (if any) was determined as the actuarial present value of the benefits expected to be paid. No future normal costs are payable for these members.

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

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

#### B. Valuation of Assets

Effective June 30, 2006, the asset valuation method recognizes 20% of the investment gain or loss in each of the current and preceding four years. This method was phased in over five years. Fair Value of Assets was \$0 as of June 30, 2006. All assets are valued at fair value. Assets are accounted for on an accrued basis and are taken directly from

## Public Employees' Retirement System

## Defined Contribution Retirement Plan Description of Actuarial Methods and Valuation Procedures

financial statements audited by KPMG LLP. Valuation assets are constrained to a range of 80% to 120% of the fair value of assets.

## C. Valuation of Retiree Medical and Prescription Drug Benefits

The methodology used for the valuation of the retiree medical benefits is described in Section 5.2 of the State of Alaska Public Employees' Retirement System Defined Benefit Plan Actuarial Valuation Report as of June 30, 2019.

Due to the lack of experience for the DCR retiree medical plan only, base claims costs are based on those described in the actuarial valuation as of June 30, 2019 for the Defined Benefit (DB) retiree medical plan covering TRS and PERS. The DB rates were used with some adjustments. The claims costs were adjusted to reflect the differences between the DCR medical plan and the DB medical plan. These differences include network steerage, different coverage levels, different Medicare coordination for medical benefits, and an indexing of the retiree out-of-pocket dollar amounts. To account for higher initial copays, deductibles and out-of-pocket limits, projected FY20 claims costs were reduced 2.1% for medical claims, and 10.4% for prescription drugs. In addition, to account for the difference in Medicare coordination, projected FY20 medical claims costs for Medicare eligible retirees were further reduced 29.3%. The medical and prescription drug percentages mentioned above were reduced 0.2% in each future year for the DCR medical benefits to reflect the fact that the medical benefit to be offered to DCR members will have annual indexing of member cost sharing features such as deductibles and out-of-pocket amounts.

No implicit subsidies are assumed. Employees projected to retire with 30 years of service (25 years of service for Peace/Fire) prior to Medicare are valued with commencement deferred to Medicare eligibility because those members will be required to pay the full plan premium prior to Medicare. Explicit subsidies for disabled and normal retirement are determined using the plan-defined percentages of age-related total projected plan costs, again with no implicit subsidy assumed.

The State transitioned to an Employer Group Waiver Program (EGWP) for DCR participants effective January 1, 2019. The estimated 2020 reimbursements under EGWP were provided by Segal Consulting (who worked with the EGWP administrator, Optum, to develop those estimates).

#### D. Healthcare Reform

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

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

The Further Consolidated Appropriations Act, 2020 passed in December 2019 repealed several healthcare-related taxes, including the Cadillac Tax. The valuation results included in the report reflect the repeal of this tax. The removal of the Cadillac Tax created an actuarial gain of approximately \$925,000.

## Public Employees' Retirement System

## Defined Contribution Retirement Plan

## Description of Actuarial Methods and Valuation Procedures

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.

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.

#### E. Changes in Methods Since the Prior Valuation

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

## Public Employees' Retirement System

## **Defined Contribution Retirement Plan**

## Summary of Actuarial Assumptions and Changes in Assumptions

The demographic and economic assumptions used in the June 30, 2019 valuation are described below. Unless noted otherwise, these assumptions were adopted by the Board in January 2019 based on the experience study for the period July 1, 2013 to June 30, 2017.

jaz	1, 2013 to june 30, 2017.	
1.	Investment Return	7.38% per year, net of investment expenses.
2.	Salary Scale	Salary scale rates based upon the 2013-2017 actual experience. (See Table 1). Inflation – $2.50\%$ per year. Productivity – $0.25\%$ per year.
3.	Payroll Growth	2.75% per year. (Inflation + Productivity).
4.	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.
5.	Mortality	Mortality rates based upon the 2013-2017 actual experience.
	(Pre-commencement)	100% (male and female) of RP-2014 employee table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement.
6.	Mortality	Mortality rates based upon the 2013-2017 actual experience.
	(Post-commencement)	91% of male and 96% of female rates of RP-2014 healthy annuitant table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement.
7.	Turnover	Select and ultimate rates based upon the 2013-2017 actual experience. (See Table 2).
8.	Disability	Incidence rates based upon the 2013-2017 actual experience. (See Table 3).
		Post-disability mortality in accordance with the RP-2014 disabled table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement.

Disabilities are assumed to be occupational 75% of the time for Peace Officer/Firefighters, 40% of the time for Others.

For Peace Officer/Firefighters, members are assumed to take the monthly annuity 100% of the time.

9. Retirement rates based upon the 2013-2017 actual experience. (See Table 4).

10. Spouse Age Difference Males are assumed to be three years older than their wives. Females are assumed to

be two years younger than husbands.

11. Percent Married for Others, 75% of male members and 70% female members are assumed to be Occupational Death & married. For Peace Officer/Firefighters, 85% of male members and 60% of female members are assumed to be married.

## Public Employees' Retirement System

## Defined Contribution Retirement Plan

## Summary of Actuarial Assumptions and Changes in Assumptions

12.	Dependent Spouse
	Medical Coverage
	Election

Applies to members who do not have dual medical coverage. For Others, 65% of male members and 60% female members are assumed to be married and cover a dependent spouse. For Peace Officer/Firefighters, 75% of male members and 50% of female members are assumed to be married and cover a dependent spouse.

13. Part-Time Status

Part-time employees are assumed to earn 1.00 years of credited service per year for Peace Officer/Firefighter and 0.75 years of credited service per year for Other members.

Peace Officer/Firefighter
 Occupational Disability
 Retirement Benefit
 Commencement

The occupational disability retirement benefit is assumed to be first payable from the member's DC account and the retirement benefit payable from the occupational death and disability trust will commence five years later.

15. Per Capita Claims Cost

Sample claims cost rates (before base claims cost adjustments described below) adjusted to age 65 for FY20 medical and prescription drugs are shown below:

	 Medical	_	Prescription Drugs
Pre-Medicare	\$ 14,464	\$	3,263
Medicare Parts A & B	1,564		3,501
Medicare Part D - EGWP	N/A		1,044

Members are assumed to attain Medicare eligibility at age 65. All costs are for the 2020 fiscal year (July 1, 2019 – June 30, 2020).

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.

16. Third Party Administrator Fees

\$348 per person per year; assumed trend rate of 4.5% per year.

17. Base Claims Cost Adjustments

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

- 0.979 for the pre-Medicare plan.
- 0.686 for both the Medicare medical plan and Medicare coordination method (2.1% reduction for the medical plan and 29.3% reduction for the coordination method).
- 0.896 for the prescription drug plan.

#### 18. Administrative Expenses

Beginning with the June 30, 2018 valuation, the Normal Cost is increased for administrative expenses expected to be paid from plan assets during the year. The

## Public Employees' Retirement System

## **Defined Contribution Retirement Plan**

## Summary of Actuarial Assumptions and Changes in Assumptions

amounts included in the June 30, 2019 Normal Cost, which are based on the average of actual administrative expenses during the last two fiscal years, are \$600 for occupational death & disability and \$8,750 for retiree medical.

19. Health Cost Trend

The table below shows the rates used to project the cost from the shown fiscal year to the next fiscal year. For example, 7.0% is applied to the FY20 pre-Medicare medical claims cost to get the FY21 medical claims cost.

Fiscal year	Medical pre-65	Medical post-65	Prescription Drugs/EGWP
2020	7.0%	5.4%	8.0%
2021	6.5	5.4	7.5
2022	6.3	5.4	7.1
2023	6.1	5.4	6.8
2024	5.9	5.4	6.4
2025	5.8	5.4	6.1
2026	5.6	5.4	5.7
2027-2040	5.4	5.4	5.4
2041	5.3	5.3	5.3
2042	5.2	5.2	5.2
2043	5.1	5.1	5.1
2044	5.1	5.1	5.1
2045	5.0	5.0	5.0
2046	4.9	4.9	4.9
2047	4.8	4.8	4.8
2048	4.7	4.7	4.7
2049	4.6	4.6	4.6
2050+	4.5	4.5	4.5

For the June 30, 2014 valuations 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 projected out for 80 years. The model has been populated with assumptions that are specific to the State of Alaska.

## 20. Aging Factors

Age	Medical	Prescription Drugs
0–44	2.0%	4.5%
45-54	2.5	3.5
55-64	2.5	1.5
65–74	3.0	2.0
75–84	2.0	(0.5)
85-94	0.3	(2.5)
95 +	_	_

## Public Employees' Retirement System

## Defined Contribution Retirement Plan Summary of Actuarial Assumptions and Changes in Assumptions

21. Retiree Medical Participation

Decrement due to disability		Dec	crement due to	retirement
Age	Percent participation	Age	Percent par	rticipation *
< 56	75.0%	55		50.0%
56	77.5	56		55.0
57	80.0	57		60.0
58	82.5	58		65.0
59	85.0	59		70.0
60	87.5	60		75.0
61	90.0	61		80.0
62	92.5	62		85.0
63	95.0	63		90.0
64	97.5	64		95.0
65+	100.0	65+	Years o	f Service
			< 15	75.0%
			15-19	80.0
			20-24	85.0
			25-29	90.0
			30+	95.0

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

#### 22. Imputed Data

Data changes from the prior year which are deemed to have immaterial impact on liabilities and contribution rates are assumed to be correct in the current year's client data. Non-vested terminations with appropriate refund dates are assumed to have received a full refund of contributions. Active members with missing salary and service are assumed to be terminated with status based on their vesting percentage.

## 23. Changes in Assumptions Since the Prior Valuation

The amounts included in the Normal Cost for administrative expenses were changed to \$600 for occupational death & disability and \$8,750 for retiree medical (based on the most recent two years of actual administrative expenses paid from plan assets). The per capita claims cost assumption is updated annually. Trend rates are no longer loaded to reflect the Cadillac Tax, which was repealed in December 2019.

