

# ALASKA

• Teachers' Retirement System •



A component unit of the State of Alaska

## Annual Comprehensive Financial Report

Fiscal Year Ended June 30, 2022

Mike Dunleavy, Governor



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# TEACHERS' RETIREMENT SYSTEM

## ANNUAL COMPREHENSIVE FINANCIAL REPORT

A Component Unit of the State of Alaska

*For the Fiscal Year Ended June 30, 2022*



**Mike Dunleavy, Governor**

Prepared by

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ALASKA DIVISION OF  
**Retirement  
and Benefits**

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# INTRODUCTORY SECTION



ALASKA DIVISION OF  
**Retirement  
and Benefits**

# Introductory Section



THE STATE  
*of* **ALASKA**  
GOVERNOR MIKE DUNLEAVY

## Department of Administration

### DIVISION OF RETIREMENT AND BENEFITS

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## LETTER OF TRANSMITTAL

December 15, 2022

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 Annual Comprehensive Financial Report (ACFR) of the Teachers' Retirement System (TRS) (System) for the fiscal year ended June 30, 2022. The ACFR is intended to fulfill the legal requirements of Alaska Statute (AS) 14.25.004(a)(8).

The ACFR 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, 2022. 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, 2022. 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.

### Profile of the System

The System was established in 1955 to provide pension benefits to teachers and other eligible participants. 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 and II). The DCR Plan includes the defined contribution

# Introductory Section

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retirement trust, occupational death and disability plan, retiree major medical plan, and the health reimbursement arrangement plan (Tier III).

## 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 ACFR 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 Teachers' 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 making progress on several on-going projects. Most of these efforts are focused on improving the following: customer service, technology, methods for employers submitting information, methods for members to obtain information, and continued compliance with Governmental Accounting Standards Board (GASB) accounting requirements, as applicable. While COVID-19 continues to impact day-to-day and face-to-face interaction with members and employers, we continue providing via teleworking and hybrid telework arrangements the necessary services needed to meet stakeholder demands while maintaining appropriate security and safety measures.

The System is in the third year of a major member benefits system upgrade. The Division signed a contract with Sagitec, an industry leader in pension and healthcare software systems. The Division branded the new system Benefits and Retirement System, or BEARS. Recently, Sagitec presented the first of three pilot demonstrations of modules designed and created since the inception of the project. Staff is excited about this new system, the

# Introductory Section

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enhancements it provides, and looks forward to sharing more information with members and employers as we work toward implementation in 2024.

The System strives to offer best in class health care benefits balanced by strong financial management and cost initiatives that focus on value. Two examples are (1) the implementation of preventive care coverage in the retiree health plan and (2) implementation of specialty pharmacy management programs in the employee and retiree health plans. Both changes result in valuable medical coverage to the membership while striving to contain rising healthcare costs that impact the System.

Under the guidance of Director Ajay Desai, the System continues to assess and retool its communication efforts, including printed handbooks, newsletters, and website content. The System developed new employee videos for employers' use and plan information easily accessible online 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, faster processing of all customer requests, and improving member education services.

The System offers a broad array of fairs, town halls, and seminars as safely as possible for both members and employers. These efforts are directed at assisting employers with successful marketing of the plans, educating members about all benefits available from early career 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, 2021, 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 12, 2022, 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 92.6%. The DB Plan's unfunded actuarial accrued liability (actuarial liability minus actuarial value of DB plan assets) totals approximately \$733.4 million. 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, 2022, the DB Plan's investment portfolio was valued at \$9.3 billion and earned an average (4.10)% return for the fiscal year ended June 30, 2022. The DCR Plan's investment portfolio was valued at \$1 billion for the fiscal year ended June 30, 2022. Over the past five years ending June 30, 2022, the DB Plan's investments earned an 8.19% 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.

# Introductory Section

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## Accounting System

This ACFR 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 ACFR for the fiscal year ended June 30, 2021. 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 ACFR. 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 ACFR 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, 2022. This award signifies that the Alaska TRS 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 2023.

## 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 <https://drb.alaska.gov/docs/reports/#trs> 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.

# Introductory Section

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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,



Paula Vrana  
Commissioner



Ajay Desai  
Division Director



Elizabeth "Betsy" Wood  
Acting Chief Health Policy Administrator



Jim Puckett  
Chief Pension Officer



Kevin Worley  
Chief Financial Officer



Government Finance Officers Association

Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting

Presented to

**Alaska Teachers' Retirement System**

For its Annual Comprehensive  
Financial Report  
For the Fiscal Year Ended

June 30, 2021



Public Pension Coordinating Council

***Public Pension Standards Award  
For Funding and Administration  
2022***

Presented to

**State of Alaska Teachers' 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)

A handwritten signature in cursive script that reads "Alan H. Winkle".

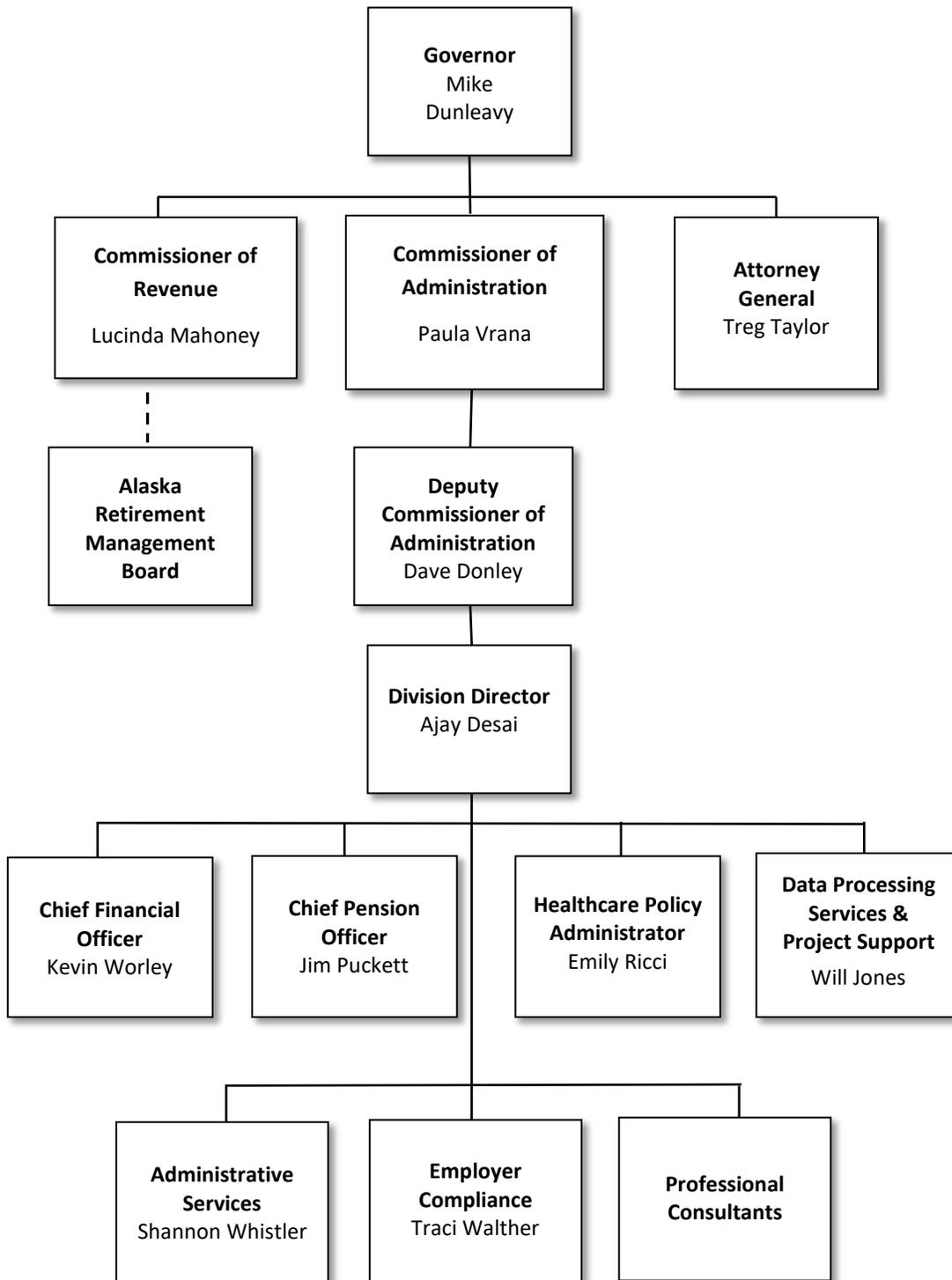
Alan H. Winkle  
Program Administrator

# Introductory Section

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## ORGANIZATION CHART

As of June 30, 2022



# Introductory Section

## 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 member's physical records and performs other administrative functions such as legislative tracking and personnel management.

Professional Consultants		
<p><b>Consulting Actuary</b> Buck Global LLC <i>Denver, Colorado</i></p>	<p><b>Legal Counsel</b> Andrew Bocanumenth Kevin Dilg Morgan A. Griffin Kevin Higgins Ben Hofmeister Grace Lee Bill Milks Rebecca Polizzotto Assistant Attorney Generals <i>Juneau, Alaska</i></p>	<p><b>Legal Counsel (cont.)</b> Laura Wolff <i>Anchorage, AK</i></p> <p>Ice Miller LLP <i>Indianapolis, Indiana</i></p>
<p><b>Reviewing Actuary</b> Gabriel Roeder Smith <i>Denver, Colorado</i></p>		<p><b>Third-Party Healthcare Claim Administrators</b> Aetna Life Insurance Company <i>Lexington, Kentucky</i> CHCS Services, Inc. <i>Pensacola, Florida</i> Moda Health / Delta Dental of Alaska <i>Portland, Oregon</i> PayFlex Systems USA, Inc. <i>Omaha, Nebraska</i> Optum Rx <i>Irvine, California</i></p>
<p><b>Independent Auditors</b> KPMG LLP <i>Anchorage, Alaska</i></p>		
<p><b>Benefits Consultants</b> Buck Global LLC <i>Denver, Colorado</i> The Segal Company <i>Greenwood Village, Colorado</i></p>	<p>Jessie Alloway Colleen Bailey Katherine Demarest Javier Diaz Kyle B. Emili Kimberly Halstead Eugene F. Hickey Margaret Paton-Walsh Jeff Pickett Christopher Robison Robert Schmidt Danielle Thurmond Rachel Witty</p>	
<p><b>IT Consultants</b> Alaska IT Group <i>Juneau, Alaska</i> Applied Microsystems, Inc. Computer Task Group <i>Anchorage, Alaska</i></p>		<p><b>Consulting Physicians</b> Julius Goslin <i>Anchorage, AK (HSS)</i></p>

A list of investment consultants can be found in the Investment Section on pages 76 - 77. Investment fees and commissions can be found on pages 85 and 92.

# Introductory Section

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## Alaska Retirement Management Board

As of June 30, 2022

**Bob Williams, Chair**, was appointed by Governor Walker in March 2016 and reappointed by Governor Dunleavy in March 2020. Bob Williams was born and raised in Palmer, Alaska. He began his teaching career as a Peace Corps teacher in Gambia, Africa. He then taught for more than two decades as a secondary mathematics teacher in Alaska with more than a decade of experience teaching AP Calculus. He is a nationally board-certified teacher and the recipient of both the Presidential Award for Excellence in Mathematics Teaching and the Horace Mann Teaching Excellence Award. He was the Alaska 2009 Teacher of the Year and was inducted into the National Teachers Hall of Fame in 2017. Mr. Williams has a B.S. in Petroleum Engineering, an M.A. in Mathematics Education, an M.Ed. in Educational Leadership, and a Ph.D. in Public Policy and Administration. Mr. Williams also serves as Chair of the ARMB Defined Contribution Plan Committee.

**Allen Hippler, Vice-Chair**, 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. Mr. Hippler also serves as Chair of the Actuarial Committee.

**Michael Williams, Secretary**, was appointed by Governor Dunleavy in March 2022. He previously served on the board from 2005 to 2012. He works for the Alaska Department of Revenue as a Revenue Audit Supervisor, managing the State's corporate income tax program. He also serves as Secretary/Treasurer for the Supervisory Unit of the Alaska Public Employees Association, and since 2005 has been the treasurer for the Pacific Health Coalition, a private health coalition representing 250,000 members through public and private unions and small businesses. He is an avid reader and travel enthusiast. Michael holds a B.A. in Accounting and a Master of Taxation from Weber State University. He is professionally licensed as an Enrolled Agent.

**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.

**Paula Vrana** is the Commissioner of the Department of Administration, appointed by Governor Dunleavy on September 30, 2021. She served as deputy commissioner of the department since January 2019. Commissioner Vrana is an attorney and lifelong Alaskan, her family roots in Southeast Alaska date back to early World War II years in Skagway. She practiced law at the law firm of Brena, Bell & Clarkson and has served as the Chief Executive Officer of Copper River Native Association as well as Executive Director of Hospice of Anchorage.

# Introductory Section

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**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 Masters 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.

**Donald Krohn** was appointed by Governor Dunleavy in March 2021. He began his career in law enforcement more than 45 years ago with a four-year stint in the Air Force. From there, he joined the U.S. Customs Service in Chicago, working on narcotics interdiction. In 1979, he was transferred to Anchorage and after five more years working in inspections and intercepting drug traffic, he joined the Anchorage Police Department. Mr. Krohn worked for several years at the department as a detective specializing in white-collar crime. He was then promoted to the major crime's unit. He finished his 18 years at APD working major crimes and as a homicide detective. In January 2002, he joined First National Bank Alaska as Security Officer. During his first three years at the bank, he developed and implemented programs that resulted in an 80 percent reduction in successful criminal attacks against the bank and its customers. He retired in May 2020. Mr. Krohn also holds a B.S. in Occupational Education, with a minor in Criminal Justice from Wayland Baptist University.

**Dennis Moen** was appointed by Governor Dunleavy in 2020. He is a retired Facility Manager for the State of Alaska, Department of Transportation & Public Facilities, Northern Region. Mr. Moen established and managed a multi-million-dollar annual operating budget. Supervised over 50 employees. Developed an annual budget for over 400 state owned facilities and was the Contracting Officer for 100's of state vendors. Fourteen hours after retiring from the State of Alaska, he went to work for the Public Employees Local 71 Laborer's Union. He was elected as Business Manager/Secretary Treasurer in 2012. As Business Manager, Mr. Moen represented 2400 members statewide. He developed a multi-million-dollar budget and provided fiduciary oversight of Local 71's operating budget. Dennis directed investment bankers and economic consultants for PE Local 71's Health Trust Fund. He also oversaw actuarial analysis and audits. Mr. Moen was concurrently Business Manager/Secretary Treasurer for Alaska District Council of Laborers for three Alaska Laborer Locals. He was also the Vice President of the Pacific Health Coalition (PHC), a private health coalition representing 250,000 members through public and private unions and small businesses. Mr. Moen lived and raised his 2 children in Fairbanks, Alaska for 40 years. He is a private pilot, a Coast-Guard Captain for 100-ton vessels and since his retirement from the Union in 2019 enjoys commercial fishing in Southeast Alaska.

**Sandra K. Ryan** has been a teacher of mathematics and computer science in the Fairbanks North Star Borough School District (FNSBSD) since 1994. She currently serves as the Fairbanks Education Association President, representing over 800 certificated staff. She also served as a member of the FNSBSD's curriculum committee, an advanced placement teacher in both AP Computer Science and AP Statistics, on two school Accreditation Committees, and on the Education Excellence for Teachers and Students Committee. Ms. Ryan is a new local presidents' trainer for the National Education Association, a member of Alpha Delta Kappa, and serves on the Fairbanks Chamber of Education and Commerce Workforce Committee. She holds a B.S. in Communications from the University of Texas at Austin, a B.S. in Mathematics from St. Edwards's University, and an M.S. in Computer Science—Software Engineering from the University of Alaska-Fairbanks.



ALASKA DIVISION OF  
**Retirement  
and Benefits**



# FINANCIAL SECTION



ALASKA DIVISION OF  
**Retirement  
and Benefits**



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 Teachers' Retirement System:

### ***Opinion***

We have audited the combining financial statements of the State of Alaska Teachers' Retirement System (the System), a component unit of the State of Alaska, as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

In our opinion, the accompanying combining financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System as of June 30, 2022, and the changes in its fiduciary net position for the year then ended in accordance with U.S. generally accepted accounting principles.

### ***Basis for Opinion***

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the System and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### ***Responsibilities of Management for the Financial Statements***

Management is responsible for the preparation and fair presentation of the financial statements in accordance with U.S. generally accepted accounting principles, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

### ***Auditors' Responsibilities for the Audit of the Financial Statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

# Financial Section

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In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 System's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

## ***Report on Summarized Comparative Information***

We have previously audited the System's 2021 combining financial statements, and we expressed an unmodified opinion on those financial statements in our report dated October 20, 2021. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2021 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 and the required supplementary information listed in the table of contents be presented to supplement the basic financial statements. Such information is the responsibility of management and, 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 GAAS, 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.

## ***Supplementary Information***

Our audit for the year ended June 30, 2022 was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements for the year ended June 30, 2022. The supplemental schedules listed in the table of contents for the year ended June 30, 2022 are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements for the year ended June 30, 2022 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 GAAS. In our opinion, the

# Financial Section

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information is fairly stated, in all material respects, in relation to the basic financial statements as a whole for the year ended June 30, 2022.

We also previously audited, in accordance with GAAS, the basic financial statements of the System as of and for the year ended June 30, 2021 (not presented herein), and have issued our report thereon dated October 20, 2021 which expressed an unmodified opinion. The supplemental schedules listed in the table of contents for the year ended June 30, 2021 are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information was subjected to the audit procedures applied in the audit of the basic financial statements for the year ended June 30, 2021 and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare those financial statements or to those financial statements themselves, and other additional procedures in accordance with GAAS. In our opinion, the information is fairly stated in all material respects, in relation to the basic financial statements as a whole for the year ended June 30, 2021

KPMG LLP

Anchorage, Alaska  
October 14, 2022

# Financial Section

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## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Management's Discussion and Analysis (Unaudited)

June 30, 2022

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This section presents management's discussion and analysis (MD&A) of the State of Alaska Teachers' Retirement System's (the System) financial position and performance for the years ended June 30, 2022 and 2021. 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, 2022 and 2021. Information for fiscal year 2020 is presented for comparative purposes.

#### Financial Highlights

The System's financial highlights for the year ended June 30, 2022 were as follows:

- The System's fiduciary net position restricted for pension benefits, postemployment healthcare benefits, and individuals decreased by \$1.1 billion.
- The System's plan member and employer contributions increased by \$1.2 million when compared to fiscal year 2021.
- The State of Alaska (the State) directly appropriated \$141.7 million to the System.
- The System's net investment income decreased \$3.5 billion when compared to fiscal year 2021, to a loss of \$742 million.
- The System's pension benefit expenditures totaled \$510.5 million.
- The System's postemployment healthcare benefit expenditures totaled \$157.9 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, 2022.

*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, 2022. This statement presents contributions and investment income during the period. Deductions for pension and postemployment healthcare benefits, refunds, and operating deductions are also presented.

The above statements represent resources available for investment and payment of benefits as of June 30, 2022, and the sources and uses of those funds during fiscal year 2022.

*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.

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Management's Discussion and Analysis (Unaudited)

June 30, 2022

*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)

Description	2022	2021	Increase (decrease)		2020
			Amount	Percentage	
<b>Assets:</b>					
Cash and cash equivalents	\$ 127,477	114,711	12,766	11.1 %	\$ 87,201
Contributions receivable	11,176	9,952	1,224	12.3	8,635
Due from State of Alaska					
General Fund	11,289	7,881	3,408	43.2	9,746
Other accounts receivables	4,393	1,834	2,559	139.5	33
Investments	10,329,028	11,461,725	(1,132,697)	(9.9)	9,103,247
Other assets	318	318	—	—	318
<b>Total assets</b>	<b>10,483,681</b>	<b>11,596,421</b>	<b>(1,112,740)</b>	<b>(9.6)</b>	<b>9,209,180</b>
<b>Liabilities:</b>					
Claims payable	13,004	12,733	271	2.1	10,812
Accrued expenses	3,023	2,403	620	25.8	1,177
Forfeitures payable to employers	54	61	(7)	(11.5)	159
Due to State of Alaska General Fund	5,211	5,274	(63)	(1.2)	2,543
Securities lending collateral payable	18,368	27,323	(8,955)	(32.8)	11,038
<b>Total liabilities</b>	<b>39,660</b>	<b>47,794</b>	<b>(8,134)</b>	<b>(17.0)</b>	<b>25,729</b>
<b>Net position</b>	<b>\$ 10,444,021</b>	<b>11,548,627</b>	<b>(1,104,606)</b>	<b>(9.6)%</b>	<b>\$ 9,183,451</b>

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Management's Discussion and Analysis (Unaudited)

June 30, 2022

#### Condensed Financial Information (continued)

Description	Changes in System net position (In thousands)				
	2022	2021	Increase (decrease)		2020
			Amount	Percentage	
Net position, beginning of year	\$ 11,548,627	9,183,451	2,365,176	25.8 %	\$ 9,136,664
Additions:					
Contributions – employers and plan members	172,442	171,229	1,213	0.7	163,848
Contributions – nonemployer State of Alaska	141,739	134,070	7,669	5.7	140,219
Net investment income (loss)	(742,368)	2,713,316	(3,455,684)	(127.4)	368,015
Employer group waiver plan	18,526	18,296	230	1.3	11,706
Medicare retiree drug subsidy	311	62	249	401.6	—
Pharmacy rebates	14,751	12,101	2,650	21.9	15,832
Pharmacy management allowance	69	85	(16)	(18.8)	—
Other income	63	549	(486)	(88.5)	348
Total additions (deductions)	(394,467)	3,049,708	(3,444,175)	(112.9)	699,968
Deductions:					
Pension and postemployment healthcare benefits	668,397	648,104	20,293	3.1	624,402
Refunds of contributions	28,155	23,781	4,374	18.4	17,297
Administrative	13,587	12,647	940	7.4	11,482
Total deductions	710,139	684,532	25,607	3.7	653,181
Increase (decrease) in net position	(1,104,606)	2,365,176	(3,469,782)	(146.7)	46,787
Net position, end of year	\$ 10,444,021	11,548,627	(1,104,606)	(9.6)%	\$ 9,183,451

#### Financial Analysis of the System

The statements of fiduciary net position as of June 30, 2022 and 2021 show net position restricted for pension benefits, postemployment healthcare benefits, and individuals of \$10,444,021,000 and \$11,548,627,000, 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.

This represents a decrease in the System's net position restricted for pension benefits, postemployment healthcare benefits, and individuals of \$1,104,606,000 or 9.6% from fiscal year 2021 to 2022, and an increase of \$2,365,176,000 or 25.80% from fiscal year 2020 to 2021. 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 32nd Alaska State Legislature and as part of the State's Fiscal Year 2022 Operating Budget, House Bill 69 appropriated \$142,665,000 from the General Fund and the Budget Reserve Fund to the Department of Administration for deposit in the Defined Benefit Pension fund. The amount of the appropriation allocated to the State as an employer is included in Contributions – Employer. The remaining appropriation is reported as Contributions – Nonemployer State of Alaska.

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Management's Discussion and Analysis (Unaudited)

June 30, 2022

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 2022 and 2021, 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) occupational death and disability fund, retiree medical plan, and health reimbursement arrangement fund:

	2022		2021	
	Pension and Healthcare Trusts		Pension and Healthcare Trusts	
	Allocation	Range	Allocation	Range
Broad domestic equity	27.0%	± 6%	28.0%	± 6%
Global equity (ex-U.S.)	18.0	± 4%	19.0	± 4%
Fixed income	21.0	± 10%	22.0	± 10%
Opportunistic	6.0	± 4%	6.0	± 4%
Real assets	14.0	± 7%	13.0	± 7%
Private equity	14.0	± 6%	12.0	± 6%
Total	100.0%		100.0%	
Expected return 20-year geometric mean	6.88%		7.13%	
Projected standard deviation	13.89		13.55	

For fiscal years 2022 and 2021, the DB Pension Plan's investments generated a (4.10%) and 27.65% rate of return, respectively. For fiscal years 2022 and 2021, the Alaska Retiree Healthcare Trust Plan's investments generated a (4.08%) and 27.70% rate of return, respectively.

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Management's Discussion and Analysis (Unaudited)

June 30, 2022

#### 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)				
	2022	2021	Increase (decrease)		2020
			Amount	Percentage	
Contributions – employers	\$ 102,946	101,374	1,572	1.6 %	\$ 97,375
Contributions – plan members	69,496	69,855	(359)	(0.5)	66,473
Contributions – nonemployer					
State of Alaska	141,739	134,070	7,669	5.7	140,219
Net investment income (loss)	(742,368)	2,713,316	(3,455,684)	(127.4)	368,015
Employer group waiver plan	18,526	18,296	230	1.3	11,706
Medicare retiree drug subsidy	311	62	249	100.0	—
Pharmacy rebates	14,751	12,101	2,650	21.9	15,832
Pharmacy management allowance	69	85	(16)	100.0	—
Other income	63	549	(486)	(88.5)	348
<b>Total</b>	<b>\$ (394,467)</b>	<b>3,049,708</b>	<b>(3,444,175)</b>	<b>(112.9)%</b>	<b>\$ 699,968</b>

The System's employer contributions increased from \$101,374,000 in fiscal year 2021 to \$102,946,000 in fiscal year 2022, an increase of \$1,572,000 or 1.6%. The System's employer contributions increased from \$97,375,000 in fiscal year 2020 to \$101,374,000 in fiscal year 2021, an increase of \$3,999,000 or 4.1%. The increase in employer contributions for both fiscal year 2022 and 2021 are attributed to increases in total member salaries.

The State provided \$141,739,000 and \$134,070,000 for fiscal years 2022 and 2021, respectively in nonemployer contributions per Alaska Statute (AS) 14.25.085. The employer on-behalf amount (or additional State contributions as defined in AS 14.25.085) 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 12.56% is established in AS 14.25.070(a).

The System's net investment income in fiscal year 2022 decreased by \$3,455,684,000 or 127.4% from amounts in fiscal year 2021. The System's net investment income in fiscal year 2021 increased by \$2,345,301 or 637.3% from amounts in fiscal year 2020. The investment losses received in fiscal year 2022 were lower than the investment gains seen in fiscal year 2021, causing a difference in investment returns when comparing 2022 and 2021. 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.

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. During fiscal year 2022, the Plan received \$18,526,000 in EGWP funds from the Center of Medicare and Medicaid Services (CMS) through the EGWP Plan Sponsor, OptumRx, compared to fiscal year 2021 receipts of \$18,296,000, and fiscal year 2020 receipts of \$11,706,000. The increases each year is due to increased prescription drug usage as well as increased costs of those same prescription drugs that resulted in higher EGWP funds paid to the Plan.

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Management's Discussion and Analysis (Unaudited)

June 30, 2022

Pharmacy rebates are reimbursed to the Plan by the third-party administrators. During fiscal year 2022, the Plan received \$14,751,000 in pharmacy rebates compared to \$12,101,000 from fiscal year 2021. In fiscal year 2020, the Plan received \$15,832,000. The Plan negotiated higher rebates beginning in calendar year 2021, however, those higher rebates were transmitted to the Plan during fiscal year 2022, which resulted in slightly higher collections due to timing of receipt of those funds.

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

	Year ended		
	2022	2021	2020
Plan returns	(4.10)%	27.65 %	3.82 %
Broad domestic equity	(11.73)	42.68	2.62
Global equity (ex-U.S.)	(20.96)	38.53	(3.60)
Fixed income	(6.99)	2.20	7.37
Opportunistic	(10.58)	23.86	0.51
Real assets	14.29	9.86	2.06
Private equity	26.25	50.67	10.52
Actuarially assumed rate of return	7.25	7.38	7.38

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

	Year ended		
	2022	2021	2020
Plan returns	(4.08)%	27.70 %	3.90 %
Broad domestic equity	(11.73)	42.69	2.62
Global equity (ex-U.S.)	(20.95)	38.57	(3.59)
Fixed income	(7.04)	2.20	7.37
Opportunistic	(10.58)	23.86	0.51
Real assets	14.41	10.00	2.36
Private equity	26.25	50.67	10.53
Actuarially assumed rate of return	7.25	7.38	7.38

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Management's Discussion and Analysis (Unaudited)

June 30, 2022

#### 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:

	Deductions (In thousands)				
	2022	2021	Increase (decrease)		2020
			Amount	Percentage	
Pension benefits	\$ 510,484	499,942	10,542	2.1 %	\$ 488,748
Postemployment benefits	157,913	148,162	9,751	6.6	135,654
Refunds of contributions	28,155	23,781	4,374	18.4	17,297
Administrative	13,587	12,647	940	7.4	11,482
Total	\$ 710,139	684,532	25,607	3.7 %	\$ 653,181

The System's DB pension benefit payments in 2022 increased \$10,542,000 or 2.1% from fiscal year 2021, which increased \$11,194,000 or 2.3% from fiscal year 2020. The increase in pension benefits in fiscal year 2022 is the result of a continued increase in the number of retirees.

The System's postemployment healthcare benefit payments in fiscal year 2022 increased \$9,751,000 or 6.6% from fiscal year 2021, which increased \$12,508,000 or 9.2% from fiscal year 2020. During fiscal year 2022, the System saw an increase 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.

The System's refund of contributions increased \$4,374,000 or 18.4% from fiscal year 2021 to 2022 and increased \$6,484,000 or 37.5% from fiscal year 2020 to 2021. The increase in refunds is primarily in the DCR Plan, where refunds increased \$4,556,000 between fiscal year 2021 to 2022 and increased \$6,696,000 between fiscal year 2020 to 2021. Increases in refunds are attributed to the increase in the number of DCR Plan member accounts and higher member balances being refunded. 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.

The System's administrative costs in fiscal year 2022 increased \$940,000 or 7.4% from fiscal year 2021 and increased \$1,165,000 or 10.1% from fiscal year 2020. The increased administrative cost in fiscal years 2022 and 2021 is primarily due to a capital project for a retirement system replacement.

#### 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 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

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Management's Discussion and Analysis (Unaudited)

June 30, 2022

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 of the Plan as of June 30 were as follows (in thousands):

	<u>2022</u>	<u>2021</u>
Total pension liability	\$ 7,693,553	7,527,454
Plan fiduciary net position	<u>(6,026,651)</u>	<u>(6,731,481)</u>
Employers' net pension liability	<u>\$ 1,666,902</u>	<u>795,973</u>
Plan fiduciary net position as a percentage of the total pension liability	78.33%	89.43%

### Net OPEB Asset

GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other than Pension 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 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 asset, or the overfunded portion of the total OPEB liability.

The components of the net OPEB asset of the participating employers of the Plans as of June 30, 2022 were as follows (in thousands):

	<u>Alaska Retiree Healthcare Trust Plan (ARHCT Plan)</u>	<u>Occupational Death and Disability (ODD Plan)</u>	<u>Retiree Medical Plan (RMP)</u>
Total OPEB liability	\$ 2,515,713	517	47,543
Plan fiduciary net position	<u>(3,392,211)</u>	<u>(6,557)</u>	<u>(66,909)</u>
Employers' net OPEB asset	<u>\$ (876,498)</u>	<u>(6,040)</u>	<u>(19,366)</u>
Plan fiduciary net position as a percentage of the total OPEB liability	134.84%	1,268.28%	140.73%

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Management's Discussion and Analysis (Unaudited)

June 30, 2022

The components of the net OPEB asset of the participating employers of the Plans as of June 30, 2021 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	\$ 2,560,350	528	47,198
Plan fiduciary net position	<u>(3,723,031)</u>	<u>(6,623)</u>	<u>(67,278)</u>
Employers' net OPEB asset	<u>\$ (1,162,681)</u>	<u>(6,095)</u>	<u>(20,080)</u>
Plan fiduciary net position as a percentage of the total OPEB liability	145.41%	1,254.36%	142.54%

### 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 14.25.070(a) sets the employer effective contribution rate at 12.56%. 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 14.25.085.
- AS 14.25.085 provides that additional State contributions are made each July 1 or as 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 14.25.050 for the DB Plan and AS 14.25.340 for the DCR Plan.
- The Board works with an external consultant to determine the proper asset allocation strategy.

### Legislation

During fiscal year 2022, the 32nd Alaska State Legislature enacted one law that affects the System. Conference Committee Substitute First Special Session House Bill 281, Section 80(b), appropriates \$91.0 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, 2023.

This appropriation is to fund the difference between the statutory employer required contribution of 12.56% 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 14.25.085 – Additional State Contributions.

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

*(A Component Unit of the State of Alaska)*

### Management's Discussion and Analysis (Unaudited)

June 30, 2022

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

Fiscal year 2022 had negative investment returns. Net investment income decreased from a gain of \$2,713,316,000 in fiscal year 2021 to a loss of \$742,368,000 in fiscal year 2022, a decrease of \$3,455,684,000 or 127.4%. During fiscal year 2022, the System's actual rate of return on investments was below the 7.38% actuarially assumed rate of return. 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 a decrease from the System's actuarially determined contribution rate of 31.85% in fiscal year 2022 to 24.62% in fiscal year 2023. Additionally, the Board discussed not contributing the healthcare normal cost contribution rate of 2.72% since the Alaska Retiree HealthCare Trust is well above 100% funded. After the Board's actuarial committee discussed the healthcare trusts overfunding, they voted to not contribute the normal cost rate for fiscal year 2023. The Board adopted the fiscal year 2023 actuarially determined contribution rate of 24.62%, which represented a decrease of 7.23%. The statutory employer effective contribution rate remains at 12.56% for fiscal years 2023 and 2022.

The June 30, 2021 and 2020 actuarial valuation reports for the DB Plan reported funding ratios based on valuation assets of 92.6% and 86.6%, respectively, as well as unfunded liabilities of \$733 million and \$1.33 billion, respectively.

For fiscal years 2023 and 2022, the DCR Plan's employer contribution rate was established by AS 14.25.070(a) at 12.56%. The DCR Plan's actuarially determined occupational death and disability rate was adopted by the Board for fiscal years 2023 and 2022 to be 0.08%. The DCR Plan retiree medical plan actuarially determined contribution rate was adopted by the Board for fiscal years 2023 and 2022 to be 0.87% and 0.83%, respectively.

#### **Requests for Information**

This financial report is designed to provide a general overview for those parties interested in the System's finances. Questions concerning any of the information provided in this report or requests for additional information should be addressed to:

State of Alaska Teachers' 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

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Combining Statement of Fiduciary Net Position

June 30, 2022

(With summarized financial information for June 30, 2021)

(In thousands)

	Defined benefit pension	Defined contribution pension	Other postemployment benefit plans				System total June 30, 2022	System total June 30, 2021
			Alaska Retiree Healthcare Trust	Occupational death and disability	Retiree medical	Health reimbursement arrangement		
<b>Assets:</b>								
Cash and cash equivalents:								
Short-term fixed-income pool	\$ 68,959	98	36,500	75	770	2,313	108,715	87,085
Empower money market fund – non-participant directed	—	394	—	—	—	—	394	303
Securities lending collateral	11,426	—	6,432	12	124	374	18,368	27,323
Total cash and cash equivalents	80,385	492	42,932	87	894	2,687	127,477	114,711
Receivables:								
Contributions	11,176	—	—	—	—	—	11,176	9,952
Due from State of Alaska General Fund	—	7,547	1,888	43	443	1,368	11,289	7,881
Other accounts receivable	37	—	4,347	—	9	—	4,393	1,834
Total receivables	11,213	7,547	6,235	43	452	1,368	26,858	19,667
Investments, at fair value:								
Fixed-income securities:								
Alternative fixed income pool	163,866	—	92,621	177	1,808	5,446	263,918	263,015
Barclays aggregate bond fund	905,012	—	511,535	979	9,988	30,075	1,457,589	1,532,657
Opportunistic fixed income pool	215,645	—	121,888	233	2,380	7,166	347,312	383,748
Total fixed-income securities	1,284,523	—	726,044	1,389	14,176	42,687	2,068,819	2,179,420
Broad domestic equity:								
Large cap pool	1,343,555	—	759,411	1,454	14,827	44,648	2,163,895	2,718,457
Small cap pool	118,380	—	66,911	128	1,307	3,934	190,660	230,359
Total broad domestic equity	1,461,935	—	826,322	1,582	16,134	48,582	2,354,555	2,948,816
Global equity ex-U.S.:								
International equity small cap pool	793,625	—	448,533	858	8,756	26,365	1,278,137	1,625,147
Emerging markets equity pool	177,596	—	100,382	192	1,960	5,902	286,032	345,239
Total global equity ex-U.S.	971,221	—	548,915	1,050	10,716	32,267	1,564,169	1,970,386
Opportunistic:								
Alternative beta pool	68,517	—	38,727	74	756	2,277	110,351	99,036
Alternative equity pool	62,168	—	35,139	67	686	2,066	100,126	124,021
Other opportunities pool	845	—	478	1	9	28	1,361	6,500
Tactical allocation strategies pool	220,140	—	124,429	238	2,429	7,316	354,552	398,502
Total opportunistic	351,670	—	198,773	380	3,880	11,687	566,390	628,059
Private equity pool	993,669	—	561,647	1,075	10,966	33,021	1,600,378	1,599,146
Real assets:								
Real estate pools	354,865	—	201,001	385	3,925	11,818	571,994	489,173
Real estate investment trust pool	99,266	—	56,108	108	1,095	3,299	159,876	172,421
Infrastructure private pool	157,230	—	88,870	170	1,735	5,225	253,230	237,513
Energy pool	12,525	—	7,079	14	138	416	20,172	19,814
Farmland pool	189,617	—	107,177	205	2,093	6,301	305,393	286,692
Timber pool	75,559	—	42,708	82	834	2,511	121,694	116,873
Total real assets	889,062	—	502,943	964	9,820	29,570	1,432,359	1,322,486
Other investment funds:								
Participant directed at fair value:								
Collective investment funds	—	199,650	—	—	—	—	199,650	246,064
Pooled investment funds	—	495,013	—	—	—	—	495,013	521,012
Participant directed at contract value:								
Synthetic investment contracts	—	47,695	—	—	—	—	47,695	46,336
Total other investment funds	—	742,358	—	—	—	—	742,358	813,412
Total investments	5,952,080	742,358	3,364,644	6,440	65,692	197,814	10,329,028	11,461,725
Other assets								
	—	—	318	—	—	—	318	318
Total assets	6,043,678	750,397	3,414,129	6,570	67,038	201,869	10,483,681	11,596,421
<b>Liabilities:</b>								
Claims payable (note 6)	—	—	13,004	—	—	—	13,004	12,733
Accrued expenses	390	138	2,482	1	5	7	3,023	2,403
Forfeitures payable to employers	—	54	—	—	—	—	54	61
Due to State of Alaska General Fund	5,211	—	—	—	—	—	5,211	5,274
Securities lending collateral payable	11,426	—	6,432	12	124	374	18,368	27,323
Total liabilities	17,027	192	21,918	13	129	381	39,660	47,794
Net position restricted for pension benefits, postemployment healthcare benefits, and individuals								
	\$ 6,026,651	750,205	3,392,211	6,557	66,909	201,488	10,444,021	11,548,627

See accompanying notes to financial statements.

