

A component unit of the State of Alaska

Comprehensive Annual Financial Report

Fiscal Year Ended June 30, 2014

Bill Walker, Governor



## TEACHERS' RETIREMENT SYSTEM

#### **COMPREHENSIVE ANNUAL FINANCIAL REPORT**

#### A Component Unit of the State of Alaska

For the Fiscal Year Ended June 30, 2014



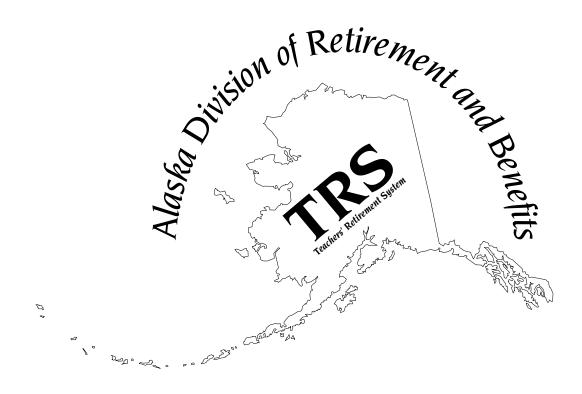
Bill Walker, Governor

Prepared by

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

Amy Erickson, Acting Commissioner Jim Puckett, Chief Operations Officer Kevin Worley, Chief Financial Officer

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# INTRODUCTORY SECTION





## Department of Administration

DIVISION OF RETIREMENT AND BENEFITS

6th Floor State Office Building 333 Willoughby Avenue P.O. Box 110203 Juneau, AK 99811-0203 FAX: (907) 465-3086 Phone: (907) 465-4460 Toll-Free: (800) 821-2251

#### LETTER OF TRANSMITTAL

December 15, 2014

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

We are pleased to present the Comprehensive Annual Financial Report (CAFR) of the Teachers' Retirement System (TRS) (System) for the fiscal year ended June 30, 2014. The CAFR is intended to fulfill the legal requirements of Alaska Statute (AS) 14.25.004(a)(8).

The CAFR provides comprehensive information on the financial operations of the System for the fiscal year. Responsibility for the accuracy, completeness and fairness of the information presented rests with the management of the System. To the best of our knowledge and belief, the enclosed information is accurate in all material respects and is reported in a manner designed to fairly present the financial position and results of operations of the System for the year ended June 30, 2014. All disclosures necessary to enable the reader to gain an understanding of the System's activities have been included.

KPMG LLP, Certified Public Accountants, have issued an unmodified opinion on the System's basic financial statements for the year ended June 30, 2014. The independent auditor's report is located at the front of the Financial Section of this report.

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

The CAFR is divided into five sections:

- **Introductory Section**, which contains the letter of transmittal, the organization chart of the Division, and a list of the members serving on the Alaska Retirement Management Board;
- **Financial Section**, which contains the Independent Auditor's Report, MD&A, basic financial statements, required supplementary information, and additional information;
- **Investment Section**, which contains a report prepared by the investment consultant, a report on investment activity, investment results, and various investment schedules;

- Actuarial Section, which contains the Actuarial Certification letter and the results of the most current annual
  actuarial valuation; and
- **Statistical Section**, which includes additional information related to financial trends, demographic and economic information, and operating information.

#### Profile of the System

The System was established in 1955 to provide pension benefits to teachers and other eligible participants. Post-employment health care benefits were added in July 1, 1975. Senate Bill 141, signed into law on July 27, 2005, closed the Defined Benefits (DB) Plan effective July 1, 2006, to new members and created a Defined Contribution (DC) 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 DC Plan. This report includes both plans. The DB Plan includes the defined benefit pension plan and the Alaska Retiree Health Care Trust (Tiers I and II). The DC Plan includes the defined contribution 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 of Alaska CAFR as a fiduciary fund.

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

The Alaska Retirement Management Board (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 to make progress on several ongoing projects. Most of these efforts are focused on improving customer service, technology, methods for employers to submit information, methods for members to obtain information, and continued compliance with accounting requirements of the Governmental Accounting Standards Board (GASB) and the Financial Accounting Standards Board (FASB), as applicable.

Effective January 1, 2014, the administration of the AlaskaCare health insurance plans for Public Employees', Teachers', Judicial, and certain state employees is administered by Aetna. The dental plan is administered by Moda Health / Delta Dental of Alaska. Additionally, beginning in 2014, the health insurance plans will be on a calendar benefit year, a switch from the July to June benefit year.

The System continues to assess and retool its communication efforts, which include printed handbooks, newsletters, and website content. The System strives to ensure that all communication material is clear, accurate, and user-friendly.

The System also 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, providing faster processing of all customer requests, and improving member education services.

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

#### **Funding Requirements**

The System's consulting actuary, Buck Consultants, presented the results of the June 30, 2013, actuarial valuation report to the Plan Administrator and the Board. The assumptions and benefits are explained in the Actuarial Section of this report.

Based on the most recent valuation report dated June 30, 2013, the TRS has a funding ratio (actuarial value of DB Plan assets divided by actuarial liabilities for DB pension and postemployment healthcare benefits) of 51.9%. The DB Plan's unfunded actuarial accrued liability (actuarial liability minus actuarial value of DB plan assets) totals approximately \$4.6 billion. The unfunded liability continues to be addressed at all levels of the State. The Governor's budget proposes to provide funding to TRS employers in order to maintain an appropriate level of employer contributions while also paying the actuarial required contribution rate adopted by the Board. Recently passed legislation appropriating \$2 billion to the System's defined pension benefit and Alaska Retiree Healthcare Trust can be found in the Notes to Financial Statements of the Financial Section.

#### **Investments**

On June 30, 2014, the DB Plan's investment portfolio was valued at \$5.8 billion and earned an 18.46% return for the fiscal year ended June 30, 2014. The DC Plan's investment portfolio was valued at \$274.8 million for the fiscal year ended June 30, 2014. Over the past five years ending June 30, 2014, the DB Plan's investments earned a 12.66% return. The Board has statutory oversight of the System's investments and the Department of Revenue, Treasury Division, provides staff for the Board. Actual investing is performed by investment officers in the Treasury Division or by contracted external investment managers. The Board reviews and updates investment policies and strategies and is responsible for safeguarding invested assets.

#### **Accounting System**

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

#### Internal Controls

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

#### **Awards**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the System for its CAFR for the fiscal year ended June 30, 2013. The Certificate of Achievement is a prestigious national award that recognizes conformance with the highest standards of preparation of state and local government financial reports.

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

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

Additionally, the Public Pension Coordinating Council (PPCC) awarded the Public Pension Standards Award for Funding and Administration certificate for the fiscal year ended June 30, 2014.

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 standard's award requirements and will apply to the PPCC for consideration in 2015.

#### Acknowledgements

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

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

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

Respectfully submitted,

Amy Erickson Acting Commissioner Jim Puckett

Chief Operations 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 Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2013

Executive Director/CEO



## **Public Pension Coordinating Council**

## Public Pension Standards Award For Funding and Administration 2014

Presented to

## 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

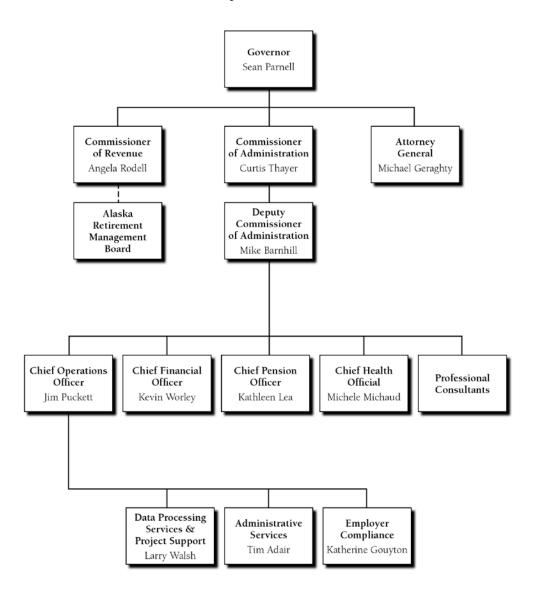
National Association of State Retirement Administrators (NASRA) National Conference on Public Employee Retirement Systems (NCPERS) National Council on Teacher Retirement (NCTR)

> Alan H. Winkle Program Administrator

alan Helingle

## **ORGANIZATION CHART**

As of June 30, 2014



#### 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**

#### **Consulting Actuary**

Buck Consultants

Denver, Colorado

#### **Independent Auditors**

KPMG LLP Anchorage, Alaska

#### **Benefits Consultants**

Buck Consultants

Denver, Colorado

Michael Silverman Professional Services *Iuneau*. Alaska

Maximus Federal Services Reston, Virginia

#### Third-Party Healthcare Claim Administrator

Aetna Life Insurance Company

Lexington, Kentucky

Moda Health / Delta Dental of Alaska

Portland, Oregon

HealthSmart Benefit Solutions, Inc.

Charleston, West Virginia

#### IT Consultants

Computer Task Group Applied Microsystems, Inc. *Anchorage, Alaska* 

> Alaska IT Group Juneau, Alaska

#### Legal Counsel

Joan Wilkerson
Jessica Srader
Rebecca Polizzotto
Toby Steinberger
Assistant Attorney Generals
Juneau, Alaska

Ice Miller LLP
Indianapolis, Indiana

#### **Consulting Physicians**

Kim Smith, M.D.
Ward Hurlburt, M.D.
Alex Malter, M.D.
Deborah Lessmeier, M.D.
Myanandi Than, M.D. *Juneau, Alaska* 

Thomas Rodgers, M.D. Ford, Washington

A list of investment consultants can be found on pages 71-72 and on the Schedule of External Management Fees on pages 80-81.

#### Alaska Retirement Management Board

As of June 30, 2014

Gail (Anagick) Schubert, Chair, is the Chief Executive Officer and General Counsel for the Bering Straits Native Corporation, and President/CEO of several of its subsidiary entities. She is an attorney licensed to practice law in the states of Alaska and New York. Mrs. Schubert serves as Chair of the Alaska Native Heritage Center, Chair of Akeela Treatment Services, Chair of the Alaska Retirement Management Board, Vice Chair of the Alaska Native Justice Center, Vice Chair of Khoanic Broadcast Corporation, Treasurer of the Bering Straits Native Corporation, and as a board member of the Alaska Federation of Natives, and the Alaska Native Arts Foundation. She is also a member of the Alaska Rural Justice and Law Enforcement Commission. Mrs. Schubert received her undergraduate degree from Stanford University, and holds a law degree and master's degree in business administration from Cornell University.

Sam Trivette, Vice-Chair, is on the national executive board of the American Federation of Teachers retirees and was formerly President of the Retired Public Employees of Alaska. Mr. Trivette retired from public service after more than 32 years serving as Chief Probation Officer, Director of Community Corrections, Executive Director of the Parole Board, and as a probation and correctional officer. He is President of Quality Corrections Services, and on the board of directors of the Alaska Public Employees Association. Mr. Trivette has also served as an officer in a number of national and statewide professional organizations as well as many not-for-profit organizations around Alaska. He has a bachelor's degree in psychology from the University of Alaska Anchorage and has completed postgraduate work in public administration, law and psychological counseling.

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

Tom Brice is the Business Representative for the Alaska District Council of Laborers administering the contracts in Southeast Alaska for Laborers Local 942 and Public Employees Local 71. He was elected to the position of Vice President of Laborers Local 942 in 2011, and has sat on the negotiating team for the state contract with Public Employees Local 71 for the past three contracts. Prior to this position, Mr. Brice was the Apprenticeship Outreach Coordinator for the Alaska Works Partnership. Here he developed and managed a statewide program focused on assisting qualified rural Alaskans to gain entrance to the various registered Alaskan Building Trade apprenticeships. Mr. Brice also served in the Alaska State House of Representatives between the 18th and 21st legislatures. He has a bachelor's degree from the University of Alaska Fairbanks.

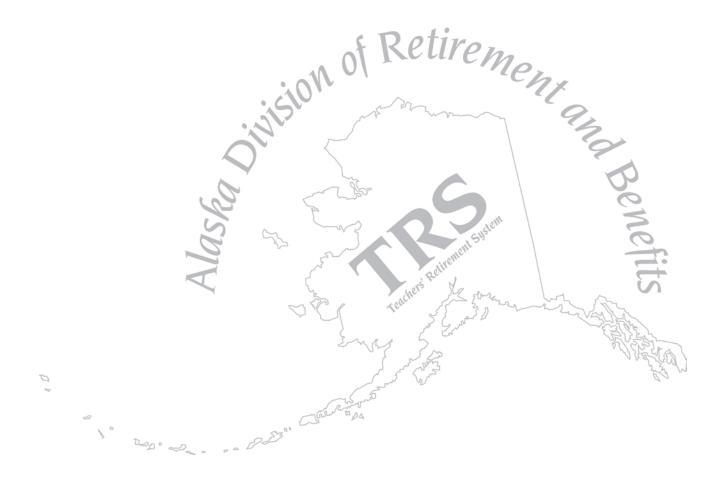
Angela Rodell was appointed Commissioner of the Department of Revenue by Governor Sean Parnell in November, 2010. She joined the State of Alaska in September 2011. Prior to her current position, Ms. Rodell served as State Treasurer and Deputy Commissioner over the Department's Treasury, Permanent Fund Dividend, and Child Support Services divisions. Formerly, Ms. Rodell served as financial advisor to more than \$30 billion of transactions for state and state authorities in Alaska, Arkansas, California, Illinois, New Jersey, New York, North Carolina, Rhode Island, and Virginia. Prior to becoming a financial advisor, Ms. Rodell served as the finance officer for the Kentucky Housing Corporation. She has a Bachelor of Arts degree from Marquette University and a Master of Public Administration from the University of Kentucky.

Kristin Erchinger is currently finance director for the city of Seward, having worked for the city in finance positions since 1994 including a year serving simultaneously as finance director and acting city manager. She became the finance director in 2000. Ms. Erchinger is past president of the Alaska Government Finance Officers Association and represents that organization in the Alaska Municipal League. She also served on the Providence Alaska Region Board, the Graduate Medical Education Committee, the Alaska Municipal League Board, and the Board of the American Society for Public Administration, Alaska Chapter. Ms. Erchinger earned bachelor's degrees in international studies and Japanese language and literature, both from the University of Washington, and a master's degree in public administration from the University of Alaska Anchorage.

Curtis Thayer was appointed Commissioner of the Department of Administration by Governor Sean Parnell in January 2014. Prior to his current position, Mr. Thayer served as Deputy Commissioner of the Department of Administration since August 2012. Before joining the Department of Administration, he was Deputy Commissioner of the Department of Commerce, Community, and Economic Development since 2009. Mr. Thayer also serves as Chair of the Alaska Board of Marine Pilots and serves on the Board of Directors of Abused Women in Crisis. He is the past Chairman of the Anchorage Public Safety Advisory Commission, and has also served on the Board of Directors of Armed Services YMCA. Born in Anchorage, Mr. Thayer grew up in Alaska and graduated from the University of Alaska Fairbanks. He lives in Anchorage with his wife, Josie, and their son.

Martin Pihl came to Alaska in 1962 to work for Ketchikan Pulp Company, becoming President and General Manager in 1987 until his retirement in 1994. He then served as Acting Executive Director for the Alaska Permanent Fund Corporation in 1994-1995. Mr. Pihl serves as a director of National Bank of Alaska and on Wells Fargo Bank's Alaska Statewide Advisory Board, as Chairman of the Board of Governors of the Alaska Timber Insurance Exchange, and as a regent for Pacific Lutheran University. He is also a member of several advisory boards including Holland America-Westmark- Ketchikan Advisory Board, Ketchikan Ports and Harbors Advisory Board, and Alaska Airlines Southeast Alaska Community Advisory Board. Mr. Pihl holds a bachelor's degree in accounting from the University of Washington and has been a CPA since 1958.

Sandra Ryan is a mathematics and tech prep instructor at West Valley High School in Fairbanks, and has been a teacher since 1988. Ms. Ryan teaches Advanced Placement computer science as well as Advanced Placement statistics and accounting. She has worked as a member of two accreditation teams: one for Lathrop High School, the other for West Valley High School. She has served on Professional Learning Teams at West Valley High School, been appointed to the Fairbanks North Star Borough School District Teacher Evaluation team, and was recently nominated as BP Teacher of Excellence. She is a member of the National Education Association Alaska Board of Directors, and a member of the Fairbanks Education Association, serving for the past five years as treasurer. She is also manager of a family trust. Ms. Ryan earned a Bachelor of Science in communication at the University of Texas, Austin, Texas; a Bachelor of Science in mathematics at St. Edward's University, Austin, Texas; and a master's degree in computer science engineering at the University of Alaska Fairbanks. She was appointed by Governor Parnell to a seat reserved for a Teachers' Retirement System representative.





# FINANCIAL SECTION





#### KPMG LLP

Suite 600 701 West Eighth Avenue Anchorage, AK 99501

#### **Independent Auditors' Report**

We have audited the accompanying combining statement of fiduciary net position of the State of Alaska Teachers' Retirement System (the System) (a component unit of the State of Alaska) as of June 30, 2014, and the combining statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

#### Management's Responsibility for the Financial Statements

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

#### Auditors' Responsibility

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

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

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

#### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the State of Alaska Teachers' Retirement System as of June 30, 2014, and the changes in fiduciary net position for the year then ended in accordance with U.S. generally accepted accounting principles.

## Financial Section

#### Emphasis of a Matter

As discussed in Note 2 to the financial statements, in 2014, the System adopted Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Pension Plans – an Amendment of GASB Statement No. 25. Our opinion is not modified with respect to this matter.

#### Other Matters

#### Prior-Year Comparative Information

We have previously audited the System's 2013 financial statements, and we expressed an unmodified opinion on those financial statements in our report dated October 18, 2013. In our opinion, the summarized comparative information presented herein as of and for the year then ended June 30, 2013 is consistent, in all material respects, with the audited financial statements from which it has been derived.

#### Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 15-23, and the schedule of changes in employer net pension liability and related ratios, schedule of employer and nonemployer contributions, schedule of investment returns, schedule of funding progress, and schedule of contributions from employers and the state of Alaska on pages 49-64 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### Supplemental Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the System's basic financial statements. The supplemental schedules on pages 66-68 are presented for purposes of additional analysis and are not a required part of the basic financial statements. The supplemental schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplemental schedules are fairly stated in all material respects in relation to the basic financial statements as a whole.s



December 9, 2014

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

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

June 30, 2014

This section presents management's discussion and analysis (MD&A) of the Teachers' Retirement System's (System) financial position and performance for the year ended June 30, 2014. 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 year ended June 30, 2014.

#### **Financial Highlights**

The System's financial highlights as of June 30, 2014 were as follows:

- The System's fiduciary net position restricted for pension and postemployment healthcare benefits increased by \$953.8 million during fiscal year 2014.
- The System's plan member and employer contributions decreased by \$592,000 during fiscal year 2014.
- The State of Alaska directly appropriated \$316.8 million during fiscal year 2014 as statutorily required.
- The System's net investment income increased \$389.0 million to \$997.3 million during fiscal year 2014.
- The System's pension benefit expenditures totaled \$396.6 million during fiscal year 2014.
- The System's postemployment healthcare benefit expenditures totaled \$116.8 million in fiscal year 2014.

#### **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 Statements 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 market value, along with cash and short-term investments, receivables, and other assets less liabilities at June 30, 2014 and 2013.

Combining Statements of Changes in Fiduciary Net Position – This statement presents how the System's net position restricted for pension and postemployment healthcare benefits changed during the fiscal years ended June 30, 2014 and 2013. 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, 2014 and the sources and uses of those funds during fiscal year 2014.

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.

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

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

June 30, 2014

Required Supplementary Information and Related Notes – The required supplementary information consists of seven 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** (In thousands)

System net position

	_			Increase (		
Description		2014	2013	Amount	Percentage	2012
Assets:						
Cash and cash equivalents	\$	204,330	81,133	123,197	151.8% \$	93,983
Due from State of Alaska						
General Fund		3,933	4,177	(244)	(5.8)	4,943
Contributions receivable		4,317	5,711	(1,394)	(24.4)	4,335
Other receivables		3	5	(2)	(40.0)	_
Due from Retiree Health Fund		_	1	(1)	(100.0)	3
Investments, at fair value		6,113,985	5,283,803	830,182	15.7	4,698,332
Other assets	_	1,497	1,179	318	27.0	1,179
Total assets	_	6,328,065	5,376,009	952,056	17.7	4,802,775
Liabilities:						
Accrued expenses		3,989	4,639	(650)	(14.0)	3,833
Claims payable		18,979	20,062	(1,083)	(5.4)	14,813
Forfeitures payable to employers		5,997	4,498	1,499 33.3		_
Due to State of Alaska General Fund	_	374	1,838	(1,464)	(79.7)	192
Total liabilities	_	29,339	31,037	(1,698)	(5.5)	18,838
Net position	\$	6,298,726	5,344,972	953,754	17.8% \$	4,783,937

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

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

June 30, 2014

Changes in system net position

			•	Increase (		
Description		2014	2013	Amount	Percentage	2012
Net position, beginning of year	\$	5,344,972	4,783,937	561,035	11.7% \$	4,842,903
Additions:						
Contributions		162,959	163,551	(592)	(0.4)	164,007
Appropriation – State of Alaska		316,846	302,777	14,069	4.6	234,517
Net investment income		997,262	608,251	389,011	64.0	13,901
Other additions	_	6,254	4,173	2,081	49.9	12,552
Total additions		1,483,321	1,078,752	404,569	37.5	424,977
Deductions:						
Pension and postemployment						
healthcare benefits		513,395	501,120	12,275	2.4	471,834
Refund of contributions		7,739	6,405	1,334	20.8	5,428
Administrative	_	8,433	6,945	1,488	21.4	6,681
Total deductions		529,567	514,470	15,097	2.9	483,943
Less adjustment to beginning net position			3,247	(3,247)	(100.0)	
Increase (decrease) in						
net position	_	953,754	561,035	392,719	70.0	(58,966)
Net position, end of year	\$	6,298,726	5,344,972	953,754	17.8 \$	4,783,937

#### Financial Analysis of the System

The statements of fiduciary net position as of June 30, 2014 and 2013 show net position restricted for pension benefits, postemployment healthcare benefits, and individuals of \$6,298,726,000 and \$5,344,972,000, respectively. The entire amount is available to cover the System's obligations to pay pension and postemployment healthcare benefits to its members and their beneficiaries, as well as administrative costs.

These amounts represent an increase in the System's net position restricted for pension benefits, postemployment healthcare benefits, and individuals of \$953,754,000 or 17.8% from fiscal year 2013 to 2014 and \$561,035,000 or 11.7% from fiscal year 2012 to 2013 and a decrease of \$58,966,000 or 1.2% from fiscal year 2011 to 2012. Over the long term, plan member, employer contributions, and State of Alaska appropriations, as well as investment income earned, are expected to sufficiently fund the pension benefit and postemployment healthcare costs of the System.

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.

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

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

June 30, 2014

#### System Asset Allocation

During fiscal years 2014 and 2013, the Board adopted the following asset allocation for the Defined Benefit Pension Plan (DB Plan) and Defined Contribution Pension Plan's (DC Plan) retiree major medical insurance fund, health reimbursement, and occupational death and disability fund:

	2014	ł .
	Pension and Hea	lthcare Trust
	Allocation	Range
Broad domestic equity	26.0%	± 6%
Global equity ex-Û.S.	25.0	± 4
Private equity	9.0	± 5
Real assets	17.0	± 8
Absolute return	5.0	± 4
Fixed composite	12.0	± 5
Alternative equity strategies	3.0	± 2
Cash equivalents	3.0	-3/+1
Total	100.0%	
Expected return five-year geometric mean	7.16%	
Projected standard deviation	14.81	

	2013			
	Pension and Healthcare Trust			
	Allocation	Range		
Broad domestic equity	27.0%	± 6%		
Global equity ex-U.S.	23.0	± 4		
Private equity	8.0	± 5		
Real assets	16.0	± 8		
Absolute return	6.0	± 4		
Fixed composite	14.0	± 5		
Short-term fixed income	6.0	-6/+1		
Total	100.0%			
Expected return five-year geometric mean	7.11%			
Projected standard deviation	14.20			

For fiscal years 2014 and 2013, the DB Plan's investments generated an 18.46% and 12.59% rate of return, respectively.

2014

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

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

June 30, 2014

#### 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 of Alaska appropriation, investment income, and other additions as follows:

**Additions** (In thousands)

	Tatalitatio (III tilo dodardo)						
			Increase (				
_	2014	2013	Amount	Percentage	2012		
\$	68,313	68,495	(182)	(0.3)%	68,298		
	94,646	95,056	(410)	(0.4)	95,709		
	316,846	302,777	14,069	4.6	234,517		
	997,262	608,251	389,011	64.0	13,901		
_	6,254	4,173	2,081	49.9	12,552		
\$	1,483,321	1,078,752	404,569	37.5%	424,977		
	\$ \$ 	\$ 68,313 94,646 316,846 997,262 6,254	2014     2013       \$ 68,313     68,495       94,646     95,056       316,846     302,777       997,262     608,251       6,254     4,173	2014         2013         Amount           \$ 68,313         68,495         (182)           94,646         95,056         (410)           316,846         302,777         14,069           997,262         608,251         389,011           6,254         4,173         2,081	2014         2013         Increase (decrease)           \$ 68,313         68,495         (182)         (0.3)%           94,646         95,056         (410)         (0.4)           316,846         302,777         14,069         4.6           997,262         608,251         389,011         64.0           6,254         4,173         2,081         49.9		

The System's employer contributions decreased from \$95,056,000 in fiscal year 2013 to \$94,646,000 in fiscal year 2014, a decrease of \$410,000 or 0.4%. The System's employer contributions decreased from \$95,709,000 in fiscal year 2012 to \$95,056,000 in fiscal year 2013, a decrease of \$653,000 or 0.7%. The decrease in employer contributions is attributable to a decrease in the DB plan membership.

The State of Alaska provided \$316,846,000 for fiscal year 2014 and \$302,777,000 for fiscal year 2013 in nonemployer contributions as required by Alaska Statute 14.25.085. The employer on-behalf amount 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 Alaska Statute 14.25.070(a).

The System's net investment income in fiscal year 2014 increased by \$389,011,000 or 64.0% from amounts recorded in fiscal year 2013. The System's net investment income in fiscal year 2013 increased by \$594,350,000 or 4,275.6% from amounts recorded in fiscal year 2012. Over the long term, investment income has been a major component of additions to System assets.

## Teachers' Retirement System

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

Management's Discussion and Analysis (Unaudited)

June 30, 2014

The System's investment rates of return at June 30 are as follows:

		Year ended				
	2014	2013	2012			
System returns	18.46%	12.59%	0.51%			
Domestic equities	25.45	21.24	1.83			
International equities	23.41	15.03	(13.66)			
Fixed income	5.14	0.57	4.82			
Private equity	24.19	11.68	9.44			
Absolute return	6.51	8.41	(2.05)			
Real assets	12.71	10.65	10.45			
Cash equivalents	0.26	0.25	0.42			
Alternative equity	24.55	_	_			

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

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

		<b>Deductions</b> (In thousands)					
				Increase (c	lecrease)		
		2014	2013	Amount	Percentage	2012	
Pension benefits	\$	396,614	380,265	16,349	4.3% \$	361,202	
Postemployment healthcare benefits		116,781	120,855	(4,074)	(3.4)	110,632	
Refund of contributions		7,739	6,405	1,334	20.8	5,428	
Administrative	_	8,433	6,945	1,488	21.4	6,681	
Total	\$	529,567	514,470	15,097	2.9% \$	483,943	

The System's pension benefit payments in 2014 increased \$16,349,000 or 4.3% from fiscal year 2013 and increased \$19,063,000 or 5.3% from fiscal year 2012. The increase in pension benefits in fiscal year 2014 is the result of an increase in the number of retirees.

The System's postemployment healthcare benefit payments in fiscal year 2014 decreased \$4,074,000 or 3.4% from fiscal year 2013 and increased \$10,223,000 or 9.2% from fiscal year 2012. The decrease in healthcare cost in fiscal year 2014 is attributable to the decrease in health claims cost.

The System's administrative deductions in 2014 increased \$1,488,000 or 21.4% from fiscal year 2013 and increased \$264,000 or 4.0% from fiscal year 2012. The increase in administrative costs in fiscal year 2014 is related to an increase in contractual services related to data processing and the health insurance third-party administrator transition project member fees.

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

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

June 30, 2014

#### **Net Pension Liability**

In June 2012, the GASB released a new statement amending existing pension accounting standards for pension plans – GASB 67. The changes related to this new statement for the DB Plan is reflected in this year's notes, schedules, and required supplementary information. The new statement focuses on plan financial reporting and changes the System's DB Plan financial statements by requiring additional disclosure in the notes to the financial statements, actuarial calculations, and schedules. It also requires a different methodology to measure the liability of the DB Plan's pension benefits. The DB Plan is now required to report new pension items called the Total Pension Liability (TPL), Fiduciary Net Position (FNP), and Net Pension Liability (NPL).