## Public Employees' Retirement System

## Defined Contribution Retirement Plan

## Summary of Actuarial Assumptions and Changes in Assumptions

#### Table 1 Alaska PERS DCR Plan Salary Scale

Peace	Officer/	Firefig	hter:
-------	----------	---------	-------

#### Others:

Years of Service Percent Increase		of Service Percent Increase Years of Service	
0	7.75%	0	6.75%
1	7.25	1	6.25
2	6.75	2	5.75
3	6.25	3	5.25
4	5.75	4	4.75
5	5.25	5	4.25
6	4.75	6	3.75
7	4.25	7	3.65
8	3.75	8	3.55
9	3.65	9	3.45
10	3.55	10	3.35
11	3.45	11	3.25
12	3.35	12	3.15
13	3.25	13	3.05
14	3.15	14	2.95
15	3.05	15	2.85
16	2.95	16	2.75
17	2.85	17	2.75
18	2.75	18	2.75
19	2.75	19	2.75
20 +	2.75	20 +	2.75

## Public Employees' Retirement System

## **Defined Contribution Retirement Plan**

## Summary of Actuarial Assumptions and Changes in Assumptions

## Table 2 Alaska PERS DCR Plan Turnover Assumptions

## Peace Officer/Firefighter:

## Select Rates of Turnover During the First 5 Years of

Years of Service	Male	Female
0	18.9%	20.6%
1	14.2	16.5
2	10.5	13.8
3	9.5	12.4
4	8.4	11.3

#### Ultimate Rates of Turnover After the First 5 Years of Employment

Age	Male	Female	Age	Male	Female
20	5.52%	11.97%	45	5.71%	11.03%
21	5.52	11.97	46	5.64	10.98
22	5.52	11.97	47	5.57	10.92
23	5.65	11.97	48	6.01	10.84
24	5.78	11.97	49	6.45	10.75
25	5.91	11.97	50	6.89	10.67
26	6.04	11.97	51	7.32	10.58
27	6.16	11.97	52	7.76	10.50
28	6.16	11.94	53	7.97	10.66
29	6.15	11.91	54	8.18	10.82
30	6.14	11.88	55	8.38	10.98
31	6.14	11.84	56	8.59	11.15
32	6.12	11.81	57	8.80	11.31
33	6.11	11.79	58	9.03	11.47
34	6.09	11.77	59	9.25	11.63
35	6.08	11.75	60	9.48	11.79
36	6.07	11.72	61	9.71	11.95
37	6.05	11.70	62	9.94	12.12
38	6.03	11.60	63	12.37	12.28
39	6.00	11.50	64	14.81	12.44
40	5.98	11.40	65+	17.25	12.60
41	5.95	11.30			
42	5.90	11.20			
43	5.85	11.14			
44	5.78	11.09			

## Public Employees' Retirement System

## Defined Contribution Retirement Plan

## Summary of Actuarial Assumptions and Changes in Assumptions

## Table 2 Alaska PERS DCR Plan Turnover Assumptions

#### Other:

## Select Rates of Turnover During the First 5 Years of

Years of Service	Male	Female
0	24.4%	28.0%
1	21.0	22.3
2	16.8	17.9
3	13.4	14.3
4	9.5	12.3

#### Ultimate Rates of Turnover After the First 5 Years of Employment

Age	Male	Female	Age	Male	Female
20	13.71%	16.50%	45	7.72%	7.90%
21	13.71	16.50	46	7.60	7.58
22	13.71	16.50	47	7.48	7.26
23	13.71	16.51	48	7.68	7.23
24	13.71	16.51	49	7.87	7.20
25	13.71	16.52	50	8.07	7.17
26	13.71	16.53	51	8.26	7.14
27	13.71	16.54	52	8.46	7.11
28	13.41	15.94	53	8.46	7.26
29	13.21	15.34	54	8.47	7.42
30	12.82	17.75	55	8.48	7.57
31	12.52	14.15	56	8.48	7.72
32	12.22	13.55	57	8.49	7.88
33	11.65	12.90	58	8.77	8.15
34	11.09	12.24	59	9.08	8.42
35	10.52	11.58	60	9.32	8.69
36	9.95	10.92	61	9.60	8.96
37	9.39	10.26	62	9.88	9.24
38	9.12	9.98	63	10.28	10.51
39	8.86	9.70	64	10.68	11.78
40	8.60	9.42	65+	11.08	13.05
41	8.32	9.14			
42	8.07	8.86			
43	7.95	8.54			
44	7.83	8.22			

## Public Employees' Retirement System

## Defined Contribution Retirement Plan

## Summary of Actuarial Assumptions and Changes in Assumptions

Table 3 Alaska PERS DCR Plan Disability Table

	Peace Officer/ Firefighter Rate		Other Men	nber Rate
Age	Male	Female	Male	Female
20	0.0179 %	0.0112%	0.0327%	0.0376%
21	0.0179	0.0112	0.0327	0.0376
22	0.0179	0.0112	0.0327	0.0376
23	0.0244	0.0153	0.0360	0.0400
24	0.0310	0.0194	0.0392	0.0424
25	0.0374	0.0234	0.0425	0.0448
26	0.0440	0.0275	0.0456	0.0472
27	0.0505	0.0316	0.0489	0.0496
28	0.0526	0.0329	0.0501	0.0510
29	0.0548	0.0343	0.0513	0.0524
30	0.0570	0.0356	0.0524	0.0538
31	0.0591	0.0370	0.0536	0.0554
32	0.0612	0.0383	0.0548	0.0568
33	0.0634	0.0397	0.0566	0.0586
34	0.0657	0.0411	0.0584	0.0606
35	0.0679	0.0425	0.0602	0.0624
36	0.0702	0.0439	0.0620	0.0644
37	0.0724	0.0453	0.0638	0.0662
38	0.0757	0.0473	0.0669	0.0696
39	0.0789	0.0493	0.0701	0.0728
40	0.0822	0.0514	0.0734	0.0762
41	0.0854	0.0534	0.0765	0.0794
42	0.0887	0.0554	0.0797	0.0826
43	0.0977	0.0611	0.0879	0.0908
44	0.1066	0.0667	0.0962	0.0990
45	0.1157	0.0723	0.1043	0.1072
46	0.1247	0.0780	0.1125	0.1154
47	0.1337	0.0836	0.1208	0.1236
48	0.1462	0.0914	0.1329	0.1360
49	0.1588	0.0993	0.1451	0.1484
50	0.1714	0.1071	0.1572	0.1608
51	0.1839	0.1150	0.1694	0.1734
52	0.1965	0.1228	0.1815	0.1858
53	0.2294	0.1434	0.2132	0.2168
54	0.2624	0.1640	0.2450	0.2478

## Public Employees' Retirement System

## Defined Contribution Retirement Plan

## Summary of Actuarial Assumptions and Changes in Assumptions

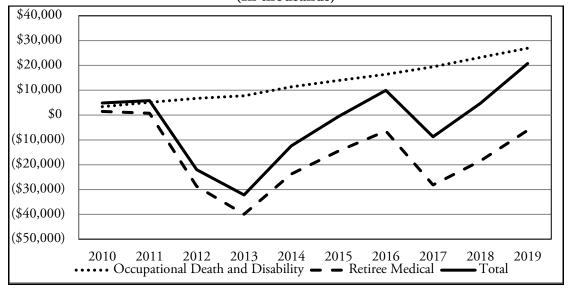
Table 4
Alaska PERS DCR Plan
Retirement Table

Age	Unisex Rate
<= 50	2.00%
51	2.00
52	2.00
53	2.00
54	2.00
55	3.00
56	3.00
57	3.00
58	3.00
59	3.00
60	5.00
61	5.00
62	10.00
63	5.00
64	5.00
65	25.00
66	25.00
67	25.00
68	20.00
69	20.00
70	100.00

# Public Employees' Retirement System Defined Contribution Retirement Plan Occupational Death and Disability and Retiree Medical Benefits Funding Excess/(Unfunded Liability) (In thousands)

Actuarial Valuation Year Ended June 30	Occupational Death and Disability	Retiree Medical	Total Funding Excess/ (Unfunded Liability)	Funded Ratio
2010	\$ 3,3865	\$ 1,460	\$ 4,846	171.1%
2011	5,100	707	5,807	143.8
2012	6,730	(28,736)	(22,006)	53.1
2013	7,770	(39,946)	(32,176)	49.6
2014	11,368	(23,751)	(12,383)	77.0
2015	13,965	(14,495)	(530)	99.2
2016	16,413	(6,438)	9,975	112.9
2017	19,404	(28,144)	(8,740)	92.5
2018	23,248	(18,501)	4,747	103.8
2019	26,927	(6,163)	20,764	115.4

## 10-YEAR TREND OF FUNDING EXCESS/(UNFUNDED) LIABILITY (In thousands)



## Public Employees' Retirement System Defined Contribution Retirement Plan Occupational Death and Disability and Retiree Medical Benefits Employer Contribution Rates

			Actuarially Determined				
		Occupational Death and Disability					
Fiscal Year	Actuarial Valuation Year Ended June 30	Peace Officer/ Firefighter	All Others	Retiree Medical	Total Required	Adopted	
2013	2010	0.99%	0.14%	0.48%	1.61%	1.61%	
2014	2011	1.14	0.20	0.48	1.74	1.74	
2015	2012	1.06	0.22	1.66	2.94	2.94	
2016	2013	1.05	0.22	1.68	2.95	2.95	
2017	2014	0.49	0.17	1.18	1.84	1.84	
2018	2015	0.43	0.16	1.03	1.62	1.62	
2019	2016	0.76	0.26	0.94	1.96	1.96	
2020	2017	0.72	0.26	1.32	2.30	2.30	
2021	2108	0.70	0.31	1.27	2.28	2.28	
2022	2019	0.68	0.31	1.07	2.06	2.06	

Valuations are used to set contribution rates in future years.