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Combining Statement of Changes in Fiduciary Net Position

Year ended June 30, 2022

(With summarized financial information for June 30, 2021)

(In thousands)

	Defined benefit pension	Defined contribution pension	Other postemployment benefit plans			Health reimbursement arrangement	System total June 30, 2022	System total June 30, 2021
			Alaska Retiree Healthcare Trust	Occupational death and disability	Retiree medical			
Additions (reductions):								
Contributions:								
Employers	\$ 30,707	32,450	21,806	393	4,086	13,504	102,946	101,374
Plan members	30,013	39,483	—	—	—	—	69,496	69,855
Nonemployer State of Alaska	141,739	—	—	—	—	—	141,739	134,070
Total contributions	202,459	71,933	21,806	393	4,086	13,504	314,181	305,299
Investment income (loss):								
Net appreciation (depreciation) in fair value	(462,389)	(110,683)	(260,772)	(494)	(5,037)	(15,171)	(854,546)	2,618,470
Interest	23,420	8	12,968	24	242	725	37,387	31,121
Dividends	63,210	—	35,454	65	661	1,984	101,374	88,893
Total investment income (loss)	(375,759)	(110,675)	(212,350)	(405)	(4,134)	(12,462)	(715,785)	2,738,484
Less investment expense	16,149	1,138	8,851	18	178	489	26,823	25,431
Net investment income (loss) before securities lending activities	(391,908)	(111,813)	(221,201)	(423)	(4,312)	(12,951)	(742,608)	2,713,053
Securities lending income	188	—	104	—	2	6	300	329
Less securities lending expense	38	—	21	—	—	1	60	66
Net income from securities lending activities	150	—	83	—	2	5	240	263
Net investment income (loss)	(391,758)	(111,813)	(221,118)	(423)	(4,310)	(12,946)	(742,368)	2,713,316
Other income:								
Employer group waiver plan	—	—	18,508	—	18	—	18,526	18,296
Medicare retiree drug subsidy	—	—	311	—	—	—	311	62
Pharmacy rebates	—	—	14,741	—	10	—	14,751	12,101
Pharmacy management allowance	—	—	69	—	—	—	69	85
Miscellaneous income (expense)	36	(5)	47	—	—	(15)	63	549
Total other income	36	(5)	33,676	—	28	(15)	33,720	31,093
Total additions (reductions)	(189,263)	(39,885)	(165,636)	(30)	(196)	543	(394,467)	3,049,708
Deductions:								
Pension and postemployment benefits	510,457	—	157,616	27	129	168	668,397	648,104
Refunds of contributions	1,305	26,850	—	—	—	—	28,155	23,781
Administrative	3,805	2,150	7,568	9	44	11	13,587	12,647
Total deductions	515,567	29,000	165,184	36	173	179	710,139	684,532
Net increase (decrease)	(704,830)	(68,885)	(330,820)	(66)	(369)	364	(1,104,606)	2,365,176
Net position restricted for pension benefits, postemployment healthcare benefits, and individuals:								
Balance, beginning of year	6,731,481	819,090	3,723,031	6,623	67,278	201,124	11,548,627	9,183,451
Balance, end of year	\$ 6,026,651	750,205	3,392,211	6,557	66,909	201,488	10,444,021	11,548,627

See accompanying notes to financial statements.

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Notes to Financial Statements

June 30, 2022

#### (1) Description

The State of Alaska Teachers' Retirement System (TRS 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 Public Employees' Retirement System (PERS) or TRS, two trustees who are PERS members, and two trustees who are TRS members.

TRS 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, 2022, the number of participating local government employers and public organizations, including the State, was as follows:

State of Alaska	1
School districts	53
Other	3
Total employers	57

Inclusion in the Defined Benefit Pension Plan (DB Plan) and Defined Contribution Retirement Pension Plan (DCR Plan) is a condition of employment for permanent school district, University of Alaska, and State Department of Education employees who meet the eligibility requirements for participation.

#### **Defined Benefit Pension Plan**

##### **(a) General**

The Defined Benefit Pension (DB) Plan provides pension benefits for teachers and other eligible members. 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.

STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

## Notes to Financial Statements

June 30, 2022

The DB Plan's membership consisted of the following at June 30, 2022:

Retired plan members or beneficiaries currently receiving benefits	13,423
Inactive plan members entitled to but not yet receiving benefits	738
Inactive plan members not entitled to benefits	1,616
Active plan members	3,190
	18,967
Total DB Plan membership	18,967

**(b) Pension Benefits**

Vested members hired prior to July 1, 1990 are entitled to monthly pension benefits beginning at normal retirement age, 55, or early retirement age, 50. For members first hired after June 30, 1990, the normal and early retirement ages are 60 and 55, respectively. Members may retire at any age and receive a normal benefit when they accumulate the required credited service.

The normal annual pension benefit is based on years of service and average base salary. The average base salary is based upon the members' three highest contract years' salaries.

The benefit related to all years of credited service prior to July 1, 1990 and for years of service through a total of 20 years is equal to 2.00% of the employee's average base salary. The benefit for each year over 20 years of service subsequent to June 30, 1990 is equal to 2.5% of the employee's base salary.

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 benefits are payable under the 1% supplemental contributions provision.

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 adopted by the Board as a contribution rate that, when combined, is expected to finance the costs of benefits earned by plan members during the year, with an additional contribution rate to finance any unfunded accrued liability. The DB Plan members contribute 8.65% of their base salary as required by statute. The statutory employer effective contribution rate is 12.56% of annual payroll, which for fiscal year 2022 is allocated 6.06% to the DB Pension Plan and 6.50% to the DB ARHCT Plan as determined by the actuary of the Plan. Alaska Statute (AS) 14.25.085 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 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:

# Financial Section

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## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Notes to Financial Statements

June 30, 2022

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(A) The amount calculated for the statutory employer effective contribution rate of 12.56% 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.

(C) But not less than zero

The difference is deposited based on an actuarial allocation into the DB Plan's pension and healthcare funds. For fiscal year 2022, the DBUL was allocated 100.00% to the DB Pension Plan and 0.00% to the DB ARHCT Plan.

#### **(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. 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, 2022, membership in the DCR Plan included 6,304 active 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 7.0% of the member's compensation.

STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM  
 (A Component Unit of the State of Alaska)

## Notes to Financial Statements

June 30, 2022

**(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 recordkeeper 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, 2022:

Retired plan members or beneficiaries currently receiving benefits	13,423
Inactive plan members entitled to but not yet receiving benefits	738
Inactive plan members not entitled to benefits	1,616
Active plan members	3,190
	18,967
Total ARHCT Plan membership	18,967

**(i) OPEB Benefits**

When pension benefits begin, major medical benefits are provided without cost to (1) all members first hired before July 1, 1990; (2) members hired after July 1, 1990, with 25 years of membership service; and (3) members who are disabled or age 60 or older, regardless of their initial hire dates. Members first hired after June 30, 1990, may receive major medical benefits prior to age 60 by paying premiums.

**(ii) Contributions**

Employer contribution rates are actuarially determined and adopted by the Board. The 2022 statutory employer effective contribution rate was 12.56% of member's compensation, with 6.50% specifically allocated to ARHCT Plan.

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## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Notes to Financial Statements

June 30, 2022

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**(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, 2022:

Active plan members	6,304
Participating employers	57
Open claims	1

**(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.

When benefits are payable under the 1% supplemental contribution provision, the DB Plan member's spouse is eligible for a spouse's pension if there is (are) no dependent child(ren). If there is (are) dependent child(ren), a survivor's allowance may be payable to the DB Plan member's spouse, or guardian of the dependent child(ren). The amount of the pension or allowance is determined by the DB Plan member's base salary. DB Plan members first hired after June 30, 1982 are not eligible to participate in this provision.

If an active DB Plan member dies from occupational causes, the spouse may receive a monthly pension from the DB Plan. When death is due to occupational causes and there is no surviving spouse, the DB Plan member's dependent child(ren) may receive a monthly pension until the child(ren) is(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 is 40% of the member's base salary at the time of death. 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 base salary 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 benefits are payable under the 1% supplemental contribution provision, benefits are not payable under this provision. 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 base salary 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 is 40% of the employee's 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.

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Notes to Financial Statements

June 30, 2022

#### (ii) Disability Benefits

If a DB Plan member has been in membership service for five or more years for which contributions have been made, is not eligible for normal retirement benefits, and becomes permanently disabled, the DB Plan member is entitled to a monthly benefit. The annual disability benefit is equal to 50% of the base salary at the time of the disability plus an additional 10% of his/her base salary for each dependent child up to a maximum of four children. At normal retirement age, a disabled System member receives normal retirement benefits.

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.

#### (iii) Contributions

An employer shall contribute to each member's account based on the member's compensation. For fiscal year 2022, the rate is 0.08%.

#### (c) Retiree Medical Plan

The RMP is established under AS 14.25.480 – 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, 2022:

Retired plan members or beneficiaries currently receiving benefits	25
Inactive plan members entitled to but not yet receiving benefits	944
Inactive plan members not entitled to benefits	2,985
Active plan members	<u>6,304</u>
Total RMP membership	<u><u>10,258</u></u>

#### (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

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Notes to Financial Statements

June 30, 2022

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:
  - (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 2022 employer effective contribution rate is 0.83% 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, 2022:

Retired plan members or beneficiaries currently receiving benefits	38
Inactive plan members entitled to but not yet receiving benefits	944
Inactive plan members not entitled to benefits	2,985
Active plan members	<u>6,304</u>
Total HRA Plan membership	<u><u>10,271</u></u>

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**(b) OPEB Benefits**

Persons who meet the eligibility requirements of AS 14.25.470 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 14.25.480. 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 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 in the TRS and PERS. The administrator maintains a record of each member to account for employer contributions on behalf of that member. The 2022 contribution amount was an annual contribution not to exceed \$2,168 and was required for every pay period in which the employee was enrolled in the DCR Plan, regardless of the compensation paid during the year. An amount less than \$2,168 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.

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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 14 participant-directed funds. Additionally, the Board contracts with external managers who manage a mix of collective investment funds and synthetic investment contracts. 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.

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.

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.

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 through July 15 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.

**(f) Due from (to) State of Alaska General Fund**

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

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**(g) Other Income**

Other income consists of Employer Group Waiver Plan (EGWP) rebates, Medicare Part D Retiree Drug Subsidy (RDS) 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 treat it 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, and pharmacy rebates are recognized on an accrual basis.

**(h) 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.

**(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).

**(j) Reclassifications**

The System made certain reclassifications to the 2021 balances in the accompanying supplemental schedules to make them consistent with the 2022 presentation.

### **(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.

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, and 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.

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#### **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, 2022 for the DB Pension Plan is (5.91)%, the ARHCT Plan is (6.04)%, the ODD Plan is (6.21)%, and the RMP is (6.21)%.

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>.

#### **(4) Net Pension Liability – Defined Benefit Pension Plan**

The components of the net pension liability of the participating employers at June 30, 2022 were as follows (in thousands):

Total pension liability	\$	7,693,553
Plan fiduciary net position		<u>(6,026,651)</u>
Employers' net pension liability	\$	<u>1,666,902</u>
Plan fiduciary net position as a percentage of the total pension liability		78.33 %

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#### (a) Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of June 30, 2021, rolled forward to the measurement date of June 30, 2022 and adjusted to reflect updated assumptions. The updated demographic and economic assumptions were adopted by the Board in June 2022 based on the results of an actuarial experience study for the period July 1, 2017 to June 30, 2021. The new assumptions were adopted to better reflect expected future experience and are effective June 30, 2022:

Inflation	2.50% per year
Salary increases	Range from 7.00% to 2.85% based on service.
Investment rate of return	7.25%, net of pension plan investment expenses. This is based on an average inflation rate of 2.50% and a real rate of return of 4.75%.
Mortality	<p>Pre-commencement mortality rates were based on the Pub-2010 Teachers Employee table, amount-weighted, and projected with MP-2021 generational improvement. Deaths are assumed to result from occupational causes 15% of the time.</p> <p>Post-commencement mortality rates for healthy retirees were based on 97% of the Pub-2010 Teachers Retiree table, amount-weighted, and projected with MP-2021 generational improvement.</p> <p>Post-commencement mortality rates for disabled retirees were based on the Pub-2010 Non-Safety Disabled Retiree table, amount-weighted, and projected with MP-2021 generational improvement.</p> <p>Post-commencement mortality rates for beneficiaries were based on 100% of male and 95% of female rates of the Pub-2010 Contingent Survivor table, amount-weighted, and projected with MP-2021 generational improvement. These rates are applied only after the death of the original member.</p>
Other	Please see the experience study report dated July 15, 2022.

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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 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 adding expected inflation. Best estimates of arithmetic rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2022 are summarized in the following table (note that the rates shown below exclude an inflation component of 2.88%).

Asset class	Long-term expected real rate of return
Domestic equity	6.51%
Global equity (ex-U.S.)	5.70
Aggregate bonds	0.31
Real assets	3.71
Private equity	9.61
Cash equivalents	(0.50)

**(b) Discount Rate**

The discount rate used to measure the total pension liability was 7.25%. 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 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 4.09% as of June 30, 2022.

**(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, 2022, calculated using the discount rate of 7.25%, 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% decrease (6.25%)	Current discount rate (7.25%)	1.00% increase (8.25%)
Net pension liability	\$ 2,493,199	1,666,902	969,858

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#### (5) Net OPEB Asset

The components of the net OPEB asset of the participating employers for each Plan at June 30, 2022 were as follows (in thousands):

	<u>ARHCT Plan</u>	<u>ODD Plan</u>	<u>RMP</u>
Total OPEB liability	\$ 2,515,713	517	47,543
Plan fiduciary net position	<u>(3,392,211)</u>	<u>(6,557)</u>	<u>(66,909)</u>
Employers' net OPEB asset	<u>\$ (876,498)</u>	<u>(6,040)</u>	<u>(19,366)</u>
Plan fiduciary net position as a percentage of the total OPEB liability	134.84%	1,268.28%	140.73%

#### (a) Actuarial Assumptions

The total OPEB liability for each plan was determined by actuarial valuations as of June 30, 2021, rolled forward to the measurement date of June 30, 2022 and adjusted to reflect updated assumptions. The updated demographic and economic assumptions were adopted by the Board in June 2022 based on the results of an actuarial experience study for the period from July 1, 2017 to June 30, 2021. The new assumptions were adopted to better reflect expected future experience and are effective June 30, 2022:

Inflation	2.50% per year
Salary increases	ARHCT Plan - Range from 7.00% to 2.85% based on service. ODD Plan / RMP - Range from 7.25% to 2.85% based on service.
Investment rate of return	7.25%, net of post-retirement healthcare plan investment expenses. This is based on an average inflation rate of 2.50% and a real rate of return of 4.75%.
Trend rates (ARHCT Plan and RMP)	Pre-65 medical: 7.0% grading down to 4.5% Post-65 medical: 5.5% grading down to 4.5% Rx/EGWP: 7.5% grading down to 4.5% Initial trend rates are for FY 2023 Ultimate trend rates reached in FY 2050
Mortality (ARHCT Plan)	Pre-commencement mortality rates were based on the Pub-2010 Teachers Employee table, headcount-weighted, and projected with MP-2021 generational improvement. Post-commencement mortality rates for healthy retirees were based on 98% of male and 100% of female rates of the Pub-2010 Teachers Retiree table, headcount-weighted, and projected with MP-2021 generational improvement. Post-commencement mortality rates for disabled retirees were based on the Pub-2010 Non-Safety Disabled Retiree table, headcount-weighted, and projected with MP-2021 generational improvement. Post-commencement mortality rates for beneficiaries were based on 100% of male and 94% of female rates of the Pub-2010 Contingent Survivor table, headcount-weighted, and projected with MP-2021 generational improvement. These rates are applied only after the death of the original member.

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Mortality  
(ODD Plan)

Pre-commencement mortality rates were based on the Pub-2010 Teachers Employee table, amount-weighted, and projected with MP-2021 generational improvement. Deaths are assumed to result from occupational causes 15% of the time.

Post-commencement mortality rates for healthy retirees were based on 97% of the Pub-2010 Teachers Retiree table, amount-weighted, and projected with MP-2021 generational improvement.

Post-commencement mortality rates for disabled retirees were based on the Pub-2010 Non-Safety Disabled Retiree table, amount-weighted, and projected with MP-2021 generational improvement.

Post-commencement mortality rates for beneficiaries were based on 100% of male and 95% of female rates of the Pub-2010 Contingent Survivor table, amount-weighted, and projected with MP-2021 generational improvement. These rates are applied only after the death of the original member.

Mortality  
(RMP)

Pre-commencement mortality rates were based on the Pub-2010 Teachers Employee table, headcount-weighted, and projected with MP-2021 generational improvement.

Post-commencement mortality rates for healthy retirees were based on 98% of male and 100% of female rates of the Pub-2010 Teachers Retiree table, headcount-weighted, and projected with MP-2021 generational improvement.

Post-commencement mortality rates for disabled retirees were based on the Pub-2010 Non-Safety Disabled Retiree table, headcount-weighted, and projected with MP-2021 generational improvement.

Post-commencement mortality rates for beneficiaries were based on 100% of male and 94% of female rates of the Pub-2010 Contingent Survivor table, headcount-weighted, and projected with MP-2021 generational improvement. These rates are applied only after the death of the original member.

Other

Please see the experience study report dated July 15, 2022.

The assumptions used in the June 30, 2021 actuarial valuation are the same as those used in the June 30, 2020 valuation with the following exceptions:

1. Per capita claims costs were updated to reflect recent experience.
2. 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 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

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of 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 adding expected inflation. Best estimates of arithmetic rates of return for each major asset class included in the postretirement healthcare plan's target asset allocation as of June 30, 2022 are summarized in the following table (note that the rates shown below exclude an inflation component of 2.88%):

Asset class	Long-term expected real rate of return
Domestic equity	6.51%
Global equity (non-U.S.)	5.70
Aggregate bonds	0.31
Real assets	3.71
Private equity	9.61
Cash equivalents	(0.50)

**(b) Discount Rate**

The discount rate used to measure the total OPEB liability as of June 30, 2022 was 7.25%. 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 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 74. 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 4.09% as of June 30, 2022.

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

The following presents the net OPEB asset as of June 30, 2022, calculated using the discount rate of 7.25%, as well as what the System's net OPEB 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% decrease (6.25%)	Current discount rate (7.25%)	1.00% increase (8.25%)
ARHCT Plan	\$ 571,895	876,498	1,130,546
ODD Plan	6,059	6,040	6,030
RMP	6,837	19,366	28,780

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

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

The following presents the net OPEB asset as of June 30, 2022, calculated using the healthcare cost trend rates as summarized in the 2021 actuarial valuation report, as well as what the System's net OPEB 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):

	<u>1.00% decrease</u>	<u>Current healthcare cost trend rate</u>	<u>1.00% increase</u>
ARHCT Plan	\$ 1,159,541	876,498	536,272
ODD Plan	N/A	N/A	N/A
RMP	29,963	19,366	4,921

#### (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 were as follows (in thousands):

	<u>2022</u>	<u>2021</u>
Total, beginning of year	\$ 12,733	10,812
Healthcare benefits	157,745	148,025
Benefits paid	<u>(157,474)</u>	<u>(146,104)</u>
Total, end of year	<u>\$ 13,004</u>	<u>12,733</u>

#### (7) 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

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#### **(8) 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.

#### **(9) 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.

The System was a defendant in a class action lawsuit against the State alleging that the passage of Senate Bill (SB) 141 violated the Alaska Constitution by extinguishing a former member's ability to re-enter the PERS / TRS defined benefits plan. According to SB 141, a PERS / TRS defined benefit former member would have to re-employ into an eligible defined benefit position by June 30, 2010 or lose that former member's status (tier standing). If that former member re-entered the workforce in a valid PERS / TRS position but after June 30, 2010, that person would become a defined contribution retirement plan member, rather than reinstated into their prior defined benefit status (tier standing). The lawsuit challenged the effect of SB 141 as an unconstitutional diminishment of a promised defined benefit.

In April 2021, the Alaska Supreme Court found that a former member's ability to reinstate PERS / TRS status is an accrued benefit protected by Article XII, Section 7 of the Alaska Constitution. The Court held that not allowing former members to buy back into PERS / TRS defined benefit status resulted in an unconstitutional diminishment. This decision could lead to an increase in the number of employees previously believed to be ineligible for the defined benefit plan by operation of SB 141 for PERS / TRS. The case was returned to the Superior Court and the Department of Law filed a motion for final judgment. The Superior Court granted the motion for final judgment, awarded judgment on attorney's fees, and ordered the Division to notify class members by the end of May 2022 of their right to seek reinstatement into the defined benefit plan and the procedures to do so.

The Division continues to determine the impact of this decision on PERS and TRS. The Division is working with impacted former members who meet the requirements to re-establish their position in the defined benefits plan. However, it is unclear exactly how many former members will seek to reinstate to the defined benefits plan or the precise impact the reintroduction of those former members to the defined benefits plan will cost.

REQUIRED SUPPLEMENTARY INFORMATION  
**(Unaudited)**

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### Required Supplementary Information (Unaudited)

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

Last 10 Fiscal Years

(In thousands)

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
<b>Total pension liability:</b>										
Service cost	\$ 44,727	48,401	50,654	60,810	64,961	68,376	61,011	63,608	64,324	69,113
Interest	538,703	536,725	529,132	575,706	572,791	559,165	550,392	540,981	515,325	517,511
Differences between expected and actual experience	(59,667)	(33,160)	8,105	(135,121)	(131,092)	(65,757)	(55,682)	(5,693)	—	1,108
Changes of assumptions	154,098	—	—	(35,262)	—	—	—	156,854	—	—
Benefit payments, including refunds of member contributions	(511,762)	(501,429)	(490,446)	(472,717)	(458,511)	(448,422)	(437,582)	(418,545)	(399,001)	(397,956)
Net change in total pension liability	166,099	49,537	97,445	(6,584)	48,149	113,362	118,139	337,205	180,648	189,776
Total pension liability – beginning	7,527,454	7,477,917	7,380,472	7,387,056	7,338,907	7,225,545	7,107,406	6,770,201	6,589,553	6,399,777
Total pension liability – ending (a)	7,693,553	7,527,454	7,477,917	7,380,472	7,387,056	7,338,907	7,225,545	7,107,406	6,770,201	6,589,553
<b>Plan fiduciary net position:</b>										
Contributions – employer	30,707	29,336	34,114	36,805	39,835	36,634	33,478	36,374	37,571	37,372
Contributions – member	30,013	33,342	33,566	35,763	37,674	39,878	42,654	45,506	47,724	50,201
Contributions – nonemployer entity (State)	141,739	134,070	140,219	127,365	111,757	116,700	90,589	1,662,700	208,890	196,945
Total net investment income (loss)	(391,758)	1,594,536	218,372	314,972	432,543	628,184	(31,340)	152,561	599,958	373,868
Benefit payments, including refunds of member contributions	(511,762)	(501,429)	(490,446)	(472,717)	(458,511)	(448,422)	(437,582)	(418,545)	(399,001)	(382,933)
Administrative expenses	(3,805)	(3,446)	(2,988)	(3,018)	(3,050)	(2,890)	(2,648)	(2,789)	(3,160)	(2,989)
Other income	36	273	33	32	184	10	95	9	27	19
Net change in plan fiduciary net position	(704,830)	1,286,682	(67,130)	39,202	160,432	370,094	(304,754)	1,475,816	492,009	272,483
Plan fiduciary net position – beginning	6,731,481	5,444,799	5,511,929	5,472,727	5,312,295	4,942,201	5,246,955	3,771,139	3,279,130	3,006,647
Plan fiduciary net position – ending (b)	6,026,651	6,731,481	5,444,799	5,511,929	5,472,727	5,312,295	4,942,201	5,246,955	3,771,139	3,279,130
Plan's net pension liability (a)–(b)	\$ 1,666,902	795,973	2,033,118	1,868,543	1,914,329	2,026,612	2,283,344	1,860,451	2,999,062	3,310,423
Plan fiduciary net position as a percentage of the total pension liability	78.33%	89.43%	72.81%	74.68%	74.09%	72.39%	68.40%	73.82%	55.70%	49.76%
<b>Covered payroll</b>	\$ 333,781	357,288	370,449	392,849	416,051	442,029	463,604	491,223	514,035	541,981
Net pension liability as a percentage of covered payroll	510.46%	222.78%	548.82%	475.64%	460.12%	458.48%	492.52%	378.74%	583.44%	610.80%

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

# Financial Section

## STATE OF ALASKA | TEACHERS' 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)

<u>Fiscal Year</u>	<u>Actuarially Determined Contribution</u>	<u>Contributions in relation to the actuarially determined contribution</u>	<u>Contribution deficiency (excess)</u>	<u>Covered Payroll</u>	<u>Contribution as a percentage of covered payroll</u>
2022	\$ 168,900	172,446	(3,546)	333,781	51.66 %
2021	155,184	163,406	(8,222)	357,288	45.74 %
2020	150,284	174,333	(24,049)	370,449	47.06 %
2019	154,083	164,170	(10,087)	392,849	41.79 %
2018	144,391	151,593	(7,202)	416,051	36.44 %
2017	133,417	153,334	(19,917)	442,029	34.69 %
2016	359,790	124,067	235,723	463,604	26.76 %
2015	321,971	1,699,074	(1,377,103)	491,223	345.89 %
2014	240,366	246,461	(6,095)	514,035	47.95 %
2013	259,786	234,317	25,469	541,981	43.23 %

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

STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

*(A Component Unit of the State of Alaska)*

**Required Supplementary Information (Unaudited)**

**Schedule of Investment Returns  
Defined Benefit Pension Plan**

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<b>Fiscal Year</b>	<b>Annual money-weighted rate of return, net of investment expense</b>
2022	(5.91)%
2021	29.80 %
2020	4.01 %
2019	5.85 %
2018	8.30 %
2017	13.04 %
2016	(0.36)%
2015	3.30 %
2014	18.41 %

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.

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Required Supplementary Information (Unaudited)

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

(In thousands)

	2022	2021	2020	2019	2018	2017
Total OPEB liability:						
Service cost	\$ 21,350	23,793	26,684	34,729	32,821	31,605
Interest	185,827	188,868	202,757	252,021	232,774	224,435
Change in benefit terms	(22,446)	—	—	—	—	—
Differences between expected and actual experience	(13,523)	(24,483)	(23,298)	(47,911)	(57,990)	(27,011)
Changes of assumptions	(86,086)	(100,701)	(273,319)	(509,775)	163,911	—
Benefit payments	(148,267)	(141,137)	(125,310)	(136,158)	(132,040)	(120,204)
EGWP rebates	18,508	18,293	11,705	2,518	—	—
Net change in total OPEB liability	(44,637)	(35,367)	(180,781)	(404,576)	239,476	108,825
Total OPEB liability – beginning	2,560,350	2,595,717	2,776,498	3,181,074	2,941,598	2,832,773
Total OPEB liability – ending (a)	2,515,713	2,560,350	2,595,717	2,776,498	3,181,074	2,941,598
Plan fiduciary net position:						
Contributions – employer	21,806	24,700	18,788	17,957	19,305	24,069
Contributions – EGWP rebates	18,508	18,293	11,705	2,518	—	—
Contributions – RDS	311	62	—	6,711	1,894	—
Total net investment income (loss)	(221,118)	869,241	120,073	169,183	224,820	322,219
	(180,493)	912,296	150,566	196,369	246,019	346,288
Benefit payments	(157,616)	(147,861)	(135,566)	(143,126)	(134,051)	(120,237)
Pharmacy rebates	14,741	12,100	15,829	11,858	6,149	33
Pharmacy management allowance	69	85	—	—	—	—
Administrative Services Only (ASO) fees	(5,461)	(5,461)	(5,573)	(4,890)	(4,138)	—
Net benefit payments	(148,267)	(141,137)	(125,310)	(136,158)	(132,040)	(120,204)
Administrative expenses, excluding ASO fees	(2,107)	(1,836)	(1,372)	(1,351)	(1,527)	(5,908)
Other	47	247	258	324	18	13,909
Net change in plan fiduciary net position	(330,820)	769,570	24,142	59,184	112,470	234,085
Plan fiduciary net position – beginning	3,723,031	2,953,461	2,929,319	2,870,135	2,757,665	2,523,580
Plan fiduciary net position – ending (b)	3,392,211	3,723,031	2,953,461	2,929,319	2,870,135	2,757,665
Plan's net OPEB (asset) liability (a)–(b)	\$ (876,498)	(1,162,681)	(357,744)	(152,821)	310,939	183,933
Plan fiduciary net position as a percentage of the total OPEB liability	134.84%	145.41%	113.78%	105.50%	90.23%	93.75%
Covered payroll	\$ 333,781	357,288	370,449	392,849	416,051	442,029
Net OPEB liability (asset) as a percentage of covered payroll	(262.60)%	(325.42)%	(96.57)%	(38.90)%	74.74%	41.61%

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.

STATE OF ALASKA | TEACHERS' 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)

<u>Fiscal Year</u>	<u>Actuarially Determined Contribution</u>	<u>Contributions in relation to the actuarially determined contribution</u>	<u>Contribution deficiency (excess)</u>	<u>Covered Payroll</u>	<u>Contribution as a percentage of covered payroll</u>
2022	\$ 22,360	21,806	554	333,781	6.53 %
2021	25,197	24,700	497	357,288	6.91 %
2020	28,373	18,788	9,585	370,449	5.07 %
2019	19,944	17,957	1,987	392,849	4.57 %
2018	19,518	19,305	213	416,051	4.64 %
2017	42,171	24,069	18,102	442,029	5.45 %
2016	336,595	66,099	270,496	463,604	14.26 %
2015	352,417	364,222	(11,805)	491,223	74.15 %
2014	320,797	139,936	180,861	514,035	27.22 %
2013	330,411	141,125	189,286	541,981	26.04 %

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

# Financial Section

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STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM  
*(A Component Unit of the State of Alaska)*

**Required Supplementary Information (Unaudited)**

**Schedule of Investment Returns  
Alaska Retiree Healthcare Trust Plan**

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<b>Fiscal Year</b>	<b>Annual money-weighted rate of return, net of investment expense</b>
2022	(6.04)%
2021	29.95 %
2020	4.16 %
2019	6.02 %
2018	8.33 %
2017	12.58 %

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.

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Required Supplementary Information (Unaudited)

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

(In thousands)

	2022	2021	2020	2019	2018	2017
Total OPEB liability:						
Service cost	\$ 335	312	284	275	259	238
Interest	63	60	43	44	41	21
Differences between expected and actual experience	(367)	(338)	(92)	(274)	(248)	(15)
Changes of assumptions	(15)	—	—	(5)	—	—
Benefit payments	(27)	(24)	(24)	(24)	(24)	—
Net change in total OPEB liability	(11)	10	211	16	28	244
Total OPEB liability – beginning	528	518	307	291	263	19
Total OPEB liability – ending (a)	517	528	518	307	291	263
Plan fiduciary net position:						
Contributions – employers	393	362	329	312	—	—
Total net investment income (loss)	(423)	1,471	190	243	290	406
Benefit payments	(27)	(24)	(24)	(24)	(24)	—
Administrative expenses	(9)	(9)	—	—	—	(12)
Net change in plan fiduciary net position	(66)	1,800	495	531	266	394
Plan fiduciary net position – beginning	6,623	4,823	4,328	3,797	3,531	3,137
Plan fiduciary net position – ending (b)	6,557	6,623	4,823	4,328	3,797	3,531
Plan's net OPEB asset (a)–(b)	\$ (6,040)	(6,095)	(4,305)	(4,021)	(3,506)	(3,268)
Plan fiduciary net position as a percentage of the total OPEB liability	1,268.28%	1,254.36%	931.08%	1,409.77%	1,304.81%	1,342.59%
Covered payroll	\$ 488,659	453,286	412,113	392,866	359,130	335,269
Net OPEB asset as a percentage of covered payroll	(1.24)%	(1.34)%	(1.04)%	(1.02)%	(0.98)%	(0.97)%

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.

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Required Supplementary Information (Unaudited)

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

Last 10 Fiscal Years

(In thousands)

<u>Fiscal Year</u>	<u>Actuarially Determined Contribution</u>	<u>Contributions in relation to the actuarially determined contribution</u>	<u>Contribution deficiency (excess)</u>	<u>Covered Payroll</u>	<u>Contribution as a percentage of covered payroll</u>
2022	\$ 339	393	(54)	488,659	0.08 %
2021	313	362	(49)	453,286	0.08 %
2020	288	329	(41)	412,113	0.08 %
2019	277	312	(35)	392,866	0.08 %
2018	—	—	—	359,130	— %
2017	—	—	—	335,269	— %
2016	—	1	(1)	289,714	— %
2015	—	—	—	255,186	— %
2014	—	—	—	229,971	— %
2013	—	—	—	206,771	— %

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

**STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM**

*(A Component Unit of the State of Alaska)*

**Required Supplementary Information (Unaudited)**

**Schedule of Investment Returns  
Occupational Death and Disability Plan**

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<b>Fiscal Year</b>	<b>Annual money-weighted rate of return, net of investment expense</b>
2022	(6.21)%
2021	29.46 %
2020	4.22 %
2019	6.15 %
2018	8.24 %
2017	12.03 %

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.

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Required Supplementary Information (Unaudited)

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

(In thousands)

	2022	2021	2020	2019	2018	2017
Total OPEB liability:						
Service cost	\$ 3,636	3,376	3,410	3,684	3,247	2,703
Interest	3,748	3,088	3,073	2,971	2,347	1,934
Change in benefit terms	(610)	—	—	—	—	—
Differences between expected and actual experience	(410)	2,313	(529)	2,696	(389)	(2)
Changes of assumptions	(5,910)	41	(5,632)	(4,551)	2,184	—
Benefit payments	(127)	(171)	(6)	(35)	(31)	(3)
EGWP rebates	18	3	1	—	—	—
Net change in total OPEB liability	345	8,650	317	4,765	7,358	4,632
Total OPEB liability – beginning	47,198	38,548	38,231	33,466	26,108	21,476
Total OPEB liability – ending (a)	47,543	47,198	38,548	38,231	33,466	26,108
Plan fiduciary net position:						
Contributions – employers	4,086	4,217	4,461	3,085	3,271	3,524
Contributions – EGWP rebates	18	3	1	—	—	—
Contributions – RDS	—	—	—	3	—	—
Total net investment income	(4,310)	14,848	1,899	2,355	2,579	3,260
Benefit payments	(206)	19,068	6,361	5,443	5,850	6,784
Pharmacy rebates	(129)	(164)	(9)	(44)	(31)	(3)
ASO fees	10	1	3	9	—	—
Net benefit payments	(8)	(8)	—	—	—	—
Administrative expenses, net of ASO fees	(127)	(171)	(6)	(35)	(31)	(3)
Other	(36)	(34)	(9)	(6)	(3)	(12)
Net change in plan fiduciary net position	—	2	—	—	1	—
Plan fiduciary net position – beginning	(369)	18,865	6,346	5,402	5,817	6,769
Plan fiduciary net position – ending (b)	67,278	48,413	42,067	36,665	30,848	24,079
Plan's net OPEB asset (a)–(b)	66,909	67,278	48,413	42,067	36,665	30,848
Plan fiduciary net position as a percentage of the total OPEB liability	\$ (19,366)	(20,080)	(9,865)	(3,836)	(3,199)	(4,740)
Covered payroll	140.73%	142.54%	125.59%	110.03%	109.56%	118.16%
Net OPEB asset as a percentage of covered payroll	\$ 488,659	453,286	412,113	392,866	359,130	335,269
	(3.96)%	(4.43)%	(2.39)%	(0.98)%	(0.89)%	(1.41)%

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.

STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

**Required Supplementary Information (Unaudited)**

**Schedule of Employer Contributions  
Retiree Medical Plan**

Last 10 Fiscal Years

(In thousands)

<u>Fiscal Year</u>	<u>Actuarially Determined Contribution</u>	<u>Contributions in relation to the actuarially determined contribution</u>	<u>Contribution deficiency (excess)</u>	<u>Covered Payroll</u>	<u>Contribution as a percentage of covered payroll</u>
2022	\$ 3,517	4,086	(569)	488,659	0.84 %
2021	3,644	4,217	(573)	453,286	0.93 %
2020	3,920	4,461	(541)	412,113	1.08 %
2019	2,734	3,085	(351)	392,866	0.79 %
2018	2,983	3,271	(288)	359,130	0.91 %
2017	3,158	3,524	(366)	335,269	1.05 %
2016	6,837	6,317	520	289,714	2.18 %
2015	6,099	5,670	429	255,186	2.22 %
2014	1,334	1,181	153	229,971	0.51 %
2013	1,241	1,101	140	206,771	0.53 %

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

# Financial Section

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STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM  
*(A Component Unit of the State of Alaska)*

**Required Supplementary Information (Unaudited)**

**Schedule of Investment Returns  
Retiree Medical Plan**

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<b>Fiscal Year</b>	<b>Annual money-weighted rate of return, net of investment expense</b>
2022	(6.21)%
2021	29.41 %
2020	4.26 %
2019	6.16 %
2018	7.92 %
2017	11.80 %

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.