The total pension liability (TPL) determines the total obligation for the DB 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 DB Plan's fiduciary net position (FNP) determines the assets available to pay the DB 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 DB Plan. The difference between the TPL and FNP is the Net Pension Liability (NPL), or the unfunded portion of the TPL. The components of the NPL of the participating employers as of June 30, 2014, were as follows (in thousands):

Total pension liability Plan fiduciary net position	\$	6,770,201 (3,771,139)
Employers' net pension liability	\$	2,999,062
Plan fiduciary net position as a percentage of the total pension liability	_	55.70%

#### **Funding**

Retirement benefits are financed by accumulations from employers, plan members, State of Alaska appropriations, and income earned on System investments.

- The employer contribution rate is determined by the System's consulting actuary and considered for adoption by the Board annually. Alaska Statute 14.25.070(a) sets the employer effective contribution rate at 12.56%. The difference between actuarially determined Board adopted rate and the statutory employer effective rate is paid by the State of Alaska as a direct appropriation.
- Plan member contributions are established by Alaska Statute 14.25.050 for the DB Plan and Alaska Statute 14.25.340 for the DC Plan.
- Alaska Statute 14.25.085 requires 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.

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

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

June 30, 2014

The Board works with an external consultant to determine the proper asset allocation strategy.

#### Legislation

During fiscal year 2014, the Twenty-Eighth Alaska State Legislature enacted three laws that affect the System:

- Senate Bill 119 appropriates \$2 billion from the Constitutional Budget Reserve fund to the Department of Administration for deposit in the Defined Benefit Pension fund and the Alaska Retiree Healthcare Trust Funds. A majority of the funding will be directed to the System's defined benefit pension fund. Additionally, it is the intent of the legislature that the Board and the Department direct the System's actuary to eliminate the two-year rate-setting lag as well as to eliminate the asset value smoothing methodology in the System's annual actuarial valuation report.
- House Bill 385 specifically identifies that the level percent of pay methodology based on amortization of the past service liability for a closed term of 25 years will be used in the calculation of the appropriate contribution rate for liquidating the past service liability of the defined benefit plan. The bill also specifies that the Board shall, based on a level percent of pay methodology, reinitialize the amortization of the past service liability of the System's defined benefit plan for a term beginning July 1, 2014, and ending on June 30, 2039.
- Senate Bill 145 updates the definition of "veteran" for the System, as well as for the Public Employees' and Judicial retirement systems, by defining additional time frames of military service between August 2, 1990, and January 2, 1992, beginning September 11, 2001, and ending on the day prescribed by Presidential proclamation or by law as the last date of Operation Iraqi Freedom, or during any time period listed in 5 U.S.C. 2108(1).

For additional information on each item, please see the respective bill, Alaska statute, or plan document.

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

Fiscal year 2014 was a year of positive investment returns. Net investment income increased from \$608,251,000 in fiscal year 2013 to \$997,262,000 in fiscal year 2014, an increase of \$389,011,000 or 64.0%. The Board continues to diversify the portfolio of the System to maintain an optimal risk/return ratio. The return on the System's investments exceeded the actuarially assumed return of 8.00% (based on the June 30, 2011 actuarial report, which established the fiscal year 2014 rate) with a system rate of return of 18.46% at June 30, 2014.

The consulting actuary recommended an increase from the System's actuarially determined contribution rate of 49.56% in fiscal year 2013 to 50.10% in fiscal year 2014. The Board adopted the actuarially determined contribution rate of 53.62% for fiscal year 2014, up 0.95% from fiscal year 2013 Board adopted actuarially determined contribution rate of 52.67%. The statutory employer effective contribution rate remained at 12.56% for fiscal years 2013 and 2014.

The June 30, 2013 actuarial valuation for the DB Plan reported a funding ratio based on valuation assets of 51.9% and an unfunded liability of \$4.6 billion.

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

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

June 30, 2014

For fiscal years 2014 and 2013, the DC Plan's employer contribution rate was established at 12.56%. The DC Plan retiree medical plan actuarially determined contribution rate was adopted by the Board to be 0.47% and 0.49% for fiscal years 2014 and 2013, respectively. The DC Plan's actuarially determined occupational death and disability rate was adopted by the Board to be 0.00% for fiscal years 2014 and 2013.

#### **Requests for Information**

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

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

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

## Combining Statement of Fiduciary Net Position

June 30, 2014
(With summarized financial information for June 30, 2013)
(in thousands)

		Other Postemployment Benefit Plans						
	Defined Benefit Pension	Defined Contribution Pension	Occupational death and disability	Alaska retiree healthcare trust	Retiree medical	Health reimbursement arrangement	System total June 30, 2014	System total June 30, 2013
Assets:								
Cash and cash equivalents (notes 3 and 4): Short-term fixed income pool Great West participant directed deposit	123,198	1,985 4,045	101	73,011	379 —	1,611	200,285 4,045	78,829 2,304
Total cash and cash equivalents	123,198	6,030	101	73,011	379	1,611	204,330	81,133
Receivables: Contributions	4,140	67		78	3	29	4,317	5,711
Due from State of Alaska General Fund	_	2,245	_	1,279	69	340	3,933	4,177
Due from retiree health fund Other account receivable		_	_	_	_	_		1 5
Total receivables	4,143	2,312		1,357	72	369	8,253	9,894
Investments (notes 3, 4, and 5), at fair value:								
Fixed income securities:								
Taxable municipal bond pool	39,594	_	32 179	23,789 131,922	121 673	516 2,859	64,052	395,056
U.S. Treasury fixed income pool High yield fixed income pool	219,575 100,527	_	82	60,397	308	1,309	355,208 162,623	146,274
International fixed income pool	67,319		55	40,446	207	876	108,903	102,290
Emerging markets debt pool	27,322		22	16,415	84	356	44,199	43,541
Total fixed income securities	454,337		370	272,969	1,393	5,916	734,985	687,161
Broad domestic equity	1,183,608		965	711,121	3,630	15,411	1,914,735	1,694,695
Broad international equity								
International equity pool	792,339	_	646	476,044	2,430	10,316	1,281,775	1,009,166
Frontier market pool	17,571	_	15	10,557	54	229	28,426	
Emerging markets equity pool	110,561		90	66,426	339	1,440	178,856	152,540
Total broad international equity	920,471		751	553,027	2,823	11,985	1,489,057	1,161,706
Private equity pool	308,116		251	185,118	945	4,012	498,442	465,223
Absolute return pool	146,411		119	87,965	449	1,906	236,850	229,128
Real assets:								
Real estate equity pool	237,397 64,782	_	193 53	142,570 38,921	728 199	3,090 843	383,978 104,798	396,192 78,230
Real estate investment trust pool Master limited partnership pool	87,102	_	71	52,332	267	1,134	140,906	104,763
Energy pool	19,073		16	11,459	58	248	30,854	31,110
Farmland pool	126,637	_	104	76,085	388	1,649	204,863	188,848
Farmland water pool		_			_	-,		17,794
INFRA public pool	29,386	_	24	17,655	90	382	47,537	· —
Timberland pool	64,165	_	52	38,551	197	835	103,800	75,390
Treasury inflation protected securities pool	6,236		5	3,747	19	81	10,088	2,406
Total real assets	634,778		518	381,320	1,946	8,262	1,026,824	894,733
Other investment funds, at fair value:								
Pooled investment funds Collective investment funds	_	107,675 105,417	_	=	_		107,675 105,417	66,826
								84,331
Total other investment funds	3,647,721	213,092	2,974	2,191,520	11,186	47,492	213,092	151,157
Total investments Other assets	3,64/,/21	213,092	2,9/4		11,180		6,113,985	5,283,803
				1,497				1,179
Total assets	3,775,062	221,434	3,075	2,267,385	11,637	49,472	6,328,065	5,376,009
Liabilities:	2.540	160		271			2.000	4.620
Accrued expenses Claims payable (note 8)	3,549	169	_	271 18,979	_	_	3,989 18,979	4,639 20,062
Forfeitures payable to employers	_	5,997	_	10,7/7	_	_	5,997	4,498
Due to State of Alaska General Fund	374			<u>=</u> _			374	1,838
Total liabilities	3,923	6,166		19,250			29,339	31,037
Net position held in trust for pension benefits,								
postemployment healthcare benefits, and individuals	\$ 3,771,139	215,268	3,075	2,248,135	11,637	49,472	6,298,726	5,344,972

See accompanying notes to financial statements.

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

#### Combining Statement of Changes in Fiduciary Net Position

Year Ended June 30, 2014
(With summarized financial information for June 30, 2013)
(In thousands)

					Other Postemployn				
		Defined Benefit Pension	Defined Contribution Pension	Occupational death and disability	Alaska retiree healthcare trust	Retiree medical	Health reimbursement arrangement	System total June 30, 2014	System total June 30, 2013
Additions: Contributions:									
Employers Plan members Nonemployer State of Alaska	\$	37,571 47,724 208,890	16,098 20,326 —		31,980 263 107,956	1,181	7,816	94,646 68,313 316,846	95,056 68,495 302,777
Total contributions		294,185	36,424		140,199	1,181	7,816	479,805	466,328
Investment income: Net appreciation in fair value (note 2) Interest Dividends	_	547,138 14,255 51,247	32,360 6 —	428 11 41	317,964 8,332 30,126	1,498 39 143	6,102 160 584	905,490 22,803 82,141	526,252 23,667 69,329
Total investment income		612,640	32,366	480	356,422	1,680	6,846	1,010,434	619,248
Less investment expense		12,682	479		11			13,172	10,997
Net investment income		599,958	31,887	480	356,411	1,680	6,846	997,262	608,251
Other: Other	_	27	4		6,223			6,254	4,173
Total additions		894,170	68,315	480	502,833	2,861	14,662	1,483,321	1,078,752
Deductions: Pension and postemployment benefits Refunds of contributions Administrative	_	396,614 2,387 3,160	5,352 929		116,781 — 4,338	_ _ 3_		513,395 7,739 8,433	501,120 6,405 6,945
Total deductions		402,161	6,281		121,119	3	3	529,567	514,470
Adjustment to beginning net assets for prior year forfeitures payable	_								3,247
Net increase		492,009	62,034	480	381,714	2,858	14,659	953,754	561,035
Net position held in trust for pension benefits, postemployment healthcare benefits, and individuals Balance, beginning of year	;	3,279,130	153,234	2,595	1,866,421	8,779	34,813	5,344,972	4,783,937
Balance, end of year	\$	3,771,139	215,268	3,075	2,248,135	11,637	49,472	6,298,726	5,344,972

See accompanying notes to financial statements.

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

#### Notes to Financial Statements

June 30, 2014

(With summarized financial information for June 30, 2013)

#### (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 governed by the Alaska Retirement Management Board (Board), which consists of nine trustees, as follows: Two members, 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 members of PERS; and two trustees who are members of TRS.

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

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

At June 30, 2014 and 2013, the number of participating local government employers and public organizations including the State was as follows:

State of Alaska	1
School districts	53
Other	4
Total employers	58

Inclusion in the Defined Benefit Pension (DB Plan) and Defined Contribution Pension Plan (DC 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**

#### General

The Defined Benefit Pension Plan (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 (SB) 141, the DB Plan is closed to all new members effective July 1, 2006.

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

#### Notes to Financial Statements

June 30, 2014

(With summarized financial information for June 30, 2013)

#### (1) Description (cont.)

The DB Plan's membership consisted of the following at June 30, 2014:

Inactive plan members or beneficiaries currently receiving benefits	11,726
Inactive plan members entitled to but not yet receiving benefits	3162
Active plan members	5,995
	20,883

#### Pension Benefits

Vested members hired prior to July 1, 1990 are entitled to pension benefits beginning at normal retirement age, 55, or early retirement age, 50. For members hired after June 30, 1990, the normal and early retirement ages are 60 and 55, respectively. Members may also 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% 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 cost of living in the previous calendar year rises and the financial condition of the DB Plan's permits. 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.

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#### (1) Description (cont.)

#### **Contributions**

Contributions requirements of the active plan members and the participating employers are actuarially determined and approved by the Board as an amount that, when combined, is expected to finance the costs of benefits earned by plan members during the year, with an additional amount to finance any unfunded accrued liability. The DB Plan members contribute 8.65% of their base salary as required by statute. Employer effective contribution rates are 12.56% of annual payroll. Alaska Statute 14.25.085 requires that additional state contributions made each July 1, or as soon after July 1, for the ensuing fiscal year that when combined with the total employer contributions is sufficient to pay the System's past service liability at the actuarially determined contribution rate adopted by the Board for that fiscal year. Additionally, there is a Defined Benefit Unfunded Liability (DBUL) amount levied against the DCR Plan payroll. The DBUL amount is computed as the difference between:

- (A) the amount calculated for the statutory employer 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 & disability; and
  - (4) health reimbursement arrangement.

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

#### Refunds

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

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#### (1) Description (cont.)

#### **Defined Contribution Retirement Plan**

#### General

The Defined Contribution Pension Plan (DC Plan) provides benefits for eligible employees hired after July 1, 2006. Benefit and contribution provisions are established by State law and may be amended only by the State Legislature.

At June 30, 2014, membership in the DC Plan consisted of 3,650 members.

#### Pension 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.

#### **Contributions**

Alaska statutes require an 8.00% contribution rate for DC Plan members. Employers are required to contribute 7.00% of the member's compensation.

#### Refunds

A member is eligible to elect distribution of their account 60 days after termination of employment.

#### Participant Accounts

Participant accounts under the DC Plan are self-directed with respect to investment options. Investment options are disclosed in note 3.

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, applied pro rata to all the funds in which the employee participates. This fee is for all costs incurred by the record keeper and by the State. The investment management fees are netted out of the funds' performance.

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#### Notes to Financial Statements

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#### (1) Description (cont.)

#### **Defined Benefit Other Postemployment Benefit Plans**

#### Occupational Death and Disability Plan

The Occupational Death and Disability Plan provides death benefits for beneficiaries of plan participants and long-term disability benefits to all active members with the System. Members in the Death and Disability Plan consisted of the following at June 30, 2014:

Active plan members	3,560
Participating employers	58
Open claims	_

#### **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, 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 that would have accrued had the DB Plan member 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).

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#### (1) Description (cont.)

The monthly survivor's pension section for survivors of DC 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.

#### **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 DC Plan member is eligible for an occupational disability benefit if employment is terminated because of a total and apparently permanent occupational disability before the employee'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.

#### **Contributions**

An employer shall contribute to each member's account based on the member's compensation. For fiscal year 2014, the rate is 0.47%.

#### Alaska Retiree Healthcare Trust

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

Membership in the plan was as follows as of June 30, 2014:

Inactive plan members entitled to but not yet receiving benefits  Active plan members	5,076 9,645
	26,447

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#### (1) Description (cont.)

#### **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.

#### Contributions

Employer contribution rates are actuarially determined and adopted by the Board. The 2014 employer effective contribution rate is 12.56% of member's compensation.

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

The Healthcare Reimbursement Arrangement Plan was established to allow medical expenses to be reimbursed from individual savings accounts established for eligible participants. For each member of the plan, an employer shall contribute an amount equal to 3.0% of the average annual compensation of all employees of all employers in the System. As of June 30, 2014, there were 5,564 members.

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

#### 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 revenues 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.

#### Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles 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.

#### 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.

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#### Notes to Financial Statements

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

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.

#### Defined Contribution Participant Directed Investments

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

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

Collective Investment Funds, held in trust, are stated at fair value based on the unit value as reported by the Trustees multiplied by the number of units held by the 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 are comprised commingled investment funds, alongside other investors, through ownership of equity shares.

#### Contributions Receivable

Contributions from the System's members and employers 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.

#### Administrative Costs

Administrative costs are paid from investment earnings.

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

Amounts due from (to) the State of Alaska General Fund represent the net difference between amounts paid by the System on behalf of others and amounts paid by others on behalf of the System.

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#### Notes to Financial Statements

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

#### Federal Income Tax Status

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

#### New Accounting Pronouncements

The System implemented the provisions of Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Pension Plans (GASB 67), during the year ended June 30, 2014. GASB 67 replaces the requirements of GASB Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans (GASB 25), and GASB Statement No. 50, Pension Disclosures. GASB 67 requires the disclosures of the total pension liability, fiduciary net position, and net pension liability for single-employer and cost-sharing multiple-employer defined benefit pension plans. GASB 67 also requires certain additional note disclosures for defined benefit pension plans including the annual money-weighted rate of return on plan investments. GASB 67 revised the reporting requirements for required supplementary information to include schedules which provide trend information related to (1) changes in the net pension liability (2) the actuarially and contractually determined contributions of employer contributing entities, and (3) the annual money-weighted rate of return on plan investments.

#### (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 the assets under the Prudent Investor Rule. Fiduciary responsibility for the Board's Invested Assets is pursuant to Alaska Statutes 37.10.210-390.

Alaska Statute 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 and Collective Investment Funds for the DC 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, Dow Jones Dividend 100 Index Fund in the Alternative Equity Strategies Pool, Real Estate Investment Trust Pool, Treasury Inflation Protected Securities (TIPS) Pool, and cash holdings of certain external managers in addition to acting as oversight manager for all externally managed investments. All other investments are managed by external management companies.

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#### (3) Investments (cont.)

The Short-Term Fixed Income Pool is a State pool managed by Treasury that holds investments on behalf of the Board as well as other state funds.

#### Rate of Return

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. The annual money-weighted rate of return, net of investment expense, for the year ended June 30, 2014 for the defined benefit pension plan is 18.41%.

#### (4) Deposit and Investment Risk

#### **Interest Rate Risk**

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment.

Short-Term Fixed Income Pool

As a means of limiting its exposure to fair value losses arising from increasing interest rates, Treasury's investment policy limits individual fixed rate securities to 14 months to maturity or 14 months expected average life upon purchase. Floating rate securities are limited to three years to maturity or three years expected average life upon purchase. These constraints apply to trade date, except for securities bought at new issue, for which settlement date applies. At June 30, 2014, the expected average life of individual fixed rate securities ranged from 1 day to 2.2 years and the expected average life of floating rate securities ranged from 8 days to 3.2 years.

#### Other Defined Benefit Fixed Income Pools

Duration is a measure of interest rate risk. It measures a security's sensitivity to a 100-basis point change in interest rates. The duration of a pool is the average fair value weighted duration of each security in the pool taking into account all related cash flows. Treasury uses industry standard analytical software developed by The Yield Book Inc. to calculate effective duration. The software takes into account various possible future interest rates, historical and estimated prepayment rates, options, and other variable cash flows to calculate effective duration.

Through the Board's investment policy, Treasury manages the exposure to fair value losses arising from increasing interest rates by limiting the effective duration of the U.S. Treasury Fixed Income portfolio to ± 20% of the Barclays Capital U.S. Treasury Intermediate Index. The effective duration for the Barclays Capital U.S. Treasury Intermediate Index at June 30, 2014 was 3.63 years.

Through the Board's investment policy, Treasury managed the exposure to fair value losses arising from increasing interest rates by limiting the effective duration of the Taxable Municipal Bond portfolios to ± 20% of the Barclays Capital Aggregate Eligible Taxable Municipal Bond Index. The effective duration for the Barclays Capital Aggregate Eligible Taxable Municipal Bond Index at June 30, 2014 was 11.74 years.

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#### (4) Deposit and Investment Risk (cont.)

Through the Board's investment policy, Treasury manages the exposure to fair value losses arising from increasing interest rates by limiting the effective duration of the High Yield Fixed Income portfolio to ± 20% of the Bank of America Merrill Lynch U.S. High Yield Master II Constrained Index. The effective duration for the Bank of America Merrill Lynch U.S. High Yield Master II Constrained Index at June 30, 2014 was 4.21 years.

Through the Board's investment policy, Treasury manages the exposure to fair value losses arising from increasing interest rates by limiting the effective duration of the International Fixed Income portfolio to ± 25% of the blended benchmark of 70% Citigroup Non-USD World Government Bond Index and 30% JP Morgan Global Bond Emerging Markets Broad Diversified Index. The effective duration for the Citigroup Non-USD World Government Bond Index at June 30, 2014 was 7.54 years and the effective duration of the JP Morgan Global Bond Index at June 30, 2014 was 4.87, for a blended duration of 6.74 at June 30, 2014.

Through the Board's investment policy, Treasury manages the exposure to fair value losses arising from increasing interest rates by limiting the effective duration of the TIPS portfolio to  $\pm$  20% of the Barclays Capital U.S. TIPS Index, or a reasonable proxy thereof. The average life of the proxy index at June 30, 2014 was 8.21 years.

The Board does not have a policy to limit interest rate risk for the Emerging Debt or Convertible Bond portfolios.

At June 30, 2014, the effective duration of the DB Plan's fixed income pools was as follows (in years):

U.S. Treasury	3.50
Municipal bonds	10.81
High yield	3.75
International	5.82
TIPS	6.62

#### Defined Contribution Pooled Investment Funds

The Board contracts with an external investment manager, who is given the authority to invest funds in a wholly owned pooled environment to accommodate 13 participant directed funds. Through the Board's investment policy, exposure to fair value losses arising from increasing interest rates is managed by limiting the duration as follows:

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#### (4) Deposit and Investment Risk (cont.)

Under normal conditions, the Trust will invest in cash equivalent instruments with maturities of less than one year. Additionally, under normal conditions, for government debt, corporate debt, and mortgage-backed securities, duration is limited to  $\pm$  0.2 years of the blended benchmark of 70% Barclays U.S. Intermediate Aggregate Bond Index, 15% Barclays U.S. Floating Rate Note Index, 10% Barclays TIPS Index, and 5% Barclays Long U.S. Treasury Bond Index. Further deviations are acceptable if they do not contribute significantly to the overall risk of the portfolio. In no event at time of purchase shall effective duration exceed  $\pm$  0.4 years relative to the index.

At June 30, 2014, the duration of the government corporate debt, and mortgage-backed securities was 3.93 years and the duration of the blended Barclays Bond Index was 3.98 years.

#### Defined Contribution Collective Investment Funds

The Board does not have a policy to limit interest rate risk for its collective investment funds. At June 30, 2014, the modified duration of collective investment funds that consisted solely of debt securities were as follows: SSgA Money Market Trust, 45 days; SSgA World Government Bond Ex-U.S. Index, 7.68 years; SSgA Long U.S. Treasury Bond Index, 16.68 years; SSgA TIPS Index, 7.28 years; Barclays Government Credit Bond Fund, 8.18 years; and the Barclays Intermediate Government Bond Fund, 3.82 years.

#### Credit Risk

Credit risk is the risk that an issuer or other counter party to an investment will not fulfill its obligations.

Treasury's investment policy has the following limitations with regard to credit risk:

Short-Term Fixed Income Pool investments are limited to instruments with a long-term credit rating of at least A3 or equivalent and instruments with a short-term credit rating of at least P1 or equivalent. Asset backed and nonagency mortgage securities must be rated A3 or equivalent. The A3 rating is defined as the median rating of the following three rating agencies: Standard and Poor's Corporation, Moody's, and Fitch. Asset-backed and nonagency mortgage securities may be purchased if rated by only one of these agencies if they are rated AAA.

The Board's investment policy has the following limitations with regard to credit risk:

#### U.S. Intermediate Treasury Fixed Income

No more than 30% of the portfolio's assets may be invested in securities that are not nominal, U.S. Treasury obligations, or the internally managed short-term or substantially similar portfolio at the time of purchase.

Corporate, asset backed, and nonagency mortgage securities must be investment grade. Investment grade is defined as the median rating of Standard and Poor's, Moody's, and Fitch. Asset backed and nonagency mortgage securities may be purchased if only rated by one of these agencies if they are rated AAA. Corporate bonds may be purchased if rated by two of these agencies.

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#### (4) Deposit and Investment Risk (cont.)

#### **Taxable Municipal Bond Pool**

Commercial paper must carry a rating of at least P-1 by Moody's and A-1 by Standard and Poor's.

At the time of purchase, short-term securities must be rated at least A-2 or equivalent by a Nationally Recognized Statistical Rating Organization (NRSRO) or by the Contractor, if unrated. At the time of purchase, long-term securities must be rated investment grade by an NRSRO or by the Contractor, if unrated. Only one rating is necessary, and the median rating will apply for securities rated by more than one NRSRO.

No more than 20% of the portfolio's assets may be invested in securities that are not rated by an NRSRO.

#### **High Yield Fixed Income**

No more than 10% of the portfolio's assets may be invested in securities rated A3 or higher by any rating agency (including government instruments). Cash held in the portfolio will be included in this limitation.

No more than 25% of the portfolio's assets may be invested in securities rated below B3.

No more than 5% of the portfolio's assets may be invested in unrated securities.

The lower of any Standard and Poor's, Moody's, or Fitch rating will be used for limits on securities rated below B3 and the higher rating will be used for limits on securities rated A3 or higher. Only one rating is necessary.

#### **International Fixed Income**

Corporate debt and asset backed obligations must be rated investment grade or better by a recognized credit rating agency. In the event of a split rating, the lower of the ratings shall apply for evaluating credit quality.

Commercial paper and Euro commercial paper must be rated A-1 by Standard and Poor's or P-1 by Moody's or the equivalent of a comparable rating agency. In the event a split rating exists, the lower of the ratings shall apply for evaluating credit quality.

#### Convertible Bond

Non-rated convertible securities are permitted provided the Manager is able to assign an appropriate credit rating consistent with the criteria used by Standard and Poor's, Moody's, or Fitch. Non-rated securities are limited to 35% of the total market value of the portfolio. Non-rated securities to which the Manager assigns a non-investment grade rating are subject to the below investment grade limitation.

The weighted-average rating of the portfolio shall not fall below the Standard and Poor's equivalent of B.

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#### (4) Deposit and Investment Risk (cont.)

The Manager shall not purchase any security with a credit rating at or below CCC- by Standard and Poor's and C3 by Moody's. However, the manager may continue to hold securities downgraded below CCC- by Standard and Poor's and C3 by Moody's if such an investment is considered appropriate given the Board's investment objective.

#### **TIPS**

Commercial paper must be rated at least P-1 by Moody's and A-1 by Standard and Poor's.

No more than 5% of the portfolio's assets may be invested in investment grade corporate debt.

No more than 5% of the portfolio's assets may be invested in BBB+ to BBB- rated debt by Standard and Poor's or the equivalents by Moody's or Fitch.

Non-U.S. Treasury-issued securities must be rated investment grade. The investment grade rating is defined as the median rating of the following three rating agencies: Standard and Poor's, Moody's, and Fitch. Asset backed and nonagency mortgage securities may be purchased if only rated by one of these agencies if they are rated AAA. Corporate bonds may be purchased if rated by two of these agencies.

Domestic Equity (Large Cap and Small Cap) and Broad International Equity:

Corporate debt obligations must carry a rating of at least A or better by Moody's, Standard and Poor's, or Fitch rating services.

Commercial paper must bear the highest rating assigned by Moody's, Standard and Poor's, or Fitch rating services.

The Board does not have a policy to limit the concentration of credit risk for the Emerging Markets Debt Pool or the Collective Investment Funds.

The System's ownership held in the investment pools are not separately rated. See the separately issued report on the State of Alaska Retirement and Benefits Plan Invested Assets for credit ratings of investments within the pools.

#### Custodial Credit Risk - Deposits

Custodial credit risk is the risk that deposits may not be returned in the event of a bank failure. The Board does not have a policy in relation to custodial credit risk for deposits; however, Treasury investment policy requires the State's depository banks to collateralize State deposits to the extent they exceed insurance coverage provided by the Federal Deposit Insurance Corporation, which provides \$250,000 of coverage. In accordance with Treasury policy, they are required to retain collateral equal to 110% of uninsured deposits.

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#### Notes to Financial Statements

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#### (4) Deposit and Investment Risk (cont.)

#### Foreign Currency Risk

Foreign Currency Risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. The Board's policy with regard to foreign currency risk in the International Fixed Income Pool is to restrict obligations to those issued in the currencies of these countries: Argentina, Australia, Brazil, Canada, Chile, China, Colombia, Czech Republic, Denmark, Egypt, Eurozone sovereign issuers in the aggregate, Hungary, India, Indonesia, Israel, Japan, Malaysia, Mexico, New Zealand, Norway, Peru, Poland, Romania, Russia, Singapore, South Africa, South Korea, Sweden, Switzerland, Thailand, Turkey, United Kingdom, and United States. The Board has no specific policy with regard to foreign currency risk relating to international or private equity. The Board has no policy regarding foreign currency risk in the Defined Contribution Pooled Investment Funds and Collective Investment Funds. However, through its asset allocation policy, the Board limits total investments in international fixed income, global equity ex-U.S., and private equity to the following:

Fixed income	Global equity ex-U.S.	Private equity pool
17%	29%	14%

At June 30, 2014, the System had exposure to foreign currency risk within its ownership of the pools. See the separately issued report on the State of Alaska Retirement and Benefits Plan Invested Assets for more detail of foreign currency risk within the pools.

At June 30, 2014, the Board also had exposure to foreign currency risk in the Emerging Markets Equity Pool and the Emerging Markets Debt Pool. These pools consist of investments in commingled funds; therefore, no disclosure of specific currencies is made.

#### Concentration of Credit Risk

Treasury's policy with regard to concentration of credit risk for the Short-Term Fixed Income Pool is to prohibit the purchase of more than 5% of the portfolio's assets in corporate bonds of any one company or affiliated group. This provision does not apply to securities backed by the full faith and credit of the U.S. government.