## Public Employees' Retirement System Defined Contribution Retirement Plan Occupational Death and Disability and Retiree Medical Benefits Schedule of Active Member Valuation Data

Valuation Date	Number	Annual Earnings (In thousands)	Annual Average Earnings	Percent Increase/ (Decrease) in Average Earnings	Number of Participating Employers
June 30, 2019	21,902	\$ 1,328,934	\$ 60,676	2.3%	155
June 30, 2018	20,378	1,209,152	59,336	2.3	155
June 30, 2017	19,171	1,112,398	58,025	1.5	157
June 30, 2016	18,215	1,041,437	57,175	3.4	157
June 30, 2015	17,098	945,496	55,299	1.9	159
June 30, 2014	15,800	857,150	54,250	3.7	159
June 30, 2013	14,316	748,658	52,295	4.7	159
June 30, 2012	12,597	629,128	49,943	4.5	160
June 30, 2011	10,965	524,088	47,796	4.8	160
June 30, 2010	9,232	421,187	45,622	5.4	160

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

## Public Employees' Retirement System

## Defined Contribution Retirement Plan Summary of Plan Provisions and Changes in Plan Provisions

## 1. Effective Date

July 1, 2006, with amendments through June 30, 2019.

#### 2. Administration of Plan

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

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

#### 3. Employers Included

Currently there are 155 employers participating in PERS DCR, including the State of Alaska, and 154 political subdivisions and public organizations.

#### 4. Membership

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

- Permanent full-time or part-time employees of the State of Alaska, participating political subdivisions or public organizations. An employee must be regularly scheduled to work 30 or more hours per week to be considered full-time by the PERS. An employee must be regularly scheduled to work 15 or more hours per week but less than 30 hours to be considered a part-time employee for PERS purposes.
- Elected state officials.
- Elected municipal officials who are compensated and receive at least \$2,001.00 per month.

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

#### 5. Member Contributions

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

## Public Employees' Retirement System

## Defined Contribution Retirement Plan Summary of Plan Provisions and Changes in Plan Provisions

#### 6. Retiree Medical Benefits

- Member must retire directly from the plan to be eligible for retiree medical coverage. Normal retirement eligibility
  is the earlier of a) 25 years of service as a peace officer or firefighter and 30 years of service for any other employee
  or b) Medicare eligible and 10 years of service.
- No subsidized retiree medical benefits are provided until normal retirement eligibility. The member's and any
  covered dependent premium is 100% until the member is Medicare eligible. Upon the member's Medicareeligibility, the required contribution will follow the service-based schedule shown below.
- Coverage cannot be denied except for failure to pay premium.
- Members who are receiving disability benefits or survivors who are receiving monthly survivor benefits are not
  eligible until the member meets, or would have met if he/she had lived, the normal retirement eligibility
  requirements.
- The following is a summary of the medical benefit design adopted in July 2016. The plan description below is
  used for valuation purposes and indicates participant cost-sharing. Please refer to the benefit handbook for more
  details.

Plan Design Feature	$\textbf{In-Network}^{(1)}$	Out-of-Network (1)(2)	
Deductible (single/family)	\$300 / \$600	\$300 / \$600	
Medical services (participant share)	20%	40%	
Emergency Room Copay (non-emergent use)	\$100	\$100	
Medical Out-of-Pocket Maximum			
(single/famly, after deductible)	\$1,200 / \$2,400	\$2,400 / \$4.800	
Medicare Coordination	Exclusion	Exclusion	
Pharmacy	No Deductible	No Deductible	
Retail Generic (per 30-day fill)	20% \$10 min / \$50 max		
Retail Non-Formulary Brand (per 30-day fill)	25% \$25 min / \$75 max	40%	
Retail Formulary Brand (per 30-day fill)	35% \$80 min / \$150 max		
Mail-Order Generic	\$20 copay		
Mail-Order Non-Formulary Brand	\$50 copay	40%	
Mail-Order Formulary Brand	\$100 copay		
Pharmacy Out-of-Pocket Max (single/family)	\$1,000 / \$2,000	\$1,000 / \$2,000	
Medicare Pharmacy Arrangement	Retiree Drug Subsidy / Employer Group Waiver		
	Plan Effective 1/1/2019		
Wellness/Preventative	100%, Not subject to deductible		

<sup>(1)</sup> Assumed to increase annually to mitigate impact of healthcare cost trend

<sup>(2)</sup> OON applies only to non-Medicare elgibile participants.

## Public Employees' Retirement System

## Defined Contribution Retirement Plan Summary of Plan Provisions and Changes in Plan Provisions

- Buck used its manual rate models to determine relative plan values for the defined benefit (DB) retiree medical plan and the adopted DCR retiree medical plan outlined above. We applied the ratio of the DCR retiree medical plan value to the DB retiree medical plan value to the per capita costs determined for each of pre/post-Medicare medical and pharmacy benefits to estimate corresponding values for the adopted DCR retiree medical plan design. These factors are noted in Section 4.3. We further adjusted the Medicare medical manual rate to reflect the Medicare coordination method adopted. The estimated 2020 reimbursements under EGWP were provided by Segal Consulting (who worked with the EGWP administrator, Optum, to develop those estimates). We reflect estimated discounts and pharmacy rebates in the defined benefit medical cost so no further adjustment was needed for the DCR retiree medical plan. The medical network differential is reflected in the relative plan value adjustments.
- The retiree medical plan's coverage is supplemental to Medicare. Medicare coordination is described in the 2019
  DCR Plan Handbook, referred to in the industry as exclusion coordination: Medicare payment is deducted from
  the Medicare allowable expense and plan parameters are applied to the remaining amount. Starting in 2019, the
  prescription drug coverage is through a Medicare Part D EGWP arrangement.
- The premium for Medicare-eligible retirees will be based on the member's years of service. The percentage of premium paid by the member is as follows:

Years of Service	Percent of Premium Paid by Member
Less than 15 years	30%
15 – 19	25
20 - 24	20
25 - 29	15
30 years or more	10

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

## 7. Occupational Disability Benefits

• Benefit is 40% of salary at date of disability.

## Public Employees' Retirement System Defined Contribution Retirement Plan Summary of Plan Provisions and Changes in Plan Provisions

- For Peace Officer and Firefighters there is a Disability Benefit Adjustment such that:
  - The disability benefit is increased by 75% of the cost of living increase in the preceding calendar year or 9%, whichever is less.
  - At the time the disabled 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. Monthly annuity payments are made from the member's contribution balance until the fund is exhausted, at which the plan pays all remaining payments.
- For Others, there is no increase in the occupational disability benefit after commencement.
- Member earns service while on occupational disability.
- Benefits cease when the member becomes eligible for normal retirement at Medicare-eligible age and 10 years
  of service, or at any age with 30 years of service for Others members or 25 years of service for Peace
  Officer/Firefighter members.
- Peace Officer/Firefighter members may select the defined contribution account or the monthly benefit payable as if they were retiring under Tier 3 (service continues during disability, final average salary is as of date of disability).
- No subsidized retiree medical benefits are provided until normal retirement eligibility. The member's
  premium is 100% of the estimated cost until they are Medicare eligible. Medicare-eligible premiums follow
  the service-based schedule above.

#### 8. Occupational Death Benefits

- Benefit is 40% of salary for Others members and 50% of salary for Peace Officer/Firefighter members.
- Survivor's Pension Adjustment: A survivor's pension is increased by 50% of the cost of living increase in the preceding calendar year or 6%, whichever is less, if the recipient is at least age 60 on July 1, or under age 60 if the recipient has been receiving PERS benefits for at least 5 years as of July 1.
- Benefits cease when the member would have become eligible for normal retirement.
- The period during which the survivor is receiving benefits is counted as service credit toward retiree medical benefits.
- No subsidized retiree medical benefits are provided until the member would have been eligible for normal retirement. The surviving spouse's premium is 100% of the estimated cost until the member would have been Medicare eligible. Medicare-eligible premiums follow the service-based schedule above.

## Public Employees' Retirement System Defined Contribution Retirement Plan Summary of Plan Provisions and Changes in Plan Provisions

## 9. Changes Since the Prior Valuation

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





# STATISTICAL SECTION



## **STATISTICAL SECTION OVERVIEW**

The statistical section of the Public Employees' Retirement System (System) comprehensive annual financial report provides additional detail in the form of financial trends, operating statistics and demographic information. This data is provided to enhance the reader's understanding of the System.

These schedules contain financial trend information utilizing a multi-year presentation so the reader can better understand how the System's financial performance has changed over time. Financial information is presented on an accrual basis.

Operating Information......187-189

These schedules contain detailed benefit payment information to provide the reader a better understanding of the pension benefits provided by the Division.

Demographic Information......190-192

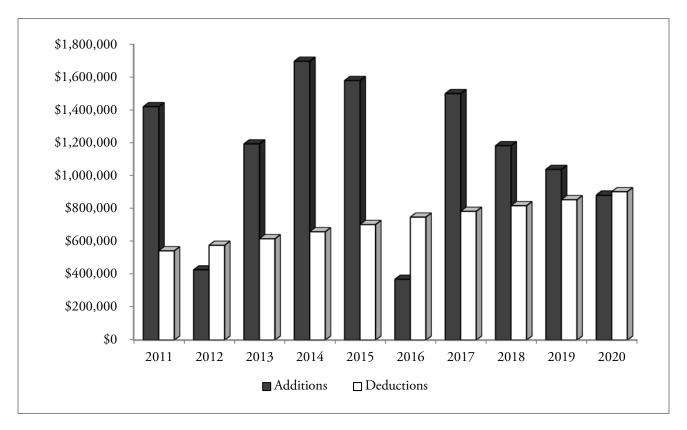
These schedules contain detailed demographic data to provide the reader a better understanding of the membership and employer participation in the System.