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

*(A Component Unit of the State of Alaska)*

### Notes to Required Supplementary Information (Unaudited)

June 30, 2022

#### (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, 2021 were as follows:

- (a) Actuarial cost method – Liabilities and contributions in the report are computed using the Entry Age Normal Actuarial Cost Method, level percent of pay.

Effective June 30, 2018, the Board adopted a layered UAAL amortization method: Layer #1 equals the sum of (i) the UAAL at June 30, 2018 based on the 2017 valuation, plus (ii) the FY18 experience gain/loss. Layer #1 is amortized over the remainder of the 25-year closed period that was originally established in 2014. 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 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.

- (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 audited financial statements.

# Financial Section

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## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

*(A Component Unit of the State of Alaska)*

### Notes to Required Supplementary Information (Unaudited)

June 30, 2022

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- (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 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.
- (d) Investment return – 7.38% per year, net of investment 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-commencement) – Mortality rates based upon the 2013–2017 actual experience. 100% of male and female of the RP-2014 white-collar employee table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement. Deaths are assumed to result from occupational causes 15% of the time.
- (i) Mortality (post-commencement) – Mortality rates based upon the 2013–2017 actual experience. 93% of male and 90% of female rates of the RP-2014 white-collar healthy annuitant table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement.
- (j) Turnover – Select and ultimate rates based upon the 2013–2017 actual experience.
- (k) Disability – Incidence rates based on the 2013–2017 actual experience. Disability rates cease once a member is eligible for retirement. Post-disability mortality in accordance with the RP-2014 disability table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement.
- (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 – 85% of male members and 75% female members are assumed to be married at termination from active service.
- (o) Dependent spouse medical coverage election – Applies to members who do not have double medical coverage. 65% of male members and 60% female member are assumed to be married and cover a dependent spouse.
- (p) Dependent children – Pension: For the participants who are assumed to be married, those between ages 25 and 45 are assumed to have two dependent children. Healthcare: Benefits for dependent children have been valued only

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

*(A Component Unit of the State of Alaska)*

### Notes to Required Supplementary Information (Unaudited)

June 30, 2022

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 – 0% of terminating members with vested benefits are assumed to have their contributions refunded. 100% of those with non-vested benefits are assumed to have their contributions refunded.
- (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. 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.
- (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 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 – 15.57% and Healthcare – 12.03%.
- (t) Re-employment option – All re-employed retirees are assumed to return to work under the standard option.
- (u) 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.
- (v) Alaska Cost of Living Allowance (COLA) – Of those benefit recipients who are eligible for the COLA, 60% are assumed to remain in Alaska and receive the COLA.
- (w) Postretirement pension adjustment (PRPA) – 50% and 75% of assumed inflation, or 1.25% and 1.875%, respectively, is valued for the annual automatic PRPA as specified in the statute.
- (x) Expenses – The investment return assumption is net of investment expenses. The Normal Cost as of June 30, 2021 was increased by the following amounts for administrative expenses (for projections, the percentage increase was assumed to remain constant in future years): Pension – \$3,217,000 and Healthcare – \$1,604,000.
- (y) Part-time status – Part-time employees are assumed to earn 0.75 years of credited service per year.
- (z) Sick leave – 4.5 days of unused sick leave for each year of service are assumed to be available to be credited once the member is retired, terminates, or dies.
- (aa) 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.
- (bb) 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.

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Notes to Required Supplementary Information (Unaudited)

June 30, 2022

(cc) Per capita claims cost – Sample claims cost rates adjusted to age 65 for FY22 medical and prescription drug benefits are shown below:

	<u>Medical</u>	<u>Prescription drugs</u>
Pre-Medicare	\$ 15,926	3,375
Medicare Parts A and B	1,619	3,474
Medicare Part B only	5,341	3,474
Medicare Part D – EGWP	N/A	1,131

The prescription drug costs reflect the plan change to require prior authorization for certain specialty medications. The pre-Medicare medical costs reflect the coverage of additional preventive benefits.

Members are assumed to attain Medicare eligibility at age 65. All costs are for the 2022 fiscal year (July 1, 2021–June 30, 2022).

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.

(dd) Third-party administrator fees – \$493 per person per year; assumed to increase at 4.5% per year.

(ee) 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.

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Notes to Required Supplementary Information (Unaudited)

June 30, 2022

(ff) 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, 6.3% is applied to the FY22 pre-Medicare medical claims cost to get the FY23 medical claims cost:

Fiscal year	Medical Pre-65	Medical Post-65	Prescription drugs/EGWP
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.

(gg) 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+	—	—

(hh) Retired member contributions for medical benefits – Currently, contributions are required for System members who are under age 60 and have less than 25 years of service. Eligible tier 1 members are exempt from contribution requirements. Annual FY22 contributions based on monthly rates shown below for calendar 2022 are assumed based on the coverage category for current retirees. The retiree only rate shown is used for current active and inactive members and spouses in tier 2 who are assumed to retire prior to age 60 with less than 25 years of service and who

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Notes to Required Supplementary Information (Unaudited)

June 30, 2022

are not disabled. For dependent children, the System values one-third of the annual retiree contribution to estimate the per-child rate based upon the assumed number of children in rates where children are covered.

Coverage category	Calendar 2022		Calendar 2021
	Annual contribution	Monthly contribution	Monthly contribution
Retiree only	\$ 8,448	704	704
Retiree and spouse	16,896	1,408	1,408
Retiree and child(ren)	11,940	995	995
Retiree and family	20,388	1,699	1,699
Composite	12,552	1,046	1,046

- (ii) 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 FY22 retired member medical contributions to get the FY23 retired member medical contributions.

Fiscal year	Trend assumption
2022	—%
2023 +	4.0

Graded trend rates for retired member medical contributions are consistent with the rates used for the June 30, 2020 valuation. Actual FY22 retired member medical contributions are reflected in the valuation.

- (jj) 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.

The significant actuarial methods and assumptions used in the defined contribution occupational death and disability and retiree medical benefit plans valuation as of June 30, 2021 were as follows:

- (a) Actuarial cost method – Liabilities and contributions shown in the report are computed using the Entry Age Normal Actuarial Cost Method, level percent of pay. Each year's difference between actual and expected unfunded actuarial accrued liability is amortized over 25 years as a level percentage of expected payroll.
- (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 the fair value of assets.
- (c) Valuation of retiree medical and prescription drug benefits – 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, 2021 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,

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

*(A Component Unit of the State of Alaska)*

### Notes to Required Supplementary Information (Unaudited)

June 30, 2022

deductibles and out-of-pocket limits, projected FY22 claims costs were reduced 3.1% for medical claims, and 8.9% for prescription drugs. In addition, to account for the difference in Medicare coordination, projected FY22 medical claims costs for Medicare eligible retirees were further reduced 29.5%.

To adjust for the decrease in medical claims due to COVID-19 during the last 4 months of FY20, the per capita cost during the first 8 months was used as the basis for estimating claims that would have occurred in the absence of COVID-19. FY21 experience was also thoroughly reviewed to assess the impact of COVID-19 and whether an adjustment to FY21 claims was appropriate for use in the June 30, 2021 valuation. FY21 medical per capita claims were noticeably lower than expected, so a 4% load was added to the FY21 medical claims used in the per capita claims cost development to better reflect future expected long-term costs of the plan.

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

The State transitioned to an Employer Group Waiver Program (EGWP) for DCR participants effective January 1, 2019. The estimated 2022 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. Productive 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-commencement) – Mortality rates based upon the 2013–2017 actual experience, 100% of male and female of the RP-2014 white-collar employee table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement. Deaths are assumed to result from occupational causes 15% of the time.
- (i) Mortality (post-commencement) – Mortality rates based upon the 2013–2017 actual experience, 93% of male and 90% of female rates of the RP-2014 white-collar 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. For retiree medical benefits, the disability rates cease once a member is eligible for retirement. However, the disability rates continue after retirement eligibility for occupational death and disability benefits. Disabilities are assumed to be occupational 15% of the time. Post-disability mortality in accordance with the RP-2014 disabled table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement.
- (l) Retirement – Retirement rates based upon the 2013–2017 actual experience.

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Notes to Required Supplementary Information (Unaudited)

June 30, 2022

- (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 – 85% of male members and 75% of female members are assumed to be married at termination from active service.
- (o) Dependent spouse medical coverage election – Applies to members who do not have double medical coverage. 65% of male members and 60% female members are assumed to be married and cover a dependent spouse.
- (p) Part-time status – Part-time employees are assumed to earn 0.75 years of service per year.
- (q) Per capita claims cost – Sample claims cost rates (before base claims cost adjustments described below) adjusted to age 65 for FY22 medical and prescription drug benefits are shown below:

	<u>Medical</u>	<u>Prescription drugs</u>
Pre-Medicare	\$ 15,708	3,375
Medicare Parts A and B	1,619	3,474
Medicare Part D - EGWP	N/A	1,131

The prescription drug costs reflect the plan change to require prior authorization for certain specialty medications.

Members are assumed to attain Medicare eligibility at age 65. All other costs are for the 2022 fiscal year (July 1, 2021–June 30, 2022).

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.

- (r) Third-party administrator fees – \$493 per person per year; assumed to increase at 4.5% per year.
- (s) 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: 0.969 for pre-Medicare medical, 0.674 for both Medicare medical plan and Medicare coordination method (3.1% reduction for the medical plan and 29.5% reduction for the coordination method), and 0.911 for the prescription drug plan.
- (t) 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 amounts included in the June 30, 2021 normal cost, which are based on the average of actual administrative expenses during the last two fiscal years, are \$5,000 for occupational death and disability and \$22,000 for retiree medical.

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Notes to Required Supplementary Information (Unaudited)

June 30, 2022

- (u) 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, 6.3% is applied to the FY22 pre-Medicare medical claims costs to get the FY23 medical claims costs:

Fiscal year	Medical Pre-65	Medical Post-65	Prescription drugs/EGWP
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.

- (v) 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+	—	—

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Notes to Required Supplementary Information (Unaudited)

June 30, 2022

(w) Retiree medical participation:

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

(x) 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. 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.

## (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, 2020 to June 30, 2021

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

#### (b) Changes in Assumptions Since the Prior Valuation – June 30, 2020 to June 30, 2021

Healthcare claim costs are updated annually. The amounts included in the normal cost for administrative expenses were changed from \$3,003,000 to \$3,217,000 for pension, and from \$1,362,000 to \$1,604,000 for healthcare (based on the most recent two years of actual administrative expenses paid from plan assets). There were no other changes in actuarial assumptions since the prior valuation.

STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

## Notes to Required Supplementary Information (Unaudited)

June 30, 2022

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**(c) Changes in Benefit Provisions Since the Prior Valuation – June 30, 2020 to June 30, 2021**

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

*Defined Contribution Occupational Death and Disability and Retiree Medical Benefits Plans*

**(a) Changes in Methods Since the Prior Valuation – June 30, 2020 to June 30, 2021**

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

**(b) Changes in Assumptions Since the Prior Valuation – June 30, 2020 to June 30, 2021**

Healthcare claim costs are updated annually. The amounts included in the normal cost for administrative expenses were changed from \$0 to \$5,000 for occupational death and disability, and from \$8,000 to \$22,000 for retiree medical (based on the most recent two years of actual administrative expenses paid from plan assets). There were no other changes in actuarial assumptions since the prior valuation.

**(c) Changes in Benefit Provisions Since the Prior Valuation – June 30, 2020 to June 30, 2021**

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

**SUPPLEMENTAL SCHEDULES**

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Schedules of Administrative and Investment Deductions

Years ended June 30, 2022 and 2021

(In thousands)

	Administrative	Investment	Totals	
			2022	2021
Personal services:				
Wages	\$ 2,027	1,027	3,054	3,029
Benefits	1,353	534	1,887	1,717
Total personal services	<u>3,380</u>	<u>1,561</u>	<u>4,941</u>	<u>4,746</u>
Travel:				
Transportation	1	10	11	3
Per diem	—	2	2	1
Total travel	<u>1</u>	<u>12</u>	<u>13</u>	<u>4</u>
Contractual services:				
Management and consulting	7,434	148	7,582	7,434
Investment management and custodial fees	—	24,604	24,604	23,286
Accounting and auditing	89	4	93	87
Data processing	2,096	366	2,462	1,842
Communications	42	4	46	48
Advertising and printing	24	1	25	14
Rentals/leases	58	42	100	197
Legal	103	15	118	55
Medical specialists	—	—	—	2
Repairs and maintenance	1	—	1	3
Transportation	100	—	100	51
Securities lending	—	60	60	66
Other professional services	250	29	279	255
Total contractual services	<u>10,197</u>	<u>25,273</u>	<u>35,470</u>	<u>33,340</u>
Other:				
Equipment	3	5	8	13
Supplies	6	32	38	41
Total other	<u>9</u>	<u>37</u>	<u>46</u>	<u>54</u>
Total administrative and investment deductions	<u>\$ 13,587</u>	<u>26,883</u>	<u>40,470</u>	<u>38,144</u>

See accompanying independent auditors' report.

# Financial Section

## STATE OF ALASKA | TEACHERS' RETIREMENT SYSTEM

(A Component Unit of the State of Alaska)

### Schedules of Payments to Consultants Other Than Investment Advisors

Years ended June 30, 2022 and 2021

(In thousands)

Firm	Services	2022	2021
Buck Global LLC	Actuarial services	\$ 262	235
KPMG LLP	Auditing services	62	51
Groundswell Communications	Communications services	26	23
State Street Bank and Trust	Custodial banking services	469	483
Alaska IT Group	Data processing services	83	109
Applied Microsystems Incorporated	Data processing services	173	157
DLT Solutions	Data processing services	—	55
Sagitec Solutions	Data processing services	1,606	1,021
SHI International Corporation	Data processing services	8	14
Sungard Availability Services	Data processing services	11	11
TechData Service Company	Data processing services	136	—
State of Alaska, Department of Law	Legal services	118	121
Linea Solutions Incorporation	Management consulting services	—	15
Symphony Performance Health	Management consulting services	11	11
The Segal Company Incorporated	Management consulting services	34	125
		\$ 2,999	2,431

This schedule presents payments to consultants receiving greater than \$10,000.

See accompanying independent auditors' report.



# INVESTMENT SECTION



ALASKA DIVISION OF  
**Retirement  
and Benefits**



Callan Associates Inc.  
1900 16<sup>th</sup> Street  
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[www.callan.com](http://www.callan.com)

September 29, 2022

Alaska Retirement Management Board  
State of Alaska, Department of Revenue  
Treasury Division  
333 Willoughby Avenue, 11th 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, 2022.

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 ARMB's 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, 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, ARMB selects a strategic investment policy that balances long-term growth potential and acceptable risk. A policy benchmark is constructed that mirrors ARMB'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 ARMB's investment policy.

## **2022 Fiscal Year Market Overview**

There was no shortage of challenges facing the world as we closed out the 2022 fiscal year: the relentless and tragic war in Ukraine, persistent and widespread inflation, startling rate hikes to the Fed Funds rate, a stubborn virus, and escalating concerns over a slowing global economy. Global bond and stock markets sank, with the S&P 500 Index officially in a bear market. Headline CPI was 8.6% year-over-year (YOY), the highest in four decades. Food and energy prices have risen sharply, and supply chain issues have not been resolved, adding further pressure to prices in some sectors. Central bank rate hikes are expected around the globe (with China

# Investment Section

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and Japan being exceptions) as inflation is widespread. The economic effects of the Russian invasion of Ukraine have been especially painful in Europe, which has relied heavily on Russia for its energy needs.

In contrast to this gloomy news, the labor market remained strong, with 10.7 million job openings on the last business day of June, according to the U.S. Bureau of Labor Statistics. Job gains have averaged more than 400,000 per month in 2022, and unemployment remains low (3.5% as of June). Housing is another bright spot, unless you are a first-time buyer. Home prices remain sky-high; the S&P CoreLogic Case-Shiller U.S. National Home Price Index jumped 20.5% YOY as of May 2022 while housing inventory remained low.

U.S. equity markets finished the fiscal year 2022 in the red for the first time in five years. The Russell 3000 Index, a measure of broad U.S. equity, was up 9.17% at the end of the 2021 calendar year before falling 5.28% in 1Q and 16.70% in 2Q on concerns over rising rates and a slowing economy; the Index is down 13.87% for the one-year period ended June 30, 2022. Overseas markets were also broadly negative for the fiscal year hurt by elevated energy prices, COVID lockdowns in China, and U.S. dollar strength. The MSCI ACWI ex-U.S. IMI (Net) Index, a broad benchmark reflecting developed and emerging markets, but excluding U.S. equities, declined 14.28% for the quarter and 19.86% for the fiscal year. The MSCI All Country World Index (Net), a broad measure of the total global equity market (including the U.S.), fell 15.66% in for the quarter and 15.75% for the fiscal year.

As expected, the Fed raised rates at its March and May meetings by 25 bps and 50 bps, respectively. May's CPI print wreaked havoc on the markets and spurred the Fed to raise rates by 75 bps in June, the largest hike since 1994, to a 1.50% - 1.75% target with another 75-bps hike expected in July. The Bloomberg U.S. Aggregate Bond Index, a widely used gauge of the investment grade domestic U.S. bond market, had its worst two consecutive quarters in history dropping 5.93% in 1Q and 4.69% in 2Q bringing its fiscal year loss to 10.29%. The 10-year U.S. Treasury hit an intra-quarter high of 3.49% in June, the highest since 2011, before closing the fiscal year at 2.98%.

Commodities were a rare bright spot given their inflation-protection properties as well as war-induced supply concerns. Not surprisingly, Energy (40%) was the best-performing sector given a 33% spike in WTI crude oil prices, followed by utilities (14%).

Private real estate, as measured by the NCREIF Property Index, was positive for the eleventh fiscal year in a row. In fiscal year 2022, the NCREIF Property Index returned 21.45% led by industrial and aided by apartment property. Publicly traded real estate, as measured by the FTSE NAREIT All Equity Index, meaningfully lagged the private markets, returning -6.27% for the fiscal year 2022.

ARMB's actual asset groupings delivered the following one-year returns through June 30, 2022<sup>1</sup>:

Domestic Stocks:	-11.74%
Global ex-U.S. Stocks:	-20.96%
Opportunistic:	-10.58%
Fixed Income:	-6.96%
Real Assets:	14.29%
Private Equity:	26.25%

For the fiscal year ended June 30, 2022, the Public Employees Retirement System (PERS) had a time-weighted total return of -4.08%. The Teachers Retirement System (TRS) had a time-weighted total return of -4.10%. Both systems' gross return exceeded their strategic policy target return of -7.86% and the median return for Callan's Public Fund Sponsor database of -9.35%.

# Investment Section

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Over longer trailing periods, PERS and TRS have outperformed their target index returns. The 5-year annualized return for both PERS and TRS was 8.19% compared to the benchmark return of 6.67% for both Plans. The ten-year annualized return was 8.72% for PERS and 8.73% for TRS. Both were above the 10-year target return of 7.71%. Over 30.75 years – the longest period of available data – PERS and TRS achieved annualized total returns of 7.80% and 7.84%, respectively. Both exceeded the corresponding policy benchmark return of 7.44%.

The 2022 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 2022	-4.08%	-4.08%	-4.10%	-4.08%

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 2022 was a year in which ARMB’s Total Fund returns were positive, as were those of most broad asset class returns. PERS and TRS produced higher returns than the average public fund, both ranking in the 10<sup>th</sup> percentile within the Public Fund Sponsor peer group for the one-year period ended June 30, 2022.

Sincerely,



Steve Center  
Senior Vice President  
c: Zach Hanna  
Ivan Cliff

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

# Investment Section

## Department of Revenue

### Treasury Division Staff

As of June 30, 2022

#### Commissioner

Lucinda Mahoney

#### Chief Investment Officer

Zachary Hanna

#### Investment Officers

Shane Carson

Kevin Liu

#### Deputy Commissioner

Brian Fechter

#### Acting Comptroller

Ryan Kauzlarich

Casey Colton

Mark Moon

Victor Djajalie

Nicholas Orr

Kevin Elliot

Stephanie Pham

#### Treasury Division Director

Pamela Leary, CPA

#### Cash Management

Jesse Blackwell

Benjamin Garrett

Michelle Prebula

Emily Howard

Steve Sikes

#### ARMB Liaison Officer

Alysia Jones

Sean Howard

## External Money Managers and Consultants

#### Alternate Fixed Income

Crestline Investors, Inc.

*Fort Worth, TX*

Prisma Capital

*New York, NY*

#### Opportunistic Fixed Income

Fidelity Investment Asset Management

*Merrimack, NH*

MacKay Shields LLC

*New York, NY*

#### Global Equities – Large Cap

Arrowstreet Capital, LP

*Boston, MA*

Baillie Gifford Overseas Ltd.

*Edinburgh, Scotland*

Brandes Investment Partners, L.P.

*San Diego, CA*

Capital Guardian Trust Co.

*Los Angeles, CA*

Legal and General Investment Management America

*Chicago, IL*

#### Emerging Market Income

Legal and General Investment Management America, Inc.

*Chicago, IL*

State Street Global Advisors

*Boston, MA*

#### Alternative Equity

McKinley Capital Management LLC

*Anchorage, AK*

#### Alternate Beta

Man Group

*London, UK*

#### Other Opportunities

Schroders Investment Management North America

*New York, NY*

#### Tactical Asset Allocation

Fidelity Investment Asset Management

*Smithfield, RI*

PineBridge Investments

*New York, NY*

#### Private Equity

Abbott Capital Management, L.P.

*New York, NY*

Advent International

*Boston, MA*

Angelo, Gordon & Co.

*New York, NY*

Battery Ventures

*Boston, MA*

Clearlake Capital

*Santa Monica, CA*

Dyal Capital Partners

*New York, NY*

Genstar Capital

*San Francisco, CA*

Glendon Capital

*Santa Monica, CA*

Insight Partners

*New York, NY*

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

*Irving, TX*

Onex Partners

*New York, NY*

Pathway Capital Management, LLC

*Irvine, CA*

Summit Partners

*Boston, MA*

The Jordan Company

*New York, NY*

The Riverside Company

*New York, NY*

Warburg Pincus

*New York, NY*

## External Money Managers and Consultants (cont.)

### Real Assets – Farmland and Timber

Timberland Investment Resources LLC  
*Atlanta, GA*  
 UBS Farmland Investors, LLC  
*Hartford, CT*

### Real Assets – Energy

EIG Global Energy Partners  
*Washington, D.C.*

### Real Assets – Infrastructure

IFM  
*New York, NY*  
 J.P. Morgan Asset Management  
*New York, NY*

### Real Assets – Real Estate Core Separate Accounts

Sentinel Real Estate Corporation  
*New York, NY*  
 UBS Realty Investors, LLC  
*Hartford, CT*

### Real Assets – Commingled Real Estate Funds

Almanac Realty Investors  
*New York, NY*  
 BlackRock Realty  
*New York, NY*  
 Clarion Partners  
*New York, NY*  
 DigitalBridge Group, Inc (formerly Colony Capital, Inc.)  
*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*

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

Baillie Gifford Overseas Ltd.  
*Edinburgh, Scotland*  
 BlackRock  
*San Francisco, CA*  
 Brandes Investment Partners  
*San Diego, CA*  
 J.P. Morgan Asset Management Inc.  
*New York, NY*  
 Northern Trust  
*Chicago, IL*  
 State Street Global Advisors  
*Boston, MA*  
 T. Rowe Price Investment Services  
*Baltimore, MD*

### Investment Consultants

Callan Associates, Inc.  
*Denver, CO*

### Investment Advisory Council

Jerrold Mitchell  
*Johns Island, SC*  
 Ruth Ryerson  
*Monument, CO*  
 William Jennings  
*Colorado Springs, CO*

### Independent Auditors

KPMG, LLP  
*Anchorage, AK*

### Actuaries

Buck Global, LLC  
*Denver, CO*  
 Gabriel, Roeder, Smith & Co.  
*Denver, CO*

### Global Master Custodian

State Street Bank & Trust Co.  
*Boston, MA*

# Investment Section

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## Teachers' Retirement System Investment Report

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### INVESTMENTS

The investment goals of the State of Alaska Teachers' Retirement System (TRS) 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 six asset classes: Broad Domestic Equities, Global Equities Ex-U.S., Fixed Income, Multi-Asset, Real Assets, 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
Global Equities Ex-U.S.	MSCI All Country World Ex-U.S. IMI Net
Fixed Income	95% Bloomberg Barclays U.S. Aggregate 5% 3-Month Treasury Bill
Opportunistic	60% MSCI All Country World IMI Net 40% Bloomberg Barclays U.S. Aggregate
Real Assets	35% NFI-ODCE 15% FTSE-NAREIT 25% NCREIF Farmland 10% NCREIF Timberland 15% CPI+4%
Private Equity	1/3 S&P 500 1/3 Russell 2000 1/3 MSCI EAFE Net

The target asset allocation is determined by the ARMB, utilizing capital market assumptions provided by its independent general investment consultant, Callan LLC. During the fiscal year, the ARMB's target asset allocation was 27% Broad Domestic Equity, 18% Global Equities Ex-U.S., 21% Fixed Income, 6% Opportunistic, 14% Real Assets, and 14% Private Equity. Over the next 20 years, the target asset allocation is expected to generate a return of 6.88% with a standard deviation of 13.89%.

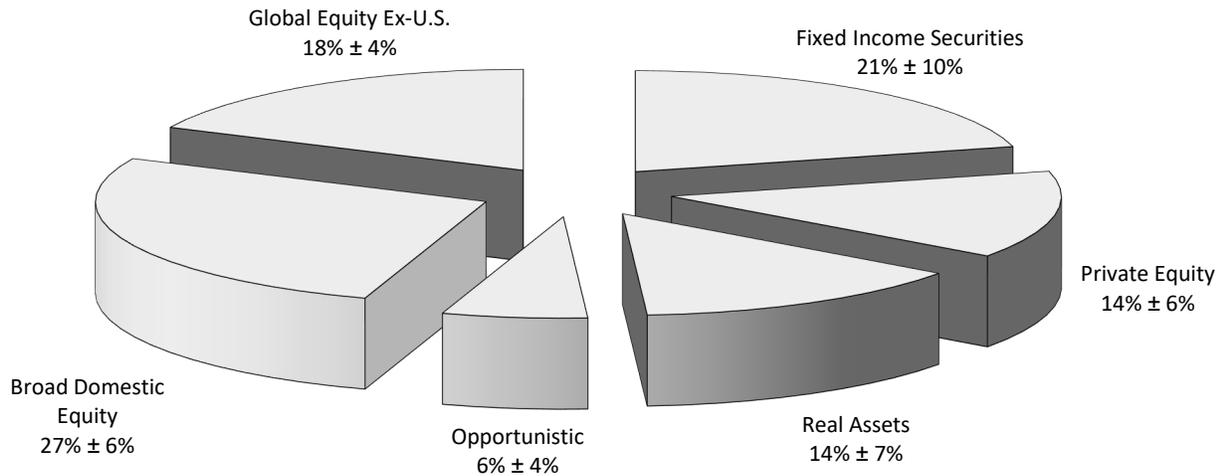
# Investment Section

Teachers' Retirement System Schedule of Investment Results Fiscal Years Ended June 30							
	2018	2019	2020	2021	2022	Annualized	
						3 Year	5 Year
<b>Total Fund</b>							
TRS	9.62%	6.39%	3.83%	27.65%	(4.10%)	8.32%	8.19%
<i>Custom Composite Index</i>	-	5.65	4.64	24.95	(7.86)	6.48	6.67
<i>Actuarial Earnings Rate</i>	8.00	7.38	7.38	7.38	7.38	7.38	7.38
<b>Broad Domestic Equity</b>							
TRS	15.22	8.40	2.62	42.68	(11.73)	8.93	10.05
<i>Custom Composite Index</i>	14.78	8.98	6.53	44.16	(13.87)	9.77	10.60
<b>Fixed Income</b>							
TRS	(0.71)	6.34	7.31	2.20	(6.99)	0.68	1.50
<i>Custom Composite Index</i>	(0.76)	6.19	7.67	(0.31)	(9.78)	(1.07)	0.41
<b>Opportunistic</b>							
TRS	5.63	7.21	0.52	23.86	(10.58)	3.64	4.74
<i>Custom Composite Index</i>	8.39	9.72	9.32	23.20	(13.89)	5.06	6.64
<b>Real Assets</b>							
TRS	7.53	6.09	2.06	9.86	14.29	8.62	7.89
<i>Custom Composite Index</i>	4.29	7.23	1.19	4.62	14.80	7.36	6.71
<b>Global Equity Ex-U.S.</b>							
TRS	7.95	(0.08)	(3.59)	38.53	(20.96)	1.82	2.63
<i>MSCI ACWI ex-U.S.</i>	7.75	0.26	(4.74)	37.18	(19.86)	1.55	2.50
<b>Private Equity</b>							
TRS	26.65	17.66	10.47	50.67	26.25	28.08	25.64
<i>Custom Composite Index</i>	12.92	2.71	(1.35)	36.80	3.42	11.75	10.11
<b>Absolute Return</b>							
TRS	4.78	4.08	-	-	-	-	-
<i>3-month Treasury Bill +5%</i>	5.18	1.15	-	-	-	-	-
<b>Cash Equivalent</b>							
TRS	1.53	2.50	-	-	-	-	-
<i>3-month Treasury Bill</i>	1.36	2.31	-	-	-	-	-
<p>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.</p>							

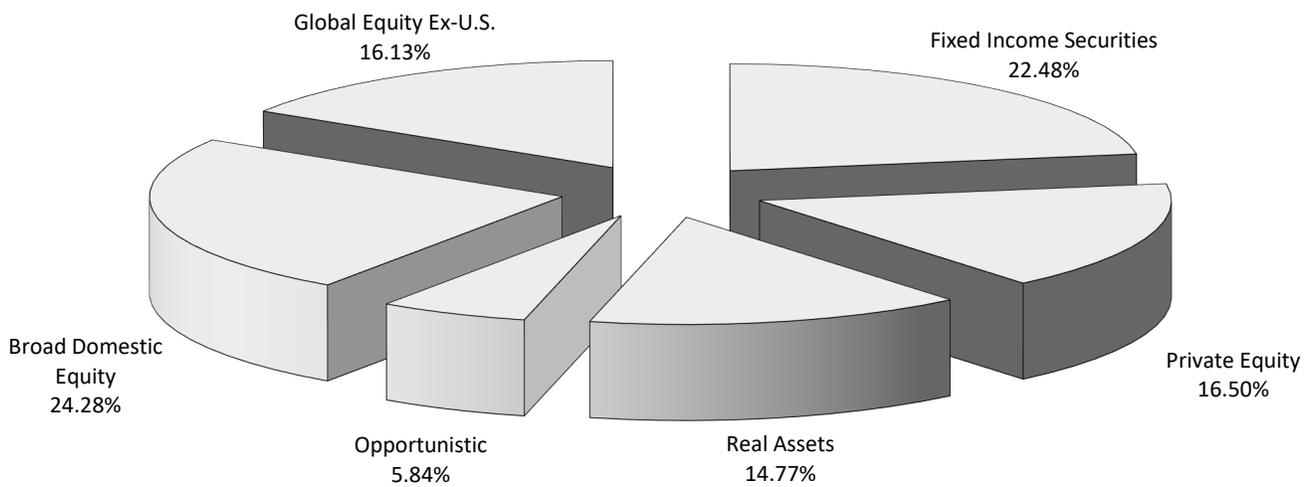
# Investment Section

## Teachers' Retirement System Asset Allocation June 30, 2022

### Policy

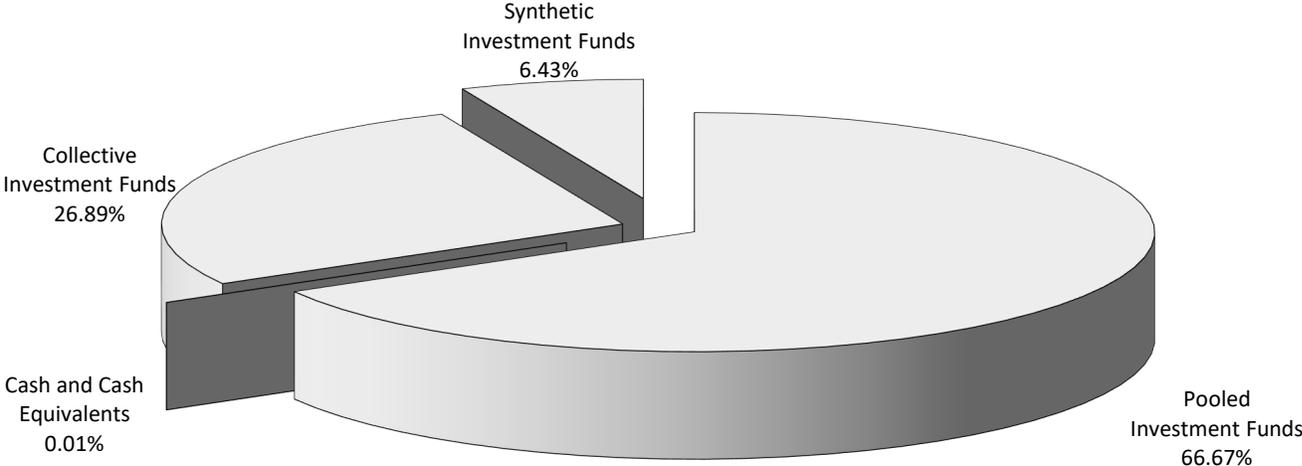


### Actual — Defined Benefit Pension

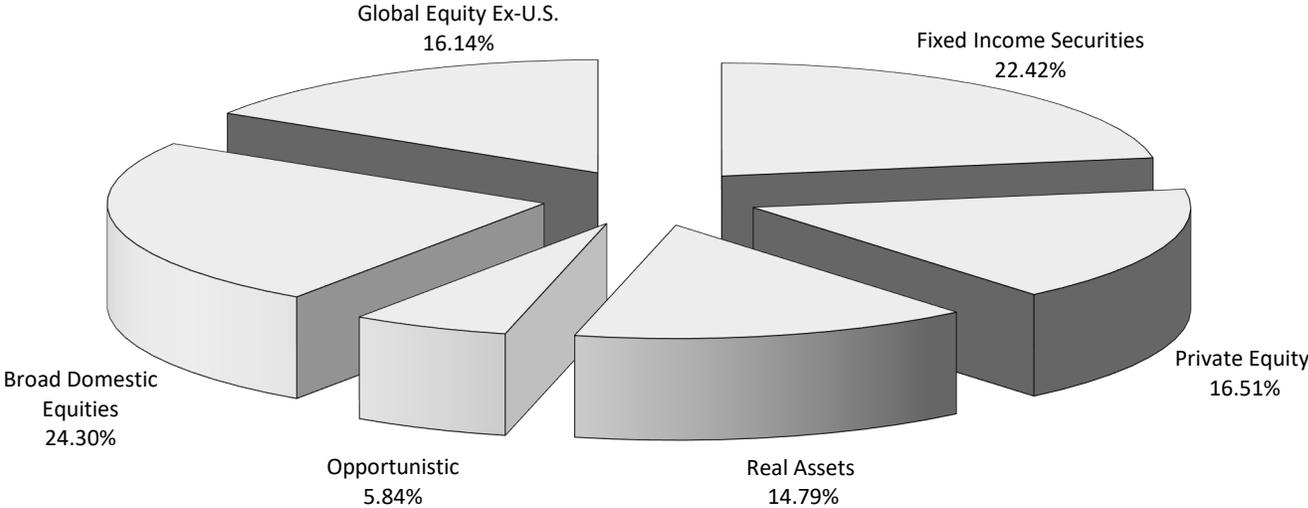


**Teachers' Retirement System  
Asset Allocation  
June 30, 2022**

**Actual — Defined Contribution Participant Directed**



**Actual — Defined Benefit Alaska Retiree Healthcare Trust**



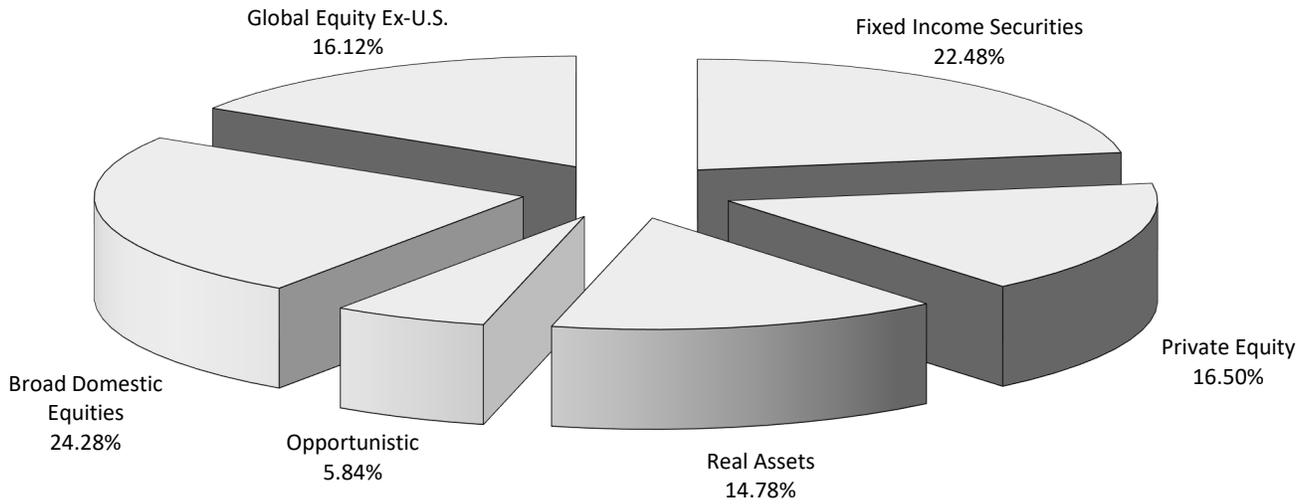
# Investment Section

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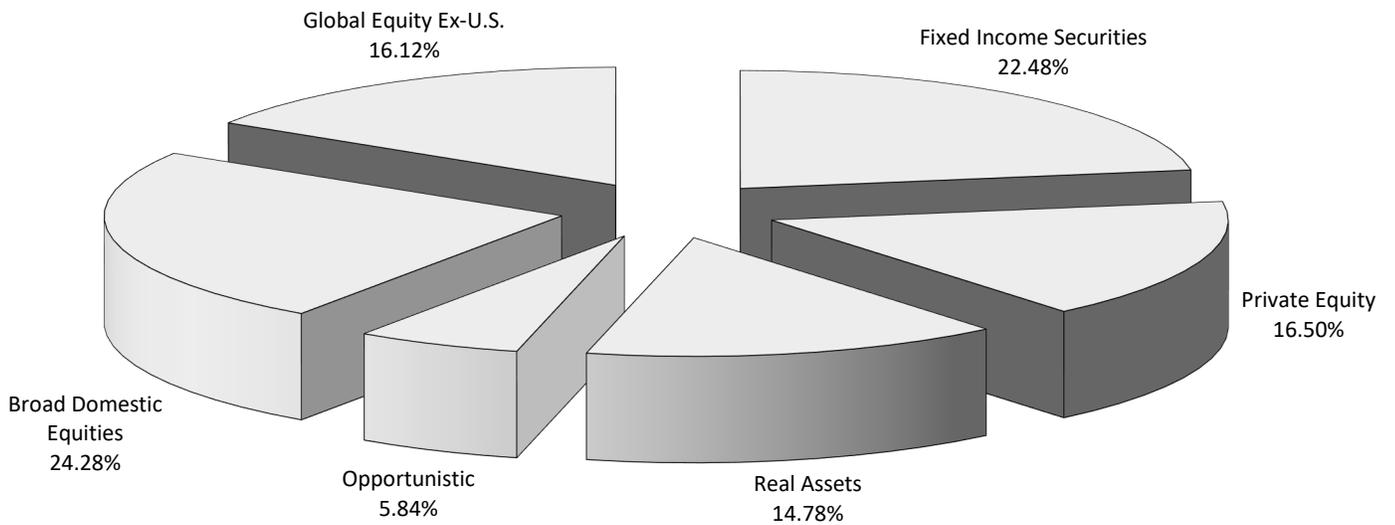
## Teachers' Retirement System Asset Allocation June 30, 2022