The Board's policy with regard to concentration of credit risk for the Retirement Fixed Income, U.S. Treasury Fixed Income, High Yield Fixed Income, International Fixed Income, and Convertible Bond Pools is to prohibit the purchase of more than 5% of the portfolio's assets in corporate bonds of any one company or affiliated group. The Board does not have a policy with regard to concentration of credit for the Emerging Markets Debt, Taxable Municipal Bond Pool, or TIPS Pools.

At June 30, 2014, the Board's Invested Assets did not have exposure to any one issuer greater than 5% of total invested assets.

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#### Notes to Financial Statements

June 30, 2014

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#### (5) Foreign Exchange, Derivative, and Counterparty Credit Risk

The investment pools for which the Plan is a part, are exposed to credit risk on underlying investment derivative instruments that are in asset positions. The International Equity Pool includes foreign currency forward contracts to buy and sell specified amounts of foreign currencies at specified rates on specified future dates. The counterparties to the foreign currency forward contracts consist of a diversified group of financial institutions. For additional information on foreign exchange, derivatives and counterparty credit risk see the separately issued report on the State of Alaska Retirement and Benefits Invested Assets.

#### (6) Net Pension Liability – Defined Benefit Pension Plan

The components of the net pension liability of the participating employers at June 30, 2014, were as follows (in thousands):

Total pension liability Plan fiduciary net position	\$ 6,770,201 (3,771,139)
Employers' net pension liability	\$ 2,999,062
Plan fiduciary net position as a percentage of the total pension liability	 55.70%

#### Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of June 30, 2013, using the following actuarial assumptions, applied to all periods included in the measurement, and rolled forward to the measurement date of June 30, 2014:

Inflation 3.12%

Salary increases Graded by service, from 6.11% to 3.62%

Rate of return 8.00 %, net of pension plan investment expenses.

This is based on an average inflation rate of 3.12% and a real rate of return of 4.88%.

Mortality rates were based on the 1994 Group Annuity Mortality (GAM) Table, sex distinct, 1994 Base Year without margin projected to 2013 using Projection Scale AA, adjusted 55% for females and 45% for males for pre-termination mortality and the 1994 GAM Sex-distinct Table 1994 Base Year without margin projected to 2013 using Projection Scale AA, with a 3-year setback for females and a 4-year setback for males for post-termination mortality.

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#### Notes to Financial Statements

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(With summarized financial information for June 30, 2013)

#### (6) Net Pension Liability – Defined Benefit Pension Plan (cont.)

The actuarial assumptions used in the June 30, 2013 actuarial valuation were based on the results of an actuarial experience study for the period July 1, 2005 to June 30, 2009, resulting in changes in actuarial assumptions adopted by the Alaska Retirement Management Board to better reflect expected future experience.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2014 (see the discussion of the pension plan's investment policy) are summarized in the following table:

Asset class	Long-term expected real rate of return
Equities:	<b>-</b> (00)
Broad domestic equity	5.40%
Large cap	5.25
Small/mid cap	5.60
International equity	5.25
Emerging markets equity	5.65
Global ex-U.S. equity	5.55
Fixed income:	
Domestic fixed	0.75
TIPS	0.75
Other:	
Real estate	3.95
Private equity	6.40
Hedge funds	2.85
Cash equivalents	(0.25)
=	

#### Discount Rate

The discount rate used to measure the total pension liability was 8%. The projection of cash flows used to determine the discount rate assumed that employer and nonemployer 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.

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#### (6) Net Pension Liability – Defined Benefit Pension Plan (cont.)

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

The following presents the net pension liability of the System calculated using the discount rate of 8%, as well as what the Systems' net pension liability would be if it were calculated using a discount rate that is one-percentage-point lower (7%) or one-percentage-point higher (9%) than the current rate:

	Current				
		1% Decrease (7%)	discount rate (8%)	1% Increase (9%)	
Net pension liability	\$	3,776,983	2,999,062	2,346,163	

#### (7) Defined Benefit OPEB Funding Status

The funded status of the occupational death and disability plan, retiree healthcare trust, and retiree medical benefits is as follows (in thousands):

		Actuarial			Unfunded		UAAL
		accrued			actuarial		as a
	Actuarial	liability	Actuarial		accrued		percentage
	valuation	(AAL)	valuation	Funded	liability	Covered	of covered
	date	entry age	assets	ratio	(UAAL)	payroll	payroll
Death and disability							
plan	June 30, 2013 \$	80	2,532	3,165.0%	(2,452)	206,771	(1.2)%
Healthcare trust	June 30, 2013	5,002,345	1,803,763	36.1	3,198,582	550,044	581.5
Retiree medical	June 30, 2013	25,152	8,614	34.2	16,538	206,771	8.0

The funding ratio as of June 30, 2013 has decreased. The decrease in funding ratio is primarily due to the asset smoothing method, which recognizes 20% of gains/losses over a 5-year period. The asset return based on actuarial values was 3.7%, well below the expected return of 8%. This decrease was combined with a positive experiences in demographic experience and retiree medical costs, which when factored in with other factors resulted in the slight decrease.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and healthcare cost trend. Actuarially determined amounts are subject to continual revisions as actual results are compared with past expectations and new estimates are made about the future. The schedules of funding progress, presented as required supplementary information following the notes to the financial statements, present multiyear trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

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#### Notes to Financial Statements

June 30, 2014

(With summarized financial information for June 30, 2013)

#### (7) Defined Benefit OPEB Funding Status (cont.)

The accompanying schedules of contributions (unaudited) from employers present trend information about the amounts contributed to the plan by employers in comparison to the actuarially required contribution (ARC), an amount that is actuarially determined in accordance with the parameters of GASB 43. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost for each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing benefit costs between the employer and the plan members to that point. The actuarial method and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations. Additional information as of the latest actuarial valuation is as follows:

#### June 30, 2013

	Defined Benefit
Actuarial cost method	Entry age normal; level percentage of pay normal cost basis for pension; level dollar normal cost basis for healthcare
Amortization method	Level dollar, closed
Equivalent single amortization period	17 years
Asset valuation method	5-year smoothed fair value
Actuarial assumptions: Investment rate of return	8.00% for pension, 5.08% for healthcare; includes price inflation at 3.12%
Projected salary increases  Cost-of-living adjustment	6.11% for first 5 years of service grading down to 3.62% after 20 years Postretirement pension adjustment

#### June 30, 2013

	ODD and Retiree Medical		
Actuarial cost method	Entry age normal; level percentage of pay normal cost basis for occupational death and disability; level dollar normal cost basis for retiree medical		
Amortization method	Level percent of pay, closed with bases established annually		
Equivalent single amortization period	26 years		
Asset valuation method	5-year smoothed market 80%/120% of fair value corridor		
Actuarial assumptions: Investment rate of return	8.00%; includes inflation at 3.12%		
Projected salary increases	6.11% for first 5 years of service grading down to 3.62% after 20 years; inflation at 3.12% per year		

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

June 30, 2014

(With summarized financial information for June 30, 2013)

#### (7) Defined Benefit OPEB Funding Status (cont.)

Health cost trend for occupational death and disability, and retiree medical plans is as follows:

Fiscal year	Medical pre-65	Medical post-65	Prescription drugs
2014	8.7%	6.4%	6.3%
2015	8.5	6.3	6.2
2016	8.0	6.3	6.2
2017	7.5	6.2	6.1
2018	7.0	6.1	6.0
2019	6.6	6.1	5.8
2020	6.4	6.0	5.8
2025	6.0	6.0	5.8
2050	5.0	5.0	5.0
2100	4.5	4.5	4.5

GASB 43 requires that the discount rate used in the valuation be the estimated long-term yield on investments that are expected to finance postemployment benefits. Depending on the method by which a plan is financed, the relevant investments could be plan assets, employer assets, or a combination of plan and employer assets. The investment return should reflect the nature and the mix of both current and expected investments and the basis used to determine the actuarial value of assets.

The System's retiree healthcare benefits are partially funded. GASB outlines two reasonable methods of developing a blended discount rate when a plan is partially funded. These methods base the proportion of assumed plan and employer asset returns on (1) the funded ratio and (2) the percentage of the ARC actually being contributed to the plan. The State has utilized the second methodology to develop a discount rate of 5.08% as of June 30, 2011, to be used for fiscal 2014 disclosure.

The System's retiree medical benefits are fully funded. Therefore, the 8.00% discount rate used for GASB 25 reporting is also applied herein for GASB 43 reporting.

Based on GASB accounting rules, the retiree drug subsidy (RDS) the State receives under Medicare Part D has not been recognized for GASB 43 disclosure purposes.

Disregarding future Medicare Part D payments, the fiscal 2016 employer ARC for accounting purposes is 2.36% of pay for retiree medical benefits and 2.36% of pay for retiree medical and death and disability benefits combined.

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#### (8) Claims Payable

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

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

		2014	2013
Beginning of year:  Due to State of Alaska General Fund for outstanding warrants	\$	_	_
Incurred but not reported	<u> </u>	20,062	14,813
Total, beginning of year		20,062	14,813
Benefit deductions Benefits paid		116,781 (117,864)	120,855 (115,606)
Total, end of year	\$	18,979	20,062
End of year: Due to State of Alaska General Fund for outstanding warrants Incurred but not reported	\$	 18,979	20,062
Total, end of year	\$	18,979	20,062

#### (9) Commitments and Contingencies

#### Commitments

The Board entered into an agreement through external managers to provide capital funding for limited partnerships in the domestic equity, private equity, energy, and real estate portfolios. At June 30, 2014, the Board's unfunded commitments were as follows (in thousands):

Portfolio	 Unfunded commitment	Estimated to be paid through
Domestic equity	\$ 4,123	May be canceled annually in December with 90 day's notice
Private equity	284,783	Fiscal year 2022
Energy	29,557	Fiscal year 2023
Real estate	 123,748	Fiscal year 2024
	\$ 442,211	

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#### Notes to Financial Statements

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(With summarized financial information for June 30, 2013)

#### (9) Commitments and Contingencies (cont.)

#### Contingencies

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

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

One of the provisions of Medicare Part D provides sponsors of pension healthcare plans the opportunity to receive a 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 ARHT Plan was approved for participation in the Medicare Part D program beginning calendar year 2006.

#### (11) Early Retiree Reinsurance Program

The Early Retiree Reinsurance Program (ERRP) was a temporary program that provided reimbursement to participating employment-based plans for a portion of the costs of health benefits for retirees age 55 and older who are not eligible for Medicare, and their spouses and surviving spouses and dependents. The amount of the reimbursement to the plan was up to 80% of claims cost for health benefits between \$15,000 and \$90,000. The program was authorized by the Affordable Care Act as part of the U.S. government health reform package. The plan started participation in the ERRP program beginning calendar year 2011. The program ended on January 1, 2014.

#### (12) Subsequent Events

In 2014 as part of the State's Fiscal Year 2015 Capital Budget, Senate Bill 119 appropriates \$2 billion from the Constitutional Budget Reserve Fund to the Department of Administration for deposit in the Defined Benefit Pension and the Alaska Retiree Healthcare Trust funds. In addition, House Bill 385 specifies that the level percent of pay methodology based on amortization of the past service liability for a closed term of 25 years will be used in the calculation of the appropriate contribution rate for liquidating the past service liability of the Defined Benefit Pension plan.

# REQUIRED SUPPLEMENTARY INFORMATION (Unaudited)

Teachers' Retirement System
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## Required Supplementary Information (Unaudited)

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

June 30, 2014 (In thousands)

		2014	2013	2012
Total pension liability:		_	_	
Service cost	\$	64,324	69,113	69,548
Interest		515,325	517,511	501,252
Changes of benefit terms		_	_	_
Differences between expected and actual				
experience		_	1,108	10,986
Changes of assumptions		_	_	
Benefit payments, including refunds of member contributions	_	(399,001)	(397,956)	(378,113)
Net change in total pension liability		180,648	189,776	203,673
Total pension liability – beginning		6,589,553	6,399,777	6,196,104
Total pension liability – ending (a)		6,770,201	6,589,553	6,399,777
Plan fiduciary net position:				
Contributions – employer		37,571	37,372	38,189
Contributions – member		47,724	50,201	52,020
Contributions – nonemployer entity (State)		208,890	196,945	157,387
Total net investment income		599,958	373,868	2,190
Other miscellaneous income		27	19	17
Benefit payments, including refunds of member		(222.221)	(222.222)	(2 (2 222)
contributions		(399,001)	(382,933)	(363,839)
Administrative expenses	_	(3,160)	(2,989)	(2,847)
Net change in plan fiduciary net position		492,009	272,483	(116,883)
Plan fiduciary net position – beginning	_	3,279,130	3,006,647	3,123,530
Plan fiduciary net position – ending (b)		3,771,139	3,279,130	3,006,647
Plan's net pension liability (a) - (b)	\$	2,999,062	3,310,423	3,393,130
Plan fiduciary net position as a percentage				
of the total pension liability		55.70%	49.76%	46.98%
Covered-employee payroll	\$	514,035	550,044	561,971
Net pension liability as a percentage of				
covered-employee payroll		583.44%	601.85%	603.79%

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

See accompanying independent auditors' report.

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## Required Supplementary Information (Unaudited)

## Schedule of Employer and Nonemployer Contributions

## Defined Benefit Pension Plan Last 10 Fiscal Years

June 30, 2014 (In thousands)

	_	2014	2013	2012	2011
Actuarially determined contribution	\$	240,366	259,786	229,509	167,978
Contributions in relation to the actuarially determined contribution		246,461	234,317	195,576	142,147
Contribution deficiency (excess)	\$	(6,095)	25,469	33,933	25,831
Covered-employee payroll	\$	514,035	550,044	561,971	584,068
Contributions as a percentage of covered-employee payroll		47.95%	42.60%	34.80%	24.34%

See accompanying independent auditors' report.

Teachers' Retirement System
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## Required Supplementary Information (Unaudited)

## Schedule of Employer and Nonemployer Contributions

## Defined Benefit Pension Plan Last 10 Fiscal Years

June 30, 2014 (In thousands)

2010	2009	2008	2007	2006	2005
170,788	94,388	134,544	169,974	170,019	152,168
134,275	131,533	142,550	105,775	91,902	68,448
36,513	(37,145)	(8,006)	64,199	78,117	83,720
564,887	557,026	549,148	554,245	574,409	535,837
23.77%	23.61%	25.96%	19.08%	16.00%	12.77%

Teachers' Retirement System
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## Required Supplementary Information (Unaudited)

## Schedule of Investment Returns

June 30, 2014

	2014
Annual money-weighted rate of return, net of	
investment expense	18.41%

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

See accompanying independent auditors' report.

Teachers' Retirement System
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## Required Supplementary Information (Unaudited)

## **Schedules of Funding Progress**

**Defined Benefit OPEB Plans** 

June 30, 2014 (In thousands)

#### Occupational Death and Disability Benefits Plan

Actuarial valuation year ended June 30	 Actuarial accrued liabilities (AAL)	Actuarial value of plan assets	Funded ratio	Covered payroll	UAAL as a percentage of covered payroll	
2008	\$ 44	420	954.5% \$	(376)	56,369	(0.7)%
2009	14	1,071	7,650.0	(1,057)	89,708	(1.2)
2010	18	1,577	8,761.1	(1,559)	118,813	(1.3)
2011	57	2,193	3,847.4	(2,136)	170,606	(1.3)
2012	63	2,348	3,727.0	(2,285)	200,043	(1.1)
2013	80	2,532	3,165.0	(2,452)	206,771	(1.2)

#### Alaska Retiree Healthcare Trust Plan

Actuarial valuation year ended June 30	 Actuarial accrued liabilities (AAL)	Actuarial value of plan assets	Funded ratio	Unfunded actuarial accrued liabilities (UAAL)	Covered payroll	UAAL as a percentage of covered payroll
2008	\$ 4,648,055	1,266,890	27.3% \$	3,381,165	549,148	615.7%
2009	4,604,820	1,357,239	29.5	3,247,581	557,026	583.0
2010	3,076,388	1,479,260	48.1	1,597,128	564,887	282.7
2011	3,635,492	1,591,988	43.8	2,043,504	584,068	349.9
2012	5,046,942	1,674,160	33.2	3,372,782	561,971	600.2
2013	5,002,345	1,803,763	36.1	3,198,582	550,044	581.5

#### Retiree Medical Benefits Plan

Actuarial valuation year ended June 30	 Actuarial accrued liabilities (AAL)	Actuarial value of plan assets	Funded ratio	Unfunded actuarial accrued liabilities (UAAL)	Covered payroll	UAAL as a percentage of covered payroll	
2008	\$ 899	1,308	145.5% \$	(409)	56,369	(0.7)%	
2009	1,690	2,353	139.2	(663)	89,708	(0.7)	
2010	2,809	3,895	138.7	(1,086)	118,813	(0.9)	
2011	4,386	5,373	122.5	(987)	170,606	(0.6)	
2012	19,427	6,937	35.7	12,490	200,043	6.2	
2013	25,152	8,614	34.2	16,538	206,771	8.0	

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

Teachers' Retirement System
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## Required Supplementary Information (Unaudited)

# Schedules of Contributions from Employers and the State of Alaska Defined Benefit OPEB Plans

June 30, 2014 (In thousands)

#### Occupational Death and Disability Benefits Plan

Year ended June 30	Annual required contribution	Percentage of ARC contributed
2008	\$ 408	100.0%
2009	623	100.0
2010	442	100.0
2011	474	100.0
2012	_	100.0
2013	_	100.0

#### Alaska Retiree Healthcare Trust Plan

		Ann	Annual required contribution			Percentage contributed		
Year ended	Actuarial valuation year ended		Postemployment		Ву	By State of Alaska	Total percentage contributed	
June 30	June 30 <sup>(1)</sup>	Pension	healthcare	Total	employer	(note 3)	(note 3)	
2008	2005	\$ 134,544	185,271	319,815	23.6%	85.7%	109.3%	
2009	2006	94,388	164,171	258,559	28.7	62.1	90.8	
2010(2)	2007	170,788	312,922	483,710	13.6	38.8	52.4	
2011	2008	167,978	167,686	335,664	25.8	51.5	77.3	
2012	2009	229,509	192,700	422,209	18.8	46.6	65.4	
2013	2010	259,786	330,411	590,197	10.7	33.3	44.0	

<sup>(1)</sup> Actuarial valuation related to annual required contribution for fiscal year.

#### Retiree Medical Benefits Plan

	Annual	Percentage
Year ended June 30	 required contribution	of ARC contributed
2008	\$ 763	85.0%
2009	1,162	85.0
2010	1,628	87.0
2011	1,422	81.0
2012	1,420	82.0
2013	1,241	89.0

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

<sup>(2)</sup> In the year ended June 30, 2010, the postemployment healthcare annual required contribution and percentage contributed included the Mercer legal settlement, net of fees, as well as the Medicare Part D subsidy contributed by the State to the healthcare fund.

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

### Notes to Required Supplementary Information (Unaudited)

June 30, 2014

#### (1) Description of Schedule of Funding Progress

Each time a new benefit is added, which applies to service already rendered, an "unfunded actuarial accrued liability" is created. Laws governing the System require that these additional liabilities be financed systematically over a period of future years. Also, if actual financial experiences are less favorable than assumed financial experiences, the difference is added to the unfunded actuarial accrued liability.

In an inflationary economy, the value of the dollar is decreasing. This environment results in employee pay increasing in dollar amounts resulting in unfunded actuarial accrued liabilities increasing in dollar amounts, all at a time when the actual value of these items, in real terms, may be decreasing.

#### (2) Actuarial Assumptions and Methods

The actuarial valuation was prepared by Buck Consultants. The significant actuarial assumptions used in the defined benefit pension and postemployment healthcare benefit plan valuation as of June 30, 2013 are as follows:

- (a) Actuarial cost method Entry Age Actuarial Cost method of funding. Any funding surplus or unfunded accrued liability is amortized over 25 years as a level dollar amount. The initial unfunded accrued liability was established on June 30, 2002 and amortized over a closed 25-year period. Any changes in the unfunded accrued liability established after June 30, 2002 due to changes in plan provisions, actuarial methods or assumptions, or actuarial experience are amortized over a 25-year period from the date established. State statutes allow the contribution rate to be determined on payroll for all members, defined benefit and defined contribution member payroll combined. However, for GASB disclosure requirements, the net amortization period will not exceed 30 years and the level dollar amortization method is used since the defined benefit plan membership was closed effective July 1, 2006.
- (b) Valuation of assets Recognizes 20% of the difference between actual and expected investment return in each of the current and preceding four years. This method was phased in over the next 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. Valuation assets are constrained to a range of 80% to 120% of the fair value of assets.
- (c) Valuation of medical 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 credibility of cost and enrollment data for each component of cost. This valuation reflects nonprescription claims separated by Medicare status, including eligibility for free Part A coverage. Prescription costs are analyzed separately as in prior valuations. Administrative costs are assumed in the final per capita claims cost rates used for valuation purposes. 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/discount rate 8.00% per year (geometric), compounded annually, net of expenses.

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

### Notes to Required Supplementary Information (Unaudited)

June 30, 2014

#### (2) Actuarial Assumptions and Methods (cont.)

- (e) Salary scale Inflation 3.12% per year and productivity 0.50% per year.
- (f) Payroll growth -3.62% 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 3.12% annually.
- (h) Mortality (pretermination) Based upon the 2005–2009 actual experience. 1994 Group Annuity Mortality (GAM) sex-distinct Table 1994 Base Year without margin projected to 2013 using Projection Scale AA, adjusted 55% for females and 45% for males. Deaths are assumed to result from nonoccupational causes 85% of the time. The mortality assumptions include an allowance for future mortality improvement. The mortality table used was set in 2010 with an actual deaths to expected deaths ratio of 117%.
- (i) Mortality (posttermination) Based upon the 2005–2009 actual experience study. The 1994 GAM sex-distinct Table 1994 Base Year without margin projected to 2013 using Projection Scale AA, with a three-year setback for females and four-year setback for males. The mortality assumptions include an allowance for future mortality improvement. The mortality table used was set in 2010 with an actual deaths to expected deaths ratio of 117%.
- (j) Turnover Select and ultimate rates based upon the 2005–2009 actual withdrawal experience.
- (k) Disability Incidence rates based upon the 2005–2009 actual experience. Postdisability mortality in accordance with the RP-2000 Disabled Retiree Mortality Table.
- (l) Retirement Retirement rates based on the 2005–2009 actual experience. Deferred vested members are assumed to retire at their earliest unreduced retirement date.
- (m) Marriage and age difference Wives are assumed to be three years younger than husbands. 85% of male members and 75% of female members are assumed to be married.
- (n) Dependent children Benefits to dependent children have been valued assuming members who are married and between the ages of 25 and 45 have two dependent children.
- (o) Contribution refunds 10% of terminating members with vested benefits are assumed to have their contributions refunded. 100% of those with nonvested benefits are assumed to have their contributions refunded.
- (p) 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.
- (q) Sick leave 4.7 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.

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

### Notes to Required Supplementary Information (Unaudited)

June 30, 2014

#### (2) Actuarial Assumptions and Methods (cont.)

- (r) Postretirement pension adjustment (PRPA) 50% and 75% of assumed inflation, or 1.56% and 2.34%, respectively, is valued for the annual automatic PRPA as specified in the statute.
- (s) Expenses All expenses are net of investment return assumption.
- (t) Part-time status Part-time members are assumed to earn 0.60 years of credited service per year.
- (u) Reemployment option The actuary assumes all reemployed retirees return to work under the Standard Option.
- (v) Service Total credited service is provided by the State. The actuary assumes that this service is 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.
- (w) 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.
- (x) Per capita claims cost Sample claims cost rates adjusted to age 65 for FY14 medical benefits and prescription are shown below:

	 Medical	Prescription drugs
Pre-Medicare	\$ 11,125	2,621
Medicare Parts A and B	1,726	2,621
Medicare Part B Only	6,676	2,621
Medicare Part D	N/A	502

- (y) Third-party administrator fees \$177.57 per person per year; assumed trend rate of 5% per year.
- (z) Medicare Part B Only For actives and retirees not yet Medicare-eligible, participation is set based on whether the member/retiree will have 40 quarters of employment after March 31, 1986, depending upon date of hire and/or rehire.

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

## Notes to Required Supplementary Information (Unaudited)

June 30, 2014

#### (2) Actuarial Assumptions and Methods (cont.)

(aa) 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, 8.7% is applied to the FY14 pre-Medicare medical claims costs to get the FY15 medical claims cost.

Fiscal year	Medical pre-65	Medical post-65	Prescription drugs
2014	8.7%	6.4%	6.3%
2015	8.5	6.3	6.2
2016	8.0	6.3	6.2
2017	7.5	6.2	6.1
2018	7.0	6.1	6.0
2019	6.6	6.1	5.8
2020	6.4	6.0	5.8
2025	6.0	6.0	5.8
2050	5.0	5.0	5.0
2100	4.5	4.5	4.5

For the June 30, 2012 valuations and later, the updated Society of Actuaries' Healthcare Cost Trend Model is used to project medical and prescription drug costs. This model effectively begins estimating trend amounts beginning in 2012 and projects out to 2100. This model has been adopted by the Society of Actuaries, and has been populated with assumptions that are specific to the State.

#### (bb) Aging factors:

Age	Medical	drugs
0–44	2.0%	4.5%
45–54	2.5	3.5
55–64	3.5	3.0
65–73	4.0	1.5
74–83	1.5	0.5
84–95	0.5	_
94 +	<del>_</del>	_

D.................

#### Teachers' Retirement System

(A Component Unit of the State of Alaska)

### Notes to Required Supplementary Information (Unaudited)

June 30, 2014

#### (2) Actuarial Assumptions and Methods (cont.)

(cc) 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 FY14 contributions based on monthly rates shown below for calendar 2013 and 2014 are assumed based on the coverage category for current retirees. The composite rate shown is used for current active and inactive members in Tier 2 who are assumed to retire prior to age 60 with less than 25 years of service and who are not disabled:

	Calend	ar 2014	Calendar 2013
Coverage category	Annual contribution	Monthly contribution	Monthly contribution
Retiree only	\$ 9,876	823	807
Retiree and spouse	19,764	1,647	1,615
Retiree and child(ren)	13,956	1,163	1,140
Retiree and family	23,844	1,987	1,948
Composite	14,676	1,223	1,200

(dd) Trend rate for retired member 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, 8.2% is applied to the FY14 retired member medical contributions to get the FY15 retired member medical contributions.

Fiscal year	_
2014	8.2%
2015	8.0
2016	7.6
2017	7.2
2018	6.7
2019	6.4
2025	5.9
2050	5.0
2100	4.5

Graded trend rates for retired member medical contributions were reinitialized for the June 30, 2012 valuation. Note that actual FY14 retired member medical contributions are reflected in the valuation, so trend on such contribution during FY14 is not applicable.

(ee) Healthcare participation – 100% of system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible. 10% of nonsystem paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.

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

### Notes to Required Supplementary Information (Unaudited)

June 30, 2014

#### (2) Actuarial Assumptions and Methods (cont.)

The significant actuarial assumptions used in the occupational death and disability and retiree medical benefit plan valuation as of June 30, 2012 are as follows:

- (a) Actuarial cost method Liabilities and contributions are computed using entry age actuarial cost method of funding. Any funding surplus or unfunded accrued liability is amortized over 25 years as a level percentage of expected payroll. However, in keeping with GASB requirements, the net amortization period will not exceed 30 years.
- (b) Valuation of assets Recognizes 20% of the investment gain or loss in each of the current and preceding four years. This method will be phased in over five years. Fair Value of Assets was \$0 as of June 30, 2006. All assets are valued at fair value. Assets are accounted for on an accrued basis and are taken directly from audited financial statements. Valuation assets are constrained to a range of 80% to 120% of fair value of assets.
- (c) Valuation of retiree medical benefits Due to the lack of experience for the DC Plan only, base claims costs are based on those described in the actuarial valuation as of June 30, 2012 for defined benefit pension and postemployment healthcare benefit plan (TRS DB Plan) with some adjustments. The claim costs were adjusted to reflect the differences between the DC medical plan and the DB medical plan. These differences include network steerage, different coverage levels and an indexing of the retiree out-of-pocket dollar amounts. To account for higher initial copays, deductibles, and out-of-pocket limits, fiscal year 2012 claim costs were reduced to 11.9% for medical and 7.1% for prescription drugs. Retiree out-of-pocket amounts were indexed 0.2% each year to reflect the effect of the deductible leveraging on trend and other plan design features.
- (d) Investment return/discount rate 8.00% per year (geometric), compounded annually, net of expenses.
- (e) Salary scale Inflation 3.12% per year. Productivity 0.5% per year.
- (f) Payroll growth 3.62% 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 3.12% annually.
- (h) Mortality (pretermination) Based upon the 2005–2009 actual experience for the TRS DB Plan. 55% of the 1994 GAM Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA, for females and 45% for males. 15% of deaths are assumed to result from occupational causes. The mortality assumptions include an allowance for expected future mortality improvement. The mortality table used was set in 2010 with an actual deaths to expected deaths ratio of 117%.