## Public Employees' Retirement System Defined Benefit Pension Changes in Fiduciary Net Position (In thousands)

Year Ended June 30	Fiduciary Net Position, Beginning of Year	Additions	Deductions	Increase / (Decrease) in Fiduciary Net Position	Fiduciary Net Position, End of Year
2011	\$ 5,391,527	\$ 1,420,342	\$ 543,944	\$ 876,398	\$ 6,267,925
2012	6,267,925	427,995	577,626	(149,631)	6,118,294
2013	6,118,294	1,193,555	617,367	576,188	6,694,482
2014	6,694,482	1,697,096	660,140	1,036,956	7,731,438
2015	7,731,438	1,579,519	704,095	875,424	8,606,862
2016	8,606,862	370,243	749,418	(379,175)	8,227,687
2017	8,227,687	1,500,153	784,713	715,440	8,943,127
2018	8,943,127	1,182,675	819,127	363,548	9,306,675
2019	9,306,675	1,038,178	855,488	182,730	9,489,405
2020	9,489,405	882,296	902,540	(20,244)	9,469,161

## 10-YEAR COMPARISON OF ADDITIONS AND DEDUCTIONS

(In thousands)

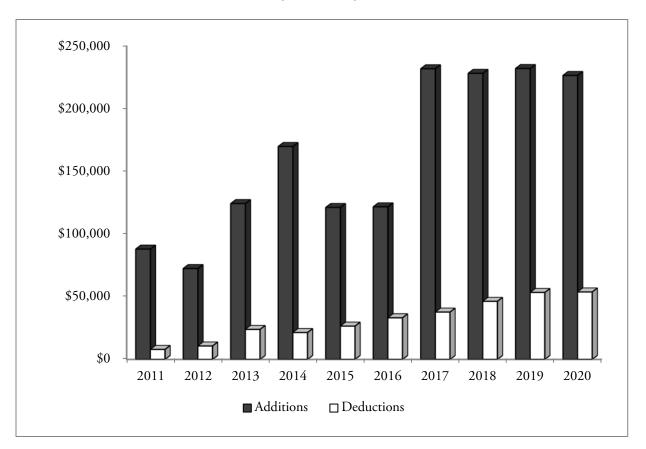


## Public Employees' Retirement System Defined Contribution Retirement Participant Directed Changes in Fiduciary Net Position (In thousands)

Year Ended June 30	Fiduciary Net Position, Beginning of Year	Additions	Deductions	Increase / (Decrease) in Fiduciary Net Position	Fiduciary Net Position, End of Year
2011	\$ 103,555	\$ 88,084	\$ 7,937	\$ 80,147	\$ 183,702
2012	183,702	72,561	10,692	61,869	245,571
2013	245,571	124,464	23,917	100,547	346,118
2014	346,118	169,983	21,428	148,555	494,673
2015	494,673	121,343	26,554	94,789	589,462
2016	589,462	121,871	33,215	88,656	678,118
2017	678,118	231,977	37,774	194,203	872,321
2018	872,321	228,316	46,343	181,973	1,054,294
2019	1,054,294	232,177	53,437	178,740	1,233,034
2020	1,233,034	226,612	53,845	172,767	1,405,801

## 10-YEAR COMPARISON OF ADDITIONS AND DEDUCTIONS

(In thousands)

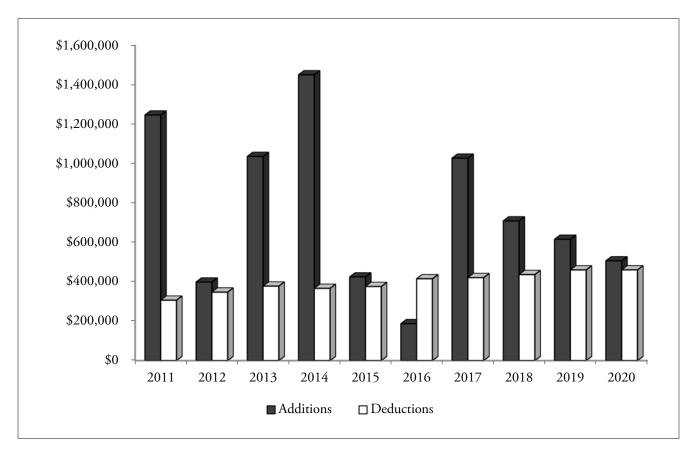


## Public Employees' Retirement System Defined Benefit Alaska Retiree Healthcare Trust Changes in Fiduciary Net Position (In thousands)

Year Ended June 30	Fiduciary Net Position, Beginning of Year	Additions	Deductions	Increase / (Decrease) in Fiduciary Net Position	Fiduciary Net Position, End of Year
2011	\$ 4,181,081	\$ 1,246,616	\$ 307,002	\$ 939,614	\$ 5,120,695
2012	5,120,695	399,273	348,152	51,120	5,171,816
2013	5,171,816	1,036,394	378,639	657,755	5,829,571
2014	5,829,571	1,450,755	367,166	1,083,589	6,913,160
2015	6,913,160	425,380	376,577	48,803	6,961,963
2016	6,961,963	187,309	416,018	(228,709)	6,733,254
2017	6,733,254	1,027,530	421,832	605,698	7,338,952
2018	7,338,952	710,412	437,363	273,049	7,612,001
2019	7,612,001	616,706	461,015	155,691	7,767,692
2020	7,767,692	507,097	461,278	45,819	7,813,511

## 10-YEAR COMPARISON OF ADDITIONS AND DEDUCTIONS

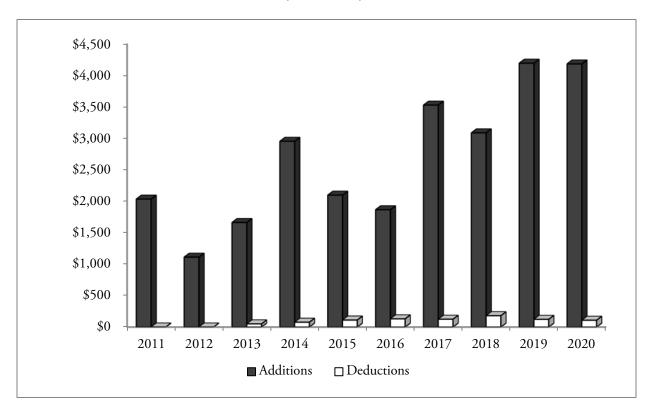
(In thousands)



### Public Employees' Retirement System Defined Contribution Retirement Occupational Death & Disability - All Other Changes in Fiduciary Net Position (In thousands)

Year Ended June 30	Fiduciary Net Position, Beginning of Year	Additions	Deductions	Increase / (Decrease) in Fiduciary Net Position	Fiduciary Net Position, End of Year
2011	\$ 3,317	\$ 2,034	\$ —	\$ 2034	\$ 5,351
2012	5,351	1,111		1,111	6,462
2013	6,462	1,662	50	1,612	8,074
2014	8,074	2,954	77	2,877	10,951
2015	10,951	2,097	111	1,986	12,937
2016	12,937	1,865	130	1,735	14,672
2017	14,672	3,530	124	3,406	18,078
2018	18,078	3,088	180	2,908	20,986
2019	20,986	4,196	122	4,074	25,060
2020	25,060	4,185	108	4,077	29,137

#### 10-YEAR COMPARISON OF ADDITIONS AND DEDUCTIONS



Public Employees' Retirement System

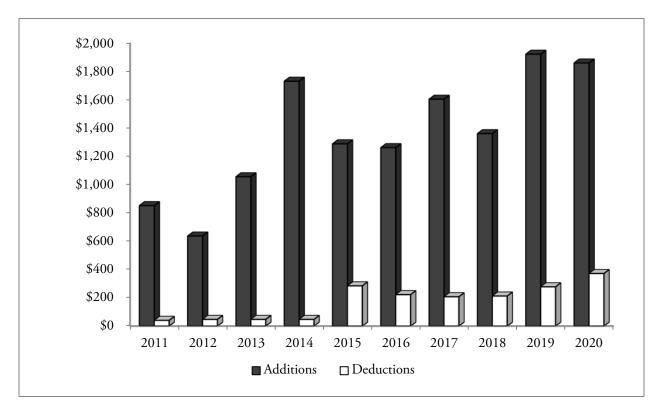
Defined Contribution Retirement Occupational Death & Disability - Peace Officers & Firefighters

Changes in Fiduciary Net Position

(In thousands)

Year Ended June 30	Fiduciary Net Position, Beginning of Year	Additions	Deductions	Increase / (Decrease) in Fiduciary Net Position	Fiduciary Net Position, End of Year
2011	\$ 1,139	\$ 851	\$ 40	\$ 811	\$ 1,950
2012	1,950	636	47	590	2,539
2013	2,539	1,055	47	1,008	3,547
2014	3,547	1,731	47	1,684	5,231
2015	5,231	1,288	284	1,004	6,235
2016	6,235	1,261	222	1,039	7,274
2017	7,274	1,604	207	1,397	8,671
2018	8,671	1,360	212	1,148	9,819
2019	9,819	1,922	276	1,646	11,465
2020	11,465	1,860	371	1,489	12,954

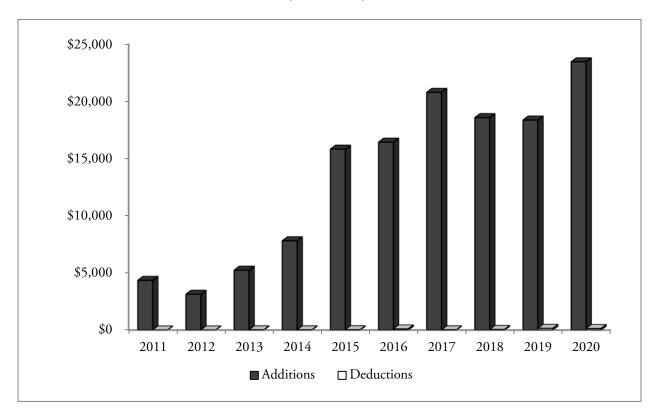
#### 10-YEAR COMPARISON OF ADDITIONS AND DEDUCTIONS



# Public Employees' Retirement System Defined Contribution Retirement Retiree Medical Plan Changes in Fiduciary Net Position (In thousands)

Year Ended June 30	Fiduciary Net Position, Beginning of Year	Additions	Deductions	Increase / (Decrease) in Fiduciary Net Position	Fiduciary Net Position, End of Year
2011	\$ 8,078	\$ 4,345	\$ —	\$ 4,345	\$ 12,423
2012	12,423	3,128	_	3,128	15,551
2013	15,551	5,235	10	5,225	20,776
2014	20,776	7,802	10	7,792	28,568
2015	28,568	15,819	19	15,800	44,368
2016	44,368	16,430	91	16,339	60,707
2017	60,707	20,787	12	20,775	81,482
2018	81,482	18,578	45	18,533	100,015
2019	100,015	18,365	142	18,223	118,238
2020	118,238	23,456	125	23,331	141,569