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### Actual — Health Reimbursement Arrangement

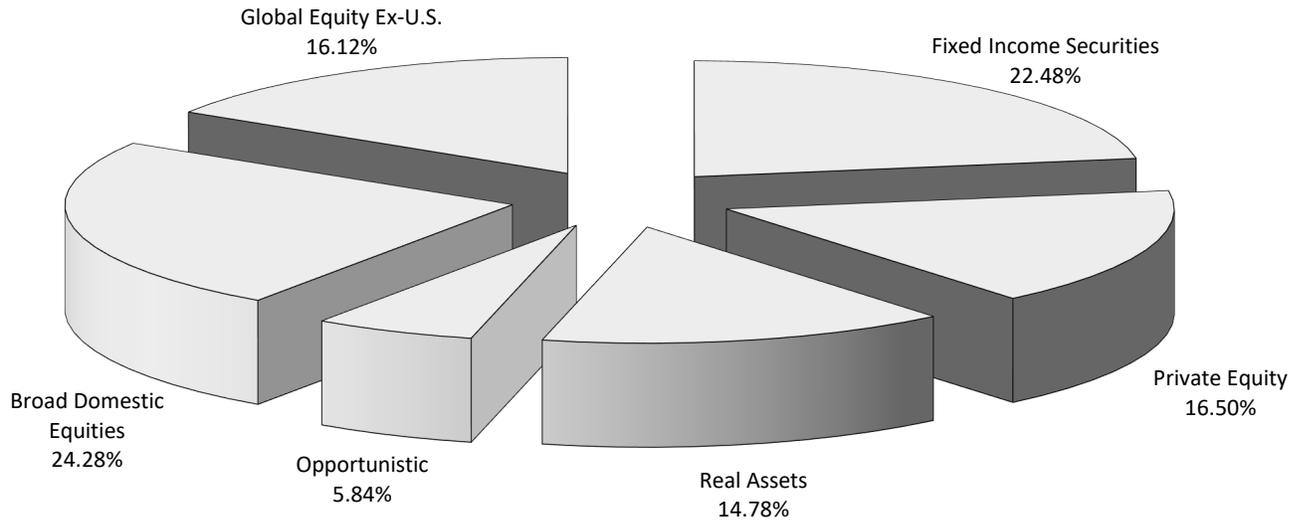


### Actual — Occupational Death & Disability



**Teachers' Retirement System  
Asset Allocation  
June 30, 2022**

**Actual — Retiree Medical Plan**



# Investment Section

## Alaska Retirement Management Board Top Ten Holdings by Asset Type June 30, 2022

Invested assets under the fiduciary responsibility of the Alaska Retirement Management Board (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	U.S. Treasury N/B 2.875% 6/15/2025	\$42,354,824	\$42,524,257
2	FNMA Pool CB2662 3% 1/1/2052	41,615,799	44,570,361
3	U.S. Treasury N/B 1.375% 11/15/2040	37,399,270	51,929,343
4	U.S. Treasury N/B 2.25% 5/15/2041	36,288,419	43,487,666
5	FED HM LN PC Pool SD8230 4.5% 6/1/2052	33,464,657	33,297,933
6	FNMA Pool MA4644 4% 5/1/2052	30,777,101	31,173,957
7	FED HM LN PC Pool RA1568 3% 10/1/2049	25,853,003	27,590,603
8	FED HM LN PC Pool SD8217 4% 4/1/2052	25,523,888	25,840,029
9	FNMA Pool MA4565 3.5% 3/1/2052	19,706,281	20,465,855
10	FNMA Pool CB1146 3% 7/1/2051	18,462,951	19,785,834

### Equities

Rank	Largest Equity Holdings	Market Value	Share
1	Apple Inc.	\$114,365,237	836,492
2	Microsoft Corp.	109,332,100	425,698
3	Amazon.com Inc.	50,645,418	476,842
4	Alphabet Inc. CL A	37,187,555	17,064
5	Alphabet Inc. CL C	33,556,914	15,341
6	UnitedHealth Group Inc.	32,902,134	64,058
7	Berkshire Hathaway Inc. CL B	30,566,895	111,958
8	Tesla Inc.	29,228,867	43,404
9	Johnson & Johnson	25,835,558	145,544
10	Meta Platforms Inc. Class A	24,580,091	152,435

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

# Investment Section

## Teachers' Retirement System Schedule of Investment Management Fees Year Ended June 30, 2022

	<u>Fair Value</u>	<u>Fees</u>
<b>Investment Management</b>		
Total Fixed Income	\$ 611,230,376	4,126,781
Total Opportunistic	566,390,385	2,452,658
Total Broad Domestic Equity	2,354,555,261	311,096
Total Global Equity Ex-U.S.	1,564,168,068	3,022,159
Total Private Equity	1,600,378,622	5,768,848
Total Real Assets	1,432,358,507	7,202,830
<b>Custodian</b>		
State Street Bank		468,664
<b>Investment Advisory and Performance</b>		
Callan Associates		186,067
Investment Advisory Council		24,514
Total Investment Advisory and Performance		<u>210,581</u>
<b>Participant Directed</b>		
Custodian - State Street Bank		162,269
Investment Management		911,698
Synthetic Investment Contract Wrap Fees		90,943
Total Participant Directed		<u>1,164,910</u>
	<u>\$ 8,129,081,219</u>	<u>24,728,527</u>

# Investment Section

## Teachers' Retirement System Investment Summary Schedule June 30, 2022

<u>Investments (at Fair Value)</u>	Defined Benefit - Pension			<u>% of Total Assets</u>
	Asset Allocation		Fair Value	
	Policy	Range	Fair Value	
<b>Fixed Income Securities</b>				
Short-term Fixed Income Pool			\$ 68,941,525	
Securities Lending Cash Pool			17,121	
Opportunistic Fixed Income			215,644,970	
ARMB U.S. Aggregate Fixed Income			905,011,509	
Alternative Fixed Income			163,865,865	
Total Fixed Income Securities	21.00%	± 10%	1,353,480,990	22.48%
<b>Opportunistic</b>				
Alternative Equity Strategies Pool			62,167,552	
Tactical Allocation Strategies Pool			220,139,849	
Other Opportunistic Pool			845,819	
Alternative Beta Pool			68,516,589	
Total Opportunistic	6.00%	± 4%	351,669,809	5.84%
<b>Broad Domestic Equity</b>				
Large Cap Pool			1,343,554,927	
Small Cap Pool			118,380,155	
Total Broad Domestic Equity	27.00%	± 6%	1,461,935,082	24.28%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			793,624,368	
Emerging Markets Equity Pool			177,596,332	
Total Global Equity Ex-U.S.	18.00%	± 4%	971,220,700	16.13%
<b>Private Equity</b>				
Private Equity Pool			993,669,485	
Total Private Equity	14.00%	± 6%	993,669,485	16.50%
<b>Real Assets</b>				
Real Estate Pool			354,865,054	
Real Estate Investment Trust Pool			99,266,163	
Infrastructure Private Pool			157,229,996	
Energy Pool			12,525,232	
Farmland Pool			189,617,401	
Timber Pool			75,558,818	
Total Real Assets	14.00%	± 7%	889,062,664	14.77%
<b>Total Invested Assets</b>	<b>100.00%</b>		<b>\$ 6,021,038,730</b>	<b>100.00%</b>

# Investment Section

## Teachers' Retirement System Investment Summary Schedule June 30, 2022

Investments (at Fair Value)	Asset Allocation		Fair Value	% of Total Assets
	Policy	Range		
<b>Defined Contribution - Participant Directed</b>				
<b>Cash and Cash Equivalents</b>				
Short-Term Fixed Income Pool	100.00%	0%	\$ 98,072	
Total Cash and Cash Equivalents			98,072	0.01%
<b>Pooled Investment Funds (1)</b>				
T. Rowe Price				
Alaska Balanced Trust			22,029,925	
Long-Term Balanced Fund			13,987,778	
Target 2010 Trust			1,201,739	
Target 2015 Trust			3,686,138	
Target 2020 Trust			11,606,160	
Target 2025 Trust			24,644,559	
Target 2030 Trust			34,444,007	
Target 2035 Trust			48,112,459	
Target 2040 Trust			57,999,637	
Target 2045 Trust			82,074,710	
Target 2050 Trust			113,264,769	
Target 2055 Trust			76,812,904	
Target 2060 Trust			4,311,557	
Target 2065 Trust			837,026	
Total Pooled Investment Funds			495,013,368	66.68%
<b>Collective Investment Funds (1)</b>				
State Street Global Advisors				
SSgA Treasury Money Market Fund			5,394,536	
S&P Stock Index Fund			21,286,567	
Russell 3000 Index			30,985,654	
World Equity Ex-U.S. Index			23,066,209	
Passive U.S. Bond Index Fund			22,530,468	
Brandes Institutional				
Alaska International Equity Fund			32,472,126	
BlackRock Institutional Trust Company				
Strategic Completion Fund			1,676,299	
RCM				
Sustainable Core Opportunities Fund			25,573,916	
T. Rowe Price				
Small-Cap Stock Fund			36,663,897	
Total Collective Investment Funds			199,649,672	26.89%
<b>Synthetic Investment Funds (1)</b>				
T. Rowe Price				
Stable Value Fund			47,694,837	
Total Collective Investment Funds			47,694,837	6.42%
<b>Total Invested Assets</b>			<b>\$ 742,455,949</b>	<b>100.00%</b>

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

# Investment Section

## Teachers' Retirement System Investment Summary Schedule June 30, 2022

Investments (at Fair Value)	Defined Benefit - Alaska Retiree Healthcare Trust			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
<b>Fixed Income Securities</b>				
Short-term Fixed Income Pool			\$ 36,490,265	
Securities Lending Cash Pool			9,637	
Opportunistic Fixed Income Pool			121,887,880	
ARMB U.S. Aggregate Fixed Income			511,535,163	
Alternative Fixed Income			92,621,092	
Total Fixed Income Securities	21.00%	± 10%	762,544,037	22.42%
<b>Opportunistic</b>				
Alternative Equity Strategies Pool			35,138,633	
Tactical Allocation Strategies Pool			124,428,516	
Other Opportunistic Pool			478,094	
Alternative Beta Pool			38,727,294	
Total Opportunistic	6.00%	± 4%	198,772,537	5.84%
<b>Broad Domestic Equity</b>				
Large Cap Pool			759,410,871	
Small Cap Pool			66,911,467	
Total Broad Domestic Equity	27.00%	± 6%	826,322,338	24.30%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			448,532,859	
Emerging Markets Equity Pool			100,381,890	
Total Global Equity Ex-U.S.	18.00%	± 4%	548,914,749	16.14%
<b>Private Equity</b>				
Private Equity Pool			561,646,838	
Total Private Equity	14.00%	± 6%	561,646,838	16.51%
<b>Real Assets</b>				
Real Estate Pool			201,001,646	
Real Estate Investment Trust Pool			56,107,718	
Infrastructure Private Pool			88,870,297	
Energy Pool			7,079,574	
Farmland Pool			107,176,549	
Timber Pool			42,707,697	
Total Real Assets	14.00%	± 7%	502,943,481	14.79%
<b>Total Invested Assets</b>	<b>100.00%</b>		<b>\$ 3,401,143,980</b>	<b>100.00%</b>

# Investment Section

## Teachers' Retirement System Investment Summary Schedule June 30, 2022

Investments (at Fair Value)	Health Reimbursement Arrangement			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
<b>Fixed Income Securities</b>				
Short-term Fixed Income Pool			\$ 2,312,769	
Securities Lending Cash Pool			561	
Opportunistic Fixed Income Pool			7,166,234	
ARMB U.S. Aggregate Fixed Income			30,074,923	
Alternate Fixed Income			5,445,537	
Total Fixed Income Securities	21.00%	± 10%	45,000,024	22.48%
<b>Opportunistic</b>				
Alternative Equity Strategies Pool			2,065,922	
Tactical Allocation Strategies Pool			7,315,596	
Other Opportunistic Pool			28,135	
Alternative Beta Pool			2,276,941	
Total Opportunistic	6.00%	± 4%	11,686,594	5.84%
<b>Broad Domestic Equity</b>				
Large Cap Pool			44,648,369	
Small Cap Pool			3,933,921	
Total Broad Domestic Equity	27.00%	± 6%	48,582,290	24.28%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			26,364,780	
Emerging Markets Equity Pool			5,901,812	
Total Global Equity Ex-U.S.	18.00%	± 4%	32,266,592	16.12%
<b>Private Equity</b>				
Private Equity Pool			33,021,162	
Total Private Equity	14.00%	± 6%	33,021,162	16.50%
<b>Real Assets</b>				
Real Estate Pool			11,817,537	
Real Estate Investment Trust Pool			3,298,758	
Infrastructure Private Pool			5,224,969	
Energy Pool			416,283	
Farmland Pool			6,301,308	
Timber Pool			2,510,915	
Total Real Assets	14.00%	± 7%	29,569,770	14.78%
<b>Total Invested Assets</b>	<b>100.00%</b>		<b>\$ 200,126,432</b>	<b>100.00%</b>

# Investment Section

## Teachers' Retirement System Investment Summary Schedule June 30, 2022

Investments (at Fair Value)	Occupational Death and Disability			% of Total Assets
	Policy	Range	Fair Value	
<b>Fixed Income Securities</b>				
Short-term Fixed Income Pool			\$ 75,455	
Securities Lending Cash Pool			18	
Opportunistic Fixed Income Pool			233,314	
ARMB U.S. Aggregate Fixed Income			979,174	
Alternative Fixed Income			177,281	
Total Fixed Income Securities	21.00%	± 10%	1,465,242	22.48%
<b>Opportunistic</b>				
Alternative Equity Strategies Pool			67,255	
Tactical Allocation Strategies Pool			238,211	
Other Opportunities Pool			894	
Alternative Beta Pool			74,090	
Total Opportunistic	6.00%	± 4%	380,450	5.84%
<b>Broad Domestic Equity</b>				
Large Cap Pool			1,453,621	
Small Cap Pool			128,091	
Total Broad Domestic Equity	27.00%	± 6%	1,581,712	24.28%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			858,326	
Emerging Markets Equity Pool			192,169	
Total Global Equity Ex-U.S.	18.00%	± 4%	1,050,495	16.12%
<b>Private Equity</b>				
Private Equity Pool			1,075,028	
Total Private Equity	14.00%	± 6%	1,075,028	16.50%
<b>Real Assets</b>				
Real Estate Pool			384,748	
Real Estate Investment Trust Pool			107,438	
Infrastructure Private Pool			170,094	
Energy Pool			13,575	
Farmland Pool			205,111	
Timber Pool			81,754	
Total Real Assets	14.00%	± 7%	962,720	14.78%
<b>Total Invested Assets</b>	<b>100.00%</b>		<b>\$ 6,515,647</b>	<b>100.00%</b>

# Investment Section

## Teachers' Retirement System Investment Summary Schedule June 30, 2022

Investments (at Fair Value)	Retiree Medical Plan			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
<b>Fixed Income Securities</b>				
Short-term Fixed Income Pool			\$ 769,775	
Securities Lending Cash Pool			186	
Opportunistic Fixed Income Pool			2,379,818	
ARMB U.S. Aggregate Fixed Income			9,987,665	
Alternative Fixed Income			1,808,384	
Total Fixed Income Securities	21.00%	± 10%	14,945,828	22.48%
<b>Opportunistic</b>				
Alternative Equity Strategies Pool			686,093	
Tactical Allocation Strategies Pool			2,429,478	
Other Opportunities Pool			9,297	
Alternative Beta Pool			756,127	
Total Opportunistic	6.00%	± 4%	3,880,995	5.84%
<b>Broad Domestic Equity</b>				
Large Cap Pool			14,827,390	
Small Cap Pool			1,306,449	
Total Broad Domestic Equity	27.00%	± 6%	16,133,839	24.28%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			8,755,631	
Emerging Markets Equity Pool			1,959,900	
Total Global Equity Ex-U.S.	18.00%	± 4%	10,715,531	16.12%
<b>Private Equity</b>				
Private Equity Pool			10,966,108	
Total Private Equity	14.00%	± 6%	10,966,108	16.50%
<b>Real Assets</b>				
Real Estate Pool			3,924,500	
Real Estate Investment Trust Pool			1,095,474	
Infrastructure Private Pool			1,735,143	
Energy Pool			138,278	
Farmland Pool			2,092,610	
Timber Pool			833,866	
Total Real Assets	14.00%	± 7%	9,819,871	14.78%
<b>Total Invested Assets</b>	<b>100.00%</b>		<b>\$ 66,462,172</b>	<b>100.00%</b>

# Investment Section

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## Teachers' Retirement System Recaptured Commission Fees Year Ended June 30, 2022

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Fund	Opportunistic	Total
Defined Benefit Plan – Pension	\$ 5,704	5,704
Postemployment Benefit – Alaska Retiree Healthcare Trust	3,150	3,150
Postemployment Benefit – Health Reimbursement Arrangement	176	176
Postemployment Benefit – Retiree Medical Plan	59	59
Postemployment Benefit – Occupational Death and Disability	6	6
Total Recapture Commission Fees	<u>\$ 9,095</u>	<u>9,095</u>

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



ALASKA DIVISION OF  
**Retirement  
and Benefits**



May 12, 2022

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

## **Certification of Actuarial Valuation**

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

This report summarizes the annual actuarial valuation results of the State of Alaska Teachers' Retirement System (TRS) as of June 30, 2021 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, 2021. The actuary did not verify the data submitted, but did perform tests for consistency and reasonableness.

All costs, liabilities, and other factors under TRS were determined in accordance with generally accepted actuarial principles and procedures. An actuarial cost method is used to measure the actuarial liabilities which we believe is reasonable. Buck is solely responsible for the actuarial data and actuarial results presented in this report. This report fully and fairly discloses the actuarial position of TRS as of June 30, 2021.

TRS is funded by Employer, State, and Member Contributions in accordance with the funding policy adopted by the Alaska Retirement Management Board (Board) and as required by Alaska state statutes. The funding objective for TRS is to pay required contributions that remain level as a percent of total TRS compensation. The Board has also established a funding policy objective that the required contributions be sufficient to pay the Normal Costs of active plan members, plan expenses, and amortize the Unfunded Actuarial Accrued Liability (UAAL) as a level percentage of total TRS compensation over a closed 25-year period as required by Alaska state statutes. The closed 25-year period was originally established effective June 30, 2014. Effective June 30, 2018, the Board adopted a 25-year layered UAAL amortization method as described in Section 5.2. The UAAL amortization continues to be on a level percent of pay basis. The compensation used to determine required contributions is the total compensation of all active members in TRS, including those hired after July 1, 2006 who are members of the Defined Contribution Retirement (DCR) Plan. This objective is currently being met and is projected to continue to be met. Absent future gains/losses, actuarially determined contributions are expected to remain level as a percent of pay and the overall funded status (on a combined pension/healthcare basis) is expected to increase to 100% in FY24 (the funded status of the pension trust is expected to increase to 100% in FY33).

The Board and staff of the State of Alaska may use this report for the review of the operations of TRS. Use of this report for any other purpose or by anyone other than the Board or staff of the State of Alaska may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. Because of the risk of misinterpretation of actuarial

# Actuarial Section

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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.

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

In our opinion, the actuarial assumptions used are reasonable, taking into account the experience of the plan and reasonable long-term expectations, and represent our best estimate of the anticipated long-term experience under the plan. The actuary performs an analysis of plan experience periodically and recommends changes if, in the opinion of the actuary, assumption changes are needed to more accurately reflect expected future experience. The last full experience analysis was performed for the period July 1, 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, 2021 to better reflect expected future healthcare experience. A summary of the actuarial assumptions and methods used in this actuarial valuation is shown on pages 96 through 112. We certify that the assumptions and methods described on those pages of this report meet the requirements of all applicable Actuarial Standards of Practice.

Governmental Accounting Standards Board (GASB) Statement No. 67 (GASB 67) was effective for TRS beginning with fiscal year ending June 30, 2014, and Statement No. 74 (GASB 74) was effective for TRS beginning with fiscal year ending June 30, 2017. Separate GASB 67 and GASB 74 reports as of June 30, 2021 have been prepared. We have also prepared the member data tables shown in Section 4 of this report for the Statistical Section of the ACFR, as well as the summary of actuarial assumptions and analysis of financial experience for the Actuarial Section of the ACFR. Please see our separate GASB 67 and GASB 74 reports for other information needed for the ACFR.

The following schedules provide further related information. Buck is responsible for the following schedules:

- Funding Excess / (Unfunded Liability)
- Employer Contribution Rates
- Schedule of Active Member Valuation Data
- Schedule of Benefit Recipients Added to and Removed from Rolls
- Analysis of Financial Experience

## Assessment of Risks

Actuarial Standard of Practice No. 51 (ASOP 51) applies to actuaries performing funding calculations related to a pension plan. ASOP 51 does not apply to actuaries performing services in connection with other post-employment benefits, such as medical benefits. Accordingly, ASOP 51 does not apply to the healthcare portion of TRS. See Section 6 of this report for further details regarding ASOP 51.

## Use of Models

Actuarial Standard of Practice No. 56 (ASOP 56) provides guidance to actuaries when performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. Buck uses third-party software in the performance of annual actuarial valuations and projections. The model is intended to calculate the liabilities associated with the provisions of the plan using data and assumptions as of the measurement date under the funding methods specified in this report. The output from the third-party vendor software is used as input to internally developed models that apply applicable funding methods and policies to the derived liabilities and other inputs, such as plan assets and contributions, to generate many of the exhibits found in this report. Buck has an extensive review process in which the results of the liability calculations are checked using detailed sample life output, changes from year to year are summarized by source, and

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

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

## **COVID-19**

The potential impact of the ongoing COVID-19 pandemic on costs and liabilities was considered and an adjustment was made in setting the medical per capita claims cost assumption. FY20 medical claims were adjusted for a COVID-19 related decline in claims during the last four months (March – June) of FY20. FY21 medical claims were adjusted for a COVID-19 related decline in those claims during the fiscal year. A more detailed explanation on these adjustments is shown in Section 5.2.

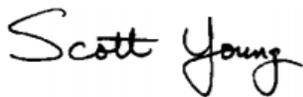
This report was prepared under my supervision and in accordance with all applicable Actuarial Standards of Practice. I am a Fellow of the Society of Actuaries, an Enrolled Actuary, a Fellow of the Conference of Consulting Actuaries, and a Member of the American Academy of Actuaries. I meet the Qualification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

Respectfully submitted,



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

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



Scott Young, FSA, EA, MAAA, FCA  
Director  
Buck

# Actuarial Section

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## State of Alaska Teachers' 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, level percent of pay.

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

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

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

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

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

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

**State of Alaska**  
**Teachers' Retirement System**  
**Defined Benefit Retirement Plan**  
**Description of Actuarial Methods and Valuation Procedures**

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## **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 valuation method recognizes 20% of the gain or loss each year, for a period of five years. All assets are valued at fair value. Assets are accounted for on an accrued basis and are taken directly from financial statements audited by KPMG LLP.

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

This section outlines the detailed methodology used in the internal model developed by Buck to calculate the initial per capita claims cost rates for the TRS postemployment healthcare plan. Note that the methodology reflects the results of our annual experience rate update for the period from July 1, 2020 to June 30, 2021.

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 2019 through June 2021 (FY20 through FY21) 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.

# Actuarial Section

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## State of Alaska Teachers' Retirement System Defined Benefit Retirement Plan

### Description of Actuarial Methods and Valuation Procedures

Aetna provided a snapshot file as of July 1, 2021 of retirees and dependents that included a coverage level indicator. The monthly enrollment data includes double coverage participants. These are participants whereby both the retiree and spouse are retirees from the State and both are reflected with Couple coverage in the enrollment. In this case, such a couple would show up as four members in the monthly enrollment (each would be both a retiree and a spouse). As a result, the snapshot census file was used to adjust the total member counts in the monthly enrollment reports to estimate the number of unique participants enrolled in coverage. Based on the snapshot files from the last two valuations, the total member count in the monthly enrollment reports needs to be reduced by approximately 13% to account for the number of participants with double coverage.

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

#### Methodology

Buck projected historical claim data to FY22 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 FY20 through FY21.
  - 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 FY22).
  - Because the reports provided reflected incurred claims, no additional adjustment was needed to determine incurred claims to be used in the valuation.
  - An offset for costs expected to be reimbursed by Medicare was incorporated beginning at age 65. Alaska retirees who do not have 40 quarters of Medicare-covered compensation do not qualify for Medicare Part A coverage free of charge. This is a relatively small and closed group. Medicare was applied to State employment for all employees hired after March 31, 1986. For the “no-Part A” individuals who are required to enroll in Medicare Part B, the State is the primary payer for hospital bills and other Part A services. Claim experience is not available separately for participants with both Medicare Parts A and B and those with Part B only. For Medicare Part B only participants, a lower average claims cost was applied to retirees covered by both Medicare Part A and B vs. retirees covered only by Medicare Part B based upon manual rate models that estimate the Medicare covered proportion of medical costs. To the extent that no-Part A claims can be isolated and applied strictly to the appropriate closed group, actuarial accrued liability will be more accurate.
  - Based on census data received from Aetna, less than 1% of the current retiree population was identified as having coverage only under Medicare Part B. We assume that 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.

## State of Alaska

### Teachers' 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, 2020, and July 1, 2021, Buck adjusted member counts used for duplicate records where participants have double coverage; i.e. primary coverage as a retiree and secondary coverage as the covered spouse of another retiree. This is to reflect the total cost per distinct individual/member which is then applied to distinct members in the valuation census.
  - Buck understands that pharmacy claims reported do not reflect rebates. Based on actual pharmacy rebate information provided by Optum, rebates were assumed to be 19.5% of prescription drug claims for FY20, 16.2% of pre-Medicare, and 14.3% of Medicare prescription drug claims for FY21.
2. Develop estimated EGWP reimbursements – Segal provided estimated 2022 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. FY19 and FY20 experience were compared to assess the impact of COVID-19 and whether an adjustment to FY20 claims was indicated for use in the June 30, 2020 valuation. A material decrease in medical claims during March 2020 to June 2020 was experienced due to COVID-19. Therefore, an adjustment was made for those months to adjust for the decrease that is not expected to continue in future years. There was an observed spike in prescription drug claims in March 2020; however, the FY20 prescription drug experience appears reasonable to use without adjustment for COVID-19. To adjust for the decrease in medical claims due to COVID-19 during the last 4 months of FY20, the per capita cost during the first 8 months was used as the basis for estimating claims that would have occurred in the absence of COVID-19. FY21 experience was also thoroughly reviewed to assess the impact of COVID-19 and whether an adjustment to FY21 claims was appropriate for use in the June 30, 2021 valuation. FY21 medical per capita claims were noticeably lower than expected, so a 4% load was added to the FY21 medical claims used in the per capita claims cost development to better reflect future expected long-term costs of the plan. Total prescription drug claims experience for FY21 was reasonable and consistent with FY19 and FY20 experience. Therefore, no adjustment was made to FY21 prescription drug claims. Due to group size and demographics, we did not make any additional large claim adjustments. We do blend both Alaska plan-specific and national trend factors as described below. Buck compared data utilized to lag reports and quarterly plan experience presentations provided by the State and Aetna to assess accuracy and reasonableness of data.
  4. Trend all data points to the projection period – project prior years' experience forward to FY22 for retiree benefits on an incurred claim basis. Trend factors derived from historical Alaska-specific experience and national trend factors are shown in the table in item 5 below.
  5. Apply credibility to prior experience – adjust prior year's data by assigning weight to recent periods, as shown at the right of the table below. The Board approved a change in the weighting of experience periods beginning with the June 30, 2017 valuation as outlined below. Note also that for FY20 to FY21 medical and both years of prescription drugs we averaged projected plan costs using Alaska-specific trend factors and national trend factors, assigning 75% weight to Alaska-specific trends and 25% to national trends. For FY21 to FY22 medical we applied 100% weight to national trends because the Alaska-specific trends were impacted by COVID-19:

# Actuarial Section

**State of Alaska**  
**Teachers' Retirement System**  
**Defined Benefit Retirement Plan**  
**Description of Actuarial Methods and Valuation Procedures**

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

Experience Period	Medical	Prescription	Weighting Factors
FY20 to FY21	6.3% Pre-Medicare / 5.2% Medicare	7.6%	50%
FY21 to FY22	8.1% Pre-Medicare / 4.8% Medicare	8.0%	50%

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

6. Starting in 2022, prior authorization will be required for certain specialty medications. There is no change to the medications that are covered by the plan. Segal provided an estimate of the impact of this change to the DB retiree health plan cost for calendar year 2022. The DB base claims costs for pre-Medicare prescription drug, Medicare prescription drug, and EGWP were adjusted to reflect this change. Additionally, starting in 2022, certain preventive benefits for pre-Medicare participants will now be covered by the plan. Segal provided an estimate of the impact of this change to the DB retiree health plan cost for calendar year 2022. The DB base claims cost for pre-Medicare medical was adjusted to reflect this change.
7. Develop separate administration costs – no adjustments were made for internal administrative costs. Third party retiree plan administration fees for FY22 are based upon total fees projected to 2022 by Segal based on actual FY21 fees. The annual per participant per year administrative cost rate for medical and prescription benefits is \$493.

## 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, and was in effect at the time the legislation was enacted, not all provisions of the health reform legislation apply to the State plan. Unlimited lifetime benefits and dependent coverage to age 26 are two of these provisions. We reviewed the impact of including these provisions, but there was no decision made to adopt them, and no requirement to do so.

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

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

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

**State of Alaska**  
**Teachers' Retirement System**  
**Defined Benefit Retirement Plan**  
**Description of Actuarial Methods and Valuation Procedures**

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. Data**

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

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

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

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

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

# Actuarial Section

## State of Alaska Teachers' 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)																									
	Pre-Medicare	Medicare	Pre-Medicare	Medicare																								
<b>A. Fiscal 2020</b>																												
1. Incurred Claims	\$ 229,531,664	\$ 89,497,345	\$ 64,442,660	\$ 188,022,328																								
2. Adjustments for Rx Rebates	-	-	(12,566,319)	(36,664,354)																								
3. Net incurred claims	\$ 229,531,664	\$ 89,497,345	\$ 51,876,341	\$ 151,357,974																								
4. Average Enrollment	19,354	44,965	19,354	44,965																								
5. Claim Cost Rate (3) / (4)	11,860	1,990	2,680	3,366																								
6. Trend to Fiscal 2022	1.149	1.103	1.162	1.162																								
7. Fiscal 2022 Incurred Cost Rate (5) x (6)	\$ 13,630	\$ 2,195	\$ 3,116	\$ 3,912																								
<b>B. Fiscal 2021</b>																												
1. Incurred Claims	\$ 196,566,470	\$ 86,512,435	\$ 60,691,609	\$ 207,822,858																								
2. Adjustments for Rx Rebates and COVID (Medical only)	7,862,659	3,460,497	(9,832,041)	(29,718,669)																								
3. Net incurred claims	\$ 204,429,129	\$ 89,972,932	\$ 50,859,568	\$ 178,104,189																								
4. Average Enrollment	18,106	47,025	18,106	47,025																								
5. Claim Cost Rate (3) / (4)	11,291	1,913	2,809	3,787																								
6. Trend to Fiscal 2022	1.081	1.048	1.080	1.080																								
7. Fiscal 2022 Incurred Cost Rate (5) x (6)	\$ 12,205	\$ 2,005	\$ 3,034	\$ 4,090																								
<b>C. Incurred Cost Rate by Fiscal Year</b>																												
1. Fiscal 2020 A. (7)	13,630	2,195	3,116	3,912																								
2. Fiscal 2021 B. (7)	12,205	2,005	3,034	4,090																								
<b>D. Weighting by Fiscal Year</b>																												
1. Fiscal 2020	50%	50%	50%	50%																								
2. Fiscal 2021	50%	50%	50%	50%																								
<b>E. Fiscal 2022 Incurred Cost Rate</b>																												
1. Rate at Average Age C x D	\$ 12,918	\$ 2,100	\$ 3,075	\$ 4,001																								
2. Average Aging Factor	0.822	1.271	0.832	1.124																								
3. Rate at Age 65 (1) / (2)	\$ 15,708	\$ 1,652	\$ 3,695	\$ 3,560																								
<b>F. Development of Part A&amp;B and Part B Only Cost from Pooled Rate Above</b>																												
1. Part A&B Average Enrollment		46,602																										
2. Part B Only Average Enrollment		423																										
3. Total Medicare Average Enrollment B(4)		47,025																										
4. Cost ratio for those with Part B only to those with Part A&B		3.300																										
5. Factor to determine cost for those with Parts A&B (2) / (3) x (4) + (1) / (3) x 1.00		1.021																										
6. Medicare per capita cost for all participants: E(3)		\$ 1,652																										
7. Cost for those eligible for Parts A&B: (6) / (5)		\$ 1,619																										
8. Cost for those eligible for Part B only: (7) x (4)		\$ 5,341																										
<b>G. Final Adjusted Rates</b>																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="2" style="text-align: center;">Medical</th> <th colspan="2" style="text-align: center;">Prescription Drugs (Rx)</th> </tr> <tr> <th style="text-align: center;">Pre-Medicare</th> <th style="text-align: center;">Medicare</th> <th style="text-align: center;">Pre-Medicare</th> <th style="text-align: center;">Medicare</th> </tr> </thead> <tbody> <tr> <td>1. Rate at Age 65</td> <td style="text-align: right; border: 1px solid black;">\$ 15,708</td> <td style="text-align: right;">\$ 1,619</td> <td style="text-align: right; border: 1px solid black;">\$ 3,695</td> <td style="text-align: right; border: 1px solid black;">\$ 3,560</td> </tr> <tr> <td>2. Adjustment factor for plan changes</td> <td style="text-align: center;">1.39%</td> <td style="text-align: center;">0.00%</td> <td style="text-align: center;">-8.67%</td> <td style="text-align: center;">-2.41%</td> </tr> <tr> <td>3. Adjusted Rate at Age 65 (1) x [1+(2)]</td> <td style="text-align: right; border: 1px solid black;">\$ 15,926</td> <td style="text-align: right;">\$ 1,619</td> <td style="text-align: right; border: 1px solid black;">\$ 3,375</td> <td style="text-align: right; border: 1px solid black;">\$ 3,474</td> </tr> </tbody> </table>						Medical		Prescription Drugs (Rx)		Pre-Medicare	Medicare	Pre-Medicare	Medicare	1. Rate at Age 65	\$ 15,708	\$ 1,619	\$ 3,695	\$ 3,560	2. Adjustment factor for plan changes	1.39%	0.00%	-8.67%	-2.41%	3. Adjusted Rate at Age 65 (1) x [1+(2)]	\$ 15,926	\$ 1,619	\$ 3,375	\$ 3,474
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3. Adjusted Rate at Age 65 (1) x [1+(2)]	\$ 15,926	\$ 1,619	\$ 3,375	\$ 3,474																								

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

**State of Alaska**  
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**Description of Actuarial Methods and Valuation Procedures**

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, 2021 through June 30, 2022**

Age	Medical and Medicare Parts A & B	Medical and Medicare Part B Only	Prescription Drug	Medicare EGWP Subsidy
45	\$ 9,719	\$ 9,719	\$ 2,062	\$ —
50	10,996	10,996	2,449	—
55	12,441	12,441	2,908	—
60	14,076	14,076	3,133	—
65	1,619	5,341	3,474	1,131
70	1,877	6,192	3,836	1,249
75	2,176	7,178	4,235	1,379
80	2,402	7,925	4,130	1,345

**Changes in Methods Since the Prior Valuation**

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

# Actuarial Section

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**State of Alaska**  
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**Summary of Actuarial Assumptions and Changes in Assumptions**

The demographic and economic assumptions used in the June 30, 2021 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 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  
(Pre-commencement)         Mortality rates based upon the 2013-2017 actual experience. RP-2014 white-collar employee table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement. Deaths are assumed to result from occupational causes 15% of the time.
6. Mortality  
(Post-commencement)         Mortality rates based upon the 2013-2017 actual experience. 93% of male and 90% of female rates of RP-2014 white-collar 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).  
Disability rates cease once a member is eligible for retirement.  
  