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

## Notes to Required Supplementary Information (Unaudited)

June 30, 2014

#### (2) Actuarial Assumptions and Methods (cont.)

- (i) Mortality (posttermination) Based upon the 2005–2009 actual experience of the TRS DB Plan. Three-year setback of the 1994 GAM Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA, for females and four-year setback for males. The mortality assumptions include an allowance for expected future mortality improvement. The mortality table used was set in 2010 with an actual deaths to expected deaths ratio of 117%.
- (j) Turnover Select rates were estimated and ultimate rates were set to the TRS DB Plan's rate loaded by 10%.
- (k) Disability Incidence rates based upon the 2005–2009 actual experience of the TRS DB Plan. Postdisability mortality in accordance with the RP-2000 Disabled Retiree Mortality Table. 15% of disabilities are assumed to result from occupational causes.
- (l) Retirement Retirement rates were estimated in accordance with the following table:

Age	Rate
< 55	2%
55–59	3
60	3 5 5
61	5
62	10
63	5 5
64	
65	25 25
66	25
67	25
68	20
69	20
70	100

- (m) Marriage and age difference Wives are assumed to be three years younger than husbands. 85% of male members and 75% of female members are assumed to be married.
- (n) Part-time status Part-time employees are assumed to earn 0.60 years of credited service per year.
- (o) Expenses All expenses are net of the investment return assumption.

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

### Notes to Required Supplementary Information (Unaudited)

June 30, 2014

#### (2) Actuarial Assumptions and Methods (cont.)

(p) Per capita claims cost – Sample claims cost rates adjusted to age 65 for FY14 medical benefits are shown below:

	 Medical	Prescription drugs
Pre-Medicare	\$ 11,125	2,621
Medicare Parts A and B	1,726	2,621
Medicare Part B Only	6,676	2,621
Medicare Part D	N/A	502

- (q) Third-party administrator fees \$177.57 per person per year; assumed trend rate of 5% per year.
- (r) 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 were applied to the per capita claims cost rates: 0.881 for medical plan, 0.929 for the prescription drug plan, and 0.998 for the annual indexing for member cost sharing.
- (s) 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, 8.7% is applied to the FY14 pre-Medicare medical claims cost to get the FY15 medical claims costs:

Fiscal year	Medical Pre-65	Medical Post-65	Prescription drugs
2014	8.7%	6.4%	6.3%
2015	8.5	6.3	6.2
2016	8.0	6.3	6.2
2017	7.5	6.2	6.1
2018	7.0	6.1	6.0
2019	6.6	6.1	5.8
2020	6.4	6.0	5.8
2025	6.0	6.0	5.8
2050	5.0	5.0	5.0
2100	4.5	4.5	4.5

For the June 30, 2012 valuation and later, the updated Society of Actuaries' Healthcare Cost Trend Model is used to project medical and prescription drug cost. This model effectively begins estimating trend amounts beginning in 2012 and projects out to 2100. The model has been populated with assumptions that are specific to the State.

#### Teachers' Retirement System

(A Component Unit of the State of Alaska)

## Notes to Required Supplementary Information (Unaudited)

June 30, 2014

#### (2) Actuarial Assumptions and Methods (cont.)

#### (t) Aging factors:

Age	Medical	Prescription drugs
0–44	2.0%	4.5%
45–54	2.5	3.5
55–64	3.5	3.0
65–73	4.0	1.5
74–83	1.5	0.5
84–93	0.5	_
94 +	_	_

#### (u) Retiree medical participation:

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Decrement	ane	to	ดเรล	D1	IIIV

Decrement d	ue to retirement
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Percentage of participation 40.0%
40.0%
40.0%
50.0
55.0
60.0
65.0
70.0
75.0
80.0
85.0
90.0
Year of service
<15 70.5%
15–19 75.2
20–24 79.9
25–29 89.3
30+ 94.0
•

Participation 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.

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

### Notes to Required Supplementary Information (Unaudited)

June 30, 2014

### (2) Actuarial Assumptions and Methods (cont.)

### Changes in Methods Since the Last Valuation

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

### Changes in Assumptions Since the Last Valuation

There have been no changes in actuarial assumptions since the prior valuation.

## **SUPPLEMENTAL SCHEDULES**

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

### Schedule of Administrative and Investment Deductions Defined Benefit Pension Plan

Years ended June 30, 2014 and 2013 (In thousands)

			Tota	ls
	Administrative	Investment	2014	2013
Personal services:				
Wages \$	1,496	77	1,573	1,476
Benefits	871	31	902	868
Total personal services	2,367	108	2,475	2,344
Travel:				
Transportation	22	38	60	55
Per diem	4	19	23	24
Total travel	26	57	83	79
Contractual services:				
Management and consulting	3,700	12,201	15,901	13,225
Accounting and auditing	47	5	52	318
Advertising and printing	30	5	35	26
Data processing	824	200	1,024	667
Communications	49	21	70	61
Rental/leases	126	19	145	145
Legal	122	28	150	118
Medical specialists	49	_	49	14
Repairs and maintenance	2	4	6	7
Other professional services	43	16	59	80
Transportation	59		59	41
Total contractual services	5,051	12,499	17,550	14,702
Other:				
Equipment	13	6	19	22
Supplies	41	23	64	58
Total other	54	29	83	80
Total administrative and				
investment deductions \$	7,498	12,693	20,191	17,205

See accompanying independent auditors' report.

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

## Schedule of Administrative Deductions Defined Contribution Pension and OPEB Plans

Years ended June 30, 2014 and 2013 (In thousands)

			Totals		
	Administrative	Investment	2014	2013	
Personal services:					
Wages \$	89	_	89	90	
Benefits	49	_	49	56	
T . 1 1	120		120	146	
Total personal services	138		138	146	
Travel:					
Transportation	2	_	2	2	
Per diem				1	
Total travel	2		2	3	
Contractual services:					
Management and consulting	718	479	1,197	537	
Accounting and auditing	14	_	14	13	
Data processing	47	_	47	20	
Communications	3	_	3	3	
Rentals/leases	7	_	7	8	
Legal	1	_	1	2	
Other professional services	2		2	2	
Total contractual services	792	479	1,271	585	
Other:					
Equipment	1	_	1	1	
Supplies	2	_	2	2	
Total other	3		3	3	
Taral administration 1			-	-	
Total administrative and investment deductions \$	935	479	1,414	737	

See accompanying independent auditors' report.

### Teachers' Retirement System

(A Component Unit of the State of Alaska)

## Schedule of Payments to Consultants Other than Investment Advisors

Years ended June 30, 2014 and 2013

(In thousands)

Firm	Services	 2014	2013
Buck Consultants, an ACS Company	Actuarial services	\$ 355	286
KPMG LLP	Auditing services	51	34
State Street Bank Corporation	Custodian banking services	287	278
Applied Microsystems Inc.	Data processing consultants	359	38
Computer Task Group, Inc.	Data processing consultants	51	76
Mythics Inc.	Data processing consultants	4	31
Wostmann Group LLC	Data processing consultants	88	18
State of Alaska, Department of Law	Legal services	123	96
Michael Silverman	Management consulting services	93	18
The Wilson Agency LLC	Management consulting services	1	11
State of Alaska, Department of Health and Social Services	Medical expertise and counseling	 44	12
		\$ 1,456	898

See accompanying independent auditors' report.



# INVESTMENT SECTION



## Callan

Callan Associates Inc. 1660 Wynkoop Street Suite 950 Denver, CO 80202



September 3, 2014

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 the Alaska Retirement Management Board (ARMB) for the fiscal year ended June 30, 2014.

Callan Associates Inc. (Callan) independently calculates time-weighted performance statistics based on underlying custodial data provided by the Board's custodian, State Street Bank & Trust Company. The performance calculations were made using a time-weighted return methodology based upon current market values. ARMB's real estate consultant, the Townsend Group, calculates returns for the real estate segment of the portfolio. Callan incorporates that data into the Total Plan returns.

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 were made using methodology similar to Global Investment Performance Standards.

ARMB's primary investment objective is to prudently and expertly invest assets, in accordance with governing law and industry practices, in a manner that will help ensure assets under supervision are sufficient to pay promised benefits to its members and their beneficiaries. In pursuit of these objectives, ARMB periodically evaluates liabilities, expected contributions and potential earnings. This analysis is used to consider a wide range of potentially viable investment strategies. The Board selects a strategic investment policy that balances long-term growth potential at an acceptable level of risk. A policy benchmark is constructed that mirrors the Board's strategic asset allocation policy. The policy benchmark is a custom target comprising equity, fixed income, real estate and other market indices weighted in the same proportions as ARMB's investment policy.

Major equity markets enjoyed a strong fiscal year in 2014. The Russell 3000 Index, a measure of broad U.S. equity, surged 25.22% during fiscal year 2014. International stocks, as measured by the MSCI ACWI ex-U.S. Index, gained 22.28% for the same period. A broad measure of the total global equity market (MSCI All Country World Index) also boasted strong performance, returning 23.58%.

Falling bond yields during the period boosted fixed income performance. The Barclays Capital Aggregate Bond Index, a widely used gauge of the investment grade domestic fixed income market, gained 4.37%. Absolute return strategies, such as hedge fund-of-funds, posted respectable gains during the fiscal year. For example, the Callan Absolute Return Hedge Fund-of-Funds Style median return was 8.16% (net-of-fees). Private real estate investments, as measured by the

NCREIF Property Index, continued to advance, returning 11.21% during fiscal 2014. Publicly traded real estate, as measured by the NAREIT Equity Index, increased 13.02% during the same period.

ARMB's various asset group returns were all positive through June 30, 2014, as shown below.

Domestic stocks	25.8%
Int'l Stocks	23.4%
Private Equity	24.2%
Real Assets	13.3%
Absolute Return	6.5%
Fixed Income	5.1%

For fiscal year 2014, the Public Employees Retirement System (PERS) had a time-weighted total return of 18.56% and the Teachers Retirement System (TRS) also had a time-weighted total return of 18.56%. Both Systems outperformed their strategic policy benchmark target return of 17.20%. The two funds' returns were also above the 16.11% median return for Callan's Public Fund database.

Over longer-term periods, PERS and TRS have closely tracked their target index returns. For example, PERS' 10-year annualized return through June 30, 2014 was 7.26% while TRS's return was slightly higher at 7.31%. These returns were in line with and slightly above their target return of 7.20%. Over the longest period for which Callan has detailed data (22.75 years) for PERS and TRS, they achieved annualized total returns of 8.05% and 8.10%, respectively, which is higher than the policy benchmark return of 8.02%.

Both systems are well diversified and currently have asset allocation policies that, in our opinion, are consistent with achievement of a long-term "real" return of 4.5% or better.

In summary, fiscal 2014 was a good year for most major asset categories allowing diversified investment portfolios to perform well.

Sincerely,

Paul Erlendson Senior Vice President

### Department of Revenue **Treasury Division Staff** As of June 30, 2014

Commissioner

Angela Rodell Gary Bader

**Deputy Commissioner** 

Michael Pawlowski

Director

Pamela Leary, CPA

**Chief Investment Officer** 

Comptroller Scott Jones, CPA

Cash Management

Michelle M. Prebula, MBA, CPA,

CCM

**Investment Officers** 

Bob G. Mitchell Casey Colton Stephen R. Sikes Nicholas Orr Victor Djajalie Zachary Hanna Steve Verschoor Joy Wilkinson Shane Carson Alyson Campbell Sean Howard **Emily Peyton** Paul Hackenmueller

**ARMB Liaison Officer** 

Judy Hall

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

#### Investment Consultants

Callan Associates, Inc. Denver, CO The Townsend Group San Francisco, CA

#### **Investment Advisory Council**

William Jennings Colorado Springs, CO Jerrold Mitchell Wayland, MA Robert Shaw San Francisco, CA

### Absolute Return

Crestline Investors, Inc. Fort Worth, TX Global Assets Management Inc. Los Angeles, CA Prisma Capital Partners New York, NY

### **Domestic Equity Large Capitalization**

Analytic Investors LLC Los Angeles, CA

Barrow, Hanley, Mewhinney & Strauss

Dallas, TX

Capital Guardian Trust Co.

Los Angeles, CA

Allianz Global Investors (formerly RCM)

San Francisco, CA

McKinley Capital Management, Inc.

Anchorage, AK

Relational Investors LLC

San Diego, CA

Quantitative Management Associates

Newark, NJ

### Domestic Equity MicroCap

DePrince, Race & Zollo, Inc. Winter Park, FL Lord Abbett & Co. Jersey City, NJ

### **Domestic Equity Small Capitalization**

Jennison Associates LLC New York, NY Lord Abbett & Co. Jersey City, NJ

Luther King Capital Management

Fort Worth, TX

Frontier Capital Management

Boston, MA

Victory Capital Management

St. Louis, MO

### **Domestic Equity Index Fund**

State Street Global Advisors San Francisco, CA

### **Emerging Markets**

Eaton Vance Management Boston, MA Lazard Asset Management New York, NY

### Global Equity and Emerging Income

Lazard Freres Asset Management New York, NY

### High Yield/Convertible Bond

MacKay Shields LLC New York, NY Advent Capital Management New York, NY

### **Taxable Municipal Bonds**

Guggenheim Partners LLC Santa Monica, CA Western Asset Management Company Pasadena, CA

### International Equity - EAFE

Brandes Investment Partners, L.P. San Diego, CA Capital Guardian Trust Co. Los Angeles, CA

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

### **International Small Cap**

Mondrian Investment Partners

London, England
Schroders Investment Management NA

New York, NY

#### **International Fixed Income**

Mondrian Investment Partners

London, England

### Master Limited Partnerships

FAMCO MLP
St. Louis, MO
Tortoise Capital Advisors LLC
Leawood, KS

#### **Private Equity**

Abbott Capital Management, L.P. New York, NY Pathway Capital Management, LLC Irvine, CA

### Real Assets - Energy

EIG Global Energy Partners Washington, DC

### Real Assets - Farmland

Hancock Agricultural Investment Group Boston, MA UBS AgriVest, LLC Hartford, CT

### Real Assets - Timber

Hancock Timber Resource Group

Charlotte, NC

Timberland Investment Resources LLC

Brookline, MA

### Real Assets - Real Estate Core Separate Accounts

Cornerstone Real Estate Advisers, Inc. Hartford, CT

LaSalle Investment Management Chicago, IL

Sentinel Real Estate Corporation New York, NY

UBS Realty Investors, LLC

San Francisco, CA

### Real Assets - Commingled Real Estate Funds

Almanac Realty Investors
Alpharetta, GA
BlackRock Realty
San Francisco, CA
Colony Capital
Los Angeles, CA
Cornerstone Real Estate Advisers, LLC
Hartford, CT

### Real Assets - Commingled Real Estate Funds (cont'd)

Coventry Real Estate Fund II, LLC
New York, NY
Clarion Partners
New York, NY
J.P. Morgan Investment Management Inc.
New York, NY
Silverpeake Real Estate Partners

New York, NY
Lowe Hospitality Investment Partners, LLC
Los Angeles, CA
Sentinel Real Estate Corporation
New York, NY

Tishman Speyer Properties
New York NY
UBS Realty Investors, LLC
Hartford, CT

### Real Assets - Infrastructure

Brookfield Investment Management Encinitas, CA
Industry Funds Management
New York, NY
JP Morgan Asset Management
San Francisco, CA
Lazard Asset Management
New York, NY

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

BlackRock
San Francisco, CA
Allianz Global Investors (formerly RCM)
San Francisco, CA
State Street Global Advisors
Boston, MA
T. Rowe Price Investment Services
Baltimore, MD
Brandes Investment Partners
San Diego, CA

### Global Master Custodian

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

### Independent Auditors

KPMG, LLP Anchorage, AK

### Legal Counsel

Robert Johnson Anchorage, AK

## Teachers' Retirement System Investment Report

### **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 eight asset classes: domestic equities, global equities ex-U.S., alternative equity strategies, private equity, real assets, fixed income, absolute return, and cash equivalents. 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
Domestic Equity	Russell 3000 Index
Global Equities Ex-U.S.	MSCI All Country World Ex-U.S. Index
Alternative Equities Strategies	50% S&P 500 Index
	30% CBOE Buy Write Index
	20% Bank of America Yield Alternative Index
Private Equity	1/3 S&P 500 Index
	1/3 Russell 2000 Index
	1/3 MSCI EAFE Index
Real Assets	50% NCREIF Property Index
	15% Barclays TIPS Index
	10% NCREIF Farmland Index
	10% NCREIF Timberland Index
	5% FTSE NAREIT All Equity REIT Index
	10% S&P Global Infrastructure <sup>1</sup>
Fixed Income	80% Barclays Intermediate Treasury Index
	10% Bank of America Merrill Lynch US High Yield Master
	II Constrained Index
	7% Citigroup World Gov. Bond Ex-U.S. Index
	3% JP Morgan Global Bond Index - Emerging Markets
	Global Diversified Index
Absolute Return	91 Day Treasury Bill + 5%
Cash Equivalents	91 Day Treasury Bill

The target asset allocation is determined by the ARMB, utilizing capital market assumptions provided by its independent general investment consultant, Callan Associates. During the 2014 fiscal year, ARMB's target asset allocation was 26% domestic equities, 25% global equities ex-U.S., 3% alternative equity strategies, 9% private equity, 17% real assets, 12% fixed income, 5% absolute return, and 3% cash equivalents. The target asset allocation is expected to generate a return of 7.16% with a standard deviation of 14.81%.

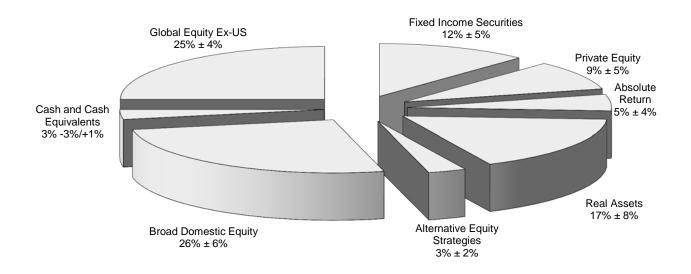
<sup>&</sup>lt;sup>1</sup>Between July 1 and March 31, the benchmark for real assets was 55% NCREIF Property Index, 20% Barclays TIPS Index, 10% NCREIF Farmland Index, 10% NCREIF Timberland Index, 5% FTSE NAREIT All Equity REIT Index.

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

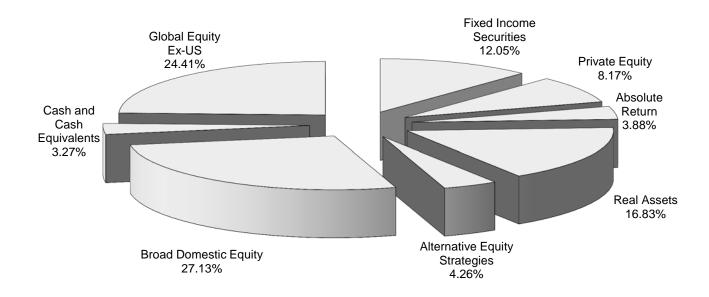
						Annua	alized
	2010	2011	2012	2013	2014	3 Year	5 Year
Total Fund							
TRS	11.58%	21.40%	0.51%	12.59%	18.46%	10.26%	12.66%
Actuarial Earnings Rate	8.25	8.00	8.00	8.00	8.00	8.00	8.00
U.S. Common Stock Returns							
TRS Domestic Equities	15.47	33.38	1.83	21.24	25.45	15.70	18.99
Custom Composite Index	15.72	32.37	3.84	21.46	25.22	16.46	19.33
Fixed Income							
TRS	11.35	5.55	4.82	0.57	5.14	3.49	5.43
Custom Composite Index	10.16	5.06	5.08	(0.04)	3.31	2.76	4.67
Real Assets							
TRS	0.06	15.51	10.45	10.65	12.71	11.26	9.70
Custom Composite Index	1.17	12.66	11.41	8.35	10.98	10.24	8.84
International Stock Returns							
TRS International Equities	12.03	28.27	(13.66)	15.03	23.41	7.02	11.99
MSCI ACWI ex-US	10.87	30.27	(14.15)	14.14	22.27	6.21	11.59
Private Equity							
TRS	18.87	20.12	9.44	11.68	24.19	14.93	16.73
Custom Composite Index	13.87	32.93	(3.61)	21.24	24.01	13.16	17.01
Absolute Return							
TRS	6.60	5.99	(2.05)	8.41	6.51	4.19	5.03
3-month Treasury Bill +5%	5.16	5.16	5.06	5.11	5.05	5.07	5.11
Alternative Equity							
TRS	_		_		24.55		_
Custom Composite Index	_	_	_		18.70		
Cash Equivalents							
TRS	_	0.46	0.42	0.25	0.26	0.31	_
3-month Treasury Bill	_	0.16	0.06	0.11	0.05	0.07	

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

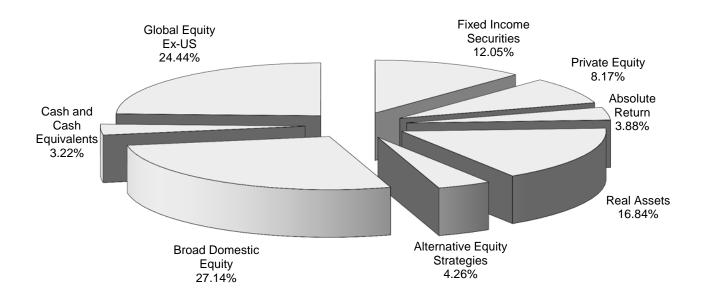
### **Policy**



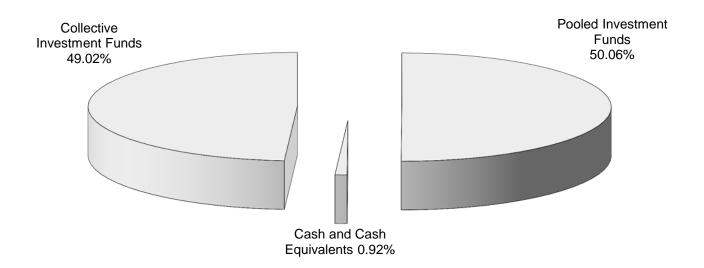
### Actual — Defined Benefit Pension



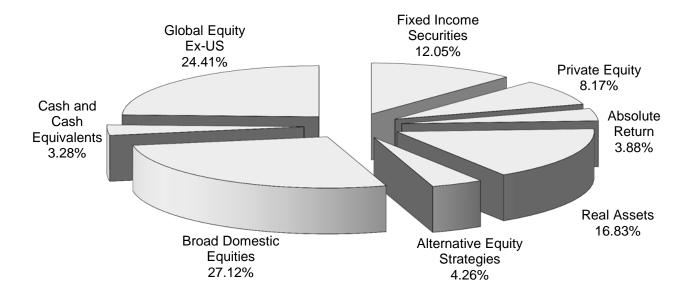
### Actual — Defined Benefit Alaska Retiree Healthcare Trust



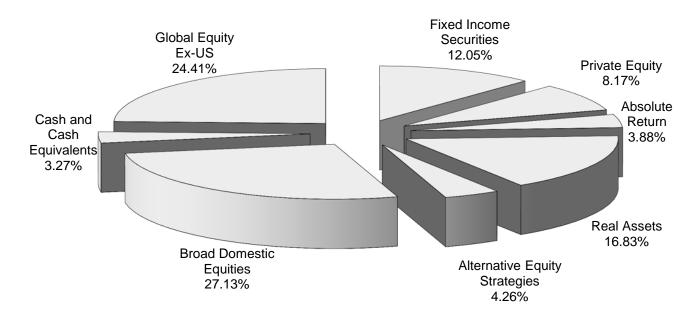
### Actual — Defined Contribution Participant Directed



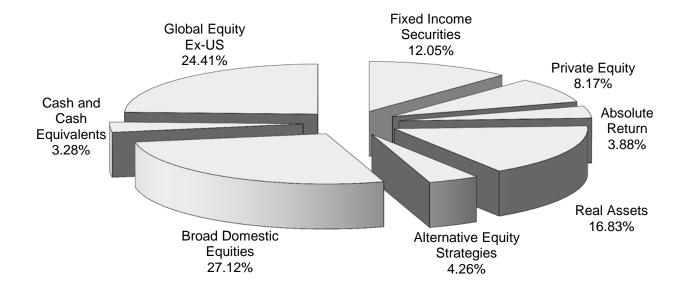
### Actual — Health Reimbursement Arrangement



### Actual — Occupational Death & Disability



### Actual — Retiree Medical Plan



### Alaska Retirement Management Board Top Ten Holdings by Asset Type June 30, 2014

Invested assets under the fiduciary responsibility of the Alaska Retirement Management Board (ARMB) have been commingled in various investment pools to minimize costs and maximize returns. Treasury Division has created twenty-six different mutual fund-like pools to accomplish the investment asset allocation policies of the ARMB. 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	US Treasury 1.625% 7/31/2019	\$55,990,421	\$55,863,834
2	US Treasury 1.500% 2/28/2019	39,974,403	39,983,759
3	US Treasury 0.875% 12/31/2016	38,867,114	38,661,743
4	US Treasury 0.625% 4/30/2018	33,440,070	34,198,875
5	US Treasury 2.625% 5/15/2024	31,976,923	31,738,881
6	US Treasury 0.875% 7/31/2019	19,833,045	20,559,025
7	US Treasury 0.75% 1/15/2017	13,597,858	13,569,240
8	US Treasury 0.625% 5/31/2017	10,262,377	10,322,049
9	US Treasury 1.625% 4/30/2019	9,119,039	9,087,089
10	US Treasury 2.000% 7/31/2020	8,581,621	8,507,183

### **Equities**

Rank	Largest Equity Holdings	Market Value
1	Apple Inc.	\$45,293,027
2	Microsoft Corp.	31,986,021
3	Johnson & Johnson	19,868,346
4	Wells Fargo & Co.	18,070,253
5	Pfizer Inc.	17,397,711
6	Chevron Corp.	16,305,133
7	JPMorgan Chace & Co.	16,300,645
8	Intel Corp.	16,293,813
9	Citigroup Inc.	15,703,646
10	Verizon Communications Inc.	15,169,489

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

## Teachers' Retirement System Schedule of Investment Management Fees Year Ended June 30, 2014

Year Ended June	<i>5</i> 0, <i>2</i> 014	
	Total Fair Value	Fees
Fixed Income		
Municipal Bond Pool		
* Western Asset Management	\$ 32,338,429	\$ 55,397
* Guggenheim Partners	31,712,907	32,697
	64,051,336	88,094
Total Municipal Bond Pool	64,051,556	88,094
High Yield Pool	162 622 001	607.007
* Mackay Shields, LLC	162,623,091	697,087
International Fixed Income * Mondrian Investment Portners		/02.000
ivioliditali liivestilielit i artifels	108,903,334	402,822
Broad Domestic Equity Pools		
* Barrow, Hanley, Mewhinney & Strauss, INC	71,472,911	567,106
* Jennison Associates LLC	41,503,116	338,678
* Lazard Asset Management	109,406,312	243,670
* Lord Abbett & Co.	69,566,788	577,229
<ul> <li>* Luther King Cap. Management</li> </ul>	39,464,487	236,226
* Victory Capital Management	31,876,963	233,330
* Frontier Capital Management	31,095,689	391,044
* McKinley Capital	100,849,791	314,550
<ul> <li>* Quantitative Management Associates</li> </ul>	96,173,312	291,627
* SSgA Russell 1000 Growth	355,989,461	39,898
* SSgA Russell 1000 Value	336,332,469	40,120
* SSgA Russell 2000 Growth	5,099,424	2,400
* SSgA Russell 2000 Value	18,683,240	8,687
* SSgA Russell 200	154,943,435	17,603
* SSgA Futures Large Cap	3,848,502	3,544
* SSgA Future Small Cap	3,248,827	3,019
<ul> <li>DePrince, Race&amp; Zollo IncMicro Cap</li> </ul>	28,529,587	298,081
* Allianz Global Investors	101,615,559	210,363
Total Domestic Equities	1,599,699,873	3,817,175
Global Equity Ex-U.S.		
* SSgA	194,304,105	108,672
* Brandes Investment Partners	320,710,511	1,105,281
* Capital Guardian Trust Co.	237,874,644	821,097
* McKinley Capital Mgmt.	113,840,031	515,030
* Lazard Freres	126,695,038	172,256
* Mondrian Investment Partners	46,121,984	318,263
* Blackrock ACWI Ex-US IMI	194,364,941	106,344
* Schroder Investment Management	47,864,460	345,459
Total International Equities	1,281,775,714	3,492,402
Alternative Equity Strategies	1,201,779,711	3,152,102
Alternative Equity Pool		
* *	68,771,471	60,793
Analytic 33gA Account		4,743
Analytic Buy write Account	2,299,434	
* Allianz Global Investors	71.070.005	88,746
Total Alternative Equity	71,070,905	154,282
Convertible Bond Pool		
* Advent Capital	56,470,149	281,391
Private Equity Pool		
** BlumCapital Partners-Strategic	3,162,545	66,190
** Warburg Pincus X	11,580,967	155,351
** Angelo Gordon & Co.	2,439,800	58,501
** Onex Partners	6,994,231	94,732
** Lexington Partners	14,421,687	208,593
** Neuberger Berman Secondary Opportunities	1,445,290	240,493
* Pathway Capital Management	232,272,197	655,122
* Abbott Capital Management	221,914,378	556,424
** Merit Capital Partners	4,166,735	115,669
Total Private Equities	498,397,830	2,151,075
	<del></del>	

## Teachers' Retirement System Schedule of Investment Management Fees (cont.) Year Ended June 30, 2013

-		Total Fair Value	Fees
Absolute	: Return Pool		
**	Mariner Investment Group	\$ -	\$ 1,203
**	Crestline Investors Inc.	52,294,446	501,292
**	Global Asset Management	91,086,157	592,238
**	Prisma Capital Partners	93,469,476	632,686
То	tal Absolute Return	236,850,079	1,727,419
Real Asso	ets		
Re	al Estate Pool		
**	JPM Strategic	67,183,041	550,570
**	UBS Consolidated	23,539,120	245,905
**	Cornerstone	34,641,255	188,627
**	Lasalle	42,535,044	356,095
**	Sentinel ,SA	43,837,769	240,754
**	UBS Separate	86,232,631	480,949
**	Lowe Hospitality	656,358	10,136
**	KKR.	6,880,834	55,773
**	ING Clarion	7,980,363	105,030
**	Silverpeak Legacy Pension Partners	19,832,247	267,046
**	Almanac Realty Securities	11,227,970	166,992
**	Tishman Speyer	16,781,060	234,391
**	BlackRock Diamond	8,050,581	99,505
**	Colony Investors VIII, L.P.	7,250,253	174,958
**	LaSalle Medical Office Fund II	1,706,430	67,433
**	Cornerstone Apartment Venture III	2,050,885	48,018
**	Coventry	3,591,929	93,299
To	tal Real Estate	383,977,770	3,385,481
	rastructure Public Pool	2 2 2 3 7 7 7 7 2	2,203,101
*	Brookfield Investment Management	24,083,668	48,468
*	Lazard Asset Management	23,453,554	45,787
To	tal Infrastructure Public Pool	47,537,222	94,255
	ster Limited Partnerships Pool		
*	Tortoise MLP	73,845,306	375,130
*	Advisory Research Inc	67,061,028	277,978
То	tal Master Limited Partnerships Pool	140,906,334	653,108
	ergy Pool	110,500,551	0,5,100
**	EIG Energy Fund XV	11,293,210	140,917
**	EIG Energy Fund XD	2,217,398	28,476
**	EIG Energy Fund XIV-A	15,144,062	186,386
**	EIG Energy Fund XVI	2,199,167	232,836
To	tal Energy Pool	30,853,837	588,615
	mland Pool		,,,,,,,
**	Hancock Agriculture Investment Group	63,439,466	634,813
**	UBS Agrivest	141,423,090	1,127,123
	tal Farmland	204,862,556	1,761,936
	nber Pool	201,002,550	1,701,250
**	Timberland Investment Resources	75,507,996	435,857
**	Hancock Natural Resource Group	28,292,949	194,983
То	tal Timber Pool	103,800,945	630,840
	stodian	103,800,743	050,840
*	State Street Bank		286,800
Ins	vestment Advisory		
*	Townsend Group		29,673
*	Callan Associates		46,010
*	Investment Advisory Council		24,958
Т	tal Investment Advisory		100,641
	restment Advisory		100,041
*	Callan Associates		81,796
T~	tal External Management Fees		\$ 20,395,219
10	tar Paterilar ivramagement Fees		φ 40,393,419

<sup>\*</sup>These fees are paid through the Alaska Statewide Accounting System (AKSAS)

<sup>\*\*</sup>These fees are deducted from earnings by the fund manager and are not directly recorded in AKSAS.