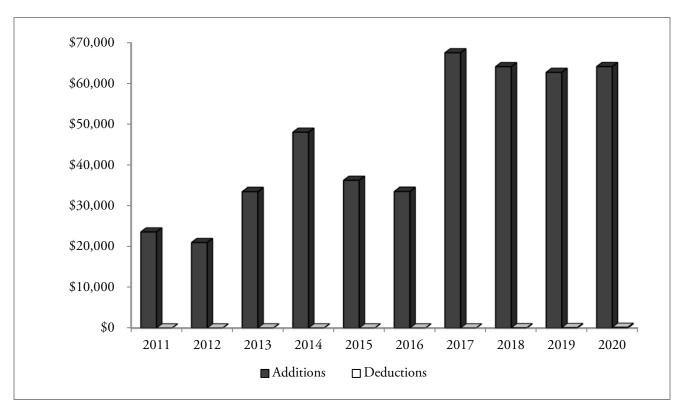
#### 10-YEAR COMPARISON OF ADDITIONS AND DEDUCTIONS



### Public Employees' Retirement System Defined Contribution Retirement Health Reimbursement Arrangement Changes in Fiduciary Net Position (In thousands)

Year Ended June 30	Fiduciary Net Position, Beginning of Year	Additions	Deductions	Increase / (Decrease) in Fiduciary Net Position	Fiduciary Net Position, End of Year
2011	\$ 31,069	\$ 23,625	\$ —	\$ 23,625	\$ 54,694
2012	54,694	21,022		21,022	75,716
2013	75,716	33,524	9	33,515	109,231
2014	109,231	48,055	9	48,046	157,277
2015	157,277	36,239	_	36,239	193,516
2016	193,516	33,568	_	33,568	227,084
2017	227,084	67,566	4	67,562	294,646
2018	294,646	64,152	47	64,105	358,751
2019	358,751	62,758	100	62,658	421,409
2020	421,409	64,172	172	64,000	485,409

#### 10-YEAR COMPARISON OF ADDITIONS AND DEDUCTIONS

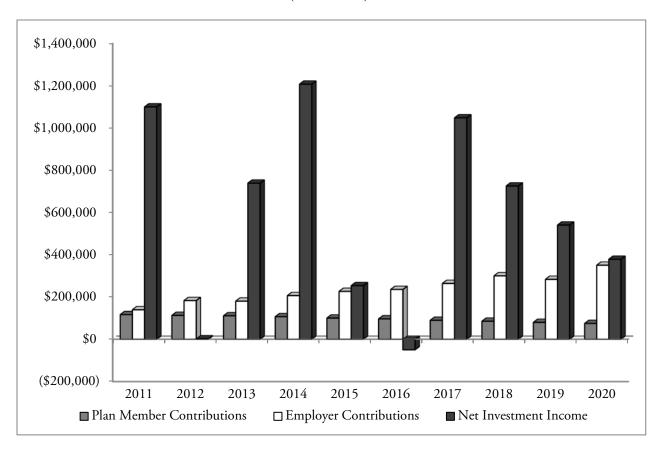


### Public Employees' Retirement System Defined Benefit Pension Additions by Source (In thousands)

Year Ended June 30	Plan Member Contributions	Employer Contributions	State of Alaska	Net Investment Income (Loss)	Other	Total
2011	\$ 116,270	\$ 139,075	\$ 65,187	\$ 1,099,713	\$ 97	\$ 1,420,342
2012	112,703	182,695	130,912	1,650	35	427,995
2013	110,808	179,976	164,087	738,656	28	1,193,555
2014	106,565	206,204	176,794	1,207,484	49	1,697,096
2015	100,036	226,136	1,000,000	253,311	36	1,579,519
2016	96,024	235,360	88,586	(49,967)	240	370,243
2017	89,345	263,597	99,167	1,048,006	38	1,500,153
2018	84,956	299,665	72,719	725,310	25	1,182,675
2019	79,609	283,098	135,360	540,088	23	1,038,178
2020	74,514	350,028	79,487	378,119	148	882,296

**Note:** This schedule shows the full appropriated amount of the additional state contribution as required by AS 39.35.280, a portion of which is included in "Employer Contributions" on the audited financial statements.

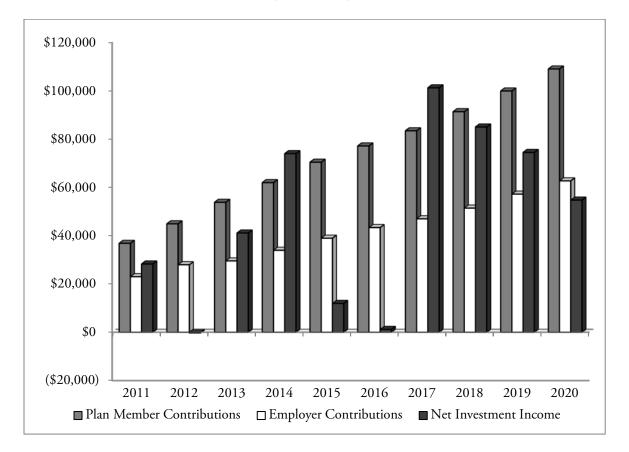
#### 10-YEAR COMPARISON OF ADDITIONS BY SOURCE



# Public Employees' Retirement System Defined Contribution Retirement Participant Directed Additions by Source (In thousands)

Year Ended June 30	Plan Member Contributions	Employer Contributions	Net Investment Income (Loss)	Other	Total
2011	\$ 36,831	\$ 22,976	\$ 28,264	\$ 13	\$ 88,084
2012	44,903	27,938	(280)	_	72,561
2013	53,843	29,519	41,098	4	124,464
2014	61,989	33,942	74,031	21	169,983
2015	70,462	38,949	11,931	1	121,343
2016	77,196	43,350	1,168	157	121,871
2017	83,493	46,982	101,317	185	231,977
2018	91,413	51,424	85,059	420	228,316
2019	99,995	57,221	74,507	454	232,177
2020	109,124	62,715	54,754	19	226,612

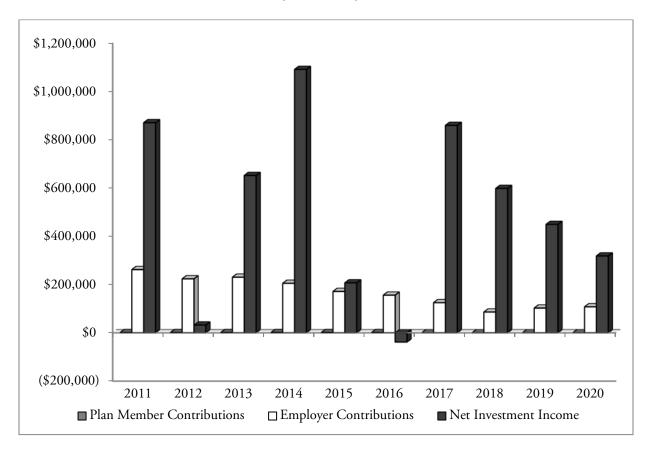
#### 10-YEAR COMPARISON OF ADDITIONS BY SOURCE



# Public Employees' Retirement System Defined Benefit Alaska Retiree Healthcare Trust Additions by Source (In thousands)

Year Ended June 30	Plan Member Premiums	Employer Contributions	State of Alaska	Net Investment Income (Loss)	Other	Total
2011	\$ 557	\$ 261,534	\$ 100,654	\$ 871,221	\$ 12,650	\$ 1,246,616
2012	627	223,243	111,698	31,815	31,889	399,272
2013	635	229,990	143,215	652,118	10,436	1,036,394
2014	717	204,779	135,679	1,092,212	17,368	1,450,755
2015	656	171,028	_	206,713	46,983	425,380
2016	621	155,630	37,934	(38,442)	31,566	187,309
2017	_	124,541	_	859,980	43,009	1,027,530
2018	_	85,731	_	598,343	26,338	710,412
2019		102,266		449,098	65,342	616,706
2020		107,298	_	318,158	81,641	507,097

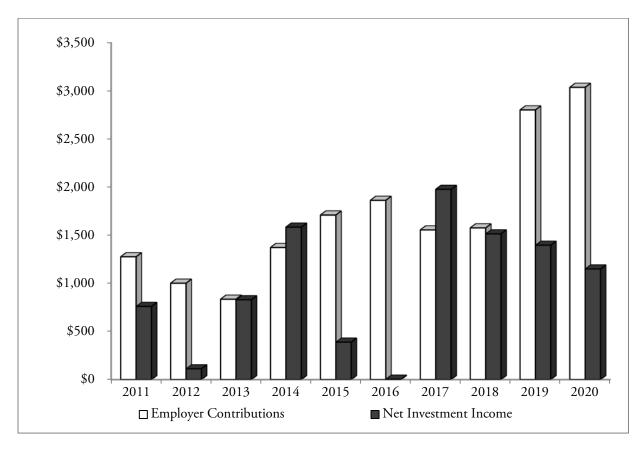
#### 10-YEAR COMPARISON OF ADDITIONS BY SOURCE



### Public Employees' Retirement System Defined Contribution Retirement Occupational Death & Disability - All Other Additions by Source (In thousands)

Plan Ended June 30	Employer Contributions	Net Investment Income (Loss)	Total
2011	\$ 1,275	\$ 759	\$ 2,034
2012	1,000	111	1,111
2013	834	828	1,662
2014	1,371	1,583	2,954
2015	1,709	388	2,097
2016	1,862	3	1,865
2017	1,554	1,976	3,530
2018	1,575	1,513	3,088
2019	2,801	1,395	4,196
2020	3,037	1,148	4,185

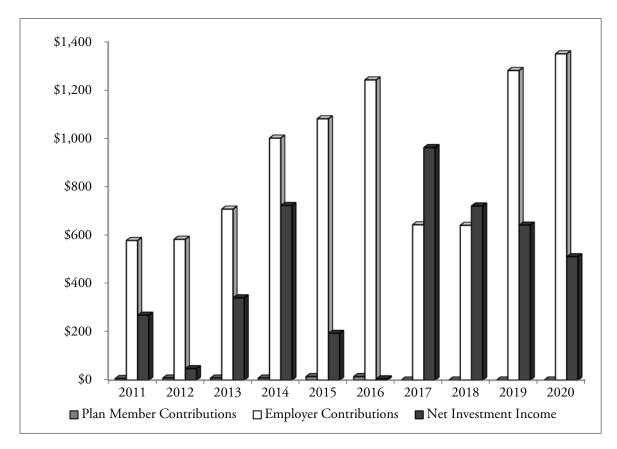
#### 10-YEAR COMPARISON OF ADDITIONS BY SOURCE