Post-disability mortality in accordance with the RP-2014 disabled table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement.
9. Retirement                  Retirement rates based upon the 2013-2017 actual experience (see Table 4).  
  
Deferred vested members are assumed to retire at their earliest unreduced retirement date.  
  
The modified cash refund annuity is valued as a three-year certain and life annuity.
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                         85% of male members and 75% of female members are assumed to be married at termination from active service.

**State of Alaska**  
**Teachers' Retirement System**  
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**Summary of Actuarial Assumptions and Changes in Assumptions**

- |  |   |
|--|---|
| 12. Dependent Spouse Medical Coverage Election | Applies to members who do not have double medical coverage. 65% of male members and 60% of female members are assumed to be married and cover a dependent spouse.   |
| 13. Dependent Children                         | Pension: For the participants who are assumed to be married, those between ages 25 and 45 are assumed to have two dependent children.<br><br>Healthcare: Benefits for dependent children have been valued only for members currently covering their dependent children. These benefits are only valued through the dependent children's age 23 (unless the child is disabled).  |
| 14. Contribution Refunds                       | 0% of terminating members with vested benefits are assumed to have their contributions refunded. 100% of those with non-vested benefits are assumed to have their contributions refunded.   |
| 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 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: 15.57% – Healthcare: 12.03% |
| 17. Re-Employment Option                       | All re-employed retirees are assumed to return to work under the Standard Option.   |
| 18. 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.  |
| 19. Alaska Cost-of-Living Adjustments (COLA)   | Of those benefit recipients who are eligible for the Alaska COLA, 60% are assumed to remain in Alaska and receive the COLA.   |
| 20. 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.  |
| 21. Expenses                                   | The investment return assumption is net of investment expenses. The Normal Cost as of June 30, 2021 was increased by the following amounts for administrative expenses (for projections, the percent increase was assumed to remain constant in future years): – Pension: \$3,217,000 – Healthcare: \$1,604,000   |
| 22. Part-Time Status                           | Part-time employees are assumed to earn 0.75 years of credited service per year.  |

# Actuarial Section

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**State of Alaska**  
**Teachers' Retirement System**  
**Defined Benefit Retirement Plan**  
**Summary of Actuarial Assumptions and Changes in Assumptions**

23. Sick Leave 4.5 days of unused sick leave for each year of service are assumed to be available to be credited once the member is retired, terminates or dies.
24. Service Total credited service is provided by the State. This service is assumed to be the only service that should be used to calculate benefits. Additionally, the State provides claimed service (including Bureau of Indian Affairs Service). Claimed service is used for vesting and eligibility purposes as described in Section 5.1.
25. 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.
26. Per Capita Claims Cost Sample claims cost rates adjusted to age 65 for FY22 medical and prescription drugs are shown below. The prescription drug costs reflect the plan change to require prior authorization for certain specialty medications. The pre-Medicare medical cost reflects the coverage of additional preventive benefits.

		<u>Medical</u>	<u>Prescription Drugs</u>
Pre-Medicare	\$	15,926	3,375
Medicare Parts A & B		1,619	3,474
Medicare Part B Only		5,341	3,474
Medicare Part D - EGWP		N/A	1,131

Members are assumed to attain Medicare eligibility at age 65. All costs are for the 2022 fiscal year (July 1, 2021 – June 30, 2022).

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.

27. Third Party Administrator Fees \$493 per person per year; assumed to increase at 4.5% per year.
28. 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.
29. 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, 6.3% is applied to the FY22 pre-Medicare medical claims costs to get the FY23 medical claims costs.

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**Summary of Actuarial Assumptions and Changes in Assumptions**

Fiscal year	Medical pre-65	Medical post-65	Prescription Drugs / EGWP
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.

30. 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+	—	—

31. Retired Member Contributions for Medical Benefits

Currently contributions are required for TRS members who are under age 60 and have less than 25 years of service. Eligible Tier 1 members are exempt from contribution requirements. Annual FY22 contributions based on monthly rates shown below for calendar 2022 are assumed based on the coverage category for current retirees. The retiree only rate shown is used for current active and inactive members and spouses in Tier 2 who are assumed to retire prior to age 60 with less than 25 years of service and who are not disabled. For dependent children, we value 1/3 of the annual retiree contribution to estimate the per child rate based upon the assumed number of children in rates where children are covered.

# Actuarial Section

**State of Alaska**  
**Teachers' Retirement System**  
**Defined Benefit Retirement Plan**  
**Summary of Actuarial Assumptions and Changes in Assumptions**

Coverage category	Calendar 2022		Calendar 2021
	Annual contribution	Monthly contribution	Monthly contribution
Retiree only	\$ 8,448	704	704
Retiree and spouse	16,896	1,408	1,408
Retiree and child(ren)	11,940	995	995
Retiree and family	20,388	1,699	1,699
Composite	12,552	1,046	1,046

32. Trend Rate for Retired Member Medical Contribution      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 FY22 retired member medical contributions to get the FY23 retired member medical contributions.

Trend Assumptions	
Fiscal year:	
2022	—%
2023+	4.0

Graded trend rates for retired member medical contributions are consistent with the rates used for the June 30, 2020 valuation. Actual FY22 retired member medical contributions are reflected in the valuation.

33. 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.
34. Changes in Assumptions Since the Prior Valuation      Healthcare claim costs are updated annually as described in Section 5.2. The amounts included in the Normal Cost for administrative expenses were changed from \$3,003,000 to \$3,217,000 for pension, and from \$1,362,000 to \$1,604,000 for healthcare (based on the most recent two years of actual administrative expenses paid from plan assets).

**State of Alaska**  
**Teachers' Retirement System**  
**Defined Benefit Retirement Plan**  
**Summary of Actuarial Assumptions and Changes in Assumptions**

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**Table 1**  
**Alaska TRS**  
**Salary Scale**

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

# Actuarial Section

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**State of Alaska**  
**Teachers' Retirement System**  
**Defined Benefit Retirement Plan**  
**Summary of Actuarial Assumptions and Changes in Assumptions**

**Table 2**  
**Alaska TRS**  
**Turnover Rates**

Select Rates of Turnover During the First 8 Years of Employment

Years of Service	Male	Female
0	20.40%	17.00%
1	20.40	17.00
2	16.80	14.00
3	14.40	12.00
4	12.00	10.00
5	10.80	9.00
6	9.00	7.50
7	7.20	6.00

**Ultimate Rates of Turnover**  
**After the First 8 Years of Employment**

Age	Male	Female	Age	Male	Female
22	2.62%	3.79%	39	2.57%	3.74%
23	2.62	3.79	40	2.26	2.75
24	2.61	3.79	41	2.26	2.75
25	2.61	3.79	42	2.25	2.74
26	2.61	3.79	43	2.24	2.73
27	2.60	3.79	44	2.23	2.73
28	2.60	4.27	45	2.22	2.72
29	2.60	4.76	46	2.21	2.71
30	2.60	5.24	47	2.20	2.70
31	2.60	5.73	48	2.18	2.69
32	2.59	6.22	49	2.16	2.68
33	2.59	5.72	50	3.43	4.42
34	2.59	5.23	51	3.39	4.39
35	2.59	4.74	52	3.35	4.36
36	2.58	4.25	53	3.30	4.32
37	2.58	3.75	54	3.00	7.56
38	2.58	3.75	55+	2.00	5.00

**State of Alaska**  
**Teachers' Retirement System**  
**Defined Benefit Retirement Plan**  
**Summary of Actuarial Assumptions and Changes in Assumptions**

Tables 3  
 Alaska TRS  
 Disability Rates

Age	Male	Female	Age	Male	Female
<31	0.0337%	0.0612%	50	0.0601%	0.1093%
31	0.0337	0.0613	51	0.0634	0.1152
32	0.0337	0.0613	52	0.0666	0.1211
33	0.0342	0.0622	53	0.0746	0.1356
34	0.0347	0.0631	54	0.0826	0.1501
35	0.0353	0.0641	55	0.0905	0.1645
36	0.0357	0.0650	56	0.0985	0.1790
37	0.0362	0.0659	57	0.1064	0.1935
38	0.0371	0.0674	58	0.1245	0.2263
39	0.0379	0.0689	59	0.1426	0.2592
40	0.0387	0.0703	60	0.1606	0.2920
41	0.0395	0.0718	61	0.1787	0.3249
42	0.0403	0.0733	62	0.1967	0.3577
43	0.0423	0.0770	63	0.2253	0.4096
44	0.0443	0.0806	64	0.2572	0.4677
45	0.0464	0.0843	65	0.2933	0.5332
46	0.0483	0.0879	66	0.3343	0.6097
47	0.0504	0.0916	67	0.3812	0.6930
48	0.0536	0.0975	68	0.4345	0.7900
49	0.0569	0.1034	69	0.4953	0.9006
			70+	0.5647	1.0267

# Actuarial Section

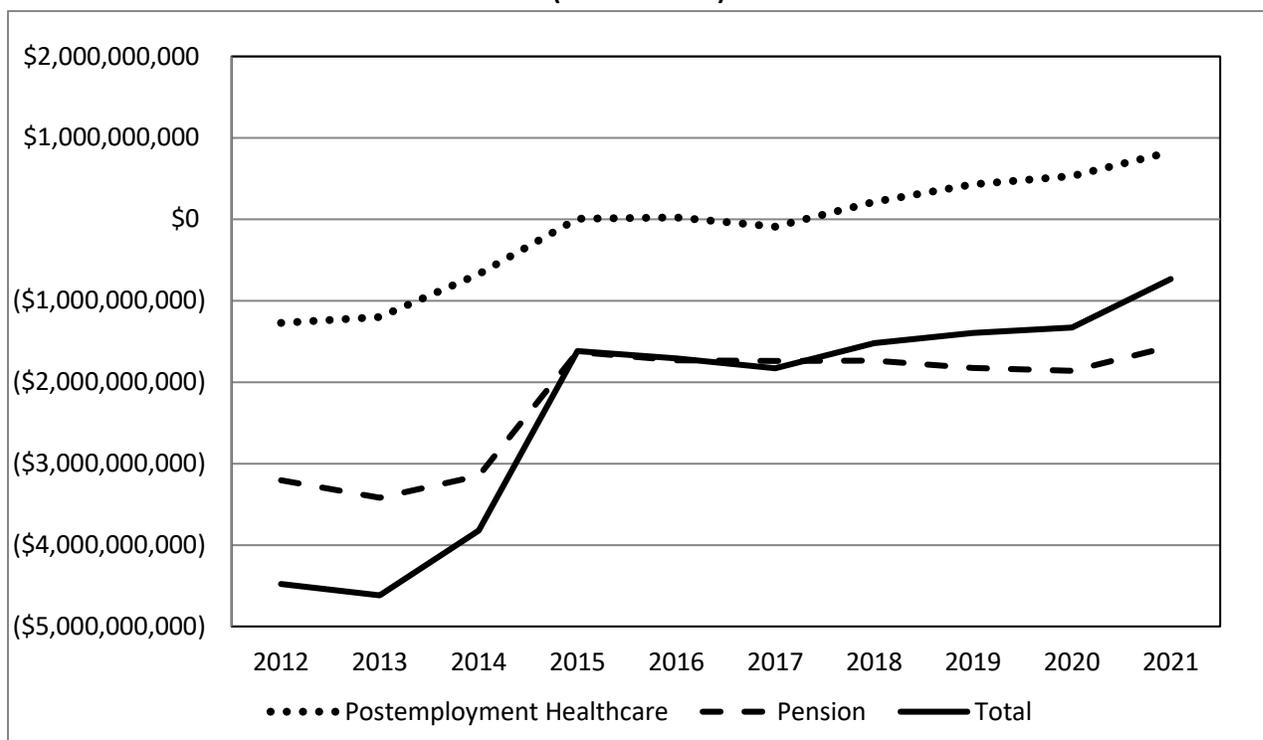
**State of Alaska**  
**Teachers' Retirement System**  
**Defined Benefit Retirement Plan**  
**Summary of Actuarial Assumptions and Changes in Assumptions**

**Table 4**  
**Alaska TRS Retirement Table**

Age at Retirement	Retirement Rates			
	Reduced		Unreduced	
	Male	Female	Male	Female
< 45	N/A	N/A	3.0%	3.0%
45	N/A	N/A	5.0	5.0
46	N/A	N/A	5.0	8.0
47	N/A	N/A	5.0	8.0
48	N/A	N/A	5.0	8.0
49	N/A	N/A	5.0	8.0
50	10.0%	10.0%	5.0	14.0
51	10.0	10.0	8.0	13.0
52	10.0	10.0	15.0	13.0
53	10.0	12.0	15.0	14.0
54	10.0	12.0	15.0	15.0
55	15.0	8.0	20.0	17.0
56	10.0	8.0	17.0	17.0
57	10.0	8.0	15.0	17.0
58	10.0	8.0	20.0	17.0
59	10.0	8.0	20.0	23.0
60	N/A	N/A	25.0	23.0
61	N/A	N/A	18.0	23.0
62	N/A	N/A	18.0	21.0
63	N/A	N/A	18.0	21.0
64	N/A	N/A	18.0	26.0
65	N/A	N/A	30.0	21.0
66	N/A	N/A	25.0	21.0
67	N/A	N/A	25.0	21.0
68	N/A	N/A	25.0	26.0
69	N/A	N/A	35.0	26.0
70	N/A	N/A	30.0	26.0
71	N/A	N/A	30.0	37.0
72	N/A	N/A	30.0	37.0
73	N/A	N/A	30.0	37.0
74	N/A	N/A	30.0	37.0
75-79	N/A	N/A	50.0	50.0
80+	N/A	N/A	100.0	100.0

<b>Teachers' Retirement System                      Defined Benefit Retirement Plan                      Funding Excess/(Unfunded Liability)                      (In thousands)</b>				
Actuarial Valuation Year Ended June 30	Postemployment Healthcare	Pension	Total Funding Excess/ (Unfunded Liability)	Funded Ratio
2012	(1,272,507)	(3,204,783)	(4,477,290)	52.1
2013	(1,198,791)	(3,419,240)	(4,618,031)	51.9
2014	(671,535)	(3,150,223)	(3,821,758)	61.2
2015	8,879	(1,629,073)	(1,620,194)	83.3
2016	23,868	(1,731,101)	(1,707,233)	82.8
2017	(90,291)	(1,740,690)	(1,830,981)	82.0
2018	214,559	(1,734,690)	(1,520,131)	84.7
2019	428,918	(1,824,089)	(1,395,171)	85.9
2020	531,608	(1,859,972)	(1,328,364)	86.6
2021	828,134	(1,561,518)	(733,384)	92.6

**10-YEAR TREND OF UNFUNDED LIABILITY**  
(In thousands)



# Actuarial Section

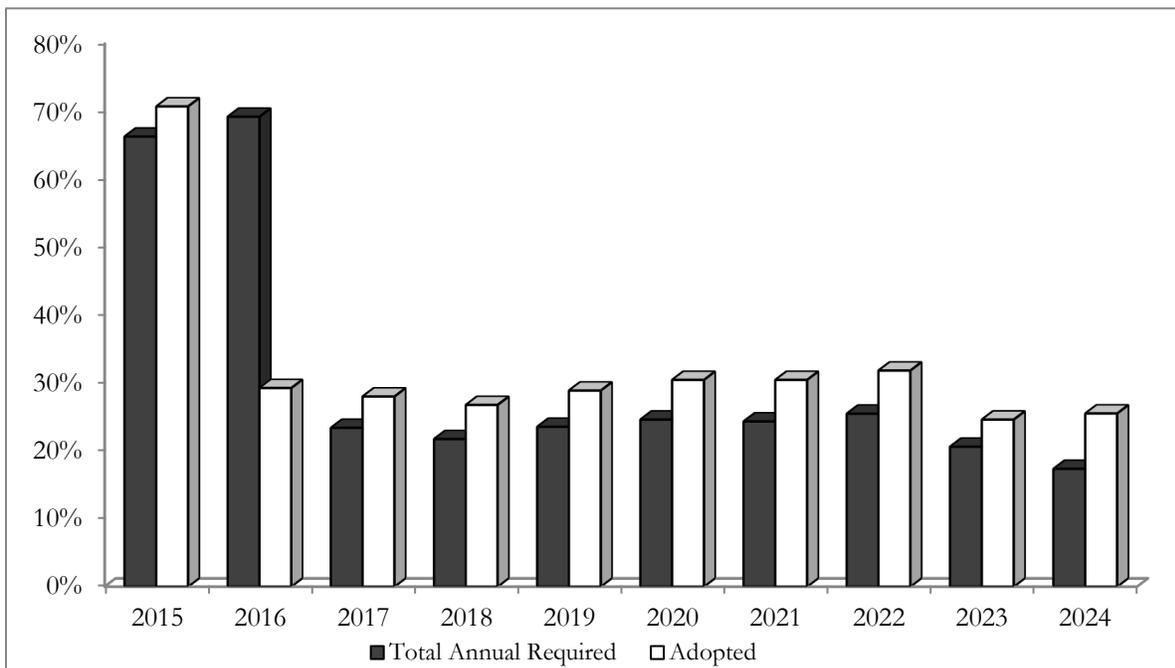
Teachers' Retirement System Defined Benefit Retirement Plan Employer Contribution Rates					
Year Ended June 30	Actuarially Determined				Adopted
	Actuarial Valuation Year Ended June 30	Normal Cost <sup>1</sup>	Past Service	Total Annual Required	
2015	2012	6.40	59.91	66.31	70.75
2016	2013	5.70	63.54	69.24	29.27
2017	2014	4.63	18.77	23.40	28.02
2018	2015	3.99	17.76	21.75	26.78
2019	2016	5.29	18.27	23.56	28.90
2020	2017	5.14	19.48	24.62	30.47
2021	2018	5.93	18.41	24.34	30.47
2022	2019	5.38	19.08	24.46	31.85
2023	2020	4.96	15.66	20.62	24.62
2024	2021	4.46	12.90	17.36	25.52

<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 6.2.

Actuarial valuations are used to set contribution rates in future years.

## 10-YEAR COMPARISON OF AVERAGE EMPLOYER CONTRIBUTION RATES



# Actuarial Section

Teachers' Retirement System Defined Benefit Retirement Plan Schedule of Active Member Data					
Valuation Date	Number	Annual Earnings (In thousands)	Annual Average Earnings	Percent Increase in Average Earnings	Number of Participating Employers
June 30, 2021	3,396	\$319,711	\$94,143	4.0%	56
June 30, 2020	3,789	343,146	90,564	1.9	56
June 30, 2019	4,044	359,426	88,879	1.7	56
June 30, 2018	4,418	386,016	87,374	1.2	56
June 30, 2017	4,772	411,951	86,327	1.6	57
June 30, 2016	5,123	435,222	84,954	2.4	57
June 30, 2015	5,502	456,636	82,995	2.4	58
June 30, 2014	5,861	474,873	81,023	2.1	58
June 30, 2013	6,352	504,260	79,386	2.6	58
June 30, 2012	6,845	529,468	77,351	3.6	58

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

Teachers' Retirement System Defined Benefit Retirement Plan Schedule of Pension Benefit Recipients Added to and Removed from Rolls								
Year Ended	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase/ (Decrease) in Annual Pension Allowances	Average Annual Pension Allowances
	No.*	Annual Pension Allowances*	No.*	Annual Pension Allowances*	No.	Annual Pension Allowances		
June 30, 2021	593	\$22,728,504	310	\$11,391,465	13,972	\$511,082,479	2.3%	\$36,579
June 30, 2020	460	17,641,920	262	5,527,983	13,689	499,745,440	2.5	36,507
June 30, 2018	555	21,924,986	261	871,684	13,277	470,498,291	3.6	35,437
June 30, 2017	487	17,151,684	230	7,736,025	12,983	455,499,434	3.3	35,084
June 30, 2016	530	18,364,581	222	6,144,109	12,726	446,083,775	2.1	35,053
June 30, 2015	888	34,120,658	220	3,531,501	12,418	433,863,303	2.8	34,938
June 30, 2014	226	5,964,256	181	3,531,501	11,750	403,274,146	7.6	34,321
June 30, 2013	576	5,964,256	172	1,652,575	11,705	396,159,703	1.8	33,845
June 30, 2012	473	17,104,564	188	(617,561)	11,301	378,424,736	4.7	33,486
June 30, 2011	564	19,546,369	146	1,464,766	11,016	360,702,611	4.9	32,744

\*Numbers are estimated and include other internal transfers.

# Actuarial Section

<b>Teachers' Retirement System Defined Benefit Retirement Plan Analysis of Financial Experience</b>					
<b>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</b>					
<b>Type of (Gain) or Loss</b>	<b>Change in Employer/State Contribution Rate During Fiscal Year</b>				
	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
Health Claims <sup>(1)</sup>	(0.11)%	(0.95)%	(2.51)%	(1.58)%	(2.32)%
Salary Experience	0.25	(0.06)	(0.06)	(0.39)	(0.34)
Investment Experience	(1.95)	1.21	1.38	1.36	1.68
Demographic Experience and Miscellaneous	(0.91)	0.21	2.35	1.86	(1.18)
Actual vs Expected Contributions	(0.03)	(0.36)	(0.17)	0.02	(0.18)
(Gain) or Loss During Year from Experience	(2.75)	0.05	0.99	1.27	(2.34)
Assumption/Method Changes and EGWP	—	—	—	(0.08)	3.41
Plan Changes	(0.02)	—	—	—	—
Composite (Gain) or Loss During Year	(2.77)	0.05	0.99	1.19	1.07
Beginning Total Employer/State Contribution Rate	25.03	24.98	23.99	22.80	21.73
Ending Valuation Year Total Employer/State Contribution Rate	<u>22.26%</u>	<u>25.03%</u>	<u>24.98%</u>	<u>23.99%</u>	<u>22.80%</u>
Fiscal Year Employer/State Contribution Rates	18.49%	17.90%	25.49%	24.34%	24.62%
Fiscal Year for Which Rate Applies	FY24	FY23	FY22	FY21	FY20

# Actuarial Section

Teachers' 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						
Type of (Gain) or Loss	Change in Employer/State Contribution Rate During Fiscal Year					
	Pension			Healthcare		
	2021	2020	2019	2021	2020	2019
Health Claims	N/A	N/A	N/A	(0.11)%	(0.95)%	(2.51)%
Salary Experience	0.25%	(0.06)%	(0.06)%	N/A	N/A	N/A
Investment Experience	(1.95)	0.83	0.93	—	0.38	0.45
Demographic Experience and Miscellaneous	(0.68)	(0.28)	0.75	(0.23)	0.49	1.60
Actual vs Expected Contributions	(0.03)	(0.17)	(0.15)	—	(0.19)	(0.02)
(Gain) or Loss During Year From Experience	(2.41)	0.32	1.47	(0.34)	(0.27)	(0.48)
Assumption and Method Changes	—	—	—	—	—	—
System Benefit Changes	—	—	—	(0.02)	—	—
Composite (Gain) or Loss During Year	(2.41)	0.32	1.47	(0.36)	(0.27)	(0.48)
Beginning Total Employer/State Contribution Rate	21.73	21.41	19.94	3.30	3.57	4.05
Ending Valuation Year Total Employer/State Contribution Rate	<u>19.32%</u>	<u>21.73%</u>	<u>21.41%</u>	<u>2.94%</u>	<u>3.30%</u>	<u>3.57%</u>
Fiscal Year Employer/State Contribution Rates	18.49%	17.90%	22.51%	0.00%	0.00%	2.98%
Fiscal Year for Which Rate Applies	FY24	FY23	FY22	FY24	FY23	FY22

# Actuarial Section

<b>Teachers' Retirement System                      Defined Benefit Pension Plan                      Schedule of Funding Progress                      (In thousands)</b>						
Valuation Date June 30*	Total Actuarial Accrued Liability	Valuation Assets	Assets as a Percent of Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Annual Active Member Payroll	UAAL as a Percent of Annual Active Member Payroll
2021	\$ 7,471,887	\$ 5,910,369	79.1%	\$ 1,561,518	\$ 357,288	437.0%
2020	7,447,036	5,587,064	75.0%	1,859,972	370,449	502.1%
2019	7,388,020	5,563,931	75.3%	1,824,089	392,849	464.3%
2018	7,276,290	5,541,600	76.2%	1,734,690	416,051	416.9%
2017	7,217,525	5,476,835	75.9%	1,740,690	442,029	393.8%
2016	7,159,788	5,428,687	75.8%	1,731,101	463,604	373.4%
2015	7,051,724	5,422,651	76.9%	1,629,073	491,223	331.6%
2014	6,921,362	3,771,139	54.5%	3,150,223	514,035	612.8%
2013	6,589,553	3,170,313	48.1%	3,419,240	541,981	630.9%
2012	6,399,777	3,194,994	49.9%	3,204,783	561,906	570.3%

<b>Teachers' Retirement System                      Alaska Retiree Healthcare Trust Plan                      Schedule of Funding Progress                      (In thousands)</b>						
Valuation Date June 30*	Total Actuarial Accrued Liability	Valuation Assets	Assets as a Percent of Actuarial Accrued Liability	Unfunded / (Excess funded) Actuarial Accrued Liability (UAAL)	Annual Active Member Payroll	UAAL as a Percent of Annual Active Member Payroll
2021	\$ 2,439,603	\$ 3,267,737	133.9%	\$ (828,134)	\$ 357,288	(231.8)%
2020	2,489,675	3,021,283	121.4%	(531,608)	370,449	(143.5)%
2019	2,518,644	2,947,562	117.0%	(428,918)	392,849	(109.2)%
2018	2,684,150	2,898,709	108.0%	(214,559)	416,051	(51.6)%
2017	2,927,093	2,836,802	96.9%	90,291	442,029	20.4%
2016	2,747,836	2,771,704	100.9%	(23,868)	463,604	(5.1)%
2015	2,677,393	2,686,272	100.3%	(8,879)	491,223	(1.8)%
2014	2,919,670	2,248,135	77.0%	671,535	514,035	130.6%
2013	3,002,554	1,803,763	60.1%	1,198,791	541,981	221.2%
2012	2,946,667	1,674,160	56.8%	1,272,507	561,906	226.5%

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**1. Effective Date**

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

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

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

**3. Employers Included**

Currently, there are 56 employers participating in TRS, including the State of Alaska, 52 school districts, and three other eligible organizations.

**4. Membership**

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

- certificated full-time and part-time elementary and secondary teachers, certificated school nurses, and certificated employees in positions requiring teaching certificates;
- positions requiring a teaching certificate as a condition of employment in the Department of Education and Early Development and the Department of Labor and Workforce Development;
- University of Alaska full-time and part-time teachers, and full-time administrative employees in positions requiring academic standing if approved by the TRS administrator;
- certain full-time or part-time teachers of Alaska Native language or culture who have elected to be covered under TRS;
- members on approved sabbatical leave under AS 14.20.310;
- certain State legislators who have elected to be covered under TRS; and

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- a teacher who has filed for worker's compensation benefits due to an on-the-job assault and who, as a result of the physical injury, is placed on leave without pay.

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

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

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

## **5. Credited Service**

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

Members may claim other types of service, including:

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

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

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

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

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## 6. Employer Contributions

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

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

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

Employer rates cannot be less than the normal cost rate.

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

## 7. Additional State Contributions

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

## 8. Member Contributions

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

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

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

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

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

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**Reinstatement of Contributions:** Refunded accounts and the corresponding TRS service may be reinstated upon reemployment in TRS 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, 1990 (Tier 1), and age 60 or early retirement at age 55 if they were hired on or after July 1, 1990 (Tier 2). Additionally, they must have at least:
  - i. eight years of paid-up membership service;
  - ii. 15 years of paid-up creditable service, the last five years of which are membership service, and they were first hired under TRS before July 1, 1975;
  - iii. five years of paid-up membership service and three years of paid-up Alaska Bureau of Indian Affairs service;
  - iv. 12 years of combined part-time and full-time paid-up membership service;
  - v. two years of paid-up membership service if they are vested in the Public Employees' Retirement System (PERS); or
  - vi. one year of paid-up membership service if they are retired from the PERS.
- b. Members may retire at any age when they have:
  - i. 25 years of paid-up creditable service, the last five years of which are membership service;
  - ii. 20 years of paid-up membership service;
  - iii. 20 years of combined paid-up membership and Alaska Bureau of Indian Affairs service, the last five years of which are membership service; or
  - iv. 20 years of combined paid-up part-time and full-time membership service.

## 10. Benefit Type

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

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

## **11. Benefit Calculation**

Retirement benefits are calculated by multiplying the average base salary (ABS) times the total TRS service times the percentage multiplier. The ABS is determined by averaging the salaries earned during the three highest school years. Members must earn at least 115 days of credit in a school year to include it in the ABS calculation. TRS pays a minimum benefit of \$25.00 per month for each year of service when the calculated benefit is less.

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

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

## **12. Indebtedness**

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

## **13. Reemployment of Retired Members**

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

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

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

- a. forfeit the three years of incentive credits that they received;
- b. owe TRS 110% of the benefits that they received under the RIP, which may include costs for health insurance, excluding amounts that they paid to participate; and
- c. be charged 7% interest from the date that they are reemployed until their indebtedness is paid in full or they retire again. If the indebtedness is not completely paid, future benefits will be actuarially reduced for life.

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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.

#### 14. Postemployment Healthcare Benefits

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

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

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

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

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

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

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

Plan Feature	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 is through a Medicare Part D EGWP arrangement.

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## 15. Disability Benefits

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

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

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

## 16. 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 supplemental contributions provision or occupational and non-occupational death provisions, the designated beneficiary receives the lump sum benefit described below.

**Occupational Death:** When an active member dies from occupational causes, a monthly survivor's pension may be paid to the spouse, unless benefits are payable under the supplemental contributions provision (see below). The pension equals 40% of the member's base salary 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 average base salary on the date of death and service, including service accumulated from the date of the member's death to the normal retirement date.

**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, unless benefits are payable under the supplemental contributions provision (see below). The monthly benefit is calculated on the member's average base salary and TRS service accrued at the time of death.

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

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

# Actuarial Section

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- a. **Survivor's Allowance:** If the member is survived by dependent children, the surviving spouse and dependent children are entitled to a survivor's allowance. The allowance for the spouse is equal to 35% of the member's base salary at the time of death or disability, plus 10% for each dependent child up to a maximum of 40%. The allowance terminates and a spouse's pension becomes payable when there is no longer an eligible dependent child.
- b. **Spouse's Pension:** The spouse's pension is equal to 50% of the retirement benefit that the deceased member was receiving or the unreduced retirement benefit that the deceased member would have received if retired at the time of death. The spouse's pension begins on the first of the month after the member's death or termination of the survivor's allowance.

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

## **17. Postretirement Pension Adjustments**

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

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

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

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

## **18. Alaska Cost of Living Allowance**

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

- a. members who were first hired under TRS before July 1, 1990 (Tier 1) and their survivors;

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

**19. Changes in Benefit Provisions Valued Since the Prior Valuation**

Starting in 2022, prior authorization will be required for certain specialty medications for all participants, and certain preventive benefits for pre-Medicare participants will now be covered by the plan. There were no other changes in benefit provisions since the prior valuation.

# Actuarial Section

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May 12, 2022

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

## **Certification of Actuarial Valuation**

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

This report summarizes the annual actuarial valuation results of the State of Alaska Teachers' Retirement System Defined Contribution Retirement (TRS DCR) Plan as of June 30, 2021 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, 2021. The actuary did not verify the data submitted, but did perform tests for consistency and reasonableness.

All costs, liabilities and other factors under TRS DCR were determined in accordance with generally accepted actuarial principles and procedures. An actuarial cost method is used to measure the actuarial liabilities which we believe is reasonable. Buck is solely responsible for the actuarial data and actuarial results presented in this report. This report fully and fairly discloses the actuarial position of TRS DCR as of June 30, 2021.

TRS DCR is funded by Employer Contributions in accordance with the funding policy adopted by the Alaska Retirement Management Board (Board). The funding objective for TRS DCR is to pay required contributions that remain level as a percent of TRS DCR compensation. The Board has also established a funding policy objective that the required contributions be sufficient to pay the Normal Costs of active plan members, plan expenses, and amortize the Unfunded Actuarial Accrued Liability as a level percent of TRS DCR compensation over closed layered 25-year periods. This objective is currently being met and is projected to continue to be met as required by the Alaska State statutes. Absent future gains/losses, actuarially determined contributions are expected to remain level as a percent of pay and the 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 TRS DCR. Use of this report for any other purpose or by anyone other than the Board or staff of the State of Alaska may not be appropriate and may result in mistaken conclusions 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.

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

In our opinion, the actuarial assumptions used are reasonable, taking into account the experience of the plan and reasonable long-term expectations, and represent our best estimate of the anticipated long-term experience under the plan. The actuary performs an analysis of plan experience periodically and recommends changes if, in the opinion of the actuary, assumption changes are needed to more accurately reflect expected future experience. The last full experience analysis was performed for the period July 1, 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, 2021 to better reflect expected future healthcare experience. A summary of the actuarial assumptions and methods used in this actuarial valuation is shown on pages 131 through 141. We certify that the assumptions and methods described on those pages of this report meet the requirements of all applicable Actuarial Standards of Practice.

Governmental Accounting Standards Board (GASB) Statement No. 74 (GASB 74) was effective for TRS 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.

The following schedules provide further related information. Buck is responsible for the following schedules:

- Occupational Death and Disability and Retiree Medical Funding Excess / (Unfunded Liability)
- Occupational Death and Disability and Retiree Medical Benefits Employer Contribution Rates
- Occupational Death and Disability and Retiree Medical Benefits Schedule of Active Member Valuation Data

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

## **Use of Models**

Actuarial Standard of Practice No. 56 (ASOP 56) provides guidance to actuaries when performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. Buck uses third-party software in the performance of annual actuarial valuations and projections. The model is intended to calculate the liabilities associated with the provisions of the plan using data and assumptions as of the measurement date under the funding methods specified in this report. The output from the third-

# Actuarial Section

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party vendor software is used as input to an internally developed model that applies applicable funding methods and policies to the derived liabilities and other inputs, such as plan assets and contributions, to generate many of the exhibits found in this report. Buck has an extensive review process in which the results of the liability calculations are checked using detailed sample life output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other funding outputs and the internal model are similarly reviewed in detail and at a higher level for accuracy, reasonability, and consistency with prior results. Buck also reviews the third-party model when significant changes are made to the software. This review is performed by experts within Buck who are familiar with applicable funding methods, as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed. Significant changes to the internal model that are applicable to multiple clients are generally developed, checked, and reviewed by multiple experts within Buck who are familiar with the details of the required changes.

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

## COVID-19

The potential impact of the ongoing COVID-19 pandemic on costs and liabilities was considered and an adjustment was made in setting the medical per capita claims cost assumption. FY20 medical claims were adjusted for a COVID-19 related decline in claims during the last four months (March – June) of FY20. FY21 medical claims were adjusted for a COVID-19 related decline in those claims during the fiscal year. A more detailed explanation on these adjustments is shown in Sections 4.2 and 4.3 and in the valuation report for the DB plan.

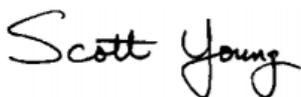
This report was prepared under my supervision and in accordance with all applicable Actuarial Standards of Practice. I am a Fellow of the Society of Actuaries, an Enrolled Actuary, a Fellow of the Conference of Consulting Actuaries, and a Member of the American Academy of Actuaries. I meet the Qualification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

Respectfully submitted,



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

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



Scott Young, FSA, EA, MAAA, FCA  
Director  
Buck

**State of Alaska**  
**Teachers' 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, level percent of pay. Each year's difference between actual and expected unfunded actuarial accrued liability is amortized over 25 years as a level percentage of expected payroll.

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

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

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

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

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

# Actuarial Section

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**State of Alaska**  
**Teachers' Retirement System**  
**Defined Contribution Retirement Plan**  
**Description of Actuarial Methods and Valuation Procedures**

**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 Teachers' Retirement System Defined Benefit Plan Actuarial Valuation Report as of June 30, 2021.

Starting in 2022, prior authorization will be required for certain specialty medications. There is no change to the medications that are covered by the plan. Segal provided an estimate of the impact of this change to the DB retiree health plan cost for calendar year 2022. The DB base claims costs for pre-Medicare prescription drug, Medicare prescription drug, and EGWP were adjusted to reflect this change. Those base claims costs were used for the DCR valuation with further adjustments as noted below. Additionally, starting in 2022, certain common preventive benefits will be covered for the DB plan. However, preventive benefits are already covered under the DCR plan so no adjustment is needed for that change. Therefore, the base claims cost for the DB plan prior to reflecting the addition of preventive benefits was used for the DCR valuation with further adjustments as noted below.

Due to the lack of experience for the DCR retiree medical plan, base claims costs are based on those described in the actuarial valuation as of June 30, 2021 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 FY22 claims costs were reduced 3.1% for medical claims, and 8.9% for prescription drugs. In addition, to account for the difference in Medicare coordination, projected FY22 medical claims costs for Medicare eligible retirees were further reduced 29.5%.