	Defined Benefit - Pension			
	Asset A	Allocation		% of Total
Investments (at Fair Value)	Policy	Range	Fair Market Value	Assets
Cash and Cash Equivalents				
Short-term Fixed Income Pool	3.00%	-3%/+1%	\$ 123,198,450	
Total Cash and Cash Equivalents			123,198,450	3.27%
Fixed Income Securities				
U.S. Treasury Fixed Income Pool			219,574,549	
Taxable Municipal Bond Pool			39,593,830	
High Yield Pool			100,526,724	
International Fixed Income Pool			67,319,440	
Emerging Debt Pool			27,321,961	
Total Fixed Income Securities	12.00%	± 5%	454,336,504	12.05%
Broad Domestic Equity				
Large Cap Pool			837,537,847	
Small Cap Pool			185,344,407	
Total Broad Domestic Equity	26.00%	± 6%	1,022,882,254	27.13%
Global Equity Ex-U.S.				
International Equity Pool			734,241,145	
International Equity Small Cap Pool			58,098,450	
Frontier Markets Pool			17,571,079	
Emerging Markets Equity Pool			110,561,071	
Total Global Equity Ex-U.S.	25.00%	± 4%	920,471,745	24.41%
Alternative Equity Strategies				
Alternative Equity Strategies			125,818,715	
Convertible Bond Pool			34,907,459	
Total Alternative Equities	3.00%	± 2%	160,726,174	4.26%
Private Equity				
Private Equity Pool			308,115,801	
Total Private Equity	9.00%	± 5%	308,115,801	8.17%
Absolute Return				
Absolute Return Pool			146,410,712	
Total Absolute Return	5.00%	± 4%	146,410,712	3.88%
Real Assets				
Real Estate Pool			237,396,629	
Real Estate Investment Trust Pool			64,781,676	
Infrastructure Public Pool			29,385,502	
Master Limited Partnership Pool			87,102,343	
Energy Pool			19,072,537	
Farmland Pool			126,637,376	
Timber Pool			64,165,359	
Treasury Inflation Protected Securities Pool			6,236,306	
Total Real Assets	17.00%	± 8%	634,777,728	16.83%
Total Invested Assets	100.00%		\$ 3,770,919,368	100.00%

		Defined Benefit - A	laska Retiree Health Care Trus	t
	Asset A	Allocation		% of Total
Investments (at Fair Value)	Policy	Range	Fair Market Value	Assets
Cash and Cash Equivalents				
Short-term Fixed Income Pool	3.00%	-3%/+1%	\$ 73,011,079	
Total Cash and Cash Equivalents			73,011,079	3.22%
Fixed Income Securities				
U.S. Treasury Fixed Income Pool			131,922,097	
Taxable Municipal Bond Pool			23,788,281	
High Yield Pool			60,397,238	
International Fixed Income Pool			40,446,044	
Emerging Debt Pool			16,415,248	
Total Fixed Income Securities	12.00%	± 5%	272,968,908	12.05%
Broad Domestic Equity				
Large Cap Pool			503,199,255	
Small Cap Pool			111,356,364	
Total Broad Domestic Equity	26.00%	± 6%	614,555,619	27.14%
Global Equity Ex-U.S.				
International Equity Pool			441,137,791	
International Equity Small Cap Pool			34,906,000	
Frontier Markets Pool			10,556,840	
Emerging Markets Equity Pool			66,425,951	
Total Global Equity Ex-U.S.	25.00%	± 4%	553,026,582	24.44%
Alternative Equity Strategies				
Alternative Equity Strategies			75,592,864	
Convertible Bond Pool			20,972,674	
Total Alternative Equities	3.00%	± 2%	96,565,538	4.26%
Private Equity				
Private Equity Pool			185,118,370	
Total Private Equity	9.00%	± 5%	185,118,370	8.17%
Absolute Return				
Absolute Return Pool			87,964,694	
Total Absolute Return	5.00%	± 4%	87,964,694	3.88%
Real Assets				
Real Estate Pool			142,570,275	
Real Estate Investment Trust Pool			38,921,336	
Infrastructure Public Pool			17,655,038	
Master Limited Partnership Pool			52,331,764	
Energy Pool			11,458,930	
Farmland Pool			76,084,722	
Timber Pool			38,551,047	
Treasury Inflation Protected Securities Pool			3,746,822	
Total Real Assets	17.00%	± 8%	381,319,934	16.84%
Total Invested Assets	100.00%		\$ 2,264,530,724	100.00%

	Defined Contribution - Participant Direct				ted
	Asset Allo	ocation			% of Total
Investments (at Fair Value)	Policy	Range	Fair I	Market Value	Assets
Cash and Cash Equivalents					
Short-term Fixed Income Pool	100.00%	0%	\$	1,985,139	
Total Cash and Cash Equivalents				1,985,139	0.92%
Pooled Investment Funds (1)					
T. Rowe Price					
Target 2010 Trust				566,018	
Target 2015 Trust				2,047,164	
Target 2020 Trust				4,664,541	
Target 2025 Trust				6,345,228	
Target 2030 Trust				6,888,030	
Target 2035 Trust				10,473,839	
Target 2040 Trust				11,491,816	
Target 2045 Trust				19,992,219	
Target 2050 Trust				26,727,623	
Target 2055 Trust				5,045,676	
Alaska Balanced Fund				249,705	
Long-Term Balanced Fund				11,515,309	
Alaska Money Market				1,619,627	
Total Pooled Investment Funds				107,626,795	50.06%
Collective Investment Funds (1)					
State Street Global Advisors					
Money Market Fund				146,513	
S&P Stock Index Fund				13,173,746	
Russell 3000 Index				15,084,374	
Real Estate Investment Trust Index				2,552,540	
World Equity Ex-U.S. Index				11,968,465	
Long U.S. Treasury Bond Index				97,503	
Treasury Inflation Protected Securities Index				1,206,767	
World Government Bond Ex-U.S. Index				2,666,743	
Global Balanced Fund				7,056,026	
Barclays					
Daily Government/Corporate Bond Fund				13,321,595	
Intermediate Bond Fund				87,936	
Brandes Institutional					
International Equity Fund				15,181,492	
RCM					
Socially Responsible Fund				1,230,804	
T. Rowe Price					
Small-Cap Fund				21,618,972	
Total Collective Investment Funds				105,393,476	49.02%
Total Invested Assets			\$	215,005,410	100.00%

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

	Health Reimbursement Arrangement				
	Asset Allocation				% of Total
Investments (at Fair Value)	Policy	Range	Fai	r Market Value	Assets
Cash and Cash Equivalents					
Short-term Fixed Income Pool	3.00%	-3%/+1%	\$	1,610,630	
Total Cash and Cash Equivalents				1,610,630	3.28%
Fixed Income Securities					
U.S. Treasury Fixed Income Pool				2,858,876	
Taxable Municipal Bond Pool				515,514	
High Yield Pool				1,308,865	
International Fixed Income Pool				876,503	
Emerging Debt Pool				355,734	
Total Fixed Income Securities	12.00%	± 5%		5,915,492	12.05%
Broad Domestic Equity					
Large Cap Pool				10,904,801	
Small Cap Pool				2,413,197	
Total Broad Domestic Equity	26.00%	± 6%		13,317,998	27.12%
Global Equity Ex-U.S.					
International Equity Pool				9,559,870	
International Equity Small Cap Pool				756,445	
Frontier Markets Pool				228,776	
Emerging Markets Equity Pool				1,439,513	
Total Global Equity Ex-U.S.	25.00%	± 4%		11,984,604	24.41%
Alternative Equity Strategies					
Alternative Equity Strategies				1,638,168	
Convertible Bond Pool				454,498	
Total Alternative Equities	3.00%	± 2%		2,092,666	4.26%
Private Equity					
Private Equity Pool				4,011,689	
Total Private Equity	9.00%	± 5%		4,011,689	8.17%
Absolute Return					
Absolute Return Pool				1,906,278	
Total Absolute Return	5.00%	± 4%		1,906,278	3.88%
Real Assets					
Real Estate Pool				3,089,632	
Real Estate Investment Trust Pool				843,462	
Infrastructure Public Pool				382,602	
Master Limited Partnership Pool				1,134,079	
Energy Pool				248,326	
Farmland Pool				1,648,827	
Timber Pool				835,437	
Treasury Inflation Protected Securities Pool				81,197	
Total Real Assets	17.00%	± 8%		8,263,562	16.83%
Total Invested Assets	100.00%		\$	49,102,919	100.00%

	Occupational Death and Disability				
	Asset A	Allocation		-	% of Total
Investments (at Fair Value)	Policy	Range	Fair	Market Value	Assets
Cash and Cash Equivalents					
Short-term Fixed Income Pool	3.00%	-3%/+1%	\$	100,503	
Total Cash and Cash Equivalents				100,503	3.27%
Fixed Income Securities					
U.S. Treasury Fixed Income Pool				179,037	
Taxable Municipal Bond Pool				32,284	
High Yield Pool				81,968	
International Fixed Income Pool				54,891	
Emerging Debt Pool				22,278	
Total Fixed Income Securities	12.00%	± 5%		370,458	12.05%
Broad Domestic Equity					
Large Cap Pool				682,913	
Small Cap Pool				151,126	
Total Broad Domestic Equity	26.00%	± 6%		834,039	27.13%
Global Equity Ex-U.S.					
International Equity Pool				598,686	
International Equity Small Cap Pool				47,372	
Frontier Markets Pool				14,327	
Emerging Markets Equity Pool				90,150	
Total Global Equity Ex-U.S.	25.00%	± 4%		750,535	24.41%
Alternative Equity Strategies					
Alternative Equity Strategies				102,590	
Convertible Bond Pool				28,463	
Total Alternative Equities	3.00%	± 2%		131,053	4.26%
Private Equity					
Private Equity Pool				251,232	
Total Private Equity	9.00%	± 5%		251,232	8.17%
Absolute Return					
Absolute Return Pool				119,380	
Total Absolute Return	5.00%	± 4%		119,380	3.88%
Real Assets					
Real Estate Pool				193,489	
Real Estate Investment Trust Pool				52,822	
Infrastructure Public Pool				23,960	
Master Limited Partnership Pool				71,022	
Energy Pool				15,552	
Farmland Pool				103,258	
Timber Pool				52,320	
Treasury Inflation Protected Securities Pool				5,085	
Total Real Assets	17.00%	± 8%		517,508	16.83%
Total Invested Assets	100.00%		\$	3,074,708	100.00%

	Asset A	Allocation		% of Total
Investments (at Fair Value)	Policy	Range	Fair Market Value	Assets
Cash and Cash Equivalents				
Short-term Fixed Income Pool	3.00%	-3%/+1%	\$ 378,87	5
Total Cash and Cash Equivalents			378,87	3.28%
Fixed Income Securities				
U.S. Treasury Fixed Income Pool			673,39	3
Taxable Municipal Bond Pool			121,42	7
High Yield Pool			308,29	6
International Fixed Income Pool			206,45	6
Emerging Debt Pool			83,79	1
Total Fixed Income Securities	12.00%	± 5%	1,393,36	12.05%
Broad Domestic Equity				
Large Cap Pool			2,568,56	9
Small Cap Pool			568,41	6
Total Broad Domestic Equity	26.00%	± 6%	3,136,98	5 27.12%
Global Equity Ex-U.S.				
International Equity Pool			2,251,77	8
International Equity Small Cap Pool			178,17	7
Frontier Markets Pool			53,88	7
Emerging Markets Equity Pool			339,07	0
Total Global Equity Ex-U.S.	25.00%	± 4%	2,822,91	
Alternative Equity Strategies				
Alternative Equity Strategies			385,86	2
Convertible Bond Pool			107,05	5
Total Alternative Equities	3.00%	± 2%	492,91	7 4.26%
Private Equity				
Private Equity Pool			944,93	3
Total Private Equity	9.00%	± 5%	944,93	3 8.17%
Absolute Return				
Absolute Return Pool			449,01	4
Total Absolute Return	5.00%	± 4%	449,01	3.88%
Real Assets				
Real Estate Pool			727,74	6
Real Estate Investment Trust Pool			198,67	3
Infrastructure Public Pool			90,12	0
Master Limited Partnership Pool			267,12	7
Energy Pool			58,49	2
Farmland Pool			388,37	3
Timber Pool			196,78	2
Treasury Inflation Protected Securities Pool			19,12	6
Total Real Assets	17.00%	± 8%	1,946,43	9 16.83%
Total Invested Assets	100.00%		\$ 11,565,43	8 100.00%

### Teachers' Retirement System Recaptured Commission Fees June 30, 2014

Domestic Equity Pool	International Equity Pool	Total
\$3,717	\$102	\$3,819
2,196	60	2,256
45	1	46
3	-	3
11	-	11
\$5,972	\$163	\$6,135
	Equity Pool \$3,717 2,196 45 3 11	Equity   Pool   Equity Pool

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



## **buck**consultants

## A Xerox Company

August 22, 2014

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, 2013 performed by Buck Consultants, LLC.

The actuarial valuation is based on financial information provided in the financial statements audited by KPMG LLP and member data provided by the Division of Retirement and Benefits and summarized in this report. The benefits considered are those delineated in Alaska statutes effective June 30, 2013. The actuary did not verify the data submitted, but did perform tests for consistency and reasonableness.

All costs, liabilities and other factors under the System 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 Consultants, LLC is solely responsible for the actuarial data and actuarial results presented in this report. This report fully and fairly discloses the actuarial position of the System.

The State of Alaska Teachers' Retirement System is funded by Employer, State, and Member Contributions in accordance with the funding policy adopted by the Alaska Retirement Management Board (Board). The funding objective for the State of Alaska Teachers' Retirement System 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, System expenses, and amortize the Unfunded Actuarial Accrued Liability as a level dollar amount over a closed 25-year period. The Board changed the amortization method used for funding from the level percentage of payroll method to the level dollar method in June 2012 effective June 30, 2012. 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.

In our opinion, the actuarial assumptions used are reasonable, taking into account the experience of the System and reasonable long-term expectations, and represent our best estimate of the anticipated long-term experience under the System. The actuary performs an analysis of System 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 in 2010. A review of the healthcare assumptions was performed for last year's actuarial valuation and changes were made to the healthcare cost trend rates and the per capita claims cost rates, effective June 30, 2012, to better reflect expected future healthcare experience. Based on updated experience, these assumptions are still reasonable. A summary of the actuarial assumptions and methods used in this actuarial valuation are shown in this report.

### **Actuarial Section**

The assumptions and methods used to determine the Annual Required Contributions (ARC) of the Employers to the State of Alaska Teachers' Retirement System as outlined in this report and all supporting schedules meet the parameters and requirements for disclosure of Governmental Accounting Standards Board (GASB) Statements No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans, and No. 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans. Based on member data and asset information provided by the Division of Retirement and Benefits, we have prepared the Schedule of Funding Progress, Schedule of Employer Contributions, and trend data schedules under GASB Nos. 25 and 43 that are included in the Financial Section of the CAFR. We have also prepared the member data tables shown in Section 5 of this report for the Statistical Section of the CAFR, and the summary of actuarial assumptions, solvency test, and analysis of financial experience for the Actuarial Section of the CAFR.

The undersigned is an Enrolled Actuary, an Associate of the Society of Actuaries and Member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all Applicable Actuarial Standards of Practice. We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.

Respectfully submitted,

**BUCK CONSULTANTS, LLC** 

David H. Slishinsky, ASA, EA, MAAA, FCA

David H. Slashinsky

Principal, Consulting Actuary

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 her qualification to render opinions in such matters, in accordance with the qualification standards of the American Academy of Actuaries.

Melissa Bissett, FSA, MAAA

Senior Consultant, Health & Productivity

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## 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. The asset smoothing method used to determine valuation assets was changed effective June 30, 2002.

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 Actuarial Cost

Liabilities and contributions shown in the report are computed using the Entry Age Actuarial Cost method of funding. Any funding surpluses or unfunded accrued liability is amortized over 25 years as a level dollar amount. The initial unfunded accrued liability was established on June 30, 2002 and amortized over a closed 25-year period. Any changes in the unfunded accrued liability established after June 30, 2002 due to changes in plan provisions, actuarial methods or assumptions, or actuarial experience are amortized over a 25-year period from the date established. State statutes allow the contribution rate to be determined on payroll for all members, defined benefit and defined contribution member payroll combined. However, for GASB disclosure requirements, the net amortization period will not exceed 30 years and the level dollar amortization method is used since the defined benefit plan membership was closed effective July 1, 2006.

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 for pension benefits (constant dollar amount for healthcare benefits) 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.

### **Teachers' Retirement System**

### **Defined Benefit Retirement Plan**

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

### B. Valuation of Assets

Effective June 30, 2002, the asset valuation method recognizes 20% of the difference between actual and expected investment return in each of the current and preceding four years. This method was phased in over the next 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. Valuation assets are constrained to a range of 80% to 120% of the fair value of assets.

### Changes in Methods from the Prior Valuation

There was one change in valuation methods since the previous valuation.

### C. Valuation of Medical Benefits

This section outlines the detailed methodology used to develop the initial per capita claims cost rates for the State of Alaska Teachers' Retirement System postemployment healthcare plan. Note that methodology reflects the results of our annual experience rate update for the period July 1, 2012 to June 30, 2013.

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 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.

We analyzed HealthSmart management level reporting for fiscal 2010 through April 2013, and derived recommended base claims cost rates as described in the following steps:

- 1. Based on analysis described in our Experience Study, dental, vision and audio claims (DVA) are excluded from data analyzed for this valuation.
- 2. Available management level reporting does not show claims or enrollment separately for Medicare and non-Medicare plan participants, but does include overall statistics as to the percentage of claims and enrollment attributable to both groups for fiscal 2010 through 2012. Fiscal 2013 management level reporting includes the percentage of claims attributable to both groups but does not address enrollment by group. DB Tier retiree census supplied by the Division was split into under and over age 65 counts as a proxy for fiscal 2013 Medicare and non-Medicare enrollment. Historical claim level reporting and estimated impacts of Medicare coordination and plan design were used to augment cost data by Medicare status.

### **Teachers' Retirement System**

### **Defined Benefit Retirement Plan**

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

- 3. 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 these "no-Part A" individuals, the State is the primary payer for hospital bills and other Part A services. Thus, claims costs are higher for the no-Part A group. To date, claim experience is not available separately for participants with both Medicare Parts A and B and those with Part B only. Therefore, higher no-Part A claims are spread across the entire retired population and have been applied to future claims of current active employees projected to retire in the future. 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 and will be lower. The smaller the no-Part A population, the more accurate liabilities will decrease. Based on census data received from HealthSmart, 0.6% of the current retiree population was identified as having coverage only under Medicare Part B. For future retirees, we assume their Part A eligible status based on a combination of date of hire and/or re-hire, date of birth, tier, etc. All claims cost rates developed from management level reporting have been compared to similar rates developed from claim level data.
- 4. The steps above result in separate incurred claims cost rates for medical and prescription benefits for non-Medicare, Medicare Part B only and Medicare Part A&B members for the past four fiscal years. Medical claims cost rates reflect differing average ages and levels of Medicare coordination for each group. Prescription claims cost rates reflect differing average ages. We deemed incurred claim data from HealthSmart management reports to be complete for fiscal 2010, 2011 and 2012. Fiscal 2013 medical claim data was completed using a factor of 0.82; fiscal 2013 prescription claim data was completed using a factor of 0.90 these factors were derived from historic completion patterns for AlaskaCare retiree claims. Incurred claim cost rates are projected forward to the valuation year using a blend of Alaska plan-specific trend and national trend rates over the same period, with Alaska experience receiving 75% weight, national trend 25%. These weighted trend factors for this purpose for the current valuation are as follows:

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

## Valuation Year eriod Medical Pre

Experience Period	Medical	Prescription	Weighting Factors
FY 2010 to FY 2011	13.0%	9.6%	10.0%
FY 2011 to FY 2012	8.1%	4.5%	20.0%
FY 2012 to FY 2013	8.3%	5.1%	40.0%
FY 2013 to FY 2014	8.9%	7.1%	30.0%

- 5. Healthcare Reform legislation passed on March 23, 2010 included several provisions with potential implications for the State of Alaska Retiree Health Plan liability. Buck evaluated the impact of the following provisions; however, none of the impacts other than noted fees have been included in the valuation results.
  - Because the State plan is retiree-only, and was in effect at the time the legislation was enacted, not all
    provisions are required. 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.

### **Teachers' Retirement System**

### **Defined Benefit Retirement Plan**

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

• The Plan will be subject to the high cost plan excise tax (Cadillac tax). Based upon guidance available at the time of disclosure, Buck estimated the year in which the tax would potentially affect Alaska to be sufficiently far into the future to produce a minimal impact. Buck determined the impact to be immaterial based on a blend of pre-Medicare and Medicare retirees. Patient-centered outcomes research fees and transitional reinsurance fees are included in the administration fees.

We have not identified any other specific provisions of healthcare reform that would be expected to have a significant impact on the measured obligation. As additional guidance on the legislation is issued, we will continue to monitor any potential impacts.

### Teachers' Retirement System

### Defined Benefit Retirement Plan

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

### June 30, 2013 Valuation - FY 2014 Claims Cost Rates

	. 1		
M	ed	1	ca

	Pre-Medicare	Medicare A&B	Medicare B Only
Fiscal 2010 Incurred Claims	\$233,601,103	\$60,082,942	\$1,421,948
Membership	32,026	27,915	156
Paid Claims Cost Rate	\$7,294	\$2,152	\$9,115
Trend to FY2014	1.441	1.441	1.441
FY2014 Paid Cost Rate	\$10,514	\$3,102	\$13,138
Provider Contracting Factor	0.970	0.970	0.970
FY 2014 Incurred Cost Rate	\$10,200	\$3,010	\$12,747
Fiscal 2011 Incurred Claims	\$232,732,266	\$55,615,233	\$849,185
Membership	31,362	29,997	138
Paid Claims Cost Rate	\$7,421	\$1,854	\$6,154
Trend to FY2014	1.275	1.275	1.275
FY2014 Paid Cost Rate	\$9,463	\$2,364	\$7,847
Provider Contracting Factor	0.970	0.970	0.970
FY 2014 Incurred Cost Rate	\$9,181	\$2,294	\$7,613
Fiscal 2012 Incurred Claims	\$233,633,045	\$71,443,709	\$1,586,219
Membership	29,500	33,631	208
Paid Claims Cost Rate	\$7,920	\$2,124	\$7,626
Trend to FY2014	1.180	1.180	1.180
FY2014 Paid Cost Rate	\$9,343	\$2,506	\$8,997
Provider Contracting Factor	0.970	0.970	0.970
FY 2014 Incurred Cost Rate	\$9,065	\$2,431	\$8,728
Fiscal 2013 Incurred Claims	\$245,965,030	\$75,299,373	\$1,948,514
Membership	27,036	37,912	217
Paid Claims Cost Rate	\$9,098	\$1,986	\$8,979
Trend to FY2014	1.089	1.089	1.089
FY2014 Paid Cost Rate	\$9,911	\$2,164	\$9,783
Provider Contracting Factor	0.970	0.970	0.970
FY 2014 Incurred Cost Rate	\$9,616	\$2,099	\$9,491
Weighted Average 7/1/2013-6/30/2014	í Incurred Claims Cost R	ates:	
At average age	\$9,367	\$2,362	\$9,136
At age 65	\$11,125	\$1,726	\$6,676

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

June 30, 2013 Valuation – FY 2014 Claims Cost Rates (cont.)

**Prescription Drugs** 

	Pre-Medicare	Medicare A&B	Medicare B Only	Total
Fiscal 2010 Incurred Claims	\$59,287,225	\$69,463,204	\$394,011	\$424,250,433
Membership	32,026	27,915	156	60,097
Paid Claims Cost Rate	\$1,851	\$2,488	\$2,526	\$7,059
Trend to FY2014	1.289	1.289	1.289	
FY2014 Paid Cost Rate	\$2,387	\$3,208	\$3,256	\$9,848
Provider Contracting Factor	0.993	0.993	0.993	
FY2014 Incurred Cost Rate	\$2,370	\$3,186	\$3,233	\$9,618
Fiscal 2011 Incurred Claims	\$48,403,436	\$85,633,319	\$393,948	\$423,627,387
Membership	31,362	29,997	138	61,497
Paid Claims Cost Rate	\$1,543	\$2,855	\$2,855	\$6,889
Trend to FY2014	1.176	1.176	1.176	
FY2014 Paid Cost Rate	\$1,816	\$3,358	\$3,358	\$8,568
Provider Contracting Factor	0.993	0.993	0.993	
FY2014 Incurred Cost Rate	\$1,803	\$3,335	\$3,335	\$8,372
Fiscal 2012 Incurred Claims	\$50,486,235	\$95,369,339	\$589,833	\$453,108,380
Membership	29,500	33,631	208	63,339
Paid Claims Cost Rate	\$1,711	\$2,836	\$2,836	\$7,154
Trend to FY2014	1.126	1.126	1.126	
FY2014 Paid Cost Rate	\$1,927	\$3,193	\$3,193	\$8,315
Provider Contracting Factor	0.993	0.993	0.993	
FY2014 Incurred Cost Rate	\$1,913	\$3,170	\$3,170	\$8,126
Fiscal 2013 Incurred Claims	\$57,036,466	\$107,792,216	\$616,977	\$488,658,576
Membership	27,036	37,912	217	65,165
Paid Claims Cost Rate	\$2,110	\$2,843	\$2,843	\$7,499
Trend to FY2014	1.071	1.071	1.071	
FY2014 Paid Cost Rate	\$2,259	\$3,045	\$3,045	\$8,123
Provider Contracting Factor	0.993	0.993	0.993	
FY2014 Incurred Cost Rate	\$2,244	\$3,024	\$3,024	\$7,943
Weighted Average 7/1/2013-6/30/2014	4 Incurred Claims Cost Ra	ates:		
At average age	\$2,036	\$3,161	\$3,166	\$8,362
At age 65	\$2,621	\$2,621	\$2,621	\$8,208

# Teachers' Retirement System Defined Benefit Retirement Plan Description of Actuarial Methods and Valuation Procedures

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

## Distribution of Per Capita Claims Cost by Age for the Period July 1, 2013 through June 30, 2014

	Medical and	Medical and		Medicare
	Medicare	Medicare	Prescription	Retiree Drug
Age	Parts A & B	Part B Only	Drug	Subsidy
45	\$6,161	\$6,161	\$1,383	\$ —
50	6,971	6,971	1,642	_
55	7,887	7,887	1,950	_
60	9,367	9,367	2,261	_
65	1,726	6,676	2,621	502
70	2,100	8,122	2,824	541
75	2,493	9,645	3,012	577
80	2,686	10,390	3,088	591

#### Teachers' Retirement System

#### Defined Benefit Retirement Plan

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

The demographic and economic assumptions used in the June 30, 2013 valuation are described below. Unless noted otherwise, these assumptions were adopted by the Board in December 2010. These assumptions were the result of an experience study performed as of June 30, 2009.