# Public Employees' Retirement System Defined Contribution Retirement Occupational Death & Disability - Peace Officers & Firefighters Additions by Source (In thousands)

Plan Ended June 30	Plan Member Contributions	Employer Contributions	Net Investment Income (Loss)	Total
2011	\$ 6	\$ 577	\$ 268	\$ 851
2012	8	582	47	637
2013	8	707	340	1,055
2014	8	1,001	722	1,731
2015	14	1,081	193	1,288
2016	14	1,242	5	1,261
2017	_	642	962	1,604
2018	_	640	720	1,360
2019	_	1,281	641	1,922
2020	_	1,350	510	1,860

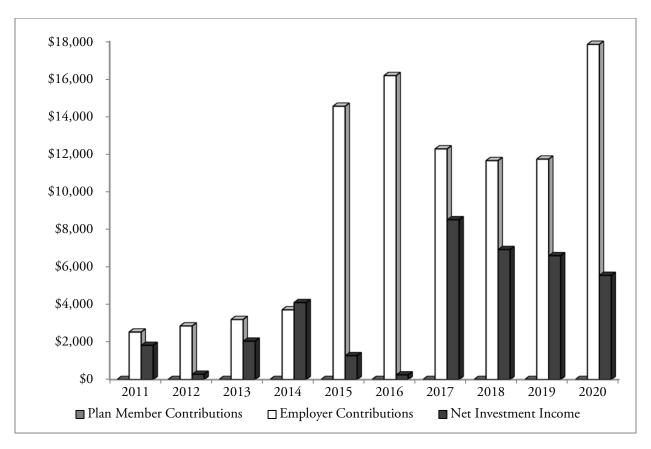
#### 10-YEAR COMPARISON OF ADDITIONS BY SOURCE



### Public Employees' Retirement System Defined Contribution Retirement Retiree Medical Plan Additions by Source (In thousands)

Plan Ended June 30	Plan Member Contributions	Employer Contributions	Net Investment Income (Loss)	Other	Total
2011	\$ —	\$ 2,527	\$ 1,818	\$ —	\$ 4,345
2012	_	2,850	278	_	3,128
2013	_	3,195	2,040	_	5,235
2014	_	3,708	4,094	_	7,802
2015	_	14,552	1,267	_	15,819
2016	_	16,184	246	_	16,430
2017	_	12,280	8,506	1	20,787
2018	_	11,657	6,919	2	18,578
2019	_	11,736	6,591	38	18,365
2020	_	17,846	5,546	64	23,456

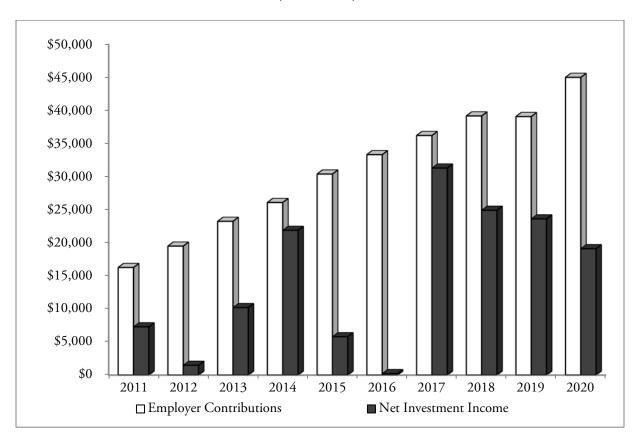
#### 10-YEAR COMPARISON OF ADDITIONS BY SOURCE



# Public Employees' Retirement System Defined Contribution Retirement Health Reimbursement Arrangement Additions by Source (In thousands)

Plan Ended June 30	Employer Contributions	Net Investment Income (Loss)	Total
2011	\$ 16,317	\$ 7,308	\$ 23,625
2012	19,547	1,475	21,022
2013	23,289	10,235	33,524
2014	26,128	21,927	48,055
2015	30,426	5,813	36,239
2016	33,351	217	33,568
2017	36,241	31,325	67,566
2018	39,195	24,957	64,152
2019	39,101	23,657	62,758
2020	45,014	19,158	64,172

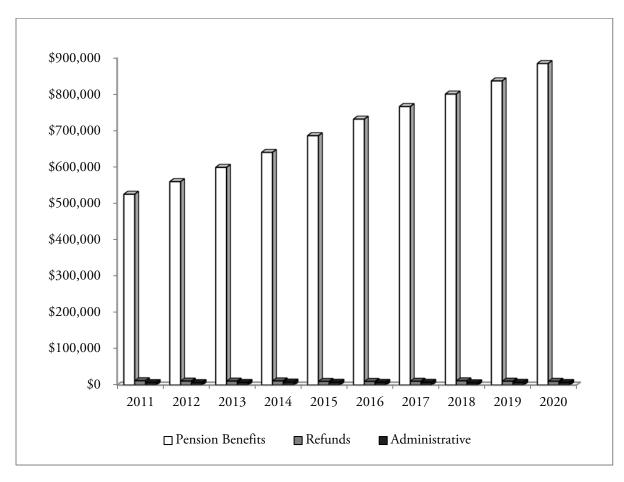
#### 10-YEAR COMPARISON OF ADDITIONS BY SOURCE



# Public Employees' Retirement System Defined Benefit Pension Deductions by Type (In thousands)

Year Ended June 30	Pension Benefits	Refunds of Contributions	Administrative	Total
2011	\$ 525,277	\$ 11,923	\$ 6,744	\$ 543,944
2012	559,977	10,906	6,743	577,626
2013	599,318	10,929	7,120	617,367
2014	640,518	11,399	8,223	660,140
2015	686,493	10,049	7,553	704,095
2016	732,141	10,034	7,243	749,418
2017	766,766	10,421	7,526	784,713
2018	801,155	11,722	6,250	819,127
2019	837,381	10,638	7,429	855,448
2020	885,252	10,271	7,017	902,540

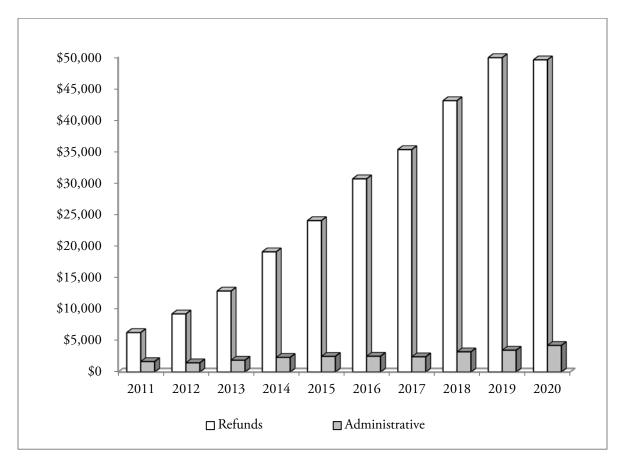
#### 10-YEAR COMPARISON OF DEDUCTIONS BY TYPE



# Public Employees' Retirement System Defined Contribution Retirement Participant Directed Deductions by Type (In thousands)

Plan Ended June 30	Refund of Contributions	Administrative	Prior Year Forfeiture Payable Adjustment	Total
2011	\$ 6,273	\$ 1,664	\$ —	\$ 7,937
2012	9,230	1,462	_	10,692
2013	12,872	1,879	9,166	23,917
2014	19,104	2,324	_	21,428
2015	24,067	2,487	_	26,554
2016	30,709	2,506	_	33,215
2017	35,355	2,419	_	37,774
2018	43,132	3,211	_	46,343
2019	49,972	3,465	_	53,437
2020	49,620	4,225	_	53,845

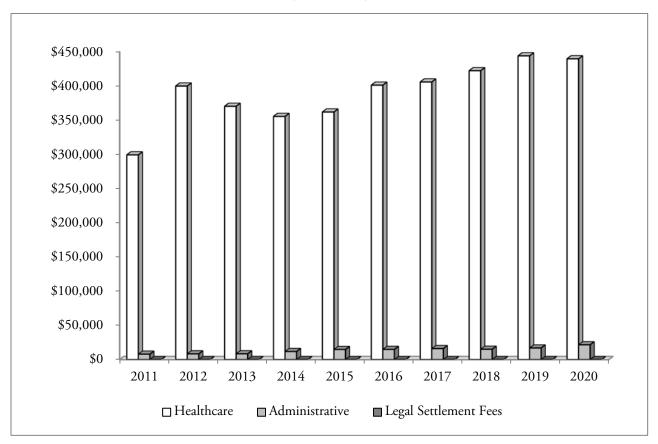
#### 10-YEAR COMPARISON OF DEDUCTIONS BY TYPE



# Public Employees' Retirement System Defined Benefit Alaska Retiree Healthcare Trust Deductions by Type (In thousands)

Plan Ended June 30	Healthcare	Administrative	Legal Settlement Fees	Total
2011	\$ 299,196	\$ 7,806	\$ —	\$ 307,002
2012	399,923	8,229	_	348,152
2013	370,314	8,325	_	378,639
2014	355,487	11,679	_	367,166
2015	361,930	14,647	_	376,577
2016	401,233	14,785	_	416,018
2017	405,872	15,960	_	421,832
2018	422,378	14,985	_	437,363
2019	444,143	16,872	_	461,015
2020	439,785	21,493	_	461,278

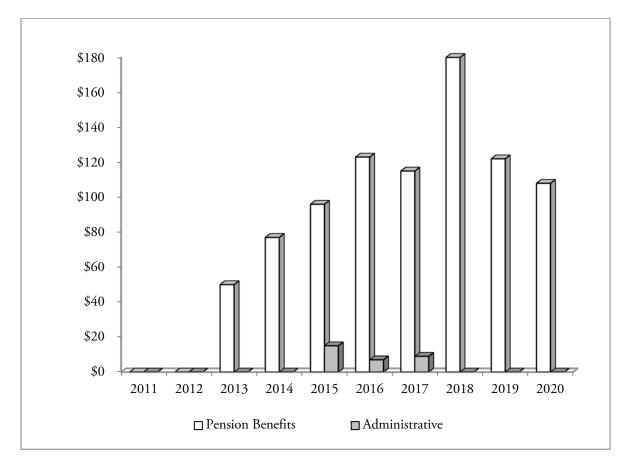
#### 10-YEAR COMPARISON OF DEDUCTIONS BY TYPE