To adjust for the decrease in medical claims due to COVID-19 during the last 4 months of FY20, the per capita cost during the first 8 months was used as the basis for estimating claims that would have occurred in the absence of COVID-19. FY21 experience was also thoroughly reviewed to assess the impact of COVID-19 and whether an adjustment to FY21 claims was appropriate for use in the June 30, 2021 valuation. FY21 medical per capita claims were noticeably lower than expected, so a 4% load was added to the FY21 medical claims used in the per capita claims cost development to better reflect future expected long-term costs of the plan.

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

The State transitioned to an Employer Group Waiver Program (EGWP) for DCR participants effective January 1, 2019. The estimated 2022 reimbursements under EGWP were provided by Segal Consulting (who worked with the EGWP administrator, Optum, to develop those estimates).

**State of Alaska**  
**Teachers' Retirement System**  
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**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 due to these provisions.

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

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

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

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.

# Actuarial Section

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**State of Alaska**  
**Teachers' Retirement System**  
**Defined Contribution Retirement Plan**  
**Summary of Actuarial Assumptions and Changes in Assumptions**

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The demographic and economic assumptions used in the June 30, 2021 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 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 (Pre-commencement) Mortality rates based upon the 2013-2017 actual experience.  
RP-2014 white-collar employee table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement.  
Deaths are assumed to result from occupational causes 15% of the time.
6. Mortality (Post-commencement) Mortality rates based upon the 2013-2017 actual experience.  
93% of male and 90% of female rates of RP-2014 white-collar 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). For retiree medical benefits, the disability rates cease once a member is eligible for retirement. However, the disability rates continue after retirement eligibility for occupational death & disability benefits.  
Disabilities are assumed to be occupational 15% of the time.  
Post-disability mortality in accordance with the RP-2014 disabled table, benefit-weighted, rolled back to 2006, and projected with MP-2017 generational improvement.
9. Retirement 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 Occupational Death & Disability 85% of male members and 75% of female members are assumed to be married at termination from active service.

**State of Alaska**  
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**Summary of Actuarial Assumptions and Changes in Assumptions**

12. Dependent Spouse Medical Coverage Election Applies to members who do not have double medical coverage. 65% of male members and 60% of female members are assumed to be married and cover a dependent spouse.
13. Part-Time Status Part-time employees are assumed to earn 0.75 years of service per year.
14. Per Capita Claims Cost Sample claims cost rates (before base claims cost adjustments described below) adjusted to age 65 for FY22 medical and prescription drugs are shown below. The prescription drug costs reflect the plan change to require prior authorization for certain specialty medications.

		Medical		Prescription drugs
Pre-Medicare	\$	15,708	\$	3,375
Medicare Parts A & B		1,619		3,474
Medicare Part D - EGWP		N/A		1,131

Members are assumed to attain Medicare eligibility at age 65. All costs are for the 2022 fiscal year (July 1, 2021 – June 30, 2022).

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.

15. Third Party Administrator Fees \$493 per person per year; assumed to increase at 4.5% per year.
16. 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:
- 0.969 for the pre-Medicare plan.
  - 0.674 for both the Medicare medical plan and Medicare coordination method (3.1% reduction for the medical plan and 29.5% reduction for the coordination method).
  - 0.911 for the prescription drug plan.
17. 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 amounts included in the June 30, 2021 Normal Cost, which are based on the average of actual administrative expenses during the last

# Actuarial Section

**State of Alaska**  
**Teachers' Retirement System**  
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**Summary of Actuarial Assumptions and Changes in Assumptions**

two fiscal years, are \$5,000 for occupational death & disability and \$22,000 for retiree medical.

18. 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, 6.3% is applied to the FY22 pre-Medicare medical claims costs to get the FY23 medical claims costs.

Fiscal year	Medical pre-65	Medical post-65	Prescription Drugs / EGWP
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.

19. 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+	—	—

**State of Alaska**  
**Teachers' Retirement System**  
**Defined Contribution Retirement Plan**  
**Summary of Actuarial Assumptions and Changes in Assumptions**

20. Retiree Medical Participation	<u>Decrement Due to Disability</u>		<u>Decrement Due to Retirement</u>	
	<u>Age</u>	<u>Percent Participation</u>	<u>Age</u>	<u>Percent Participation *</u>
	< 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+	<u>Years of Service</u>
				< 15
				15-19
				20-24
				25-29
				30+
				75.0%
				80.0
				85.0
				90.0
				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.

21. 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.
22. Changes in Assumptions Since the Prior Valuation      The amounts included in the Normal Cost for administrative expenses were changed from \$0 to \$5,000 for occupational death & disability, and from \$8,000 to \$22,000 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.

# Actuarial Section

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**State of Alaska**  
**Teachers' Retirement System**  
**Defined Contribution Retirement Plan**  
**Summary of Actuarial Assumptions and Changes in Assumptions**

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**Table 1**  
**Alaska TRS DCR Plan**  
**Salary Scale**

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

**State of Alaska**  
**Teachers' Retirement System**  
**Defined Contribution Retirement Plan**  
**Summary of Actuarial Assumptions and Changes in Assumptions**

**Table 2**  
**Alaska TRS DCR Plan**  
**Turnover Rates**

**Select Rates during the First 6 Years of Employment**

Years of Service	Male	Female
0	20.70%	21.80%
1	19.55	18.70
2	16.10	15.40
3	13.80	13.20
4	11.50	11.00
5	7.32	8.05

**Ultimate Rates of Turnover**  
**After the First 6 Years of Employment**

Age	Male	Female	Age	Male	Female
< 26	9.41%	8.31%	45	9.05%	8.09%
26	9.41	8.32	46	8.99	8.07
27	9.40	8.33	47	8.94	8.04
28	9.39	8.32	48	8.86	8.00
29	9.39	8.32	49	8.78	7.95
30	9.38	8.31	50	8.70	7.91
31	9.37	8.31	51	8.62	7.86
32	9.36	8.30	52	8.54	7.82
33	9.35	8.29	53	8.37	7.73
34	9.35	8.28	54	8.20	7.64
35	9.34	8.27	55	8.03	7.55
36	9.34	8.26	56	7.86	7.46
37	9.33	8.25	57	7.69	7.36
38	9.31	8.24	58	7.76	7.50
39	9.29	8.22	59	7.82	7.64
40	9.26	8.21	60	7.89	7.78
41	9.24	8.19	61	7.95	7.92
42	9.22	8.17	62	8.02	8.05
43	9.16	8.15	63	8.59	8.29
44	9.11	8.12	64	9.17	8.52
			65+	9.75	8.75

# Actuarial Section

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**State of Alaska**  
**Teachers' Retirement System**  
**Defined Contribution Retirement Plan**  
**Summary of Actuarial Assumptions and Changes in Assumptions**

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Tables 3  
Alaska TRS DCR  
Disability Rates

Age	Male	Female	Age	Male	Female
<31	0.0337%	0.0612%	50	0.0601%	0.1093%
31	0.0337	0.0613	51	0.0634	0.1152
32	0.0337	0.0613	52	0.0666	0.1211
33	0.0342	0.0622	53	0.0746	0.1356
34	0.0347	0.0631	54	0.0826	0.1501
35	0.0353	0.0641	55	0.0905	0.1645
36	0.0357	0.0650	56	0.0985	0.1790
37	0.0362	0.0659	57	0.1064	0.1935
38	0.0371	0.0674	58	0.1245	0.2263
39	0.0379	0.0689	59	0.1426	0.2592
40	0.0387	0.0703	60	0.1606	0.2920
41	0.0395	0.0718	61	0.1787	0.3249
42	0.0403	0.0733	62	0.1967	0.3577
43	0.0423	0.0770	63	0.2253	0.4096
44	0.0443	0.0806	64	0.2572	0.4677
45	0.0464	0.0843	65	0.2933	0.5332
46	0.0483	0.0879	66	0.3343	0.6097
47	0.0504	0.0916	67	0.3812	0.6930
48	0.0536	0.0975	68	0.4345	0.7900
49	0.0569	0.1034	69	0.4953	0.9006
			70+	0.5647	1.0267

**State of Alaska**  
**Teachers' Retirement System**  
**Defined Contribution Retirement Plan**  
**Summary of Actuarial Assumptions and Changes in Assumptions**

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**Table 4**  
**Alaska TRS DCR Plan**  
**Retirement Rates**

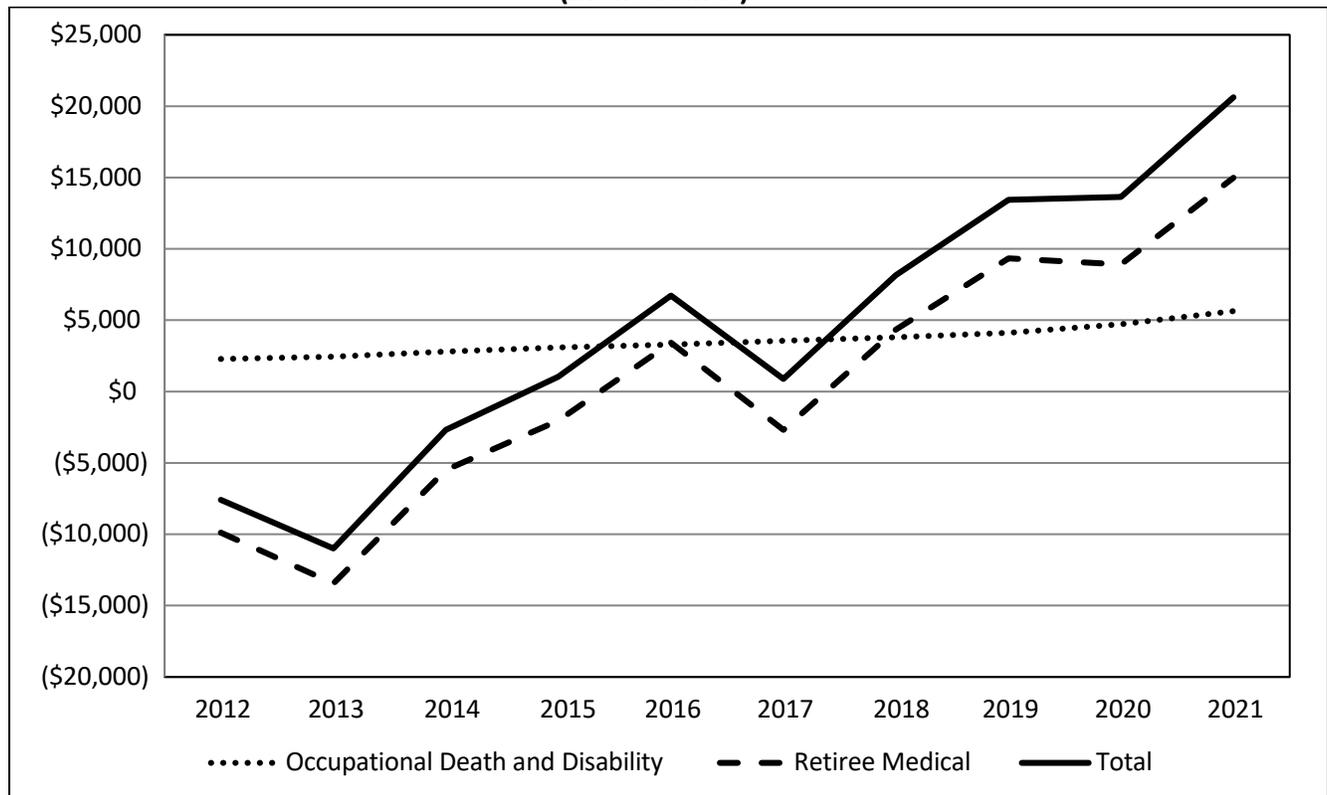
<b>Age</b>	<b>Rate</b>
< 55	2.0%
55	3.0
56	3.0
57	3.0
58	3.0
59	3.0
60	5.0
61	5.0
62	10.0
63	5.0
64	5.0
65	25.0
66	25.0
67	25.0
68	20.0
69	20.0
70 +	100.0

# Actuarial Section

**Teachers' 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
2012	\$ 2,285	\$ (9,874)	\$ (7,589)	55.0%
2013	2,452	(13,444)	(10,992)	50.3
2014	2,797	(5,482)	(2,685)	83.5
2015	3,085	(2,035)	1,050	105.3
2016	3,304	3,422	6,726	130.6
2017	3,562	(2,683)	879	102.6
2018	3,815	4,347	8,162	125.1
2019	4,119	9,326	13,445	140.5
2020	4,710	8,920	13,630	133.4
2021	5,638	14,984	20,622	146.2

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



<b>Teachers' Retirement System                      Defined Contribution Retirement Plan                      Occupational Death and Disability and Retiree Medical Benefits                      Employer Contribution Rates</b>					
Fiscal Year	Actuarial Valuation Year Ended June 30	Occupational Death and Disability	Retiree Medical	Total Annual Required	Adopted
2015	2012	—	2.04	2.04	2.04
2016	2013	—	2.04	2.04	2.04
2017	2014	—	1.05	1.05	1.05
2018	2015	—	0.91	0.91	0.91
2019	2016	0.08	0.79	0.87	0.87
2020	2017	0.08	1.09	1.17	1.17
2021	2018	0.08	0.93	1.01	1.01
2022	2019	0.08	0.83	0.91	0.91
2023	2020	0.08	0.87	0.95	0.95
2024	2021	0.08	0.82	0.90	0.90

Valuations are used to set contribution rates in future years.

# Actuarial Section

**Teachers' Retirement System  
Defined Contribution Retirement Plan  
Occupational Death and Disability and Retiree Medical Benefits  
Schedule of Active Member Valuation Data**

<b>Valuation Date</b>	<b>Number</b>	<b>Annual Earnings (In thousands)</b>	<b>Annual Average Earnings</b>	<b>Percent Increase/ (Decrease) in Average Earnings</b>	<b>Number of Participating Employers</b>
June 30, 2021	5,521	\$408,805	\$74,045	4.1%	57
June 30, 2020	5,332	379,201	71,118	2.2	57
June 30, 2019	4,998	347,957	69,619	2.2	57
June 30, 2018	4,915	334,803	68,119	2.4	57
June 30, 2017	4,694	312,347	66,542	2.0	57
June 30, 2016	4,383	285,854	65,219	2.5	58
June 30, 2015	4,095	260,584	63,635	2.7	58
June 30, 2014	3,547	219,701	61,940	2.4	58
June 30, 2013	3,272	197,944	60,496	3.5	58
June 30, 2012	3,057	178,761	58,476	4.7	58

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

# Actuarial Section

<b>Teachers' Retirement System Occupational Death and Disability Plan Schedule of Funding Progress (In thousands)</b>						
Valuation Date June 30*	Total Actuarial Accrued Liability	Valuation Assets	Assets as a Percent of Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Annual Active Member Payroll	UAAL as a Percent of Annual Active Member Payroll
2021	\$ 205	\$ 5,843	2,850.2%	\$ (5,638)	\$ 453,286	(1.2)%
2020	223	4,933	2,212.1%	(4,710)	412,113	(1.1)%
2019	240	4,359	1,816.3%	(4,119)	392,866	(1.0)%

<b>Teachers' Retirement System Retiree Medical Plan Schedule of Funding Progress (In thousands)</b>						
Valuation Date June 30*	Total Actuarial Accrued Liability	Valuation Assets	Assets as a Percent of Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Annual Active Member Payroll	UAAL as a Percent of Annual Active Member Payroll
2021	\$ 44,396	\$ 59,380	133.8%	\$ (14,984)	\$ 453,286	(3.3)%
2020	40,634	49,554	122.0%	(8,920)	412,113	(2.2)%
2019	32,981	42,307	128.3%	(9,326)	392,866	(2.4)%

This schedule is intended to present information for 10 years. Additional years will be displayed as they become available.

# Actuarial Section

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**State of Alaska**  
**Teachers' 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, 2021.

**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 57 employers participating in TRS DCR, including the State of Alaska, 53 school districts, and three other eligible 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 elementary or secondary teachers, school nurses, or a person in a position requiring a teaching certificate as a condition of hire in a public school of the State of Alaska, the Department of Education and Early Development, or in the Department of Labor and Workforce Development.
- Full-time or part-time teachers at the University of Alaska or persons occupying full-time administrative positions requiring academic standing who are not in the University's Optional Retirement Plan.

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

**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.

**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) 30 years of service or b) Medicare eligible and 10 years of service.

**State of Alaska**  
**Teachers' Retirement System**  
**Defined Contribution Retirement Plan**  
**Summary of Plan Provisions and Changes in Plan Provisions**

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

Plan Design Feature	In-Network <sup>(1)</sup>	Out-of-Network <sup>(1)(2)</sup>
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/family, after deductible)	\$1,500 / \$3,000	\$3,000 / \$6,000
Medicare Coordination	Exclusion	Exclusion
Pharmacy	No Deductible	No Deductible
Retail Generic (per 30-day fill)	20% \$10 min / \$50 max	40%
Retail Non-Formulary Brand (per 30-day fill)	25% \$25 min / \$75 max	
Retail Formulary Brand (per 30-day fill)	35% \$80 min / \$150 max	
Mail-Order Generic	\$20 copay	40%
Mail-Order Non-Formulary Brand	\$50 copay	
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% covered, not subject to deductible	20%, after deductible subject to deductible

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

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

- Buck used manual rate models to determine relative plan values for the defined benefit (DB) retiree medical plan and the DCR retiree medical plan outlined above. We applied the ratio of the DCR retiree medical plan value to the DB retiree medical plan value to the per capita costs determined for each of pre/post-Medicare medical and pharmacy benefits to estimate corresponding values for the DCR retiree medical plan design. These factors are noted in Section 4.3. We further adjusted the Medicare

# Actuarial Section

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**State of Alaska**  
**Teachers' Retirement System**  
**Defined Contribution Retirement Plan**  
**Summary of Plan Provisions and Changes in Plan Provisions**

medical manual rate to reflect the Medicare coordination method adopted. The estimated 2022 reimbursements under EGWP were provided by Segal Consulting (who worked with the EGWP administrator, Optum, to develop those estimates). We reflect estimated discounts and pharmacy rebates in the defined benefit medical cost so no further adjustment was needed for the DCR retiree medical plan. The medical network differential is reflected in the relative plan value adjustments.

- Starting in 2022, prior authorization will be required for certain specialty medications. There is no change to the medications that are covered by the plan.
- The retiree medical plan's coverage is supplemental to Medicare. Medicare coordination is described in the DCR Plan Handbook, referred to in the industry as exclusion coordination: Medicare payment is deducted from the Medicare allowable expense and plan parameters are applied to the remaining amount. Starting in 2019, the prescription drug coverage is through a Medicare Part D EGWP arrangement.
- The premium for Medicare-eligible retirees will be based on the member's years of service. The percentage of premium paid by the member is as follows:

<u>Years of Service</u>	<u>Percent of Premium Paid by Member</u>
< 15	30.00%
15 – 19	25.00
20 – 24	20.00
25 – 29	15.00
30+	10.00

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

## 7. Occupational Disability Benefits

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

**State of Alaska**  
**Teachers' Retirement System**  
**Defined Contribution Retirement Plan**  
**Summary of Plan Provisions and Changes in Plan Provisions**

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

## **8. Occupational Death Benefits**

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

## **9. Changes Since the Prior Valuation**

Starting in 2022, prior authorization will be required for certain specialty medications. There have been no other changes in TRS DCR benefit provisions valued since the prior valuation.



ALASKA DIVISION OF  
**Retirement  
and Benefits**



# STATISTICAL SECTION



ALASKA DIVISION OF  
**Retirement  
and Benefits**

## STATISTICAL SECTION OVERVIEW

The statistical section of the Teachers’ 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.

**Financial Trends ..... 152-169**

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 ..... 170-172**

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

**Demographic Information ..... 173-175**

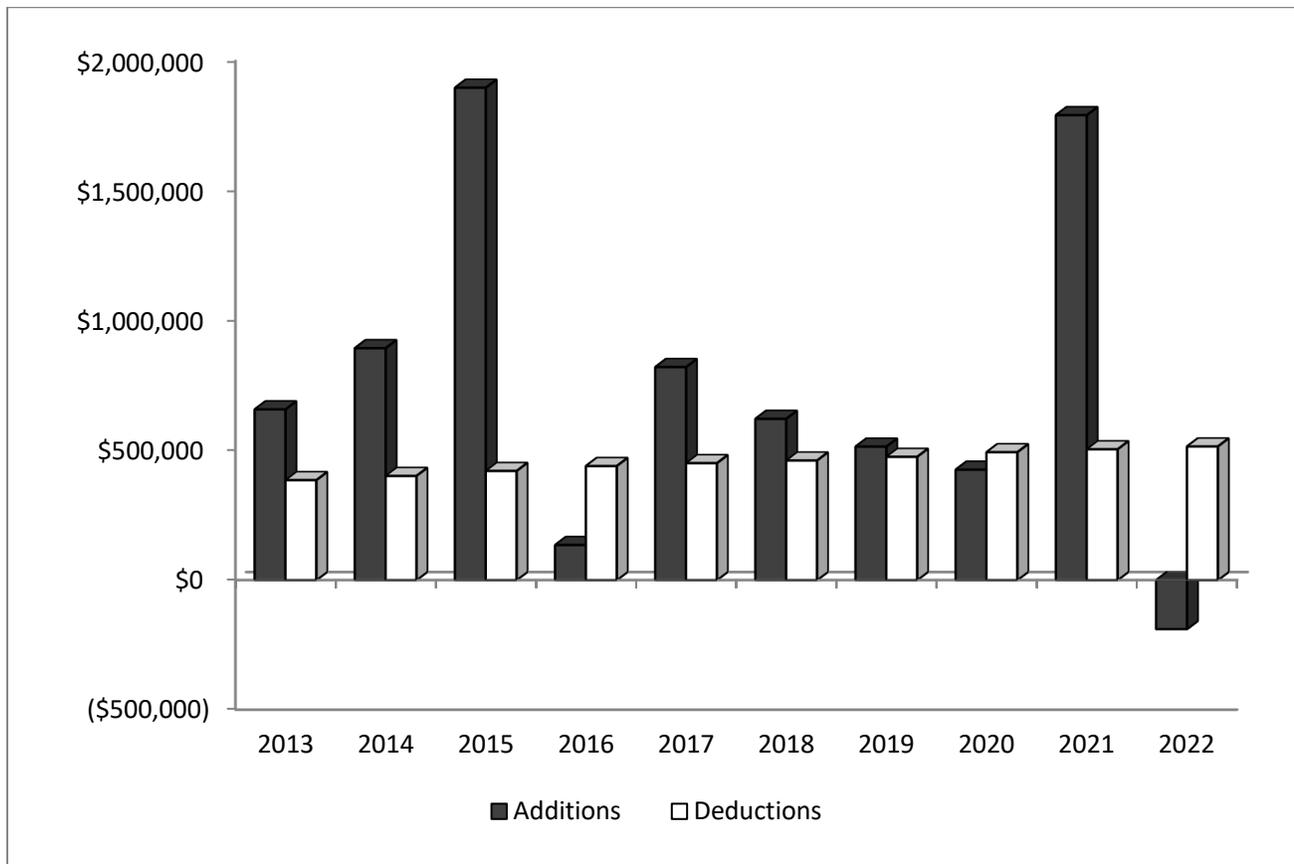
These schedules contain detailed demographic data to provide the reader a better understanding of the membership and employer participation in the System.

# Statistical Section

## Teachers' 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
2013	\$ 3,006,647	\$ 658,405	\$ 385,922	\$ 272,483	\$ 3,279,130
2014	3,279,130	894,170	402,161	492,009	3,771,139
2015	3,771,139	1,897,150	421,334	1,475,816	5,246,955
2016	5,246,955	135,476	440,230	(304,754)	4,942,201
2017	4,942,201	821,406	451,312	370,094	5,312,295
2018	5,312,295	621,993	461,561	160,432	5,472,727
2019	5,472,727	514,937	475,735	39,202	5,511,929
2020	5,511,929	426,305	493,435	(67,130)	5,444,799
2021	5,444,799	1,791,557	504,875	1,286,682	6,731,481
2022	6,731,481	(189,263)	515,567	(704,830)	6,026,651

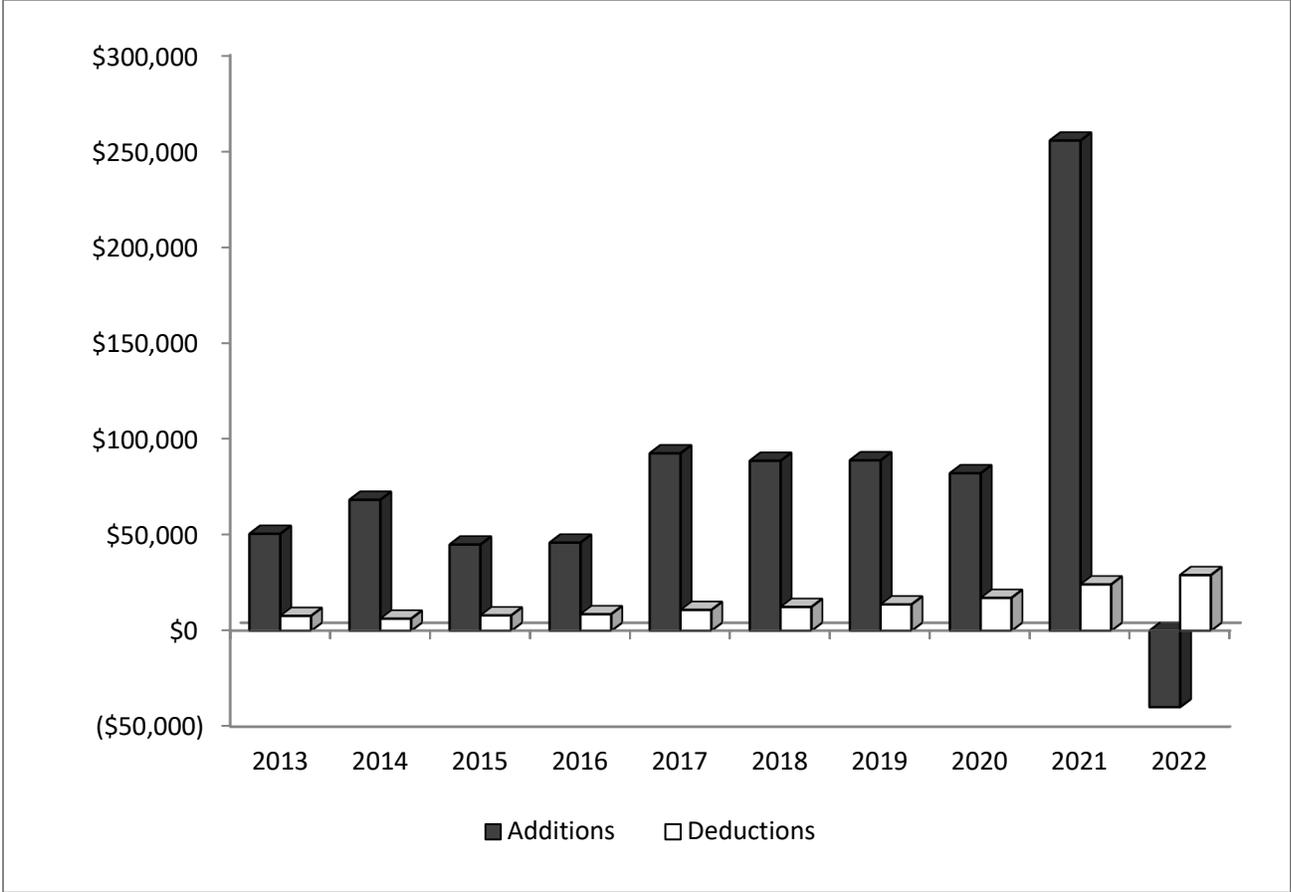
### 10-YEAR COMPARISON OF ADDITIONS AND DEDUCTIONS (In thousands)



# Statistical Section

Teachers' 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
2013	\$ 110,389	\$ 50,560	\$ 7,715	\$ 42,845	\$ 153,234
2014	153,234	68,315	6,281	62,034	215,268
2015	215,268	44,952	7,972	36,980	252,248
2016	252,248	45,965	8,615	37,350	289,598
2017	289,598	92,527	10,833	81,694	371,292
2018	371,292	88,621	12,383	76,238	447,530
2019	447,530	88,893	13,701	75,192	522,722
2020	522,722	82,149	17,137	65,012	587,734
2021	587,734	255,496	24,140	231,356	819,090
2022	819,090	(39,885)	29,000	(68,885)	750,205

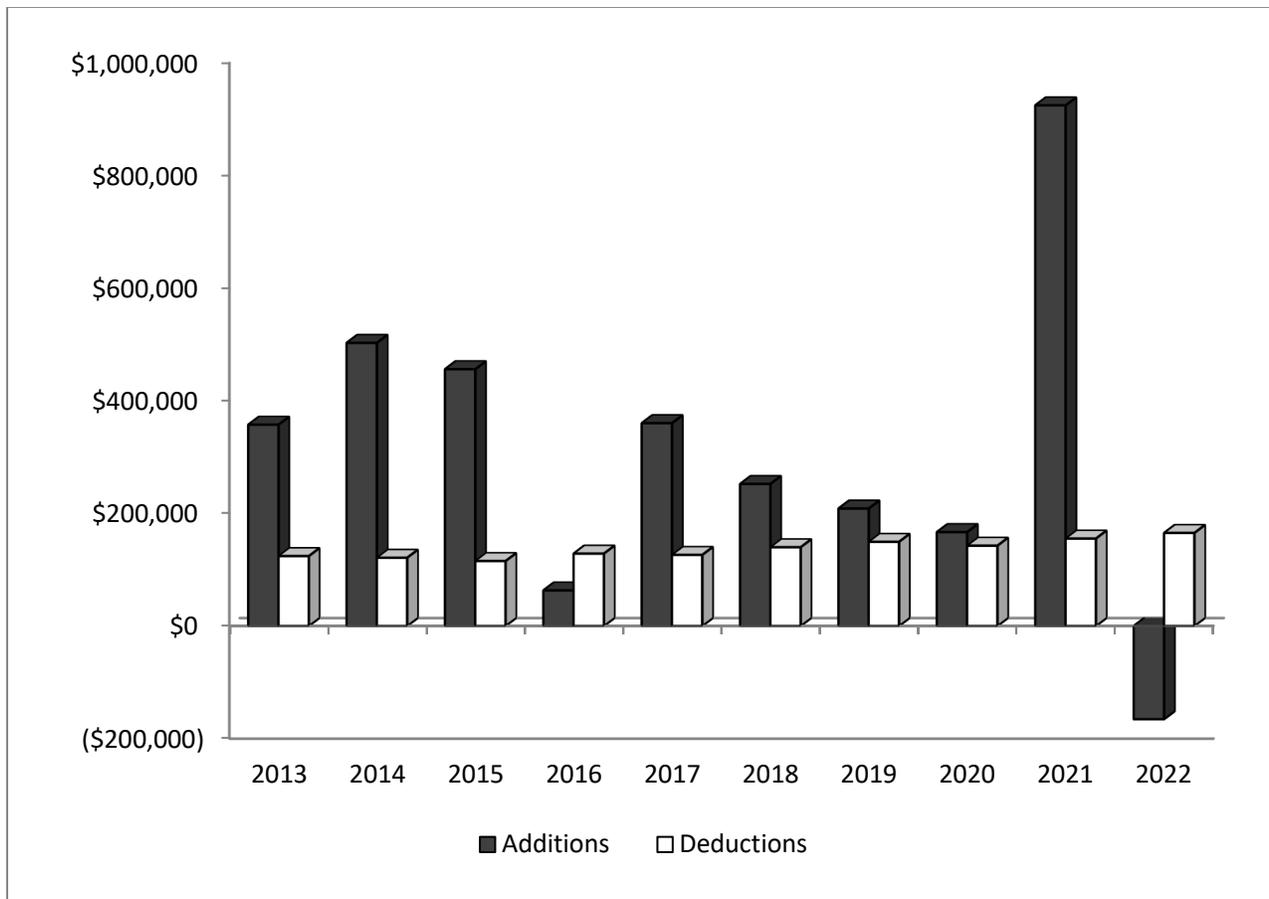
**10-YEAR COMPARISON OF ADDITIONS AND DEDUCTIONS  
(In thousands)**



# Statistical Section

<b>Teachers' Retirement System                      Defined Benefit Alaska Retiree Healthcare Trust                      Changes in Fiduciary Net Position                      (In thousands)</b>					
Year Ended June 30	Fiduciary Net Position, Beginning of Year	Additions	Deductions	Increase / (Decrease) in Fiduciary Net Position	Fiduciary Net Position, End of Year
2013	\$ 1,633,041	\$ 357,454	\$ 124,074	\$ 233,380	\$ 1,866,421
2014	1,866,421	502,833	121,119	381,714	2,248,135
2015	2,248,135	456,055	115,224	340,831	2,588,966
2016	2,588,966	63,079	128,465	(65,386)	2,523,580
2017	2,523,580	360,197	126,145	234,052	2,757,632
2018	2,757,632	252,219	139,716	112,503	2,870,135
2019	2,870,135	208,551	149,367	59,184	2,929,319
2020	2,929,319	166,653	142,511	24,142	2,953,461
2021	2,953,461	924,728	155,158	769,570	3,723,031
2022	3,723,031	(165,636)	165,184	(330,820)	3,392,211

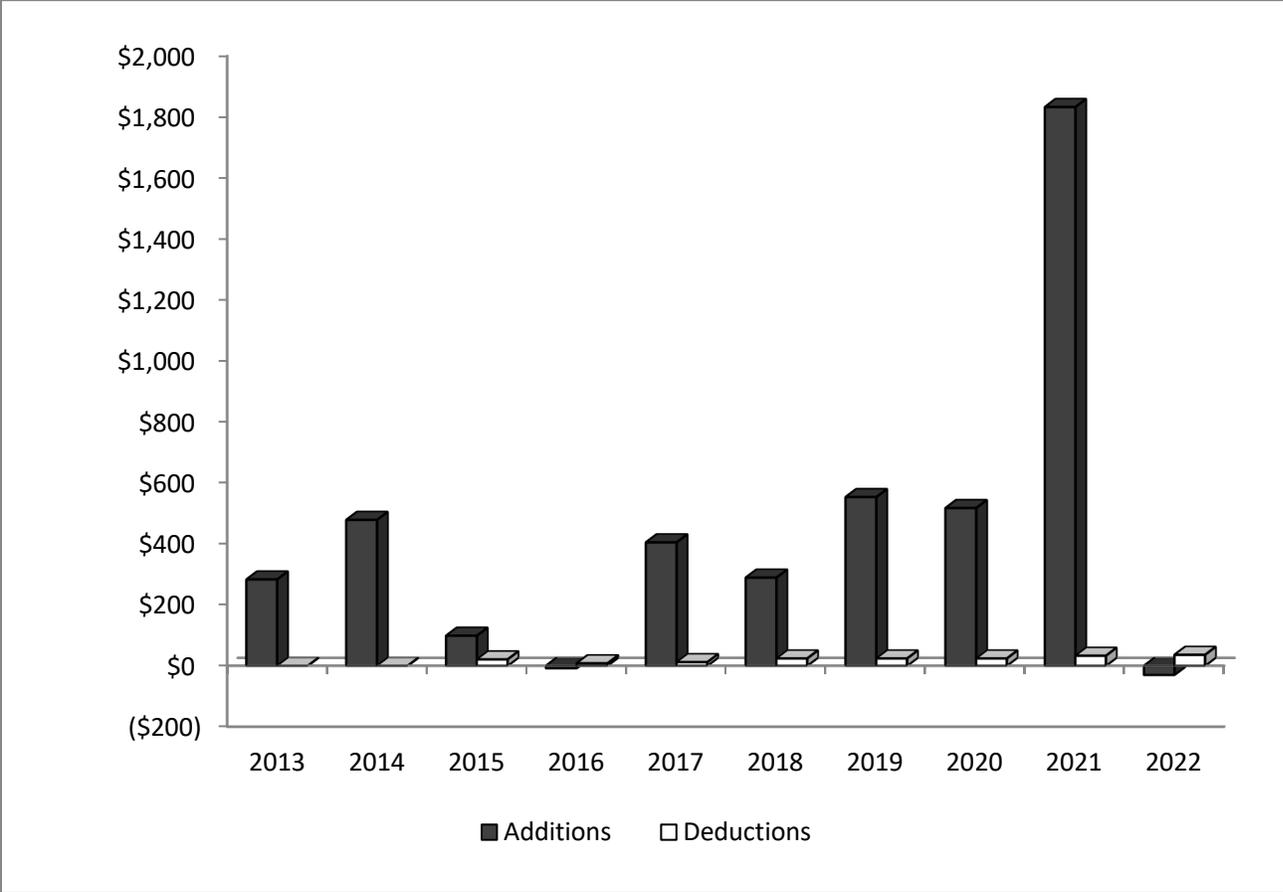
**10-YEAR COMPARISON OF ADDITIONS AND DEDUCTIONS  
(In thousands)**



# Statistical Section

Teachers' Retirement System Defined Benefit Occupational Death and Disability 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
2013	\$ 2,311	\$ 284	\$ —	\$ 284	\$ 2,595
2014	2,595	480	—	480	3,075
2015	3,075	99	21	78	3,153
2016	3,153	(8)	8	(16)	3,137
2017	3,137	406	12	394	3,531
2018	3,531	290	24	266	3,797
2019	3,797	555	24	531	4,328
2020	4,328	519	24	495	4,823
2021	4,823	1,833	33	1,800	6,623
2022	6,623	(30)	36	(66)	6,557