1. Investment Return / Discount Rate 8.00% per year (geometric), compounded annually, net of expenses.

2. Salary Scale Inflation – 3.12% per year. Productivity – 0.5% per year. See Table 1 for

salary scale rates.

3. Payroll Growth 3.62% 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 3.12% annually.

5. Mortality (Pre-termination)\* Based upon the 2005-2009 actual experience. (See Table 2). 1994 Group

Annuity Mortality (GAM) Sex-distinct Table 1994 Base Year without margin projected to 2013 using Projection Scale AA, adjusted 55% for females and 45% for males. Deaths are assumed to result from non-

occupational causes 85% of the time.

6. Mortality (Post-termination)\* Based upon the 2005-2009 actual experience. (See Table 3). The 1994

GAM Sex-distinct Table 1994 Base Year without margin projected to 2013 using Projection Scale AA, with a 3-year setback for females and 4-

year setback for males.

7. Turnover Select and ultimate rates based upon the 2005-2009 actual withdrawal

experience. (See Table 4).

8. Disability Incidence rates based upon the 2005-2009 actual experience, in

accordance with Table 5. Post-disability mortality in accordance with the

RP-2000 Disabled Retiree Mortality Table.

9. Retirement rates based upon the 2005-2009 actual experience, in

accordance with Table 6. Deferred vested members are assumed to retire

at their earliest unreduced retirement date.

10. Marriage and Age Difference Wives are assumed to be three years younger than husbands. 85% of male

members and 75% of female members are assumed to be married.

11. Dependent Children Benefits to dependent children have been valued assuming members who

are married and between the ages of 25 and 45 have two dependent

children.

12. Contribution Refunds 10% of terminating members with vested benefits are assumed to have

their contributions refunded. 100% of those with nonvested benefits are

assumed to have their contributions refunded.

13. COLA Of those benefit recipients who are eligible for the COLA, 60% are

assumed to remain in Alaska and receive the COLA.

\*The mortality assumptions include an allowance for future mortality improvement. The mortality table used was set in 2010 with an Actual Deaths to Expected Deaths ratio of 117%.

# Teachers' Retirement System Defined Benefit Retirement Plan

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

14. Sick Leave

4.7 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.

15. Postretirement Pension 50% and 75% of assumed inflation, or 1.56% and 2.34% respectively, is valued for the annual automatic Postretirement Pension Adjustment (PRPA) as specified in the statute.

16. Expenses All expenses are net of the investment return assumption.
 17. Part-time Status Part-time employees are assumed to earn 0.60 years of credited service per year.

18. Re-Employment Option We assume all re-employed retirees return to work under the Standard Option.

19. Service Total credited service is provided by the State. We assume that this service is 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.

20. 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.

21. Per Capita Claims Cost Sample claims cost rates adjusted to age 65 for FY14 medical benefits are shown below:

	 Medical	Prescription drugs
Pre-Medicare	\$ 11,125	2,621
Medicare Parts A & B	1,726	2,621
Medicare Part B Only	6,676	2,621
Medicare Part D	N/A	502

22. Third Party \$177.57 per person per year; assumed trend rate of 5% per year.

Administrator Fees

23. Medicare Part B Only

For actives and retirees not yet Medicare-eligible, participation is set based on whether the employee/retiree will have 40 quarters of employment after March 31, 1986, depending upon date of hire and/or re-hire

#### Teachers' Retirement System

#### Defined Benefit Retirement Plan

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

24. 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, 8.7% is applied to the FY14 pre-Medicare medical claims costs to get the FY15 medical claims costs.

Fiscal year	Medical pre-65	Medical post-65	Prescription drugs
2014	8.7%	6.4%	6.3%
2015	8.5	6.3	6.2
2016	8.0	6.3	6.2
2017	7.5	6.2	6.1
2018	7.0	6.1	6.0
2019	6.6	6.1	5.8
2020	6.4	6.0	5.8
2025	6.0	6.0	5.8
2050	5.0	5.0	5.0
2100	4.5	4.5	4.5

For the June 30, 2012 valuations and later, the updated Society of Actuaries' Healthcare Cost Trend Model is used to project medical and prescription drug costs. This model effectively begins estimating trend amounts beginning in 2012 and projects out to 2100. The model has been populated with assumptions that are specific to the State of Alaska.

25. Aging Factors

Age	Medical	Prescription drugs
0-44	2.0%	4.5%
45–54	2.5	3.5
55–64	3.5	3.0
65–73	4.0	1.5
74–83	1.5	0.5
84–95	0.5	_
94 +	<u>—</u>	

#### Teachers' Retirement System

#### Defined Benefit Retirement Plan

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

26. 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 FY14 contributions based on monthly rates shown below for calendar 2013 and 2014 are assumed based on the coverage category for current retirees. The composite rate shown is used for current active and inactive members in Tier 2 who are assumed to retire prior to age 60 with less than 25 years of service and who are not disabled:

		Calenda	Calendar 2013	
Coverage category	_	Annual contribution	Monthly contribution	Monthly contribution
Retiree only	\$	9,876	823	807
Retiree and spouse		19,764	1,647	1,615
Retiree and child(ren)		13,956	1,163	1,140
Retiree and family		23,844	1,987	1,948
Composite		14,676	1,223	1,200

27. 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, 8.2% is applied to the FY14 retired member medical contributions to get the FY15 retired member medical contributions.

Fiscal year:	
2014	8.2%
2015	8.0
2016	7.6
2017	7.2
2018	6.7
2019	6.4
2025	5.9
2050	5.0
2100	4.5

Graded trend rates for retired member medical contributions were reinitialized for the June 30, 2012 valuation. Note that actual FY14 retired member medical contributions are reflected in the valuation so trend on such contribution during FY14 is not applicable.

28. Healthcare Participation

100% of system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible. 10% of non-system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.

## Teachers' Retirement System

#### Defined Benefit Retirement Plan

Table 1 Alaska TRS Salary Scale

Year of Employment	<b>Unisex Rates</b>
1-6	6.11%
7	5.94
8	5.78
9	5.61
10	5.44
11	5.28
12	5.11
13	4.94
14	4.78
15	4.61
16	4.45
17	4.28
18	4.11
19	3.95
20	3.78
21+	3.62

#### Teachers' Retirement System

#### Defined Benefit Retirement Plan

Table 2
Alaska TRS Mortality Table (Pre-termination)

Age	Male	Female
20	0.017%	0.012%
21	0.018	0.012
22	0.019	0.012
23	0.021	0.013
24	0.024	0.013
25	0.026	0.013
26	0.030	0.014
27	0.032	0.014
28	0.033	0.015
29	0.034	0.016
30	0.035	0.017
31	0.036	0.019
32	0.037	0.020
33	0.037	0.021
34	0.037	0.022
35	0.037	0.023
36	0.038	0.024
37	0.039	0.025
38	0.041	0.027
39	0.042	0.029
40	0.045	0.032
41	0.047	0.034
42	0.050	0.037
43	0.053	0.039
44	0.056	0.041
45	0.060	0.042
46	0.064	0.044
47	0.069	0.047
48	0.075	0.051
49	0.081	0.055
50	0.088	0.061
51	0.097	0.068
52	0.106	0.078
53	0.118	0.090
54	0.131	0.102
55	0.149	0.116
56	0.170	0.135
57	0.195	0.157
58	0.224	0.181
59	0.253	0.208
60	0.284	0.239
61	0.326	0.274
62	0.368	0.314
63	0.425	0.359
64	0.479	0.410

#### Teachers' Retirement System

#### Defined Benefit Retirement Plan

Table 3
Alaska TRS Mortality Table (Post-termination)

Age	Male	Female
50	0.142%	0.085%
51	0.153	0.092
52	0.166	0.100
53	0.181	0.111
54	0.196	0.124
55	0.215	0.143
56	0.235	0.163
57	0.263	0.185
58	0.291	0.212
59	0.331	0.246
60	0.377	0.285
61	0.433	0.328
62	0.499	0.378
63	0.561	0.434
64	0.631	0.498
65	0.725	0.570
66	0.819	0.653
67	0.944	0.745
68	1.064	0.844
69	1.196	0.948
70	1.362	1.052
71	1.512	1.150
72	1.634	1.242
73	1.787	1.342
74	1.915	1.434
75	2.094	1.583
76	2.298	1.726
77	2.518	1.918
78	2.748	2.094
79	3.061	2.338
80	3.361	2.669
81	3.788	2.985
82	4.292	3.327
83	4.868	3.707
84	5.510	4.136
85	6.214	4.625

#### Teachers' Retirement System

#### Defined Benefit Retirement Plan

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

Table 4
Alaska TRS Turnover Assumptions
Select Rates of Turnover During the First 8 Years of Employment:

Year of Employment	Unisex Rate
1	17.00%
2	17.00
3	14.00
4	12.00
5	10.00
6	9.00
7	7.50
8	6.00

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

Age	Male	Female	Age	Male	Female
15	4.4584%	4.3747%	40	4.3189%	4.2658%
16	4.4528	4.3714	41	4.3065	4.2559
17	4.4483	4.3692	42	4.2908	4.2460
18	4.4438	4.3681	43	4.2762	4.2372
19	4.4415	4.3670	44	4.2570	4.2262
20	4.4067	4.3351	45	4.2357	4.2130
21	4.4044	4.3351	46	4.2132	4.2009
22	4.3999	4.3340	47	4.1850	4.1844
23	4.3965	4.3340	48	4.1524	4.1657
24	4.3909	4.3329	49	4.1187	4.1470
25	4.3864	4.3329	50	4.0804	4.1250
26	4.3819	4.3318	51	4.0354	4.0997
27	4.3774	4.3307	52	3.9825	4.0700
28	4.3729	4.3274	53	3.9240	4.0348
29	4.3684	4.3241	54	3.8588	3.9974
30	4.3650	4.3208	55	3.7845	3.9523
31	4.3628	4.3186	56	3.6945	3.8940
32	4.3594	4.3142	57	3.5843	3.8192
33	4.3572	4.3109	58	3.4639	3.7345
34	4.3560	4.3065	59	3.3188	3.6267
35	4.3538	4.3021	60	3.1557	3.5046
36	4.3504	4.2955	61	2.9745	3.3682
37	4.3459	4.2900	62	2.7642	3.2131
38	4.3380	4.2823	63	2.5245	3.0360
39	4.3290	4.2746	64	2.2647	2.8435
			65+	4.5000	4.4000

## Teachers' Retirement System

#### Defined Benefit Retirement Plan

Table 5 Alaska TRS Disability Table

Age	Male	Female
20	0.0224%	0.0202%
21	0.0224	0.0202
22	0.0232	0.0209
23	0.0232	0.0209
24	0.0240	0.0216
25	0.0240	0.0216
26	0.0240	0.0216
27	0.0248	0.0223
28	0.0256	0.0230
29	0.0264	0.0238
30	0.0272	0.0245
31	0.0272	0.0245
32	0.0280	0.0252
33	0.0288	0.0259
34	0.0296	0.0266
35	0.0304	0.0274
36	0.0320	0.0288
37	0.0328	0.0295
38	0.0344	0.0310
39	0.0352	0.0317
40	0.0368	0.0331
41	0.0384	0.0346
42	0.0408	0.0367
43	0.0432	0.0389
44	0.0472	0.0425
45	0.0520	0.0468
46	0.0560	0.0504
47	0.0608	0.0547
48	0.0664	0.0598
49	0.0712	0.0641
50	0.0768	0.0691
51	0.0832	0.0749
52	0.0912	0.0821
53	0.1016	0.0914
54	0.1136	0.1022
55	0.1280	0.1152
56	0.1472	0.1325
57	0.1712	0.1541
58	0.1952	0.1757
59	0.2304	0.2074
60	0.2696	0.2426
61	0.3120	0.2808
62	0.3616	0.3254
63	0.4176	0.3758
64	0.4768	0.4291

20.00

20.00

20.00

20.00

20.00

20.00

50.00

100.00

#### State of Alaska

#### Teachers' Retirement System

#### Defined Benefit Retirement Plan

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

Table 6
Alaska TRS Retirement Table

**Retirement Rate** 

25.00

30.00

25.00

25.00

25.00

25.00

50.00

100.00

Unreduced Reduced **Unisex Rates** Male Age at Retirement **Female** 10.00% 10.00% < 50 N/A 13.00 13.00 50 8.00% 12.00 12.00 51 8.00 52 8.00 12.00 12.00 13.00 13.00 53 6.00 16.00 16.00 54 12.00 8.00 18.00 20.00 55 56 8.00 17.00 15.00 13.00 17.50 57 8.00 17.50 18.00 58 8.00 15.00 17.50 59 12.00 20.00 N/A 17.50 60 17.50 20.00 N/A 61 11.00 25.00 N/A 62 N/A 20.00 25.00 63

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

#### Changes in Actuarial Assumptions Since the Prior Valuation

64

65

66

67

68

69

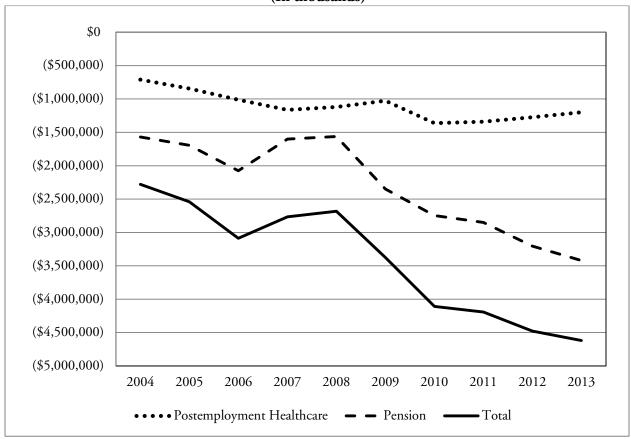
70-84 85

There have been no changes in assumptions since the prior valuation.

Teachers' Retirement System
Defined Benefit Retirement Plan
Funding Excess/(Unfunded Liability)
(In thousands)

(III tilousulus)							
Actuarial Valuation Year Ended June 30	Postemployment Healthcare	Pension	Total Funding Excess/ (Unfunded Liability)	Funded Ratio			
2004	\$ (709,527)	\$ (1,568,703)	\$ (2,278,230)	62.8%			
2005	(845,674)	(1,693,934)	(2,539,608)	60.9			
2006	(1,012,540)	(2,075,617)	(3,088,157)	57.3			
2007	(1,163,423)	(1,601,581)	(2,765,004)	61.5			
2008	(1,120,634)	(1,561,568)	(2,682,202)	64.8			
2009	(1,026,288)	(2,348,268)	(3,374,556)	57.0			
2010	(1,361,547)	(2,747,113)	(4,108,660)	53.6			
2011	(1,340,703)	(2,850,155)	(4,190,858)	54.1			
2012	(1,272,507)	(3,204,783)	(4,477,290)	52.1			
2013	(1,198,791)	(3,419,240)	(4,618,031)	51.9			

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



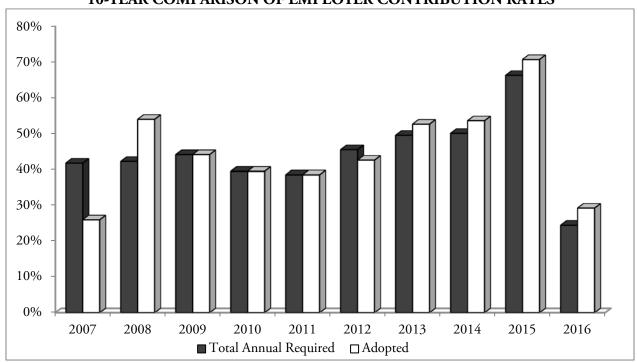
#### Teachers' Retirement System Defined Benefit Retirement Plan Employer Contribution Rates

Year Ended June 30	Actuarial Valuation Year Ended June 30	Normal Cost <sup>1</sup>	Past Service	Total Annual Required	Adopted
2007	2004	13.76%	28.02%	41.78%	26.00%
2008	2005	12.56	29.70	42.26	$54.03^{2}$
2009	2006	9.37	34.80	44.17	44.17
2010	2007	7.59	31.94	39.53	39.53
2011	2008	7.56	31.00	38.56	38.56
2012	2009	6.57	36.04	42.61	45.55
2013	2010	7.47	42.09	49.56	52.67
2014	2011	6.59	43.51	50.10	53.62
2015	2012	6.40	59.91	66.31	70.75
2016	2013	4.64	19.84	24.48	29.27

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

Valuations are used to set contribution rates in future years.

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



<sup>&</sup>lt;sup>2</sup> The ARMB recognized the fact that the Plan becomes a closed Plan on July 1, 2006, and set a rate reflecting no payroll growth.

Teachers' Retirement System
Defined Benefit Retirement Plan
Schedule of Active Member Valuation Data

Valuation Date	Number	Annual Earnings (In thousands)	Annual Average Earnings	Percent Increase In Average Earnings	Number of Participating Employers
June 30, 2013	6,352	\$504,260	\$79,386	2.6%	58
June 30, 2012	6,845	529,468	77,351	3.6	58
June 30, 2011	7,303	545,155	74,648	3.5	58
June 30, 2010	7,832	564,887	72,125	6.5	58
June 30, 2009	8,226	557,026	67,715	5.2	58
June 30, 2008	8,531	549,148	64,371	5.8	58
June 30, 2007	9,107	554,245	60,859	2.9	58
June 30, 2006	9,710	574,409	59,156	6.6	58
June 30, 2005	9,656	535,837	55,493	2.9	58
June 30, 2004	9,688	522,421	53,925	0.0	58

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

		Added to Rolls		Removed from Rolls	Rolls – End of Year			
Year Ended	No.*	Annual Pension Allowances*	No.*	Annual Pension Allowances*	No.	Annual Pension Allowances	Percent Increase /(Decrease)In Annual Pension Allowances	Average Annual Pension Allowances
June 30, 2013	576	\$19,387,542	172	\$1,652,575	11,705	\$396,159,703	4.69%	\$33,845
June 30, 2012	473	17,104,564	188	(617,561)	11,301	378,424,736	4.91	33,486
June 30, 2011	564	19,546,369	146	1,464,766	11,016	360,702,611	5.28	32,744
June 30, 2010	533	16,980,817	190	5,495,399	10,598	342,621,008	3.47	32,329
June 30, 2009	368	9,788,639	139	(2,857,118)	10,255	331,135,590	3.97	32,290
June 30, 2008	481	14,265,236	133	806,945	10,026	318,489,833	4.41	31,766
June 30, 2007	432	12,388,703	140	(14,114,559)	9,678	305,031,542	9.52	31,518
June 30, 2006	487	12,731,292	121	(50,838)	9,386	278,528,280	4.81	29,675
June 30, 2005	446	11,243,448	133	13,053,612	9,020	265,746,150	(0.68)	29,462
June 30, 2004	491	17,867,366	96	5,503,666	8,707	267,556,314	4.84	30,729

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

# Teachers' Retirement System Defined Benefit Retirement Plan Pension Solvency Test (In thousands)

	Pension Aggregate Accrued Liability For:					of Accrued I	
Valuation Date	(1)  Active  Member  Contributions	(2) Inactive Members	(3) Active Members (Employer- Financed Portion)	Pension Valuation Assets	(1)	(2)	(3)
June 30, 2013	\$726,139	\$4,726,282	\$1,137,132	\$3,170,313	100.0%	51.7%	— %
June 30, 2012	727,435	4,532,982	1,139,360	3,194,994	100.0	54.4	_
June 30, 2011	717,819	4,352,035	1,126,250	3,345,949	100.0	60.4	_
June 30, 2010 <sup>1</sup>	716,675	4,153,119	1,137,187	3,259,868	100.0	61.2	_
June 30, 2009	692,105	3,815,020	956,862	3,115,719	100.0	63.5	_
June 30, 2008	654,662	3,700,812	876,180	3,670,086	100.0	81.5	_
June 30, 2007	638,420	3,567,894	837,134	3,441,867	100.0	78.6	_
June 30, 2006 <sup>12</sup>	615,207	3,432,703	811,426	3,296,934	100.0	78.1	_

<sup>&</sup>lt;sup>1</sup> Change in Assumptions

<sup>&</sup>lt;sup>2</sup> Change in Methods

# Teachers' Retirement System Defined Benefit Retirement Plan Postemployment Healthcare Solvency Test (In thousands)

	Postemployment Healthcare Aggregate Accrued Liability For:					Liabilities sets:	
Valuation Date	(1)  Active  Member  Contributions	(2) Inactive Members	(3) Active Members (Employer- Financed Portion)	Post- Employment Healthcare Valuation Assets	(1)	(2)	(3)
June 30, 2013	\$ —	\$2,012,114	\$990,440	\$1,803,863	100.0%	89.6%	— %
June 30, 2012	_	1,933,288	1,013,379	1,674,160	100.0	86.6	_
June 30, 2011	_	1,879,564	1,053,127	1,591,988	100.0	84.7	_
June 30, 2010 <sup>1</sup>	_	1,755,961	1,084,846	1,479,260	100.0	84.2	_
June 30, 2009	_	1,477,788	905,739	1,357,239	100.0	91.8	_
June 30, 2008 <sup>1</sup>	_	1,480,864	906,660	1,266,890	100.0	85.6	_
June 30, 2007	_	1,344,131	801,824	982,532	100.0	73.1	_
June 30, 2006 <sup>12</sup>	_	1,493,219	877,296	844,766	100.0	56.6	_

Healthcare liabilities are calculated using the funding assumptions (i.e., funding investment return and net of Medicare Part D subsidy).

<sup>&</sup>lt;sup>1</sup> Change in Assumptions

<sup>&</sup>lt;sup>2</sup> Change in Methods

#### Teachers' Retirement System Defined Benefit Retirement Plan Analysis of Financial Experience

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

	Change in Employer/State Contribution Rate During Fiscal Year					
Type of (Gain) or Loss	2013	2012	2011	2010	2009	
Health Experience	(1.21)%	(2.02)%	(0.72)%	0.19%	(2.67)%	
Salary Experience	(0.30)	_	(0.03)	0.59	0.29	
Investment Experience	2.44	4.18	(0.46)	0.05	7.23	
Demographic Experience	0.38	(0.36)	(0.03)	(0.75)	(0.54)	
Contribution Shortfall	1.62	0.71	0.86	0.01	(0.26)	
(Gain) or Loss During Year From Experience	2.93	2.51	0.54	0.09	4.05	
Non-recurring changes						
Asset Valuation Method	_	_	_	_	_	
Past Service Amortization Change	_	13.07	_	_	_	
Assumption and Method Changes	_	0.63	_	6.86	_	
System Benefit Changes						
Composite (Gain) or Loss During Year	2.93	16.21	0.54	6.95	4.05	
Beginning Total Employer/State Contribution Rate	66.31	50.10	49.56	42.61	38.56	
Ending Total Employer/State Contribution Rate	69.24	66.31	50.10	49.56	42.61	
Board Adopted Contribution Rate	<u>24.48</u> %	<u>70.75</u> %	<u>53.62</u> %	<u>52.67</u> %	<u>45.55</u> %	
Fiscal Year Above Rate is Applied	FY16	FY15	FY14	FY13	FY12	

NOTE: In the second session of the  $28^{th}$  Alaska legislature, the legislature changed the actuarial methodology from level dollar amortization to level percent of pay. The June 30, 2013 PERS actuarial valuation report was not updated for this change, but specific revisions for the amortization change were presented to reflect the change in amortization. The change in the amortization resulted in an adjusted FY 16 employer/state contribution rate of 24.48%.

#### Teachers' Retirement System Defined Benefit Retirement Plan Analysis of Financial Experience

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

	Change in Employer/State Contribution Rate During Fiscal Year						
		Pension		Healthcare			
Type of (Gain) or Loss	2013	2012	2011	2013	2012	2011	
Health Experience	N/A	N/A	N/A	(1.21)%	(2.02)%	(0.72)%	
Salary Experience	(0.30)%	<b></b> %	(0.03)%	N/A	N/A	N/A	
Investment Experience	2.09	3.47	0.18	0.35	0.71	0.28	
Demographic Experience	0.38	(0.36)	(0.03)	N/A	N/A	N/A	
Contribution Shortfall	1.34	0.52	0.75	0.28	0.19	(0.11)	
(Gain) or Loss During Year From Experience	3.51	3.63	0.87	(0.58)	(1.12)	(0.33)	
Non-recurring changes							
Asset Valuation Method	_	_	_	_	_	_	
Past Service Amortization Change	_	9.52	_	_	3.55	_	
Assumption and Method Changes	_	_	_	_	0.63	_	
System Benefit Changes							
Composite (Gain) or Loss During Year	3.51	13.15	0.87	(0.58)	3.06	(0.33)	
Beginning Total Employer/State Contribution Rate	44.55	31.40	30.53	21.76	18.70	19.03	
Ending Total Employer/State Contribution Rate	<u>48.06</u> %	<u>44.55</u> %	<u>31.40</u> %	<u>21.18</u> %	<u>21.76</u> %	<u>18.70</u> %	
Fiscal Year Above Rate is Applied	FY16	FY15	FY14	FY16	FY15	FY14	

### Teachers' Retirement System

#### Defined Benefit Retirement Plan

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

#### 1. Effective Date

July 1, 1955, with amendments through June 30, 2013. Chapter 97, 1990 Session Laws of Alaska, created a two-tier retirement system. Members who were first hired under the 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 58 employers participating in the TRS, including the State of Alaska, 53 school districts, and four other eligible organizations.

#### 4. Membership

Membership in the Alaska 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 the TRS;
- members on approved sabbatical leave under AS 14.20.310;
- certain State legislators who have elected to be covered under the TRS; and
- a teacher who has filed for worker's compensation benefits due to an on-the-job assault and who, as a result of the physical injury, is placed on leave without pay.

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

#### Teachers' Retirement System

#### Defined Benefit Retirement Plan

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

Employees who work half-time in the 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.

#### 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 dollar amount over fixed 25-year periods.

Employer rates cannot be less than the normal cost rate.

# Teachers' Retirement System Defined Benefit Retirement Plan Summary of Plan Provisions and Changes in Plan Provisions

#### 7. Additional State Contribution

Pursuant to AS14.25.070 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 (12.56% of total DB and DCR payroll, less employer contributions to DCR) will be sufficient to pay the total contribution rate adopted by The State of Alaska Retirement Management 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 in (5) 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 13 below). Supplemental contributions are only refundable upon death (see 13 below).

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

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

**Reinstatement of Contributions:** Refunded accounts and the corresponding TRS service may be reinstated upon reemployment in the 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 the 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;

#### Teachers' Retirement System

#### Defined Benefit Retirement Plan

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

- 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.

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

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

**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. The 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%.

**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.

#### 10. 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 the TRS. During reemployment, members earn additional TRS service and contributions are withheld from their wages.

### Teachers' Retirement System

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

Members retired under the RIP who return to employment under the TRS, Public Employees' Retirement System (PERS), Judicial Retirement System (JRS) or the University of Alaska's Optional Retirement Plan will:

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

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

#### 11. Postemployment Healthcare Benefits

When pension benefits begin, major medical benefits are provided by the 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 twenty-five years of membership service, are disabled or age sixty 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 sixty by paying premiums.

#### 12. 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.

#### 13. Death Benefits

Monthly death benefits may be paid to a spouse or dependent children upon the death of a member. If monthly benefits are not payable under the supplemental contributions provision or occupational and nonoccupational 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 (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.

#### Teachers' Retirement System

#### Defined Benefit Retirement Plan

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

**Nonoccupational Death:** When a vested member dies from nonoccupational 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 (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 the 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 (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 the 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.

- 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.
- c. **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.

## Teachers' Retirement System

#### Defined Benefit Retirement Plan

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

#### 14. Postretirement Pension Adjustments

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

- a. 75% of the CPI increase in the preceding calendar year or 9%, whichever is less, if the recipient is at least age 65 or on TRS disability; or
- b. 50% of the CPI increase in the preceding calendar year or 6%, whichever is less, if the recipient is at least age 60, or 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 funding ratio is at least 105%.

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

#### 15. Alaska Cost of Living Allowance

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

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

#### Changes in Benefit Provisions Since the Prior Valuation

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

## **buck**consultants

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August 22, 2014

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, 2013 performed by Buck Consultants, LLC.

The actuarial valuation is based on financial information provided in the financial statements audited by KPMG LLP and member data provided by the Division of Retirement and Benefits and summarized in this report. The benefits considered are those delineated in Alaska statutes effective June 30, 2013. The actuary did not verify the data submitted, but did perform tests for consistency and reasonableness.