Public Employees' Retirement System							
Defined Contribution Retirement Occupational Death & Disability - All Other							
Deductions by Type							
(In thousands)							

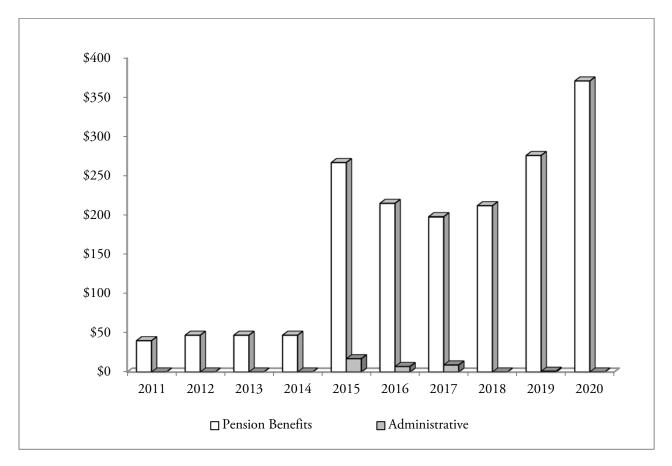
Plan Ended June 30	Pension Benefits	Administrative	Total
2011	\$ —	\$ —	\$ —
2012		_	<del>_</del>
2013	50	_	50
2014	77		77
2015	96	15	111
2016	123	7	130
2017	115	9	124
2018	180	_	180
2019	122	_	122
2020	108	_	108

#### 10-YEAR COMPARISON OF DEDUCTIONS BY TYPE



Public Employees' Retirement System  Defined Contribution Retirement Occupational Death & Disability – Peace Officers &  Firefighters  Deductions by Type  (In thousands)							
Plan Ended June 30	Ended Pension						
2011	\$ 40	\$ —	\$ 40				
2012	47	_	47				
2013	47		47				
2014	47	_	47				
2015	267	17	284				
2016	215	7	222				
2017	198 9 207						
2018	212		212				
2019	276	_	276				
2020	371		371				

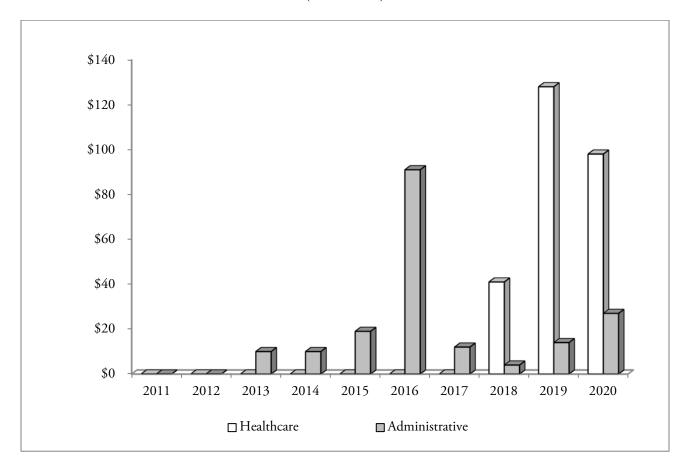
#### 10-YEAR COMPARISON OF DEDUCTIONS BY TYPE



Public Employees' Retirement System
Defined Contribution Retirement Retiree Medical Plan
Deductions by Type
(In thousands)

Plan Ended June 30	Healthcare	Administrative	Total
2011	\$ —	\$ —	\$ —
2012	_	_	_
2013		10	10
2014	_	10	10
2015	_	19	19
2016	_	91	91
2017	_	12	12
2018	41	4	45
2019	128	14	142
2020	98	27	125

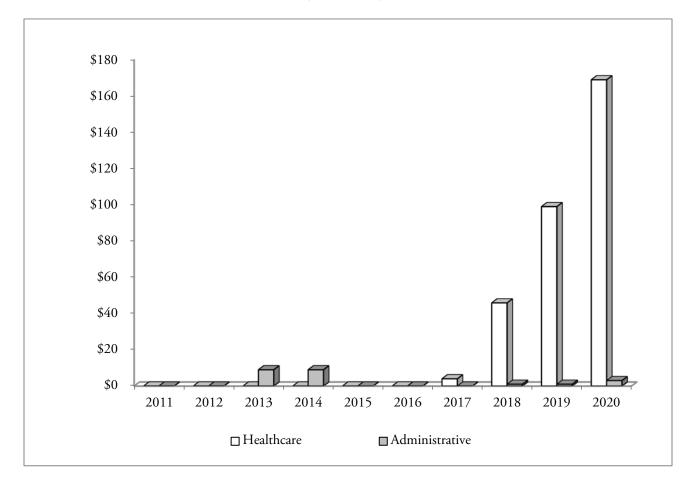
#### 10-YEAR COMPARISON OF DEDUCTIONS BY TYPE



# Public Employees' Retirement System Defined Contribution Retirement Healthcare Reimbursement Arrangement Deductions by Type (In thousands)

Plan Ended June 30	Healthcare	Administrative	Total
2011	\$ —	\$ —	\$ —
2012	<del>_</del>	<u> </u>	<u> </u>
2013	<del>_</del>	9	9
2014	<del>_</del>	9	9
2015	<del>_</del>	<u> </u>	<u> </u>
2016	<del>_</del>	_	_
2017	4	_	4
2018	46	1	47
2019	99	1	100
2020	169	3	172

#### 10-YEAR COMPARISON OF DEDUCTIONS BY TYPE



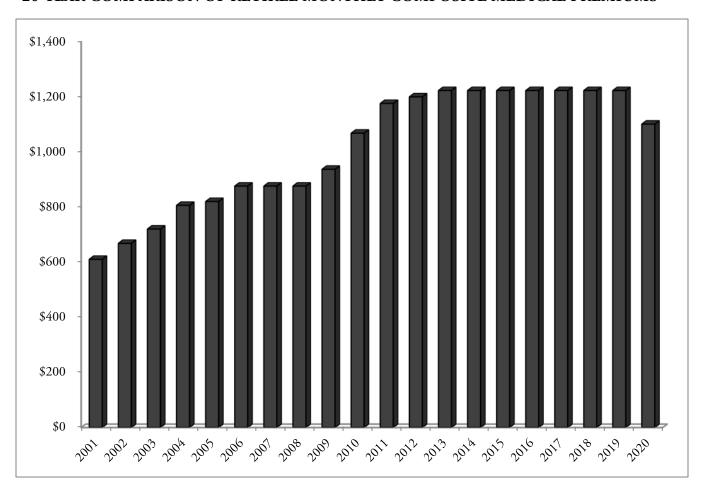
Public Employees' Retirement System Schedule of Average Benefit Payments New Benefit Recipients									
		Years of	Credited S	ervice					
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+		
All Others									
Period 7/1/13 - 6/30/14: Average Monthly Benefit Number of Recipients	\$ 503 48	\$ 700 347	\$1,189 319	\$2,065 241	\$3,021 214	\$4,439 224	\$5,490 121		
Period 7/1/14 - 6/30/15: Average Monthly Benefit Number of Recipients	\$ 430 42	\$ 685 284	\$1,260 304	\$2,008 213	\$3,086 198	\$4,544 169	\$6,195 98		
Period 7/1/15 - 6/30/16: Average Monthly Benefit Number of Recipients	\$ 434 30	\$ 660 323	\$1,240 387	\$2,017 266	\$3,059 192	\$4,158 161	\$6,583 135		
Period 7/1/16 - 6/30/17: Average Monthly Benefit Number of Recipients	\$ 381 27	\$ 640 254	\$1,271 375	\$2,067 233	\$3,119 212	\$4,579 191	\$6,224 115		
Period 7/1/17 - 6/30/18: Average Monthly Benefit Number of Recipients	\$ 414 26	\$ 607 221	\$1,299 351	\$1,982 280	\$3,034 223	\$4,475 214	\$6,085 127		
Period 7/1/18 – 6/30/19: Average Monthly Benefit Number of Recipients	\$ 652 21	\$ 646 190	\$1,301 266	\$2,071 289	\$3,058 222	\$4,596 205	\$5,685 105		
	· · · · · · · · · · · · · · · · · · ·	Peace C	Officer/Firefi	ghter					
Period 7/1/13 - 6/30/14: Average Monthly Benefit Number of Recipients	\$ 209 1	\$1,423 9	\$2,002 10	\$2,902 14	\$4,014 22	\$5,464 16	\$6,299 7		
Period 7/1/14 - 6/30/15: Average Monthly Benefit Number of Recipients	\$ <u> </u>	\$1,173 8	\$1,621 9	\$3,632 26	\$4,436 24	\$5,457 25	\$6,863 7		
Period 7/1/15 - 6/30/16: Average Monthly Benefit Number of Recipients	\$ <u> </u>	\$ 958 6	\$1,742 11	\$3,347 19	\$4,622 30	\$5,778 28	\$7,221 16		
Period 7/1/16 - 6/30/17: Average Monthly Benefit Number of Recipients	\$ — —	\$ 686 8	\$2,075 9	\$3,234 28	\$4,462 41	\$5,151 23	\$6,376 14		
Period 7/1/17 - 6/30/18: Average Monthly Benefit Number of Recipients	\$ — —	\$1,063 4	\$2,133 18	\$3,747 19	\$4,847 35	\$6,024 30	\$7,717 3		
Period 7/1/18 – 6/30/19 Average Monthly Benefit Number of Recipients	\$ <u>—</u>	\$ 651 5	\$1,933 11	\$3,362 25	\$4,786 38	\$6,196 26	\$5,688 6		

<sup>&</sup>quot;Average Monthly Benefit" includes post-retirement pension adjustments and cost-of-living increases.