**10-YEAR COMPARISON OF ADDITIONS AND DEDUCTIONS**  
(In thousands)

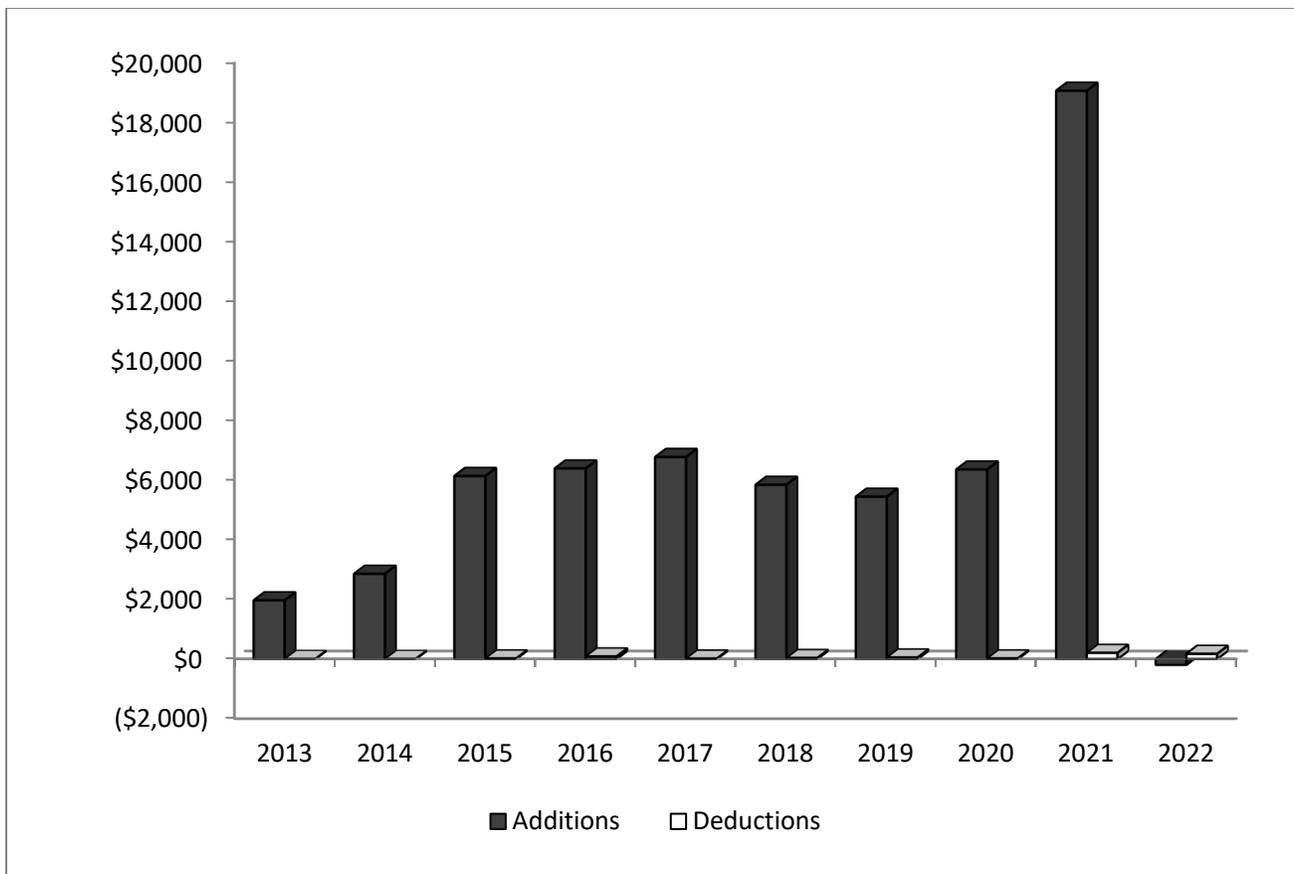


# Statistical Section

## Teachers' Retirement System Defined Benefit 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
2013	\$ 6,812	\$ 1,970	\$ 3	\$ 1,967	\$ 8,779
2014	8,779	2,861	3	2,858	11,637
2015	11,637	6,147	18	6,129	17,766
2016	17,766	6,399	86	6,313	24,079
2017	24,079	6,784	15	6,769	30,848
2018	30,848	5,851	34	5,817	36,665
2019	36,665	5,452	50	5,402	42,067
2020	42,067	6,364	18	6,346	48,413
2021	48,413	19,071	206	18,865	67,278
2022	67,278	(196)	173	(369)	66,909

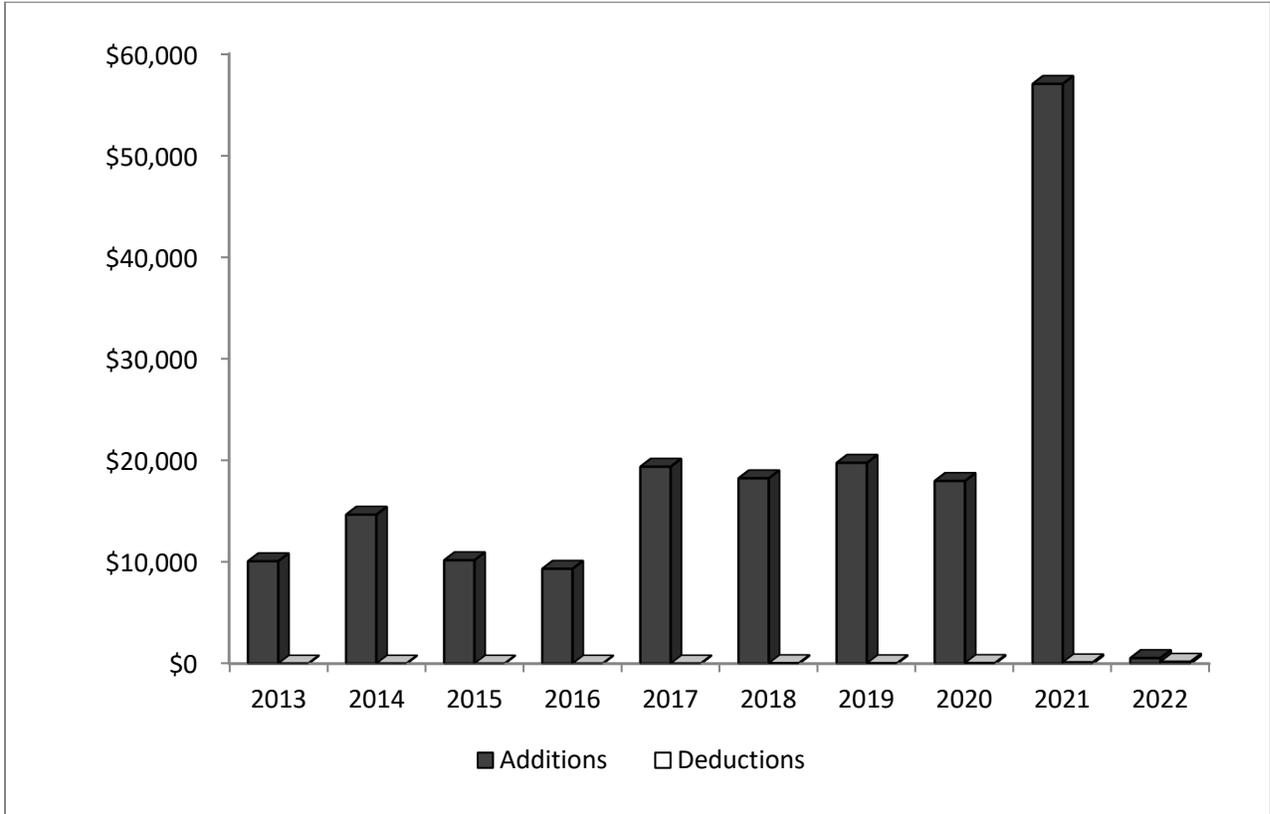
### 10-YEAR COMPARISON OF ADDITIONS AND DEDUCTIONS (In thousands)



# Statistical Section

Teachers' 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
2013	\$ 24,737	\$ 10,079	\$ 3	\$ 10,076	\$ 34,813
2014	34,813	14,662	3	14,659	49,472
2015	49,472	10,178	—	10,178	59,650
2016	59,650	9,332	—	9,332	68,982
2017	68,982	19,387	7	19,380	88,362
2018	88,362	18,243	37	18,206	106,568
2019	106,568	19,765	34	19,731	126,299
2020	126,299	17,978	56	17,922	144,221
2021	144,221	57,023	120	56,903	201,124
2022	201,124	543	179	364	201,488

**10-YEAR COMPARISON OF ADDITIONS AND DEDUCTIONS  
(In thousands)**

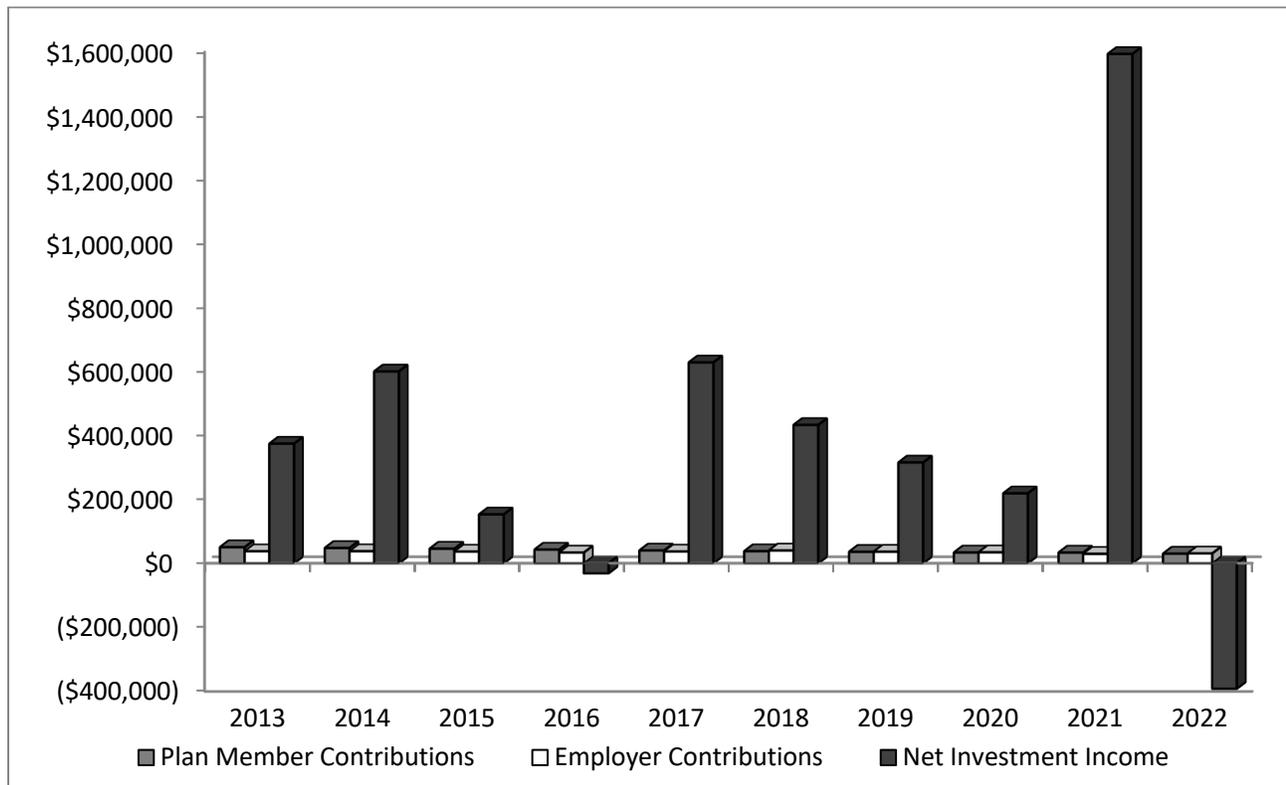


# Statistical Section

Teachers' Retirement System Defined Benefit Pension Additions by Source (In thousands)						
Year Ended June 30	Plan Member Contributions	Employer Contributions	State of Alaska – Additional State Contribution	Net Investment Income (Loss)	Other	Total
2013	\$ 50,201	\$ 37,372	\$ 196,945	\$ 373,868	\$ 19	\$ 658,405
2014	47,724	37,571	208,890	599,958	27	894,170
2015	45,506	36,374	1,662,700	152,561	9	1,897,150
2016	42,654	33,478	90,589	(31,340)	95	135,476
2017	39,878	36,634	116,700	628,184	10	821,406
2018	37,674	39,835	111,757	432,543	184	621,993
2019	35,763	35,996	128,174	314,972	32	514,937
2020	33,566	34,114	140,219	218,373	33	426,305
2021	33,342	29,336	134,070	1,594,536	273	1,791,557
2022	30,013	30,707	141,739	(391,758)	36	(189,263)

**Note:** This schedule shows the full appropriated amount of the additional state contribution as required by AS 14.25.085, a portion of which is included in "Employer Contributions" on the audited financial statements.

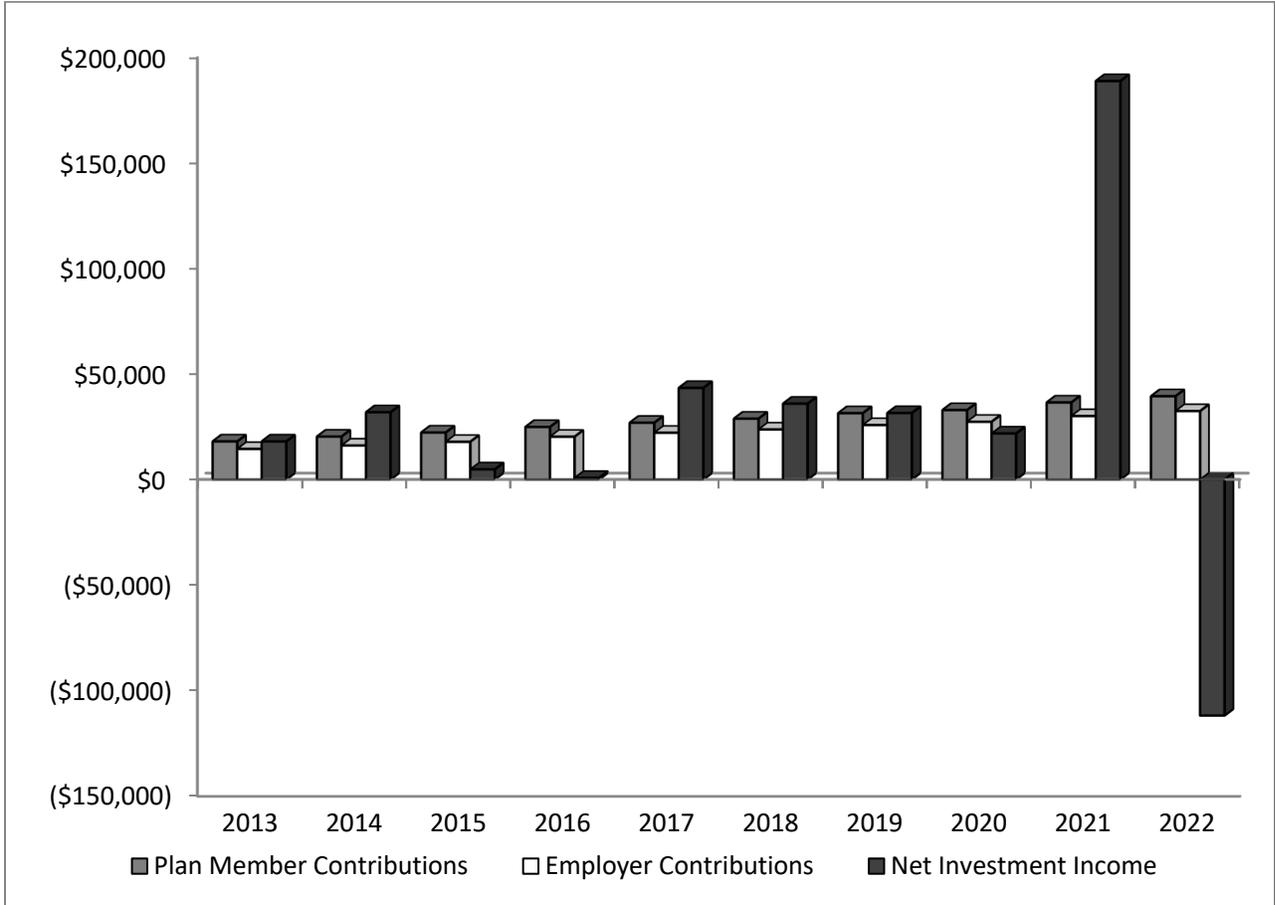
## 10-YEAR COMPARISON OF ADDITIONS BY SOURCE (In thousands)



# Statistical Section

Teachers' 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
2013	\$ 18,044	\$ 14,474	\$ 18,040	\$ 2	\$ 50,560
2014	20,326	16,098	31,887	4	68,315
2015	22,269	17,863	4,820	—	44,952
2016	24,904	20,280	773	8	45,965
2017	26,888	22,165	43,417	57	92,527
2018	28,831	23,710	35,946	134	88,621
2019	31,438	25,814	31,509	132	88,893
2020	32,907	27,366	21,819	57	82,149
2021	36,513	30,070	188,892	21	255,496
2022	39,483	32,450	(111,813)	(5)	(39,885)

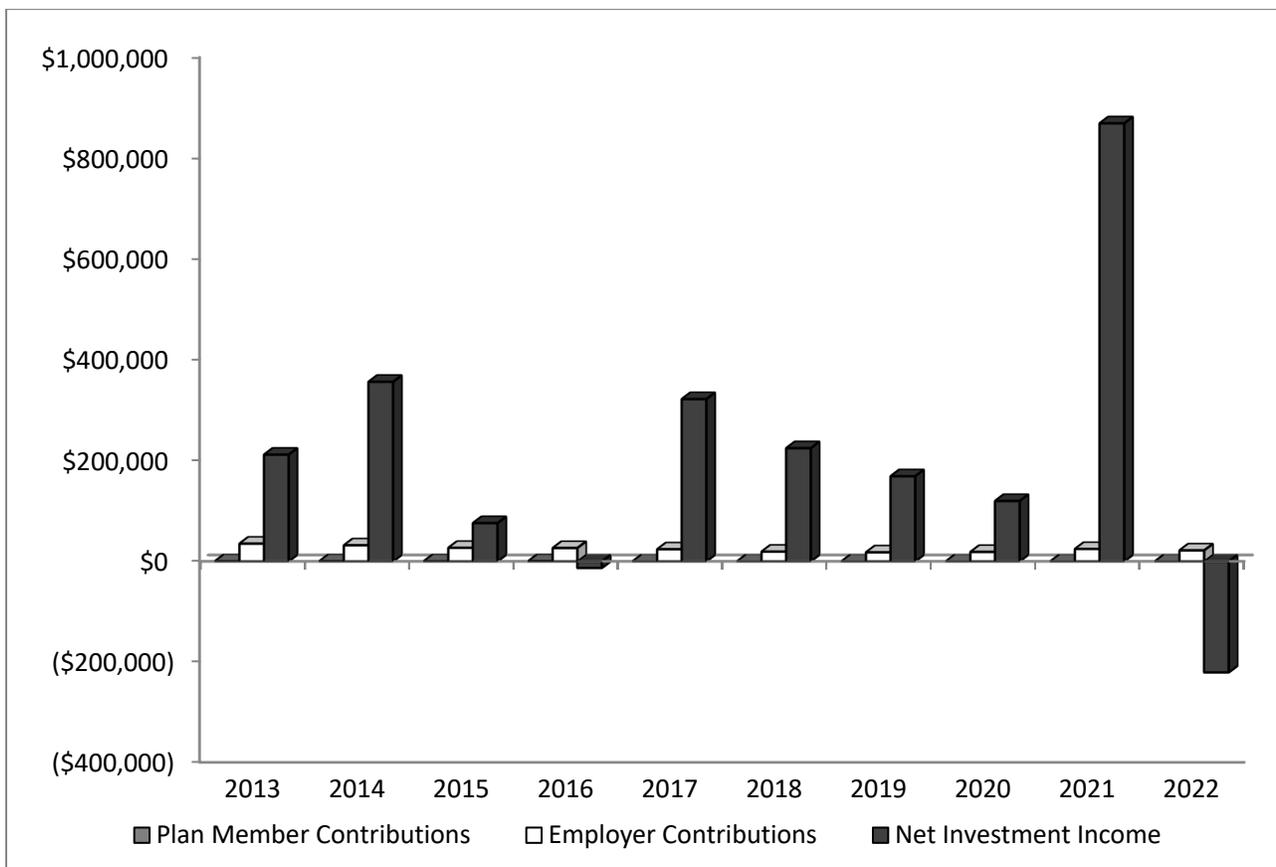
**10-YEAR COMPARISON OF ADDITIONS BY SOURCE**  
(In thousands)



# Statistical Section

Teachers' 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 – Additional State Contribution	Net Investment Income (Loss)	Other	Total
2013	\$ 250	\$ 35,293	\$ 105,832	\$ 211,927	\$ 4,152	\$ 357,454
2014	263	31,980	107,956	356,411	6,223	502,833
2015	227	26,922	337,300	76,174	15,432	456,055
2016	306	26,580	39,519	(13,070)	9,744	63,079
2017	—	24,069	—	322,219	13,909	360,197
2018	—	19,305	—	224,820	8,094	252,219
2019	—	17,957	—	169,183	21,411	208,551
2020	—	18,788	—	120,073	27,792	166,653
2021	—	24,700	—	869,241	30,787	924,728
2022	—	21,806	—	(221,118)	33,676	(165,636)

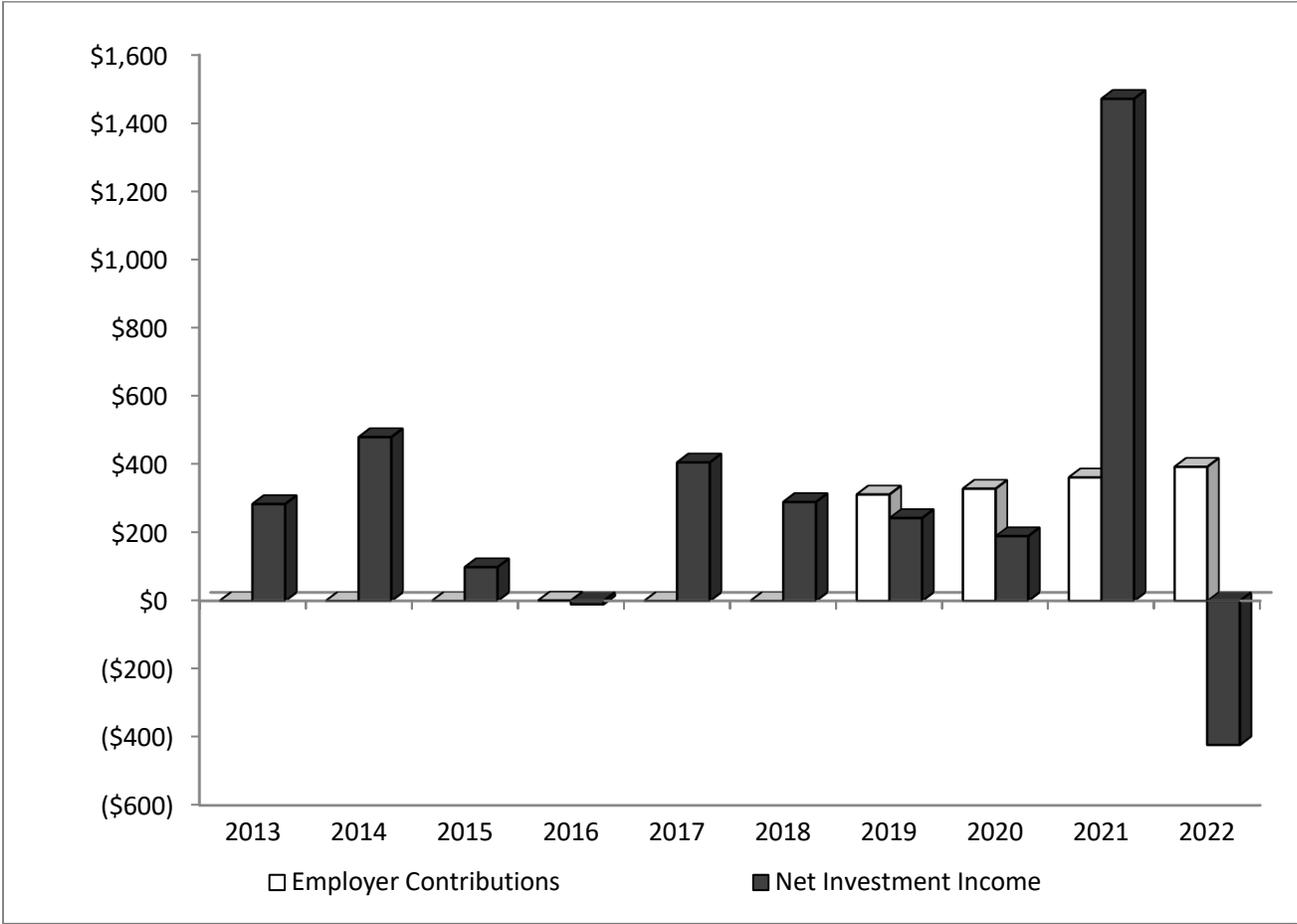
**10-YEAR COMPARISON OF ADDITIONS BY SOURCE**  
(In thousands)



# Statistical Section

Teachers' Retirement System Defined Benefit Occupational Death and Disability Additions by Source (In thousands)				
Plan Ended June 30	Employer Contributions	Net Investment Income (Loss)	Other	Total
2013	\$ —	\$ 284	\$ —	\$ 284
2014	—	480	—	480
2015	—	99	—	99
2016	1	(10)	1	(8)
2017	—	406	—	406
2018	—	290	—	290
2019	312	243	—	555
2020	329	190	—	519
2021	362	1,471	—	1,833
2022	393	(423)	—	(30)

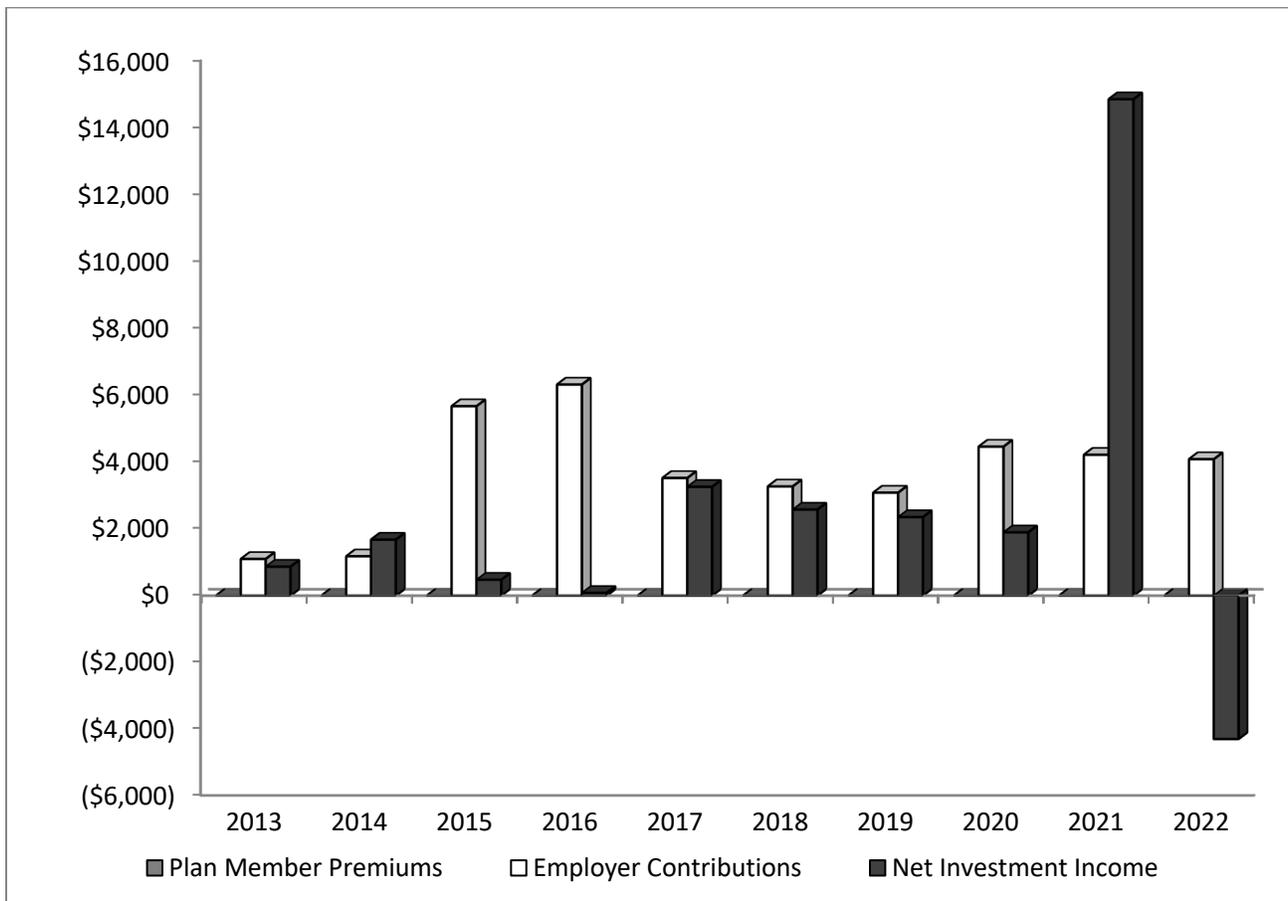
**10-YEAR COMPARISON OF ADDITIONS BY SOURCE**  
(In thousands)



# Statistical Section

Teachers' Retirement System Defined Benefit Retiree Medical Plan Additions by Source (In thousands)					
Plan Ended June 30	Plan Member Premiums	Employer Contributions	Net Investment Income (Loss)	Other	Total
2013	\$ —	\$ 1,101	\$ 869	\$ —	\$ 1,970
2014	—	1,181	1,680	—	2,861
2015	—	5,670	477	—	6,147
2016	—	6,317	82	—	6,399
2017	—	3,524	3,260	—	6,784
2018	—	3,271	2,580	—	5,851
2019	—	3,085	2,355	12	5,452
2020	—	4,461	1,899	4	6,364
2021	—	4,217	14,848	6	19,071
2022	—	4,086	(4,310)	28	(196)

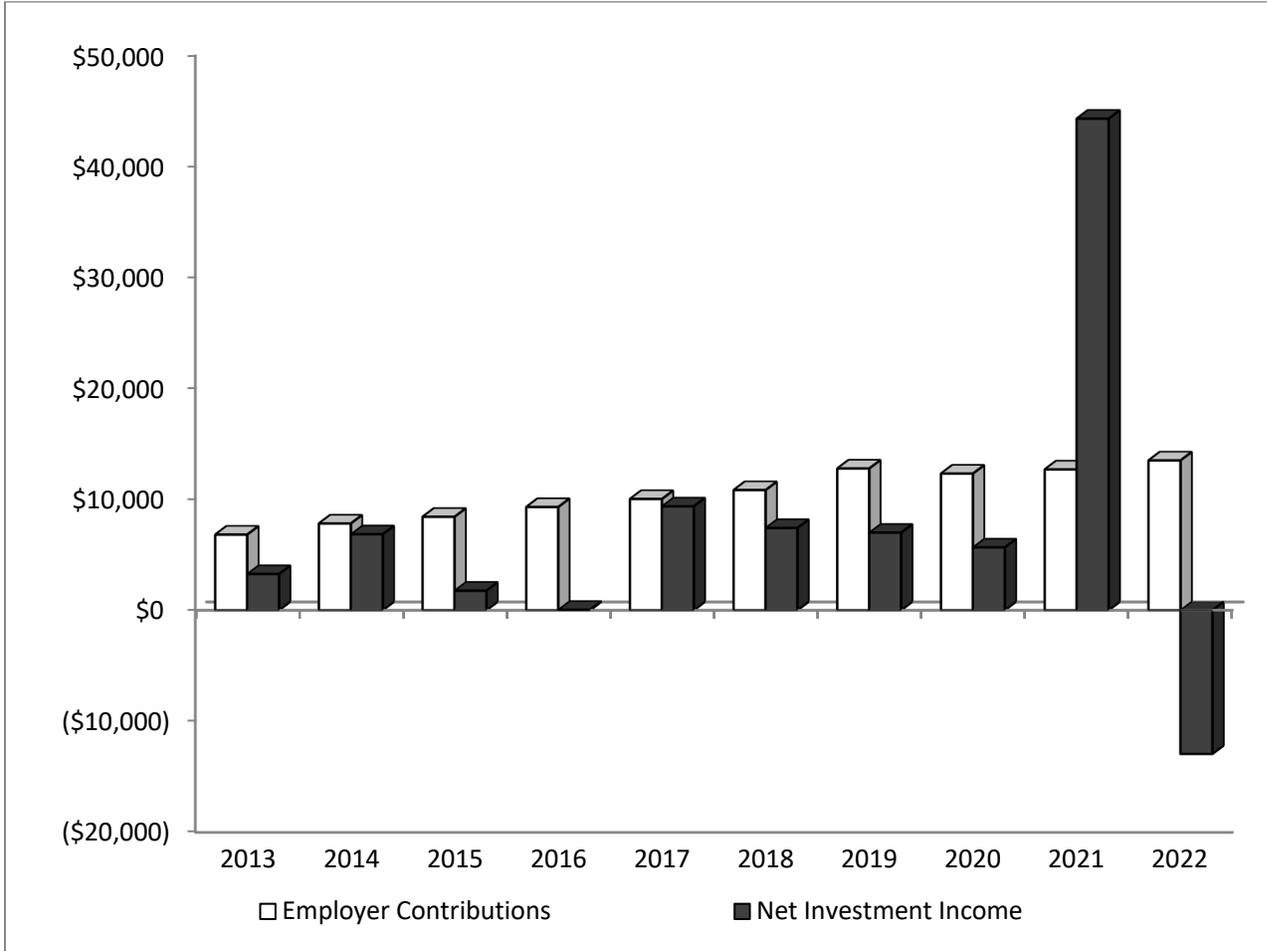
**10-YEAR COMPARISON OF ADDITIONS BY SOURCE**  
(In thousands)



# Statistical Section

Teachers' Retirement System Defined Contribution Retirement Health Reimbursement Arrangement Additions by Source (In thousands)				
Plan Ended June 30	Employer Contributions	Net Investment Income (Loss)	Other	Total
2013	\$ 6,816	\$ 3,263	\$ —	\$ 10,079
2014	7,816	6,846	—	14,662
2015	8,420	1,758	—	10,178
2016	9,301	31	—	9,332
2017	10,026	9,361	—	19,387
2018	10,829	7,414	—	18,243
2019	12,776	6,989	—	19,765
2020	12,317	5,661	—	17,978
2021	12,689	44,328	6	57,023
2022	13,504	(12,946)	(15)	543

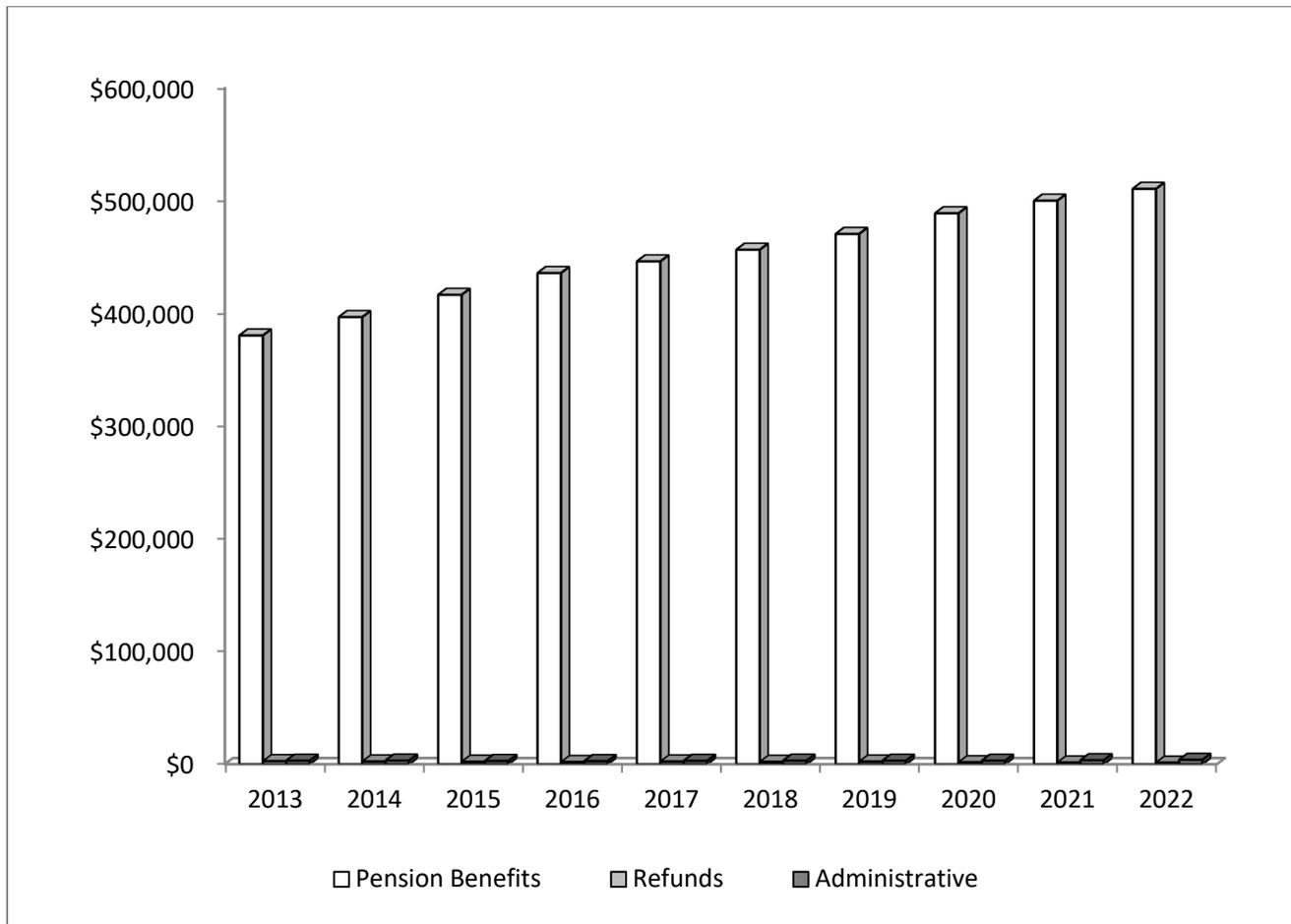
**10-YEAR COMPARISON OF ADDITIONS BY SOURCE**  
(In thousands)