All costs, liabilities and other factors under the Plan 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 Consultants, LLC is solely responsible for the actuarial data and actuarial results presented in this report. This report fully and fairly discloses the actuarial position of the Plan.

The State of Alaska Teachers' Retirement System DCR Plan is funded by Employer Contributions in accordance with the funding policy adopted by the Alaska Retirement Management Board (Board). The funding objective for the State of Alaska Teachers' Retirement System DCR Plan 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 a closed 25-year period. This objective is currently being met and is projected to continue to be met.

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 in 2010. A review of the healthcare assumptions was performed for last year's actuarial valuation and changes were made to the healthcare cost trend rates and the per capita claims cost rates, effective June 30, 2012, to better reflect expected future healthcare experience. Changes were also made to expected healthcare benefit participation, lower initial relative values of DCR healthcare, and increased employer sharing of medical cost trend as a result of recent plan decision discussions. Based on updated experience, these assumptions are still reasonable. A summary of the actuarial assumptions and methods used in this actuarial valuation are shown in this report.

The assumptions and methods used to determine the Annual Required Contributions (ARC) of the Employers to the State of Alaska Teachers' Retirement System DCR Plan as outlined in this report and all supporting schedules meet the parameters and requirements for disclosure of Governmental Accounting Standards Board (GASB) Statements No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans, and No. 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans. Based on member data and asset information provided by the Division of Retirement and Benefits, we have prepared the Schedule of Funding Progress, Schedule of Employer Contributions, and trend data schedules under GASB Nos. 25 and 43 that are included in the Financial Section of the CAFR. We have also prepared the member data tables shown in Section 4 of this report for the Statistical Section of the CAFR, and the summary of actuarial assumptions and solvency test for the Actuarial Section of the CAFR.

The undersigned is an Enrolled Actuary, an Associate of the Society of Actuaries and Member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all Applicable Actuarial Standards of Practice. We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.

Respectfully submitted,

BUCK CONSULTANTS, LLC

David H. Slishinsky, ASA, EA, MAAA, FCA

David H. Alashinsky

Principal, Consulting Actuary

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 her qualification to render opinions in such matters, in accordance with the qualification standards of the American Academy of Actuaries

Melissa Bissett, FSA, MAAA

Senior Consultant, Health & Productivity

Milisa a Bissett

#### Teachers' Retirement System

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

The funding method used in this valuation was adopted by the Board in October 2006. 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 Actuarial Cost

Liabilities and contributions shown in the report are computed using the Entry Age Actuarial Cost method of funding. Any funding surpluses or unfunded accrued liability is amortized over 25 years as a level percentage of expected payroll. However, in keeping with GASB requirements, the net amortization period will not exceed 30 years.

Cost factors designed to produce annual costs as a constant percentage of each member's expected compensation in each year for death and disability benefits (constant dollar amount for 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 will be phased in over five years. Fair Value of Assets were \$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.

#### Teachers' Retirement System

#### **Defined Contribution Retirement Plan**

#### Summary of Actuarial Methods and Valuation Procedures

#### C. Valuation of Retiree Medical Benefits

The methodology used for the valuation of the retiree medical benefits is described in Section 6.2(c) of the State of Alaska Teachers' Retirement System Defined Benefit Plan Actuarial Valuation Report as of June 30, 2013.

Due to the lack of experience for the DCR Plan only, base claims costs are based on those described in the actuarial valuation as of June 30, 2012 for TRS 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 and an indexing of the retiree out-of-pocket dollar amounts. To account for higher initial copays, deductibles and out-of-pocket limits, FY12 claims costs were reduced 11.9% for medical and 7.1% for prescription drugs. Retiree out-of-pocket amounts were indexed 0.2% each year to reflect the effect of the deductible leveraging on trend and other plan design features.

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, as such members will be required to pay the full plan premium. Explicit subsidies for disabled and normal retirement are determined using the plan-defined percentages of total projected plan costs, again with no implicit subsidy assumed.

#### **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 the following provisions; however, only the Patient Centered Outcomes Research Institute fee impact has been included in the valuation results as part of the administrative fee.

Because the State plan is retiree-only, and was in effect at the time the legislation was enacted, not all provisions are required. Unlimited lifetime benefits and dependent coverage to age 26 are two of these provisions. We did look at the impact of including these provisions, but there was no decision made to adopt them, and no requirement to do so.

The Plan will be subject to the high cost plan excise tax (Cadillac tax). Based upon guidance available at the time of disclosure Buck estimated the year in which the tax would potentially affect Alaska to be sufficiently far into the future to produce a minimal impact. Buck determined the impact to be immaterial based on a blend of pre-Medicare and Medicare retirees.

We have not identified any other specific provisions of healthcare reform that would be expected to have a significant impact on the measured obligation. As additional guidance on the legislation is issued, we will continue to monitor any potential impacts.

#### Changes in Methods From the Prior Valuation

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

#### Teachers' Retirement System

#### **Defined Contribution Retirement Plan**

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

The demographic and economic assumptions used in the June 30, 2013 valuation are described below. Unless noted otherwise, these assumptions were adopted by the Board in December 2010. These assumptions were the result of an experience study performed for the DB Plan as of June 30, 2009.

1. Investment Return / Discount Rate 8.00% per year (geometric), compounded annually, net of expenses.

2. Salary Scale Inflation – 3.12% per year. Productivity – 0.5% per year. See Table 1 for

salary scale rates.

3. Payroll Growth 3.62% per year.

4. Total Inflation Total inflation as measured by the Consumer Price Index for urban and

clerical workers for Anchorage is assumed to increase 3.12% annually.

5. Mortality (Pre-termination)\* Based upon the 2005-2009 actual experience of the TRS DB Plan. (See

Table 2) 55% of the 1994 Group Annuity Mortality (GAM) Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA for females and 45% for males. 15% of deaths are assumed to result from

occupational causes.

6. Mortality (Post-termination)\* Based upon the 2005-2009 actual experience of the TRS DB Plan. (See

Table 3). 3-year setback of the 1994 GAM Table, 1994 GAM Table, 1994 Base Year without margin projected to 2013 using Projection Scale

AA for females and 4-year setback for males.

7. Turnover Select rates were estimated and ultimate rates were set to the TRS DB

Plan's rate loaded by 10%. (See Table 4).

8. Disability Incidence rates based upon the 2005-2009 actual experience of the TRS

DB Plan, in accordance with Table 5. Post-disability mortality in accordance with the RP-2000 Disabled Retiree Mortality Table. 15% of

disabilities are assumed to result from occupational causes.

9. Retirement rates were estimated in accordance with Table 6.

10. Marriage and Age Difference Wives are assumed to be three years younger than husbands. 85% of male

members and 75% of female members are assumed to be married.

11. Part-time Status Part-time employees are assumed to earn 0.60 years of credited service per

year.

12. Expenses All expenses are net of the investment return assumption.

\*The mortality assumptions include an allowance for future mortality improvement. The mortality table used was set in 2010 with an Actual Deaths to Expected Deaths ratio of 117%.

#### Teachers' Retirement System

#### **Defined Contribution Retirement Plan**

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

13. Per Capita Claims Cost

Sample claims cost rates adjusted to age 65 for FY14 medical benefits are shown below:

	Medical	Prescription drugs
Pre-Medicare	\$ 11,125	2,621
Medicare Parts A & B	1,726	2,621
Medicare Part B Only	6,676	2,621
Medicare Part D	N/A	502

14. Third Party Administrator Fees

\$177.57 per person per year; assumed trend rate of 5% per year.

15. 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:

- 0.881 for the medical plan.
- 0.929 for the prescription drug plan.
- 0.998 for the annual indexing of member cost sharing.

16. 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, 8.7% is applied to the FY14 pre-Medicare medical claims costs to get the FY15 medical claims costs.

Fiscal year	Medical pre-65	Medical post-65	Prescription drugs
2014	8.7%	6.4%	6.3%
2015	8.5	6.3	6.2
2016	8.0	6.3	6.2
2017	7.5	6.2	6.1
2018	7.0	6.1	6.0
2019	6.6	6.1	5.8
2020	6.4	6.0	5.8
2025	6.0	6.0	5.8
2050	5.0	5.0	5.0
2100	4.5	4.5	4.5

For the June 30, 2012 valuations and later, the updated Society of Actuaries' Healthcare Cost Trend Model is used to project medical and prescription drug costs. This model effectively begins estimating trend amounts beginning in 2012 and projects out to 2100. The model has been adopted by the Society of Actuaries and has been populated with assumptions that are specific to the State of Alaska.

#### Teachers' Retirement System

#### **Defined Contribution Retirement Plan**

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

#### 17. Aging Factors

Age	Medical	Prescription drugs
0–44	2.0%	4.5%
45–54	2.5	3.5
55-64	3.5	3.0
65–73	4.0	1.5
74–83	1.5	0.5
84–95	0.5	_
94 +	_	_

#### 18. Retiree Medical Participation

Decrement due to disability		Decrement due to retirement		
Age	Percent participation	Age	Percent part	icipation
<56	73.00%	<55	•	40.00%
56	77.50	56		50.00
57	79.75	57		55.00
58	82.00	58		60.00
59	84.25	59		65.00
60	86.50	60		70.00
61	88.75	61		75.00
62	91.00	62		80.00
63	93.25	63		85.00
64	95.50	64		90.00
65+	94.00	65+	Years of Service	
			<15	70.50%
			15-19	75.20
			20-24	79.90
			25-29	89.30
			30+	94.00

<sup>\*</sup>Participation 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.

#### Teachers' Retirement System

#### **Defined Contribution Retirement Plan**

Table 1 Alaska TRS DCR Plan Salary Scale

 Year of Employment	<b>Unisex Rates</b>
1-6	6.11%
7	5.94
8	5.78
9	5.61
10	5.44
11	5.28
12	5.11
13	4.94
14	4.78
15	4.61
16	4.45
17	4.28
18	4.11
19	3.95
20	3.78
21+	3.62

## Teachers' Retirement System

#### **Defined Contribution Retirement Plan**

Table 2
Alaska TRS DRC Plan
Mortality Table (Pre-termination)

Age	Male	Female
20	0.017%	0.012%
21	0.018	0.012
22	0.019	0.012
23	0.021	0.013
24	0.024	0.013
25	0.026	0.013
26	0.030	0.014
27	0.032	0.014
28	0.033	0.015
29	0.034	0.016
30	0.035	0.017
31	0.036	0.019
32	0.037	0.020
33	0.037	0.021
34	0.037	0.022
35	0.037	0.023
36	0.038	0.024
37	0.039	0.025
38	0.041	0.027
39	0.042	0.029
40	0.045	0.032
41	0.047	0.034
42	0.050	0.037
43	0.053	0.039
44	0.056	0.041
45	0.060	0.042
46	0.064	0.044
47	0.069	0.047
48	0.075	0.051
49	0.081	0.055
50	0.088	0.061
51	0.097	0.068
52	0.106	0.078
53	0.118	0.090
54	0.131	0.102
55	0.149	0.116
56	0.170	0.135
57	0.195	0.157
58	0.224	0.181
59	0.253	0.208
60	0.284	0.239
61	0.326	0.274
62	0.368	0.314
63	0.425	0.359 0.410
64	0.479	0.410

#### Teachers' Retirement System

#### **Defined Contribution Retirement Plan**

Table 3
Alaska TRS DCR Plan
Mortality Table (Post-termination)

Age	Male	Female
50	0.142%	0.085%
51	0.153	0.092
52	0.166	0.100
53	0.181	0.111
54	0.196	0.124
55	0.215	0.143
56	0.235	0.163
57	0.263	0.185
58	0.291	0.212
59	0.331	0.246
60	0.377	0.285
61	0.433	0.328
62	0.499	0.378
63	0.561	0.434
64	0.631	0.498
65	0.725	0.570
66	0.819	0.653
67	0.944	0.745
68	1.064	0.844
69	1.196	0.948
70	1.362	1.052
71	1.512	1.150
72	1.634	1.242
73	1.787	1.342
74	1.915	1.434
75	2.094	1.583
76	2.298	1.726
77	2.518	1.918
78	2.748	2.094
79	3.061	2.338
80	3.361	2.669
81	3.788	2.985
82	4.292	3.327
83	4.868	3.707
84	5.510	4.136
85	6.214	4.625

### Teachers' Retirement System

#### **Defined Contribution Retirement Plan**

### Summary of Actuarial Assumptions and Changes in Assumptions

## Table 4 Alaska TRS DCR Plan Turnover Assumptions Select Rates of Turnover During the First 5 Years of Employment:

Year of Employment	Rate
0	18.00%
1	17.00
2	14.00
3	12.00
4	10.00

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

Age	Male	Female	Age	Male	Female
15	4.9042%	4.8122%	40	4.7508%	4.6924%
16	4.8981	4.8085	41	4.7372	4.6815
17	4.8931	4.8061	42	4.7199	4.6706
18	4.8882	4.8049	43	4.7038	4.6609
19	4.8857	4.8037	44	4.6827	4.6488
20	4.8474	4.7686	45	4.6593	4.6343
21	4.8448	4.7686	46	4.6345	4.6210
22	4.8399	4.7674	47	4.6035	4.6028
23	4.8362	4.7674	48	4.5676	4.5823
24	4.8300	4.7662	49	4.5306	4.5617
25	4.8250	4.7662	50	4.4884	4.5375
26	4.8201	4.7650	51	4.4389	4.5097
27	4.8151	4.7638	52	4.3808	4.4770
28	4.8102	4.7601	53	4.3164	4.4383
29	4.8052	4.7565	54	4.2447	4.3971
30	4.8015	4.7529	55	4.1630	4.3475
31	4.7991	4.7505	56	4.0640	4.2834
32	4.7953	4.7456	57	3.9427	4.2011
33	4.7929	4.7420	58	3.8103	4.1080
34	4.7916	4.7372	59	3.6507	3.9894
35	4.7892	4.7323	60	3.4713	3.8551
36	4.7854	4.7251	61	3.2720	3.7050
37	4.7805	4.7190	62	3.0406	3.5344
38	4.7718	4.7105	63	2.7770	3.3396
39	4.7619	4.7021	64	2.4912	3.1279
			65+	4.9500	4.8400

### Teachers' Retirement System

#### **Defined Contribution Retirement Plan**

### Summary of Actuarial Assumptions and Changes in Assumptions

Table 5 Alaska TRS DCR Plan Disability Table

Age	Male	Female
20	0.022%	0.020%
21	0.022	0.020
22	0.023	0.021
23	0.023	0.021
24	0.024	0.022
25	0.024	0.022
26	0.024	0.022
27	0.025	0.022
28	0.026	0.023
29	0.026	0.024
30	0.027	0.025
31	0.027	0.025
32	0.028	0.025
33	0.029	0.026
34	0.030	0.027
35	0.030	0.027
36	0.032	0.029
37	0.033	0.030
38	0.034	0.031
39	0.035	0.032
40	0.037	0.033
41	0.038	0.035
42	0.041	0.037
43	0.043	0.039
44	0.047	0.043
45	0.052	0.047
46	0.056	0.050
47	0.061	0.055
48	0.066	0.060
49	0.071	0.064
50	0.077	0.069
51	0.083	0.075
52	0.091	0.082
53	0.102	0.091
54	0.114	0.102
55	0.128	0.115
56	0.147	0.133
57	0.171	0.154
58	0.195	0.176
59	0.230	0.207
60	0.270	0.243
61	0.312	0.281
62	0.362	0.325
63	0.418	0.376
64	0.477	0.429

### Teachers' Retirement System

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

Table 6 Alaska TRS DCR Plan Retirement Table

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

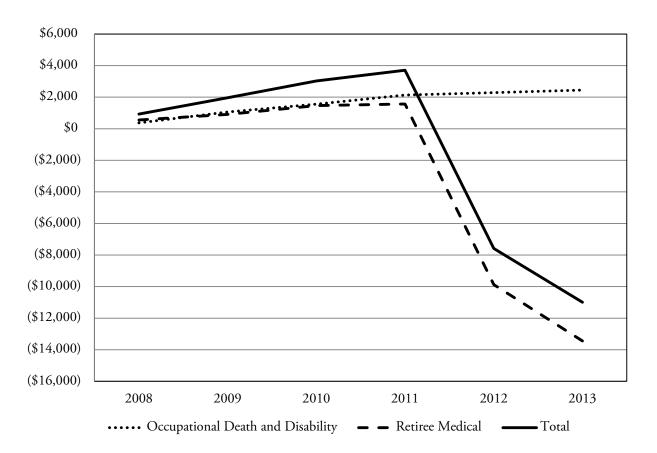
#### Changes in Actuarial Assumptions Since the Prior Valuation

There have been changes in assumptions since the prior valuation.

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

	(III tirousulus)						
Actuarial Valuation Year Ended June 30	Occupational Death and Disability	Retiree Medical	Total Funding Excess/ (Unfunded Liability)	Funded Ratio			
2008	\$ 376	\$ 551	\$ 927	215.73%			
2009	1,057	907	1,964	234.5			
2010	1,559	1,465	3,024	223.5			
2011	2,136	1,572	3,708	196.1			
2012	2,285	(9,874)	(7,589)	55.0			
2013	2,452	(13,444)	(10,992)	50.3			

### 6-YEAR TREND OF FUNDING EXCESS (In thousands)



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

	Actuarial	Occupational			
Fiscal	Valuation Year	Death and	Retiree	Total Annual	
Year	Ended June 30	Disability	Medical	Required	Adopted
2007	N/A	N/A	1.75%	1.75%	1.75%
2008	N/A	0.56 %	0.99	1.55	1.55
2009	N/A	0.62	0.99	1.61	1.61
2010	2007	0.32	1.03	1.35	1.35
2011	2008	0.28	0.68	0.96	0.96
2012	2009	_	0.58	0.58	0.58
2013	2010	_	0.49	0.49	0.49
2014	2011	_	0.47	0.47	0.47
2015	2012	_	2.04	2.04	2.04
2016	2013	_	2.04	2.04	2.04

Valuations are used to set contribution rates in future years.

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

				Percent Increase/	
Valuation Date	Number	Annual Earnings <sup>1</sup> (In thousands)	Annual Average Earnings	(Decrease) in Average Earnings	Number of Participating Employers
June 30, 2013	3,272	\$197,944	\$60,496	3.5%	58
June 30, 2012	3,057	178,761	58,476	4.7	58
June 30, 2011	2,708	151,269	55,860	5.6	58
June 30, 2010	2,246	118,813	52,900	5.7	58
June 30, 2009	1,792	89,708	50,061	6.4	58
June 30, 2008	1,198	56,369	47,053	6.2	58
June 30, 2007	641	28,410	44,322	_	58
June 30, 2006		_		_	58

<sup>&</sup>lt;sup>1</sup> Annual earnings are the annualized earnings for the fiscal year ending on the valuation date.

# Teachers' Retirement System Defined Contribution Retirement Plan Occupational Death and Disability Solvency Test (In thousands)

	Occupational Death and Disability Aggregate Accrued Liability For:					of Accrued l	
Valuation Date	(1)  Active  Member  Contributions	(2) Inactive Members	(3) Active Members (Employer- Financed Portion)	Occupational Death and Disability Valuation Assets	(1)	(2)	(3)
June 30, 2013	\$ —	\$ —	\$80	\$2,532	100.0%	100.0%	100.0%
June 30, 2012	_	_	63	2,348	100.0	100.0	100.0
June 30, 2011	_	_	57	2,193	100.0	100.0	100.0
June 30, 2010 <sup>1</sup>	_	_	18	1,577	100.0	100.0	100.0
June 30, 2009 <sup>1</sup>	_	_	14	1,071	100.0	100.0	100.0
June 30, 2008	_	_	44	420	100.0	100.0	100.0
June 30, 2007	_	_	16	_	100.0	100.0	0.0
June 30, 2006	_	_	_	_	N/A	N/A	N/A

<sup>&</sup>lt;sup>1</sup> Change in Assumptions

## Teachers' Retirement System Defined Contribution Retirement Plan Retiree Medical Solvency Test (In thousands)

		(3	iii diic dourido)				
	Retiree Medical Aggregate Accrued Liability For:					of Accrued l	
Valuation Date	(1)  Active  Member  Contributions	(2) Inactive Members	(3) Active Members (Employer- Financed Portion)	Retiree Medical Valuation Assets	(1)	(2)	(3)
June 20,2013	\$ —	\$ —	\$22,058	\$8,614	100.0%	100.0%	39.1%
June 20,2012 <sup>1</sup>	_	_	16,811	6,937	100.0	100.0	41.3
June 30, 2011	_	_	3,801	5,373	100.0	100.0	100.0
June 30, 2010 <sup>1</sup>	_	_	2,430	3,895	100.0	100.0	100.0
June 30, 2009 <sup>1</sup>	_	_	1,446	2,353	100.0	100.0	100.0
June 30, 2008 <sup>1</sup>	_	_	757	1,308	100.0	100.0	100.0
June 30, 2007	_	_	358	597	100.0	100.0	100.0
June 30, 2006	_	_	_	_	N/A	N/A	N/A

Retiree medical liabilities are calculated using the funding assumptions (i.e., funding investment return and net of Medicare Part D subsidy).

<sup>&</sup>lt;sup>1</sup> Change in Assumptions

### **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, 2013.

#### 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 58 employers participating in the TRS DCR Plan, including the State of Alaska, 53 school districts, and four 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 the DCR Plan if they are an eligible nonvested 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 the TRS DCR Plan.

#### 5. Member Contributions

There are no member contributions for the occupational death & disability and retiree medical benefits.

#### Teachers' Retirement System

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

#### 6. Retiree Medical

- Member must retire directly from the plan to be eligible for retiree medical coverage. Normal retirement eligibility is the earlier of a) 30 years of service or b) Medicare eligible and 10 years of service.
- No retiree medical benefits are provided until normal retirement eligibility. The member's premium is 100% until they are Medicare eligible.
- 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 plan's coverage is supplemental to Medicare.
- The Medicare-eligible premium will be based on the member's years of service. The percentage of premium paid by the member is as follows:

	Percent of Premium
Years of Service	Paid by Member
Less than 15 years	30.00%
15 – 19	25.00
20 - 24	20.00
25 – 29	15.00
30 years or more	10.00

#### 7. Occupational Disability Benefits

- Benefit is 40% of salary at date of disability.
- There is no increase in the benefit after commencement.
- Member earns service while on occupational disability.
- Benefits cease when the member becomes eligible for normal retirement at Medicare-eligible age and 10 years
  of service, or at any age with 30 years of service.
- No retiree medical benefits are provided until normal retirement eligibility. The member's premium is 100% until they are Medicare eligible. Medicare-eligible premiums follow the service-based schedule above.

### Teachers' Retirement System

### Defined Contribution Retirement Plan

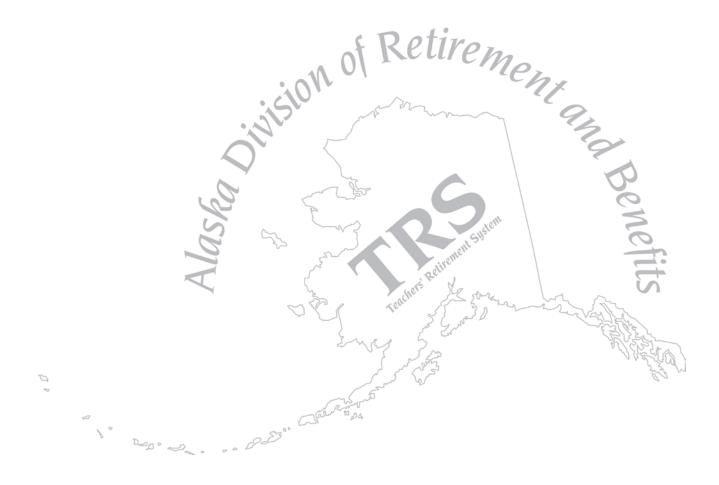
### Summary of Plan Provisions and Changes in Plan Provisions

#### 8. Occupational Death Benefits

- Benefit is 40% of salary.
- There is no increase in the benefit after commencement.
- 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 retiree medical benefits are provided until the member would have been eligible for normal retirement. The surviving spouse's premium is 100% until the member would have been Medicare eligible. Medicare-eligible premiums follow the service-based schedule above.

#### **Changes Since the Prior Valuation**

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





# STATISTICAL SECTION



#### **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.

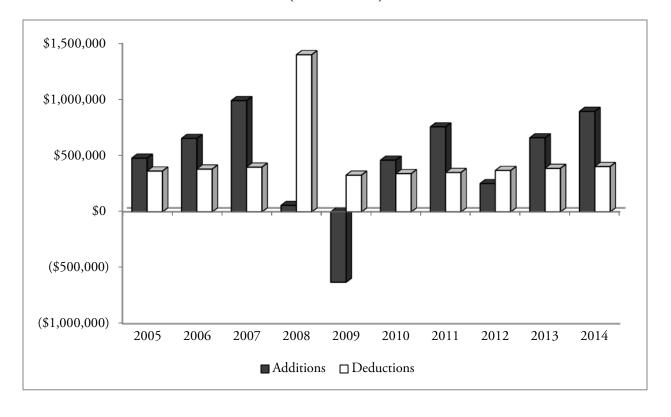
These schedules contain financial trend information utilizing a multi-year presentation so the reader can better understand how the System's financial performance has changed over time. Financial information is presented on an accrual basis.