Public Employees' Retirement System
Schedule of Pension and Healthcare Benefits Deductions by Type
(In thousands)

Year Ended June 30	Service	Disability	Survivor	Healthcare	Total
2011	\$ 492,808	\$ 5,821	\$ 26,648	\$ 323,843	\$ 849,120
2012	543,789	5,528	28,651	339,923	917,891
2013	563,172	5,276	30,870	395,939	995,257
2014	601,705	5,630	33,183	415,926	1,056,444
2015	645,895	5,220	35,742	361,930	1,048,786
2016	689,487	4,878	38,115	401,233	1,133,713
2017	721,300	4,812	40,967	405,876	1,172,955
2018	753,409	4,861	43,277	422,465	1,224,012
2019	786,301	5,052	46,426	444,370	1,282,149
2020	831,325	4,439	49,967	440,052	1,325,783

#### 20-YEAR COMPARISON OF RETIREE MONTHLY COMPOSITE MEDICAL PREMIUMS



## Public Employees' Retirement System Schedule of Pension Benefit Recipients by Type of Pension Benefit and Option Elected Valuation as of June 30, 2019

	Number	Туре	of Pension B	enefit		0	ption Selecte	ed	
Amount of Monthly Pension Benefit	of Recipients	1	2	3	1	2	3	4	5
All Others									
\$ 1 - 300	2,100	1,560	538	2	997	391	281	68	363
301 - 600	5,088	4,288	790	10	2,655	1,197	824	258	154
601 - 900	4,239	3,561	663	15	2,215	1,024	684	190	126
901 - 1,200	3,401	2,938	456	7	1,663	843	642	159	94
1,201 - 1,500	2,940	2,572	347	21	1,425	775	541	117	82
1,501 - 1,800	2,351	2,085	244	22	1,074	681	443	89	64
1,801 - 2,100	1,973	1,782	175	16	896	547	374	97	59
2,101 - 2,400	1,684	1,542	123	19	726	480	348	81	49
2,401 - 2,700	1,414	1,319	82	13	588	436	272	67	51
2,701 - 3,000	1,176	1,100	70	6	475	389	240	35	37
3,001 - 3,300	984	933	43	8	398	324	195	40	27
3,301 - 3,600	857	826	31	0	312	280	195	51	19
3,601 - 3,900	753	725	24	4	288	261	150	35	19
3,901 - 4,200	647	622	25	0	241	213	146	32	15
over \$4,200	3,238	3,196	38	4	1,077	1,193	738	180	50
Totals	32,845	29,049	3,649	147	15,030	9,034	6,073	1,499	1,209
		Pea	ce Officer	/Firefighte	r				
\$ 1 - 300	53	20	33	_	37	7	_	2	7
301 - 600	172	106	66	_	92	38	23	7	12
601 - 900	172	96	75	1	102	39	9	11	11
901 - 1,200	179	103	76	_	109	36	19	8	7
1,201 - 1,500	171	115	55	1	98	37	20	6	10
1,501 - 1,800	163	121	41	1	86	43	23	8	3
1,801 - 2,100	156	109	45	2	70	43	30	7	6
2,101 - 2,400	216	164	51	1	96	68	29	13	10
2,401 - 2,700	201	170	26	5	78	70	34	13	6
2,701 - 3,000	228	204	22	2	68	97	40	14	9
3,001 - 3,300	285	250	32	3	93	117	51	13	11
3,301 - 3,600	242	213	24	5	87	100	32	13	10
3,601 - 3,900	184	169	12	3	60	80	28	12	4
3,901 - 4,200	186	181	4	1	46	87	34	15	4
over \$4,200	857	836	20	1	215	434	133	63	12
Totals	3,465	2,857	582	26	1,337	1,296	505	205	122

#### Type of Pension Benefit

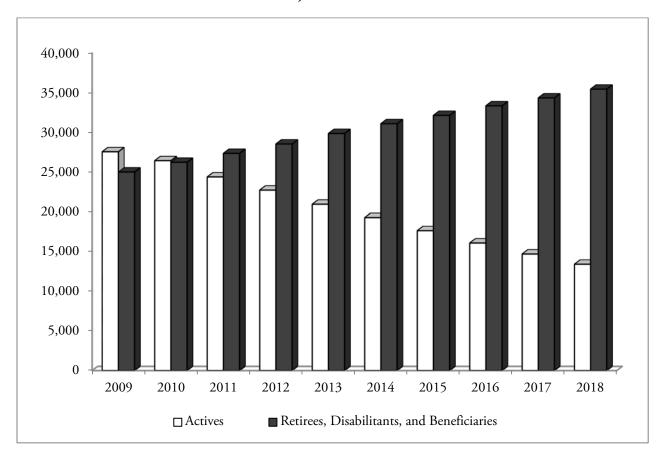
- 1 Regular retirement
- 2 Survivor payment
- 3 Disability

#### **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

Public Employees' Retirement System System Membership by Status								
Year Ended June 30	Active	Retirees, Disabilitants & Beneficiaries	Vested Terminations	Nonvested Terminations w/Balance	Total			
2010	26,442	26,237	6,253	14,543	73,475			
2011	24,393	27,359	6,414	14,028	72,194			
2012	22,730	28,540	6,294	13,552	71,116			
2013	20,955	29,865	6,230	13,162	70,212			
2014	19,297	31,099	6,167	12,713	69,276			
2015	17,660	32,145	6,304	12,339	68,448			
2016	16,105	33,353	6,160	11,880	67,498			
2017	14,719	34,347	5,962	11,506	66,534			
2018	13,434	35,454	5,660	11,192	65,740			
2019	12,152	36,310	5,499	10,921	64,882			

### 10-YEAR COMPARISON OF ACTIVE MEMBERS AND RETIREES, DISABILITANTS, AND BENEFICIARIES



### Statistical Section

#### Public Employees' Retirement System Principal Participating Employers June 30, 2020

Employer	Non-retired Members	Rank	Percentage of of Total Non-retired Members
State of Alaska	26,860	1	39.84%
Anchorage School District	6,006	2	8.91
University of Alaska	<u>4,381</u>	3	<u>6.50</u>
Total	<u>37,247</u>		<u>55.25%</u>

#### Statistical Section

### Public Employees' Retirement System Participating Employers at June 30, 2020

Akutan, City of Chatham School District
Alaska, State of Chugach School District

Alaska Gasline Development Corporation Cook Inlet Housing Authority

Alaska Gateway School District Copper River Basin Regional Housing Authority

Alaska Housing Finance Corporation Copper River School District

Alaska Municipal League Cordova, City of

Aleutian Housing Authority Cordova City School District

Aleutians East Borough Cordova Community Medical Center

Aleutians East Borough School District Craig, City of

Allakaket, City of Craig City School District

Anchorage, Municipality of

Anchorage Community Development Authority Delta-Greely School District

Anchorage School District Delta Junction, City of

Anderson, City of Denali Borough

Aniak, City of Denali Borough School District

Annette Island School District Dillingham, City of

Atka, City of Dillingham City School District

Baranof Island Housing Authority Egegik, City of
Barrow, City of Elim, City of

Bartlett Regional Hospital

Bering Strait School District Fairbanks, City of

Bering Straits Regional Housing Authority Fairbanks North Star Borough

Bethel, City of Fairbanks North Star Borough School District

Bristol Bay Borough Fort Yukon, City of

Bristol Bay Borough School District

Bristol Bay Housing Authority Galena, City of

Galena City School District

### Public Employees' Retirement System Participating Employers at June 30, 2020 (continued)

Haines Borough

Haines Borough School District

Homer, City of Hoonah, City of

Hoonah City School District

Hooper Bay, City of Huslia, City of

Hydaburg City School District

Iditarod Area School District

Ilisagvik College

Interior Regional Housing Authority

Inter-Island Ferry Authority

Juneau School District, City and Borough of

Juneau, City and Borough of

Kachemak, City of

Kake City School District

Kaltag, City of

Kashunamiut School District

Kenai, City of

Kenai Peninsula Borough

Kenai Peninsula Borough School District

Ketchikan, City of

Ketchikan Gateway Borough

Ketchikan Gateway Borough School District

King Cove, City of Kivalina, City of Klawock, City of

Klawock City School District

Kodiak, City of

Kodiak Island Borough

Kodiak Island Borough School District

Kotzebue, City of Koyuk, City of

Kuspuk School District

Lake and Peninsula Borough

Lake and Peninsula Borough School District

Lower Kuskokwim School District Lower Yukon School District

Matanuska-Susitna Borough

Matanuska-Susitna Borough School District

Mekoryuk, City of

Nenana, City of

Nenana City School District

Nome, City of

Nome City School District Nome Joint Utility System

Noorvik, City of

North Pacific Fishery Management Council

North Pacific Rim Housing Authority

North Pole, City of North Slope Borough

North Slope Borough School District

Northwest Arctic Borough

Northwest Arctic Borough School District Northwest Inupiat Housing Authority

Palmer, City of Pelican, City of

Pelican City School District

Petersburg Borough

Petersburg City School District Petersburg Medical Center Pribilof School District

#### Statistical Section

### Public Employees' Retirement System Participating Employers

at June 30, 2020 (continued)

Saint George, City of Thorne Bay, City of

Saint Mary's School District Tlingit-Haida Regional Housing Authority

Saint Paul, City of Toksook Bay, City of

Sand Point, City of

Saxman, City of Unalaska, City of

Saxman Seaport Unalaska City School District

Selawik, City of University of Alaska Seldovia, City of Upper Kalskag, City of

Seward, City of

Shaktoolik, City of Valdez, City of

Sitka Borough School District Valdez City School District

Sitka, City and Borough of
Skagway City School District
Wasilla, City of

Skagway, Municipality of Whittier, City of

Soldotna, City of Wrangell, City and Borough of

Southeast Island School District Wrangell Public School District

Southeast Regional Resource Center
Southwest Region School District
Yakutat, City and Borough of

Special Education Service Agency Yakutat School District

Yukon Flats School District
Tagiugmiullu Nunamiullu Housing Authority
Yukon-Koyukuk School District

Tanana, City of Yupiit School District

Tanana School District



STATE OF ALASKA • DEPARTMENT OF ADMINISTRATION

### • Division of Retirement and Benefits •

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