# Statistical Section

Teachers' Retirement System Defined Benefit Pension Deductions by Type (In thousands)				
Year Ended June 30	Pension Benefits	Refunds of Contributions	Administrative	Total
2013	\$ 380,265	\$ 2,668	\$ 2,989	\$ 385,922
2014	396,614	2,387	3,160	402,161
2015	416,354	2,191	2,789	421,334
2016	435,699	1,883	2,648	440,230
2017	446,044	2,378	2,890	451,312
2018	456,427	2,084	3,050	461,561
2019	470,414	2,303	3,018	475,735
2020	488,748	1,699	2,988	493,435
2021	499,942	1,487	3,446	504,875
2022	510,457	1,305	3,805	515,567

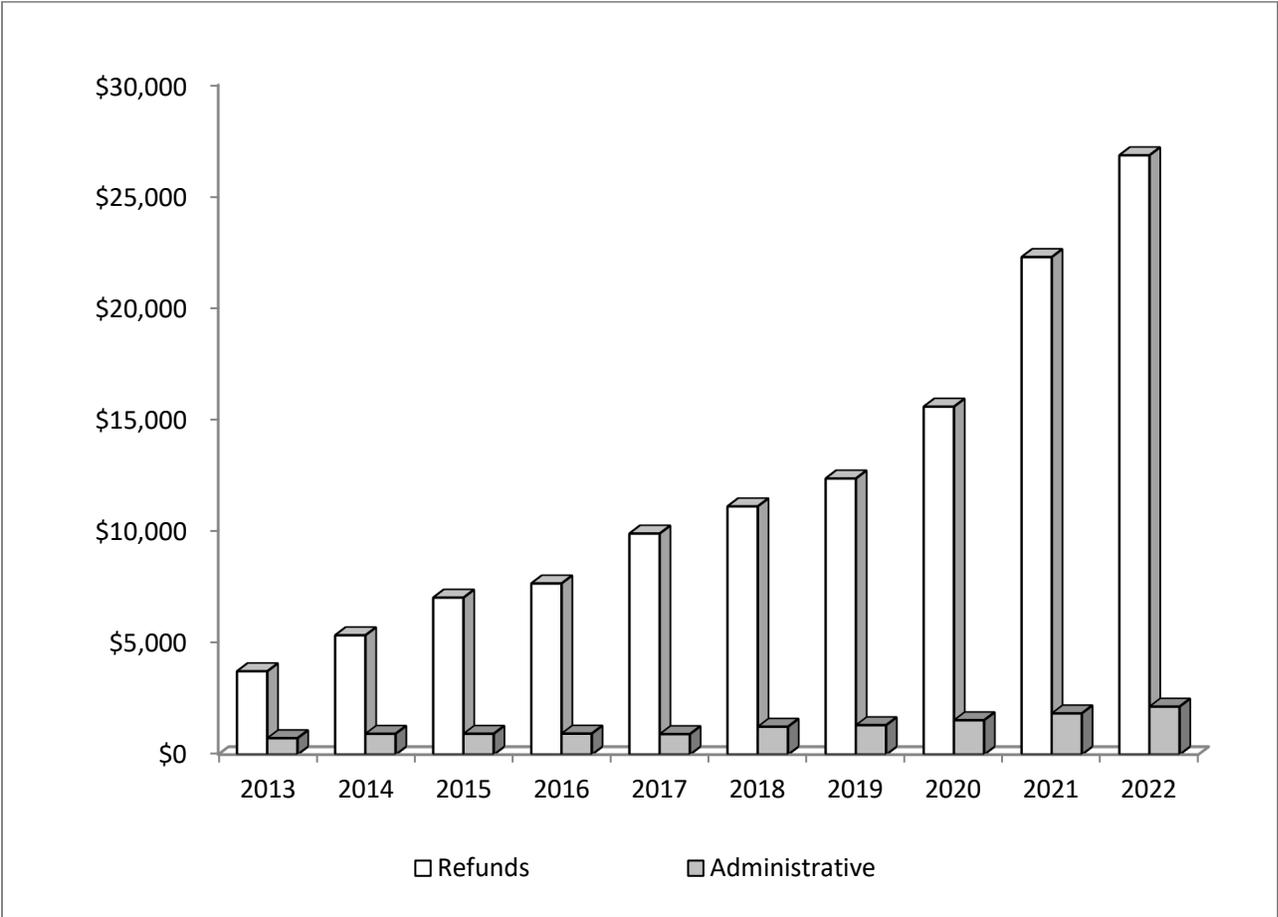
**10-YEAR COMPARISON OF DEDUCTIONS BY TYPE  
(In thousands)**



# Statistical Section

Teachers' 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
2013	\$ 3,737	\$ 731	\$ 3,247	\$ 7,715
2014	5,352	929	—	6,281
2015	7,041	931	—	7,972
2016	7,677	938	—	8,615
2017	9,918	915	—	10,833
2018	11,135	1,248	—	12,383
2019	12,384	1,317	—	13,701
2020	15,598	1,539	—	17,137
2021	22,294	1,846	—	24,140
2022	26,850	2,150	—	29,000

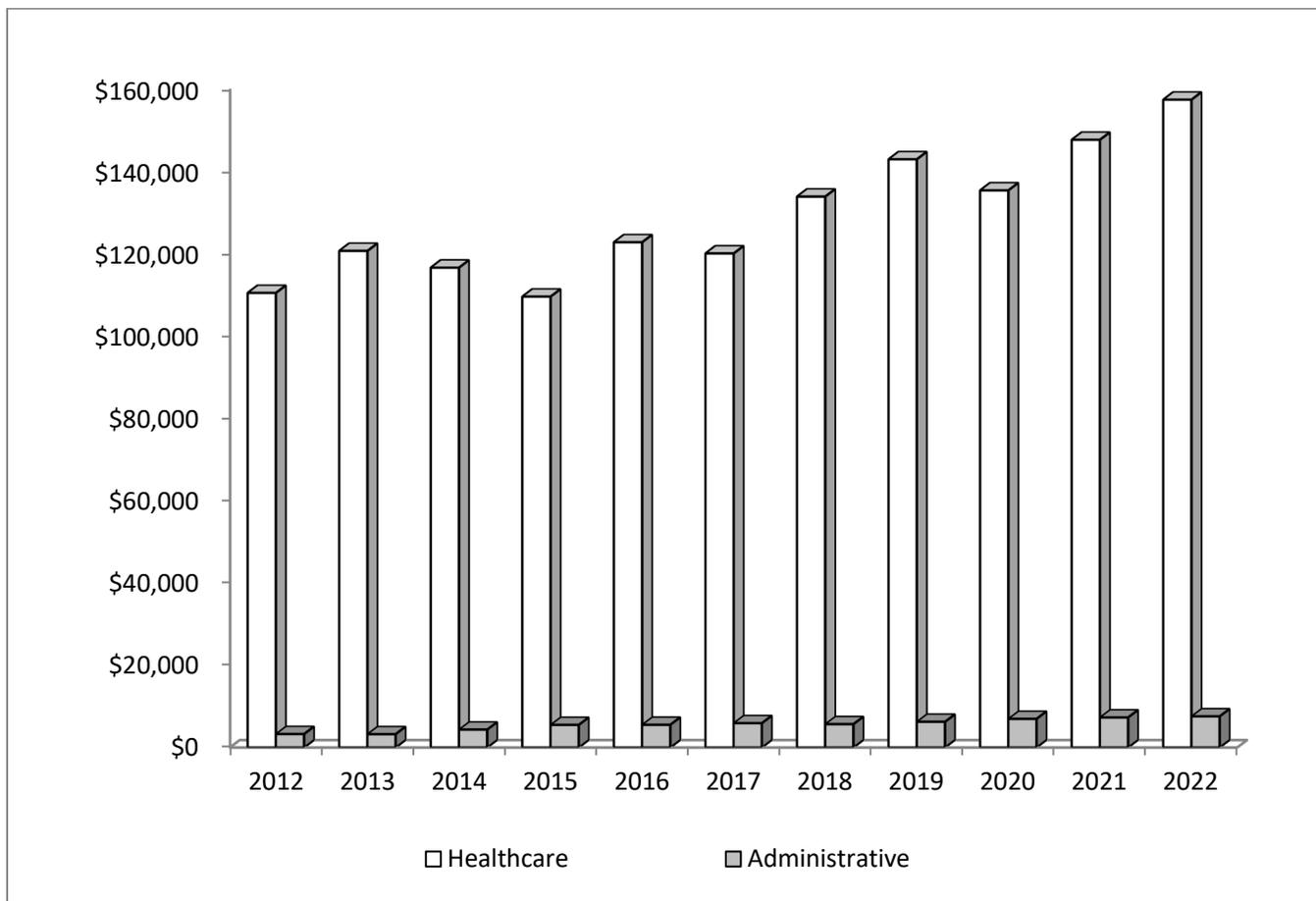
**10-YEAR COMPARISON OF DEDUCTIONS BY TYPE**  
(In thousands)



# Statistical Section

<b>Teachers' Retirement System                      Defined Benefit Alaska Retiree Healthcare Trust                      Deductions by Type                      (In thousands)</b>			
<b>Plan Ended June 30</b>	<b>Healthcare</b>	<b>Administrative</b>	<b>Total</b>
2013	\$ 120,855	\$ 3,219	\$ 124,074
2014	116,781	4,338	121,119
2015	109,740	5,484	115,224
2016	122,954	5,511	128,465
2017	120,237	5,908	126,145
2018	134,051	5,665	139,716
2019	143,126	6,241	149,367
2020	135,566	6,945	142,511
2021	147,861	7,297	155,158
2022	157,616	7,568	165,184

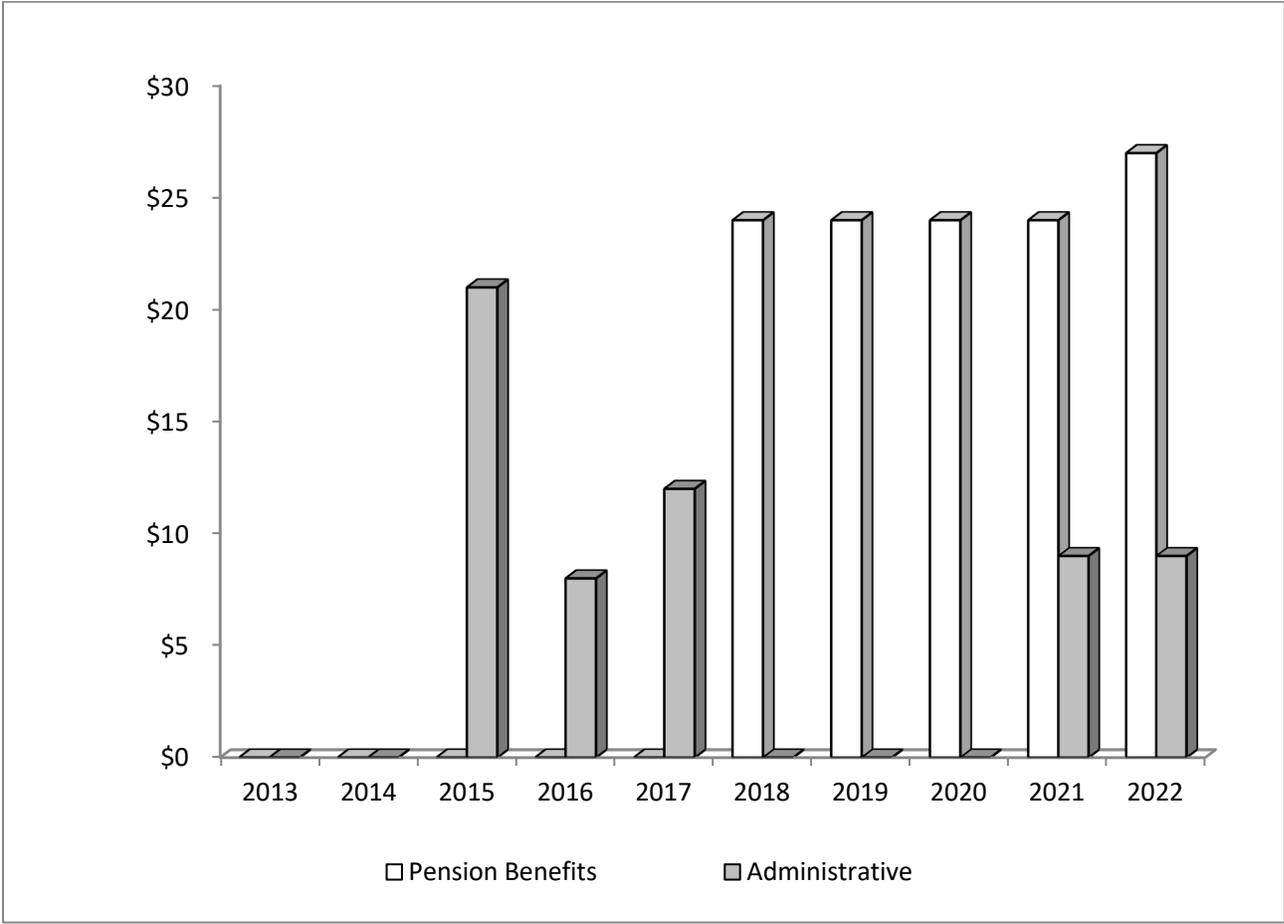
**10-YEAR COMPARISON OF DEDUCTIONS BY TYPE  
(In thousands)**



# Statistical Section

Teachers' Retirement System Defined Benefit Occupational Death and Disability Deductions by Type (In thousands)			
Plan Ended June 30	Pension Benefits	Administrative	Total
2013	\$ —	\$ —	\$ —
2014	—	—	—
2015	—	21	21
2016	—	8	8
2017	—	12	12
2018	24	—	24
2019	24	—	24
2020	24	—	24
2021	24	9	33
2022	27	9	36

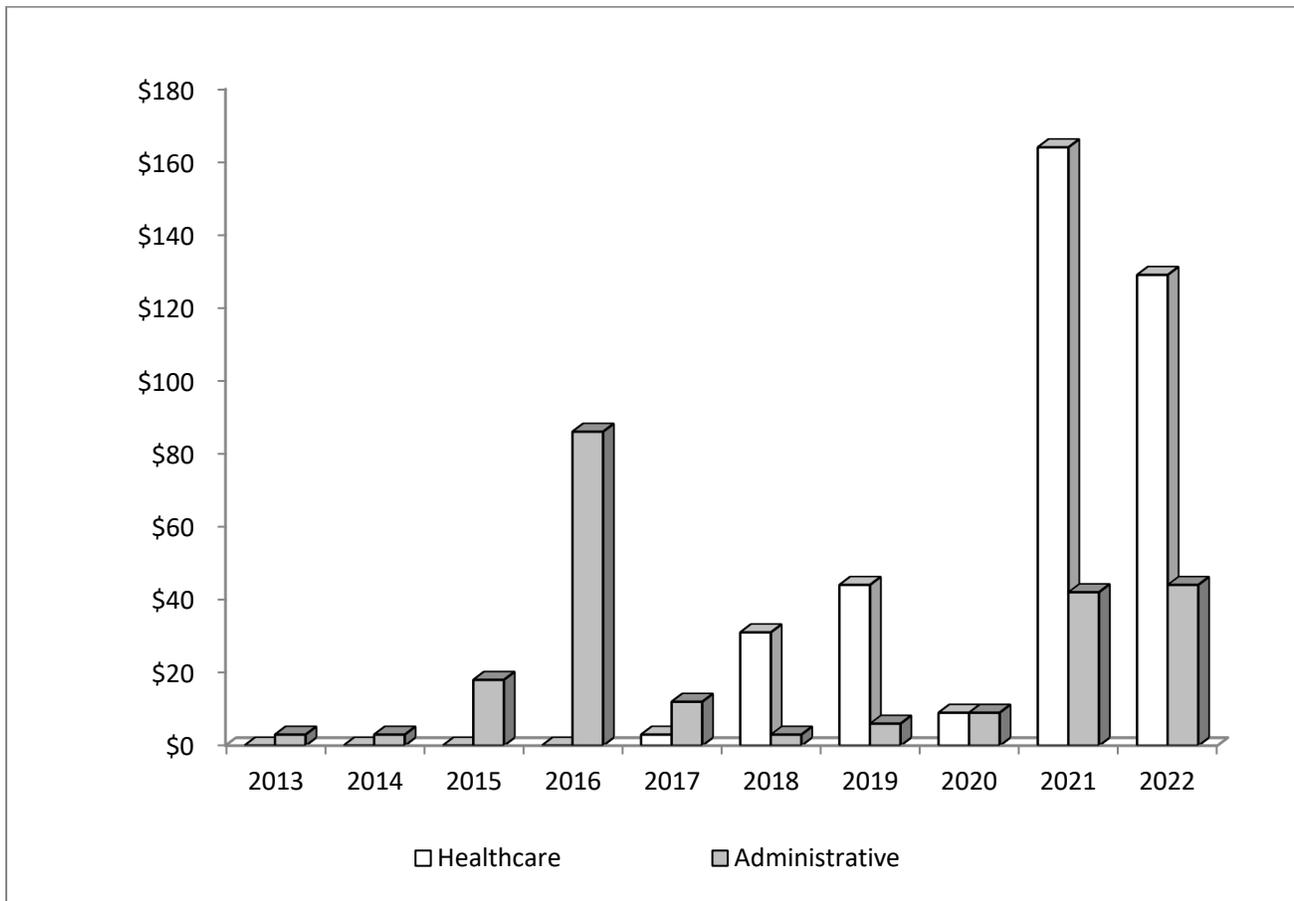
**10-YEAR COMPARISON OF DEDUCTIONS BY TYPE**  
(In thousands)



# Statistical Section

Teachers' Retirement System Defined Benefit Retiree Medical Plan Deductions by Type (In thousands)			
Plan Ended June 30	Healthcare	Administrative	Total
2013	\$ —	\$ 3	\$ 3
2014	—	3	3
2015	—	18	18
2016	—	86	86
2017	3	12	15
2018	31	3	34
2019	44	6	50
2020	9	9	18
2021	164	42	206
2022	129	44	173

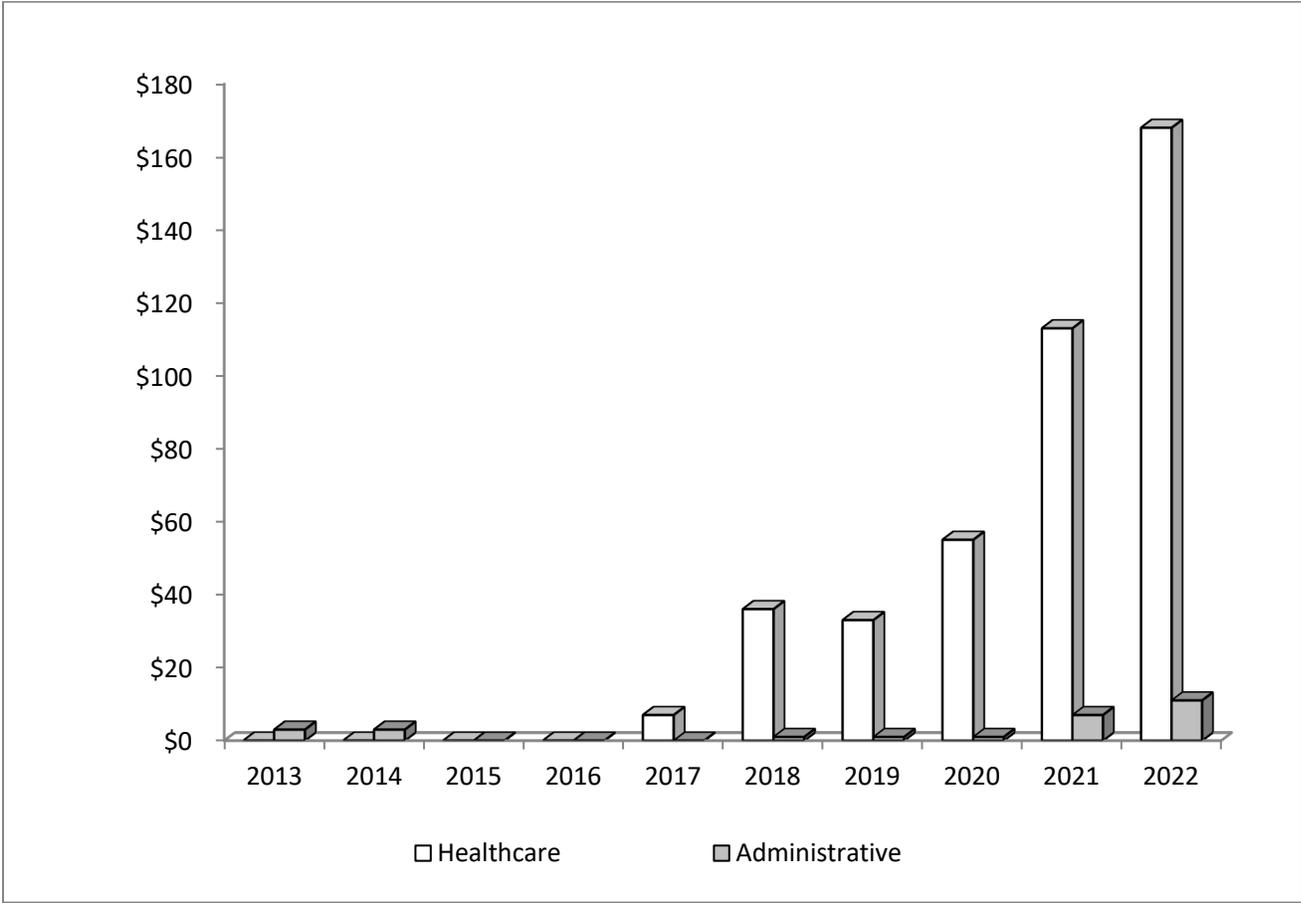
**10-YEAR COMPARISON OF DEDUCTIONS BY TYPE  
(In thousands)**



# Statistical Section

Teachers' Retirement System Defined Contribution Retirement Health Reimbursement Arrangement Deductions by Type (In thousands)			
Plan Ended June 30	Healthcare	Administrative	Total
2013	\$ —	\$ 3	\$ 3
2014	—	3	3
2015	—	—	—
2016	—	—	—
2017	7	—	7
2018	36	1	37
2019	33	1	34
2020	55	1	56
2021	113	7	120
2022	168	11	179

**10-YEAR COMPARISON OF DEDUCTIONS BY TYPE**  
(In thousands)



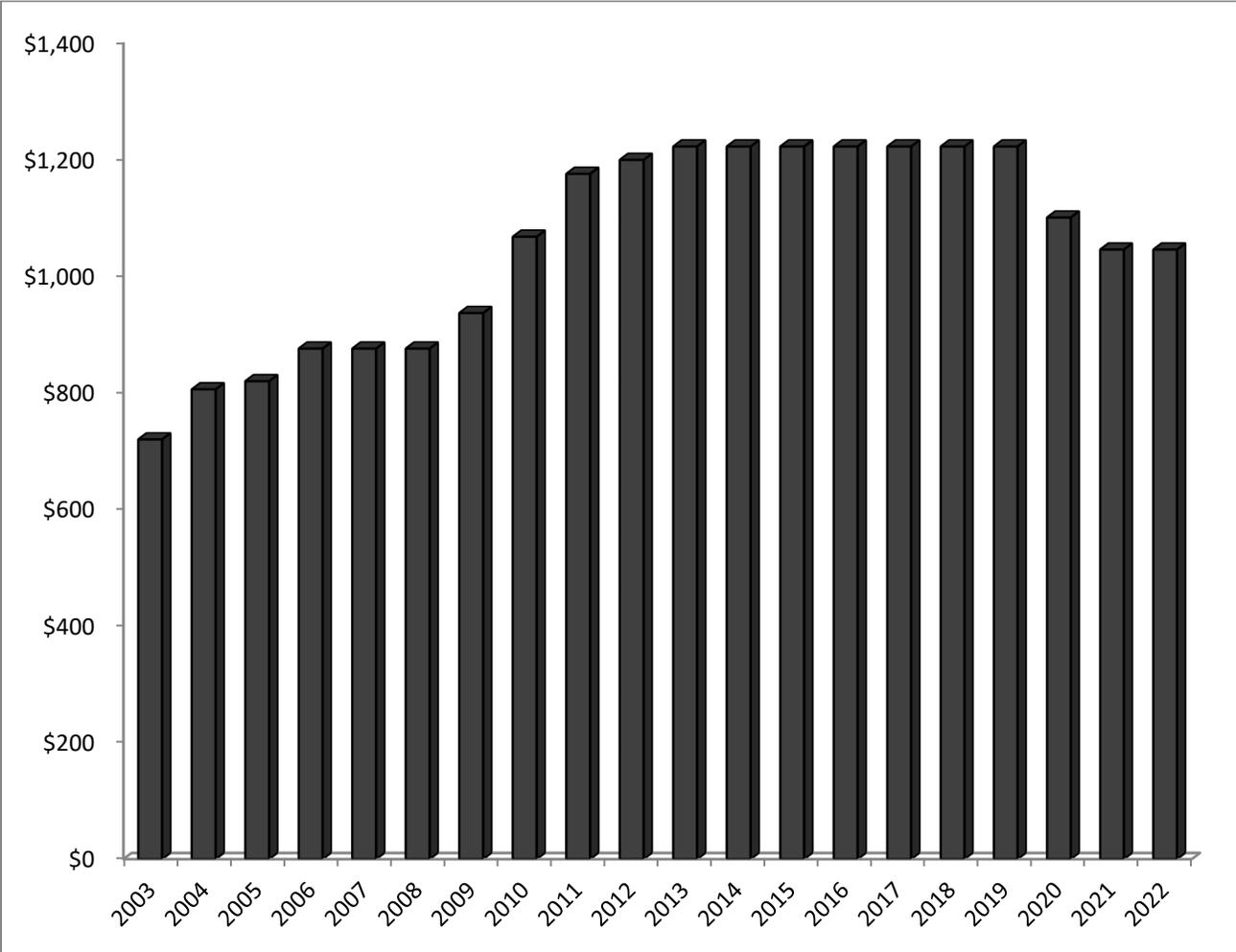
# Statistical Section

<b>Teachers' Retirement System Schedule of Average Pension Benefit Payments New Benefit Recipients</b>							
	<b>Years of Credited Service</b>						
	<b>0 - 4</b>	<b>5 - 9</b>	<b>10 - 14</b>	<b>15 - 19</b>	<b>20 - 24</b>	<b>25 - 29</b>	<b>30+</b>
Period 7/1/13 - 6/30/14: Average Monthly Benefit	\$235	\$904	\$1,435	\$2,398	\$3,016	\$4,073	\$7,485
Number of Recipients	8	31	31	28	22	18	12
Period 7/1/14 - 6/30/15: Average Monthly Benefit	\$349	\$1,041	\$1,342	\$2,205	\$3,267	\$4,220	\$5,900
Number of Recipients	11	33	70	67	137	125	94
Period 7/1/15 - 6/30/16: Average Monthly Benefit	\$245	\$1,002	\$1,535	\$2,540	\$3,445	\$4,472	\$6,168
Number of Recipients	11	31	82	69	105	74	54
Period 7/1/16 - 6/30/17: Average Monthly Benefit	\$426	\$795	\$1,626	\$2,433	\$3,549	\$4,536	\$6,351
Number of Recipients	10	22	60	75	100	64	48
Period 7/1/17 - 6/30/18: Average Monthly Benefit	\$204	\$899	\$1,583	\$2,583	\$3,422	\$4,580	\$6,083
Number of Recipients	5	21	61	85	109	130	57
Period 7/1/18 - 6/30/19: Average Monthly Benefit	\$334	\$891	\$1,540	\$2,760	\$3,567	\$4,666	\$6,777
Number of Recipients	4	23	39	87	93	85	41
Period 7/1/19 - 6/30/20: Average Monthly Benefit	\$243	\$1,054	\$1,647	\$2,600	\$3,616	\$4,874	\$6,772
Number of Recipients	8	19	26	72	90	78	40
Period 7/1/20 - 6/30/21: Average Monthly Benefit	\$451	\$764	\$1,509	\$2,684	\$3,625	\$4,659	\$6,090
Number of Recipients	8	24	33	83	142	112	46
<p>“Average Monthly Benefit” includes post-retirement pension adjustments and cost-of-living increases.</p> <p>Beneficiaries are not included in the table above</p>							

# Statistical Section

<b>Teachers' Retirement System</b> <b>Schedule of Pension and Healthcare Benefits Deductions by Type</b> <b>(In thousands)</b>						
Year Ended June 30	Service	Disability	Survivor	Dependent	Healthcare	Total
2013	\$ 364,387	\$ 1,377	\$ 14,467	\$ 34	\$ 160,337	\$ 540,602
2014	379,594	1,231	15,703	86	166,631	563,245
2015	398,280	1,211	16,781	82	109,740	526,094
2016	415,963	1,279	18,360	97	122,954	558,653
2017	425,059	1,306	19,609	70	120,248	566,292
2018	434,783	1,226	20,372	70	134,118	590,569
2019	447,951	1,281	21,157	49	143,203	613,641
2020	464,483	1,026	23,244	19	135,630	624,402
2021	474,220	936	24,805	6	148,137	648,104
2022	482,962	737	26,785	—	157,913	668,397

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



# Statistical Section

**Teachers' Retirement System**  
**Schedule of Pension Benefit Recipients by Type**  
**of Pension Benefit and Option Elected**  
**Valuation as of June 30, 2021**

Amount of Monthly Pension Benefit	Number of Recipients	Type of Pension Benefit			Option Selected			
		1	2	3	1	2	3	4
\$ 1 - 300	240	165	75	—	148	46	39	7
301 - 600	405	276	129	—	228	71	84	22
601 - 900	666	510	156	—	366	135	126	39
901 - 1,200	831	651	180	—	496	158	143	34
1,201 - 1,500	730	560	170	—	406	155	148	21
1,501 - 1,800	735	561	174	—	415	159	138	23
1,801 - 2,100	757	598	159	—	406	155	169	27
2,101 - 2,400	846	714	132	—	383	203	227	33
2,401 - 2,700	999	900	99	—	451	237	281	30
2,701 - 3,000	1,079	1,002	72	5	466	256	324	33
3,001 - 3,300	990	944	42	4	395	244	326	25
3,301 - 3,600	955	919	35	1	392	208	328	27
3,601 - 3,900	874	854	18	2	342	186	320	26
3,901 - 4,200	757	735	17	5	312	163	261	21
over \$4,200	3,108	3,070	35	3	1,173	555	1,277	103
Totals	13,972	12,459	1,493	20	6,379	2,931	4,191	471

**Type of Pension Benefit**

- 1 - Regular retirement
- 2 - Survivor payment
- 3 - Disability

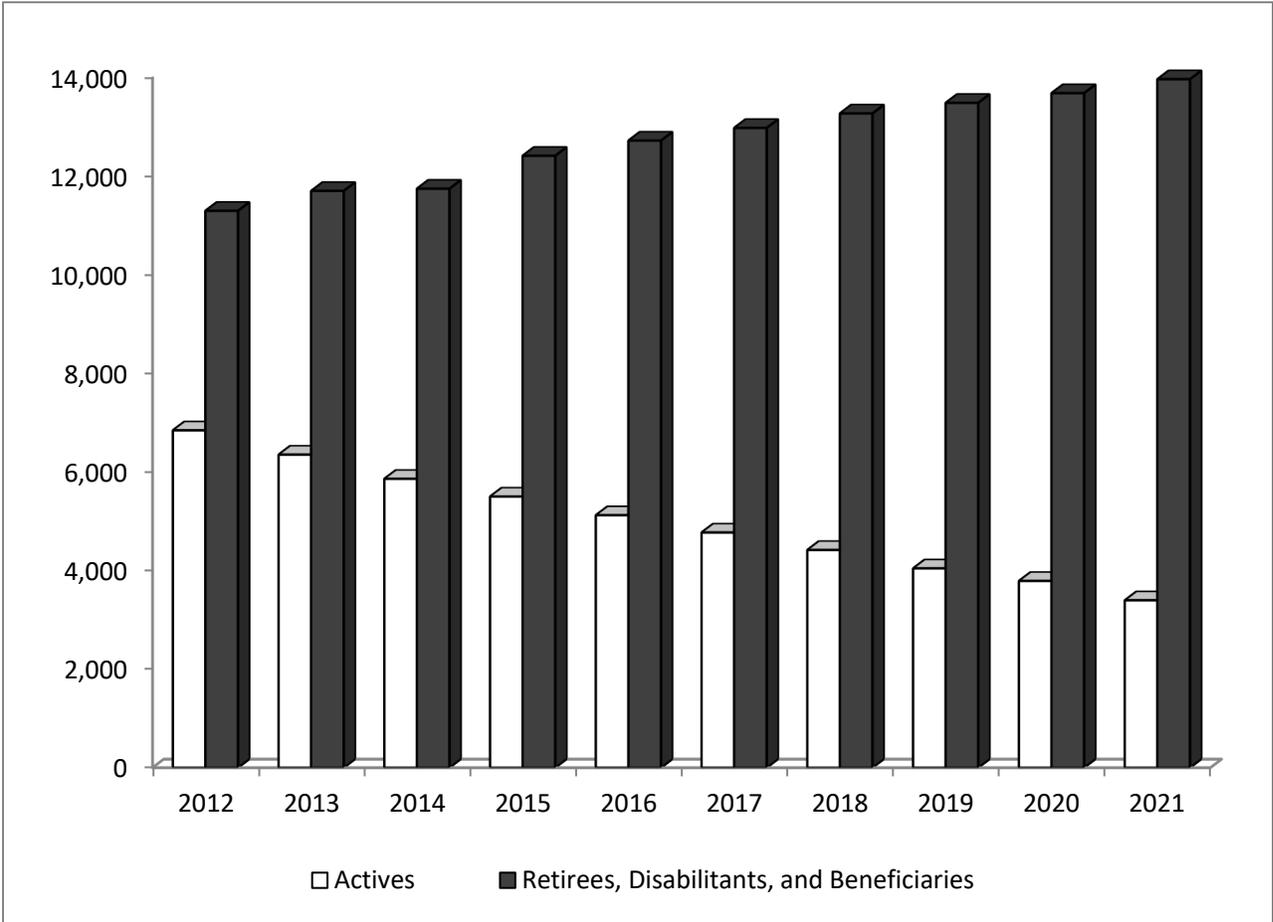
**Option Selected**

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

# Statistical Section

Teachers' Retirement System System Membership by Status					
Year Ended June 30	Active	Retirees Disabilitants & Beneficiaries	Vested Terminations	Nonvested Terminations w/Balance	Total
2012	6,845	11,301	868	2,559	21,573
2013	6,352	11,705	906	2,448	21,411
2014	5,861	11,750	1,274	2,328	21,213
2015	5,502	12,418	890	2,218	21,028
2016	5,123	12,726	875	2,103	20,827
2017	4,772	12,983	876	1,994	20,625
2018	4,418	13,277	797	1,900	20,392
2019	4,044	13,491	812	1,810	20,157
2020	3,789	13,689	764	1,744	19,986
2021	3,396	13,972	727	1,679	19,774

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



# Statistical Section

<b>Teachers' Retirement System Principal Participating Employers June 30, 2022</b>			
<b>Employer</b>	<b>Non-retired Members</b>	<b>Rank</b>	<b>Percentage of Total Non-retired Members</b>
Anchorage School District	4,965	1	31.19%
Matanuska-Susitna Borough School District	1,716	2	10.78
Fairbanks North Star Borough School District	<u>1,335</u>	3	<u>8.39</u>
<b>Total</b>	<b><u>8,016</u></b>		<b><u>50.36%</u></b>

## Teachers' Retirement System Participating Employers June 30, 2022

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Alaska Department of Education	Lake and Peninsula Borough School District
Alaska Gateway School District	Lower Kuskokwim School District
Aleutian Region School District	Lower Yukon School District
Aleutians East Borough School District	
Anchorage School District	Matanuska-Susitna Borough School District
Annette Island School District	
	Nenana City School District
Bering Strait School District	Nome City School District
Bristol Bay Borough School District	North Slope Borough School District
	Northwest Arctic Borough School District
Chatham School District	
Chugach School District	Pelican City School District
Copper River School District	Petersburg City School District
Cordova City School District	Pribilof School District
Craig City School District	
	Saint Mary's School District
Delta-Greely School District	Sitka Borough School District
Denali Borough School District	Skagway City School District
Dillingham City School District	Southeast Island School District
	Southeast Regional Resource Center
Fairbanks North Star Borough School District	Southwest Region School District
	Special Education Service Agency
Galena City School District	
	Tanana School District
Haines Borough School District	
Hoonah City School District	Unalaska City School District
Hydaburg City School District	University of Alaska
Iditarod Area School District	Valdez City School District
Juneau School District, City and Borough of	Wrangell Public School District
Kake City School District	Yakutat School District
Kashunamiut School District	Yukon Flats School District
Kenai Peninsula Borough School District	Yukon-Koyukuk School District
Ketchikan Gateway Borough School District	Yupiit School District
Klawock City School District	
Kodiak Island Borough School District	
Kuspuk School District	



ALASKA DIVISION OF  
**Retirement  
and Benefits**





STATE OF ALASKA • DEPARTMENT OF ADMINISTRATION

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