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

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

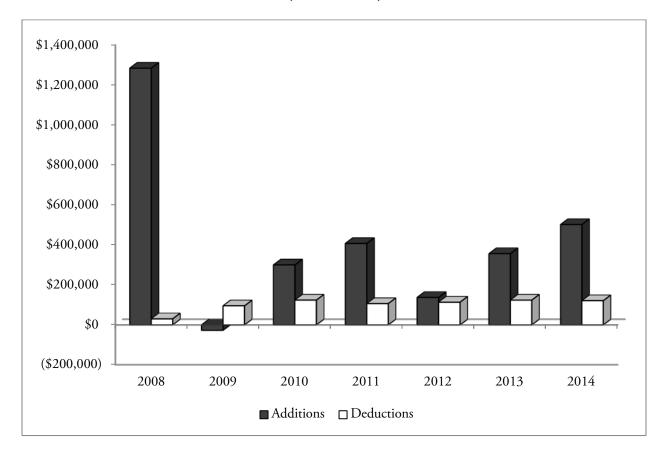
# Teachers' Retirement System Defined Benefit Pension Changes in Fiduciary Net Position (In thousands)

Year Ended June 30	Fiduciary Net Position, Beginning of Year	Additions	Deductions	Increase / (Decrease) in Fiduciary Net Position	Fiduciary Net Position, End of Year
2005	\$ 3,911,515	\$ 476,969	\$ 361,489	\$ 115,480	\$ 4,026,995
2006	4,026,995	652,648	379,672	272,976	4,299,971
2007	4,299,971	989,840	396,697	593,143	4,893,114
2008	4,893,114	57,423	1,399,739	(1,342,316)	3,550,798
2009	3,550,798	(629,058)	325,307	(954,365)	2,596,433
2010	2,596,433	458,984	338,860	120,124	2,716,557
2011	2,716,557	755,768	348,795	406,973	3,123,530
2012	3,123,530	249,803	366,686	(116,883)	3,006,647
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



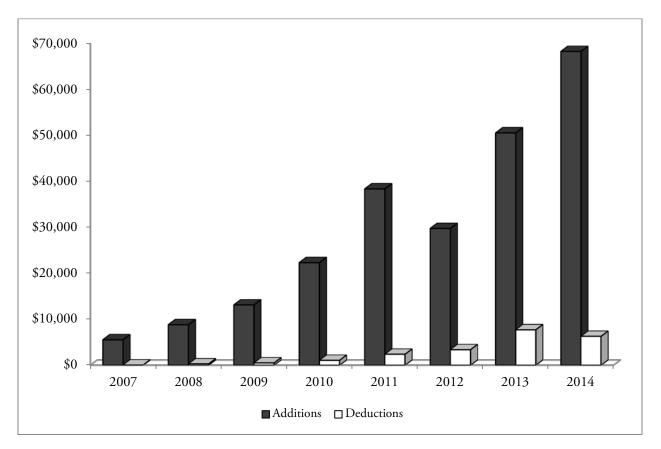
## Teachers' Retirement System Defined Benefit Pension Alaska Retiree Healthcare Trust Changes in Fiduciary Net Position (In thousands)

Year Ended June 30	Fiduciary Net Position, Beginning of Year	Additions	Deductions	Increase / (Decrease) in Fiduciary Net Position	Fiduciary Net Position, End of Year
2008	\$ —	\$ 1,283,865	\$ 30,292	\$ 1,253,573	\$ 1,253,573
2009	1,253,573	(27,157)	95,383	(122,540)	1,131,033
2010	1,131,033	300,736	124,133	176,603	1,307,636
2011	1,307,636	408,179	106,485	301,694	1,609,330
2012	1,609,330	137,594	113,883	23,711	1,633,041
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



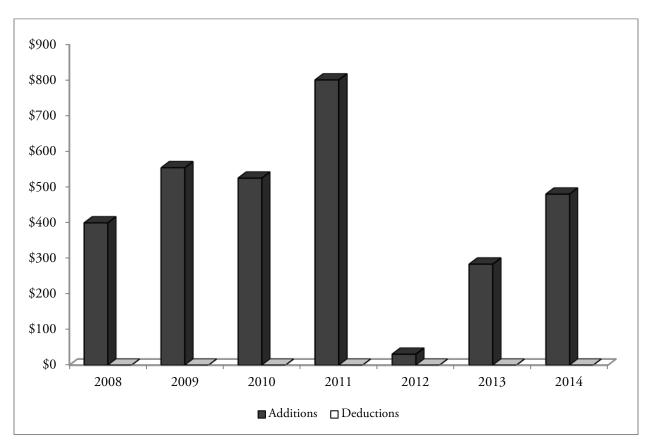
## Teachers' Retirement System Defined Contribution Retirement Participant Directed Changes in Fiduciary Net Position (In thousands)

Year Ended June 30	Fiduciary Net Position, Beginning of Year	Additions	Deductions	Increase / (Decrease) in Fiduciary Net Position	Fiduciary Net Position, End of Year
2007	\$ —	\$ 5,543	\$ 36	\$ 5,507	\$ 5,507
2008	5,507	8,825	278	8,547	14,054
2009	14,054	13,132	498	12,634	26,688
2010	26,688	22,359	1,053	21,306	47,994
2011	47,994	38,355	2,377	35,978	83,972
2012	83,972	29,791	3,374	26,417	110,389
2013	110,389	50,560	7,715	42,845	153,234
2014	153,234	68,315	6,281	62,034	215,268



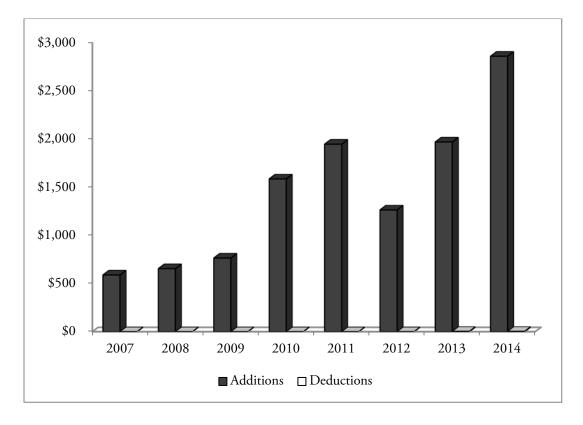
## Teachers' Retirement System Defined Contribution Retirement Occupational Death & Disability Changes in Fiduciary Net Position (In thousands)

Year Ended June 30	Fiduciary Net Position, Beginning of Year	Additions	Deductions	Increase / (Decrease) in Fiduciary Net Position	Fiduciary Net Position, End of Year
2008	\$ —	\$ 400	\$ —	\$ 400	\$ 400
2009	400	554	_	554	954
2010	954	525	_	525	1,479
2011	1,479	801	_	801	2,280
2012	2,280	31	_	31	2,311
2013	2,311	284	_	284	2,595
2014	2,595	480		480	3,075



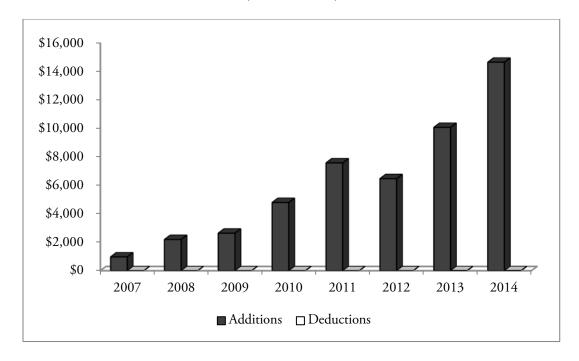
## Teachers' Retirement System Defined Contribution Retirement Medical Plan Changes in Fiduciary Net Position (In thousands)

Year Ended June 30	Fiduciary Net Position, Beginning of Year	Additions	Deductions	Increase / (Decrease) in Fiduciary Net Position	Fiduciary Net Position, End of Year
2007	\$ —	\$ 590	\$ —	\$ 590	\$ 590
2008	590	656	_	656	1,246
2009	1,246	766	_	766	2,012
2010	2,012	1,586	_	1,586	3,598
2011	3,598	1,947	_	1,947	5,545
2012	5,545	1,267	_	1,267	6,812
2013	6,812	1,970	3	1,967	8,779
2014	8,779	2,861	3	2,858	11,637



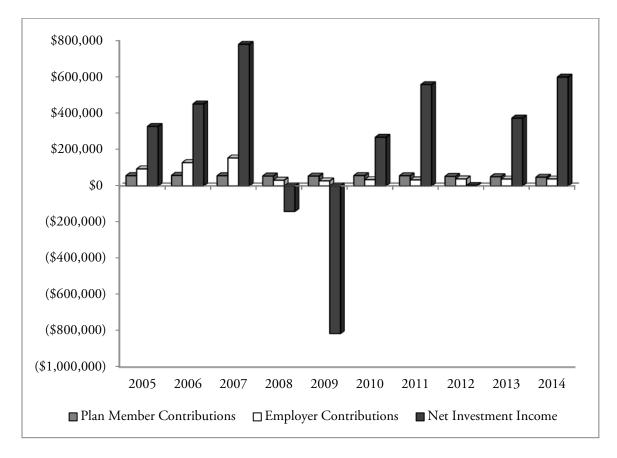
## Teachers' Retirement System Defined Contribution Retirement Health Reimbursement Arrangement Changes in Fiduciary Net Position (In thousands)

Year Ended June 30	Fiduciary Net Position, Beginning of Year	Additions	Deductions	Increase / (Decrease) in Fiduciary Net Position	Fiduciary Net Position, End of Year
2007	\$ —	\$ 974	\$ —	\$ 974	\$ 974
2008	974	2,202	_	2,202	3,176
2009	3,176	2,650	_	2,650	5,826
2010	5,826	4,814	_	4,814	10,640
2011	10,640	7,606	_	7,606	18,246
2012	18,246	6,491	_	6,491	24,737
2013	24,737	10,079	3	10,076	34,813
2014	34,813	14,662	3	14,659	49,472



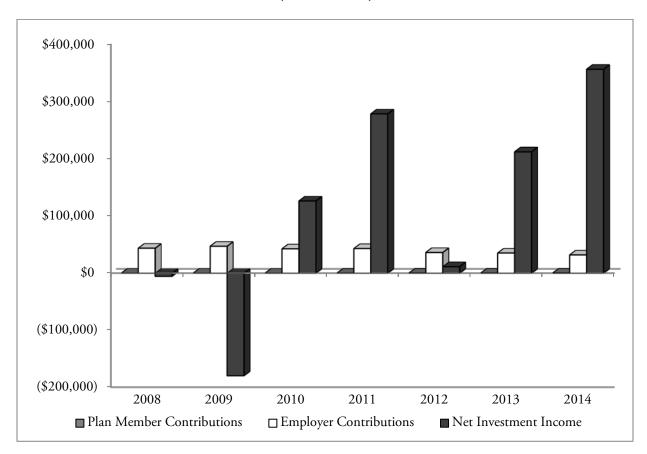
# Teachers' Retirement System Defined Benefit Pension Additions by Source (In thousands)

Year Ended June 30	Plan Member Contributions	Employer Contributions	State of Alaska	Net Investment Income (Loss)	Other	Total
2005	\$ 55,993	\$ 93,540	\$ —	\$ 327,426	\$ 10	\$ 476,969
2006	57,802	127,967		451,689	15,190	652,648
2007	55,689	153,618	_	780,512	21	989,840
2008	54,121	31,313	111,237	(139,282)	34	57,423
2009	53,544	27,110	104,423	(814,138)	3	(629,058)
2010	56,554	33,800	100,475	268,146	9	458,984
2011	55,347	32,804	109,343	558,220	54	755,768
2012	52,020	38,189	157,387	2,190	17	249,803
2013	50,201	37,372	196,945	373,868	19	658,405
2014	47,724	37,571	208,890	599,958	27	894,170



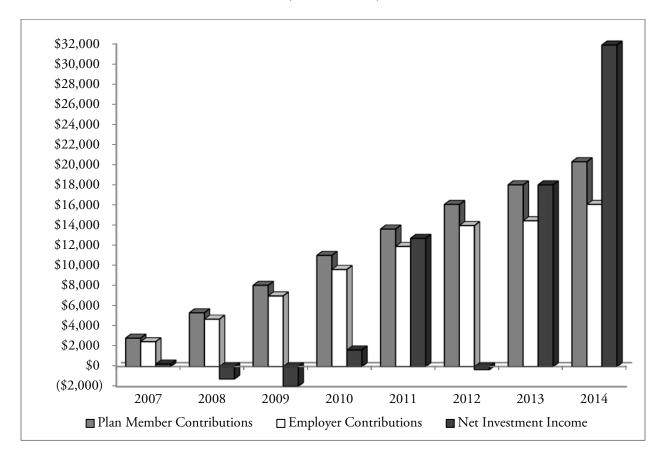
Teachers' Retirement System
Defined Benefit Alaska Retiree Healthcare Trust
Additions by Source
(In thousands)

Year Ended June 30	Plan Member Premiums	Employer Contributions	State of Alaska	Net Investment Income (Loss)	Transfer	Other	Total
2008	\$ 111	\$ 43,697	\$ 158,755	\$ (5,318)	\$1,086,620	\$ —	\$ 1,283,865
2009	116	47,174	101,877	(179,919)	_	3,595	(27,157)
2010	117	42,694	72,987	125,903	_	59,035	300,736
2011	138	43,217	81,507	278,366	_	4,951	408,179
2012	183	36,281	77,130	11,465	_	12,535	137,594
2013	250	35,293	105,832	211,927		4,152	357,454
2014	263	31,980	107,956	356,411	_	6,223	502,833



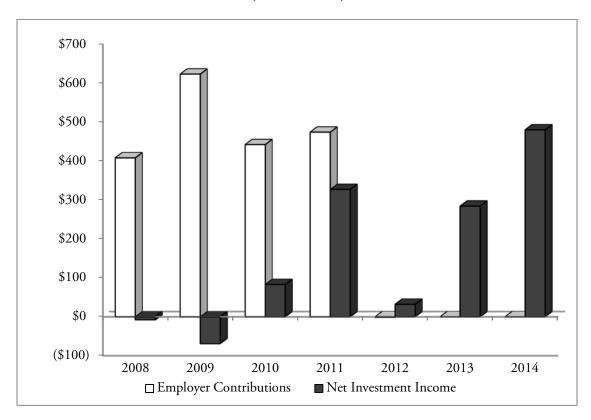
# Teachers' Retirement System Defined Contribution Retirement Participant Directed Additions by Source (In thousands)

Year Ended June 30	Plan Member Contributions	Employer Contributions	Net Investment Income (Loss)	Other	Total
2007	\$ 2,827	\$ 2,465	\$ 251	\$ —	\$ 5,543
2008	5,347	4,717	(1,239)	_	8,825
2009	8,077	7,023	(1,968)	_	13,132
2010	11,051	9,658	1,650	_	22,359
2011	13,665	11,943	12,742	5	38,355
2012	16,095	14,003	(307)	_	29,791
2013	18,044	14,474	18,040	2	50,560
2014	20,326	16,098	31,887	4	68,315



## Teachers' Retirement System Defined Contribution Retirement Occupational Death & Disability Additions by Source (In thousands)

Plan Ended June 30	Employer Contributions	Net Investment Income (Loss)	Total
2008	\$ 408	\$ (8)	\$ 400
2009	623	(69)	554
2010	442	83	525
2011	474	327	801
2012	(1)	32	31
2013	_	284	284
2014	_	480	480



2012

2013

2014

1,160

1,101

1,181

#### **Teachers' Retirement System** Defined Contribution Retirement Retiree Medical Plan **Additions by Source** (In thousands) Plan **Ended Employer Net Investment** Contributions June 30 Income (Loss) **Total** 575 15 590 2007 2008 651 5 656 2009 992 (226)766 2010 1,421 165 1,586 2011 1,154 793 1,947

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

107

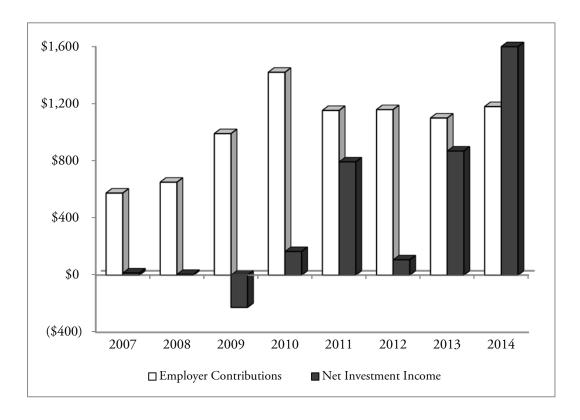
869

1,680

1,267

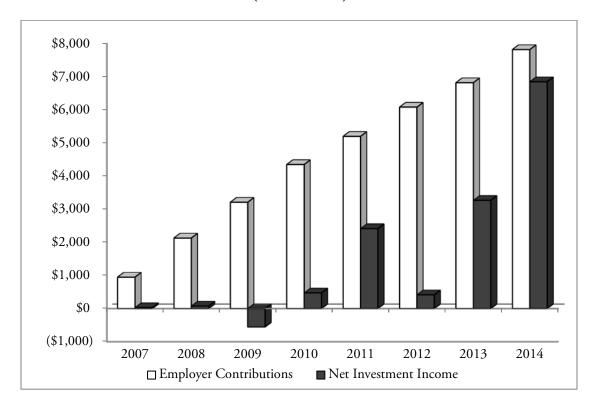
1,970

2,861

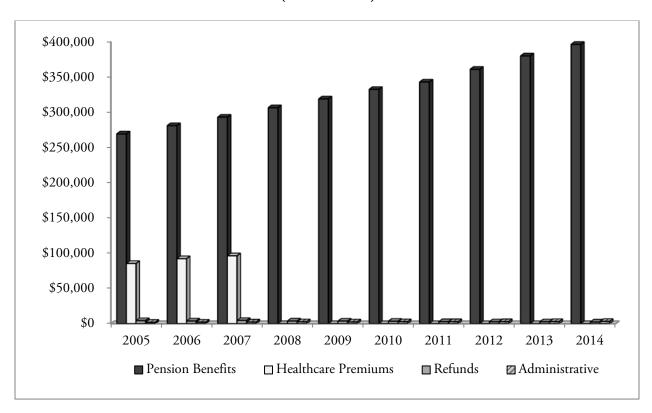


Teachers' Retirement System
Defined Contribution Retirement Health Reimbursement Arrangement
Additions by Source
(In thousands)

Plan Ended June 30	Employer Contributions	Net Investment Income (Loss)	Total
2007	\$ 947	\$ 27	\$ 974
2008	2,127	75	2,202
2009	3,206	(556)	2,650
2010	4,344	470	4,814
2011	5,195	2,411	7,606
2012	6,077	414	6,491
2013	6,816	3,263	10,079
2014	7,816	6,846	14,662

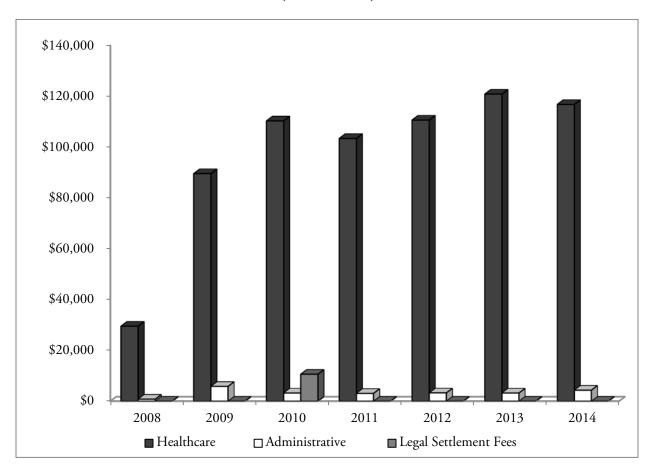


Teachers' Retirement System Defined Benefit Pension Deductions by Type (In thousands)							
Year Ended Pension June 30 Benefits Healthcare Contributions Administrative Transfer Total							
2005	\$ 269,414	\$ 85,670	\$ 4,376	\$ 2,029	\$ —	\$ 361,489	
2006	281,205	92,462	3,832	2,173		379,672	
2007	293,224	96,544	4,535	2,394	_	396,697	
2008	306,689	_	3,761	2,669	1,086,620	1,399,739	
2009	319,148	_	3,622	2,537	_	325,307	
2010	332,690	_	3,472	2,698	_	338,860	
2011	343,191	_	2,798	2,806	_	348,795	
2012	361,202	_	2,637	2,847	_	366,686	
2013	380,265	_	2,668	2,989	_	385,922	
2014	396,614	_	2,387	3,160	_	402,161	



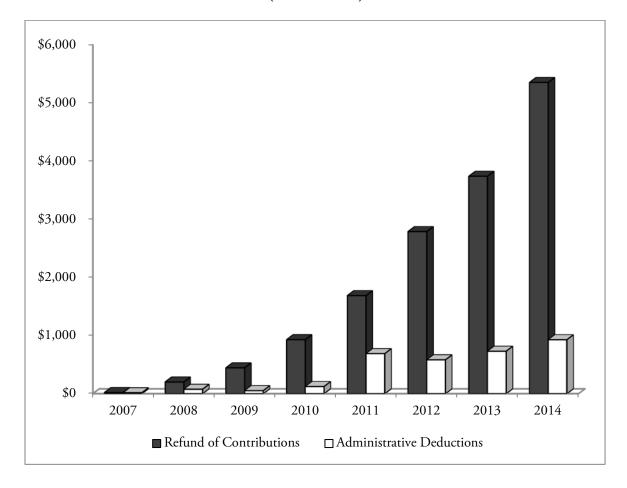
Teachers' Retirement System
Defined Benefit Alaska Retiree Healthcare Trust
Deductions by Type
(In thousands)

Plan Ended June 30	Healthcare	Administrative	Legal Settlement Fees	Total
2008	\$ 29,494	\$ 798	\$ —	\$ 30,292
2009	89,571	5,812	_	95,383
2010	110,313	3,228	10,592	124,133
2011	103,405	3,080	_	106,485
2012	110,632	3,251	_	113,883
2013	120,855	3,219	_	124,074
2014	116,781	4,338	_	121,119

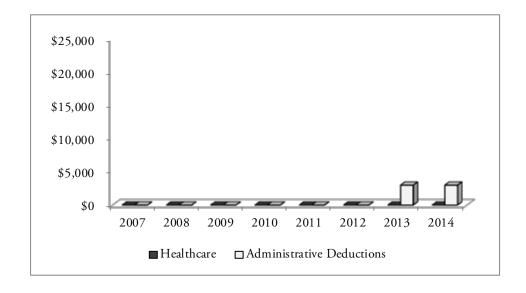


# Teachers' Retirement System Defined Contribution Retirement Participant Directed Deductions by Type (In thousands)

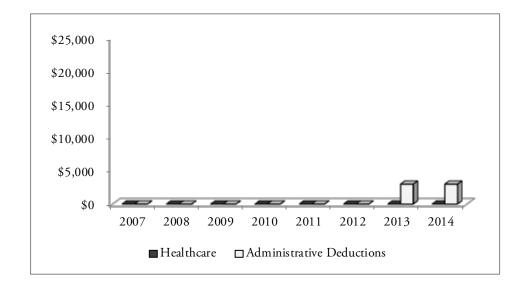
Plan Ended June 30	Refund of Contributions	Administrative	Prior Year Forfeiture Payable Adjustment	Total
2007	\$ 20	\$ 16	\$ —	\$ 36
2008	202	76	_	278
2009	445	53	_	498
2010	930	123	_	1,053
2011	1,688	689	_	2,377
2012	2,791	583	_	3,374
2013	3,737	731	3,247	7,715
2014	5,352	929	_	6,281



Teachers' Retirement System Defined Contribution Retirement Medical Plan Deductions by Type (In thousands)						
Plan Ended June 30	Healthcare	Administrative	Total			
2007	\$ —	\$ —	\$ —			
2008	_	_	_			
2009	_	_	_			
2010	<u> </u>	_	_			
2011	<del></del>	_	_			
2012	<u> </u>	_	_			
2013	<u> </u>	3	3			
2014		3	3			



#### **Teachers' Retirement System** Defined Contribution Retirement Health Reimbursement Arrangement **Deductions by Type** (In thousands) Plan Ended June 30 Healthcare Administrative Total 2007 2008 2009 2010 2011 2012 2013 3 3 2014 3 3



## Teachers' Retirement System Schedule of Average Pension Benefit Payments New Benefit Recipients

	Years of Credited Service						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/07 - 6/30/08 <sup>(1)</sup> :							
Average Monthly Benefit	\$209	\$945	\$1,248	\$2,226	\$2,966	\$3,832	\$5,057
Number of Recipients	13	44	62	92	95	87	33
Period 7/1/08 - 6/30/09 <sup>(1)</sup> :							
Average Monthly Benefit	\$230	\$950	\$1,168	\$2,239	\$2,957	\$3,897	\$4,860
Number of Recipients	13	35	64	52	67	54	18
Period 7/1/09 - 6/30/10 <sup>(1)</sup> :							
Average Monthly Benefit	\$482	\$1,020	\$1,343	\$2,263	\$2,992	\$4,120	\$6,263
Number of Recipients	14	50	63	85	109	79	49
Period 7/1/10 - 6/30/11 <sup>(1)</sup> :							
Average Monthly Benefit	\$146	\$902	\$1,432	\$2,328	\$3,131	\$4,283	\$5,496
Number of Recipients	5	68	63	77	118	104	67
D 1 1 7 (1 (1 ) (1 ) (1 ) (1 )							
Period 7/1/11 - 6/30/12 <sup>(1)</sup> : Average Monthly Benefit	\$353	\$1,064	\$1,512	\$2,241	\$3,276	\$4,320	\$5,739
Number of Recipients	11	43	62	61	118	81	58
Period 7/1/12 - 6/30/13 <sup>(1)</sup> :							
Average Monthly Benefit	\$253	\$1,030	\$1,496	\$2,450	\$3,281	\$4,384	\$6,052
Number of Recipients	10	57	67	90	101	79	64

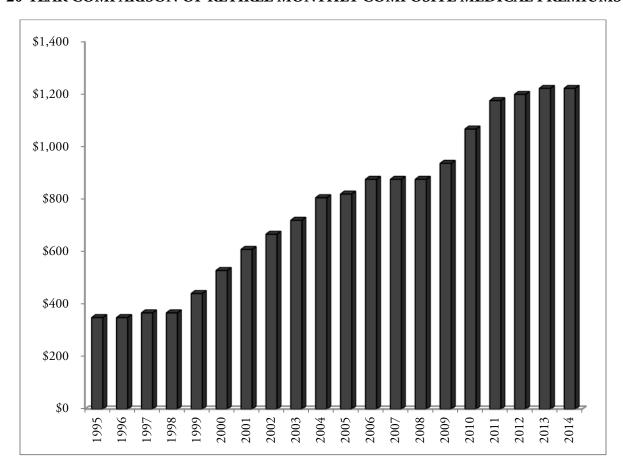
<sup>&</sup>quot;Average Monthly Benefit" includes post-retirement pension adjustments and cost-of-living increases.

<sup>(1)</sup> Does not include beneficiaries

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

Year Ended June 30	Service	Disability	Survivor	Dependent	Healthcare	Total
2005	\$ 258,998	\$ 2,400	\$ 7,695	\$ 321	\$ 85,670	\$ 355,084
2006	270,504	2,342	8,353	6	92,462	373,667
2007	281,879	2,193	9,146	6	96,544	389,768
2008	294,807	1,889	9,974	18	99,583	406,271
2009	306,748	1,692	10,688	20	103,093	422,241
2010	319,109	1,757	11,787	37	117,556	450,246
2011	329,308	1,337	12,499	47	133,152	476,343
2012	346,538	1,222	13,398	45	146,309	507,512
2013	364,387	1,377	14,467	34	160,337	540,602
2014	379,594	1,231	15,703	86	166,631	563,245

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



Teachers' Retirement System
Schedule of Pension Benefit Recipients by Type of Pension Benefit and Option Elected
Valuation as of June 30, 2013

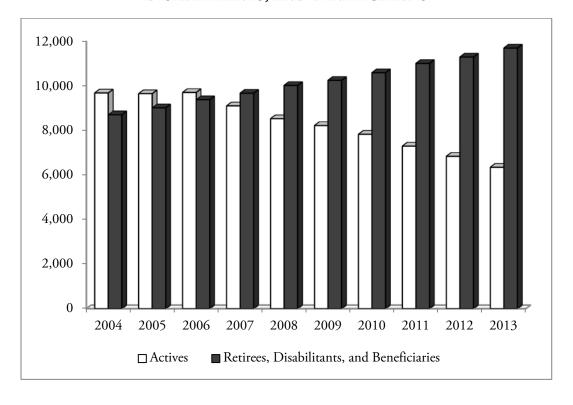
Amount of	Number	Type of Pension Benefit			
Monthly Pension Benefit	of Recipients	Regular Retirement	Survivor Payment	Disability	
\$ 1 - 300	203	150	53	_	
301 - 600	363	265	98	_	
601 - 900	637	522	115	_	
901 - 1,200	733	600	133	_	
1,201 - 1,500	667	533	134	_	
1,501 - 1,800	630	514	115	1	
1,801 - 2,100	699	583	115	1	
2,101 - 2,400	846	776	70	_	
2,401 - 2,700	1,006	945	58	3	
2,701 - 3,000	970	929	33	8	
3,001 - 3,300	902	873	24	5	
3,301 - 3,600	802	784	15	3	
3,601 - 3,900	733	717	9	7	
3,901 - 4,200	593	586	6	1	
over 4,200	1,921	1,911	7	3	
Totals	11,705	10,688	985	32	

## Teachers' Retirement System Schedule of Pension Benefit Recipients by Type of Pension Benefit and Option Elected Valuation as of June 30, 2013

		Option Selected			
Amount of	Number		75% Joint	50% Joint	
Monthly	of	Whole Life	and Contingent	and Contingent	66 2/3% Joint and
Pension Benefit	Recipients	Annuity	Annuity	Annuity	Contingent Annuity
\$ 1 - 300	203	118	44	33	8
301 - 600	363	192	75	77	19
601 - 900	637	328	140	137	32
901 - 1,200	733	423	161	117	32
1,201 - 1,500	667	350	154	139	24
1,501 - 1,800	630	341	142	125	22
1,801 - 2,100	699	362	152	164	21
2,101 - 2,400	846	391	200	223	32
2,401 - 2,700	1,006	484	238	259	25
2,701 - 3,000	970	461	213	269	27
3,001 - 3,300	902	426	189	266	21
3,301 - 3,600	802	400	150	233	19
3,601 - 3,900	733	379	128	205	21
3,901 - 4,200	593	303	92	189	9
over 4,200	1,921	903	283	678	57
Totals	11,705	5,861	2,361	3,114	369

Teachers' Retirement System System Membership by Status							
Year Ended June 30	Active	Retirees Disabilitants & Beneficiaries	Vested Terminations	Nonvested Terminations w/Balance	Total		
2004	9,688	8,707	724	2,746	21,865		
2005	9,656	9,020	826	2,874	22,376		
2006	9,710	9,386	795	3,085	22,976		
2007	9,107	9,678	846	3,044	22,675		
2008	8,531	10,026	873	2,971	22,401		
2009	8,226	10,255	884	2,830	22,195		
2010	7,832	10,598	840	2,789	22,059		
2011	7,303	11,016	852	2,675	21,846		
2012	6,845	11,301	868	2,559	21,573		
2013	6,352	11,705	906	2,448	21,411		

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



## Teachers' Retirement System Principal Participating Employers June 30, 2014

Employer	Non-retired Members	Rank	Percentage of Total Non-retired Members
Anchorage School District	4,862	1	32.25%
Matanuska-Susitna Borough School District	1,499	2	9.94
Fairbanks North Star Borough School District	_1,321	3	8.76
Total	<u>7,682</u>		<u>50.95</u> %

## Teachers' Retirement System Participating Employers June 30, 2014

Alaska Department of Education Alaska Gateway School District Aleutian Region School District

Aleutians East Borough School District

Anchorage School District Annette Island School District

Bering Strait School District

Bristol Bay Borough School District

Chatham School District Chugach School District Copper River School District Cordova City School District Craig City School District

Delta-Greely School District Denali Borough School District Dillingham City School District

Fairbanks North Star Borough School District

Galena City School District

Haines Borough School District Hoonah City School District Hydaburg City School District

Iditarod Area School District

Juneau School District, City and Borough of

Kake City School District
Kashunamiut School District
Kenai Peninsula Borough School District
Ketchikan Gateway Borough School District
Klawock City School District
Kodiak Island Borough School District

Kuspuk School District

Lake and Peninsula Borough School District

Lower Kuskokwim School District Lower Yukon School District

Matanuska-Susitna Borough School District

Nenana City School District Nome City School District

North Slope Borough School District Northwest Arctic Borough School District

Pelican City School District Petersburg City School District Pribilof School District

Saint Mary's School District
Sitka Borough School District
Skagway City School District
Southeast Island School District
Southeast Regional Resource Center
Southwest Region School District
Special Education Service Agency

Tanana School District

Unalaska City School District University of Alaska

Valdez City School District

Wrangell Public School District

Yakutat School District Yukon Flats School District Yukon-Koyukuk School District

Yupiit School District



State of Alaska

Department of Administration | Division of Retirement and Benefits
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