



INVESTMENT SECTION



ALASKA DIVISION OF
**Retirement
and Benefits**



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October 16, 2019

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, 2019.

Callan LLC (Callan) calculates time-weighted performance statistics based on underlying custodial data provided by the Board's custodian, State Street Bank and Trust Company. The performance calculations were made using a time-weighted return methodology based upon current market values. Prior to April 1, 2019 ARMB's former real estate consultant, Townsend Group, calculated returns for the real estate segment of the portfolio. The Townsend data for those periods has been incorporated into ARMB's Total Fund returns. Callan took over as the real estate consultant on April 1, 2019 and we now calculate performance independently.

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

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

Investment Section

2019 Fiscal Year Market Overview

U.S. equity markets posted a gain for the tenth consecutive fiscal year. The Russell 3000 Index, a measure of broad U.S. equity, returned 8.98% in the period. Non-U.S. stocks trailed their U.S. counterparts as major economies outside of the U.S. struggle to find growth and some regions grapple with geopolitical issues, most notably Brexit negotiations in Europe. The MSCI ACWI ex-U.S. IMI (Net), a broad benchmark reflecting developed and emerging market non-U.S. equity, gained only 0.26%. A broad measure of the total global equity market, MSCI All Country World Index (Net), rose 5.74%.

An unexpected retreat in interest rates, which declined significantly across all but the shortest parts of the yield curve, boosted fixed income performance. The Bloomberg U.S. Aggregate Bond Index, a widely-used gauge of the investment grade domestic bond market, rose 7.87% after posting negative returns in each of the two preceding fiscal years. Absolute return strategies significantly trailed the equity markets; the Callan Absolute Return Hedge Fund-of-Funds Style median return was 1.05% (net-of-fees). Private real estate, as measured by the NCREIF Property Index, was positive for the ninth year in a row. In fiscal year 2019, the NCREIF Property Index returned 6.51%. Publicly traded real estate, as measured by the FTSE NAREIT All Equity Index, outpaced the private markets meaningfully, gaining 13.01%.

ARMB's actual asset groupings delivered the following one-year returns through June 30, 2019¹:

Domestic Stocks:	8.41%
Int'l Stocks:	(0.08%)
Opportunistic:	7.21%
Fixed Income:	6.34%
Real Assets:	6.08%
Private Equity:	17.66%
Absolute Return:	4.08%

For the fiscal year ended 30 June 2019, the Public Employees Retirement System (PERS) had a time-weighted total return of 6.40%. The Teachers Retirement System (TRS) had a time-weighted total return of 6.39%. Both systems' gross return exceeded their strategic policy target return of 5.65% and the median return for Callan's Public Fund Sponsor database of 6.19%.

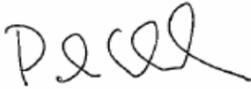
Over longer trailing periods, PERS and TRS have outperformed their target index returns. PERS 5-year annualized return was 6.35%. TRS also returned 6.35% over this same period. Both outperformed the 5-year annualized benchmark return of 5.88%. The seven-year annualized return was 8.88% for PERS and 8.90% for TRS. Both were above the 7-year target return of 8.33%. Over 27.75 years – the longest period for which we have data – PERS and TRS achieved annualized total returns of 7.74% and 7.79%, respectively, while the policy benchmark return was 7.63%.

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

Both systems are well diversified and currently have asset allocation policies that, in Callan's opinion, are consistent with achieving a long-term "real" (above inflation) return of 4.5%.

In summary, fiscal 2019 was a year in which the ARMB's broad asset class returns – those shown in the table on the preceding page – were mostly positive, with only Int'l Stocks posting a loss. PERS and TRS produced higher returns than the average public fund, both ranking in the 41st percentile within the Public Fund Sponsor peer group for the one-year period ended June 30, 2019.

Sincerely,



Paul Erlendson
Senior Vice President

c: Bob Mitchell
Steven Center

Investment Section

Department of Revenue Treasury Division Staff As of June 30, 2019

Commissioner Bruce Tangeman	Chief Investment Officer Bob G. Mitchell	Investment Officers Casey Colton Emily Howard Josh McLin Kekama Tuiofu Kevin Elliott Kevin Liu Kevin Buckland Mark Moon	Michelle Prebula Nicholas Orr Sean Howard Shane Carson Stephanie Pham Stephen Sikes Steve Verschoor Victor Djajalie
Deputy Commissioner Greg Samorajski	Comptroller Scott Jones, CPA		
Treasury Division Director Pamela Leary, CPA	Cash Management Bronze Ickes, CTP, AAP ARMB Liaison Officer Stephanie Alexander		

External Money Managers and Consultants

Domestic Equity Small Capitalization

ArrowMark Partners
Denver, CO
BMO Global Asset Management
Chicago, IL
Frontier Capital Management
Boston, MA
Jennison Associates LLC
New York, NY
Sycamore Capital Management
Cincinnati, OH
T. Rowe Price Investment Services
Baltimore, MD

Domestic Equity Micro Capitalization

DePrince, Race & Zollo, Inc.
Winter Park, FL
Lord Abbett & Co.
Jersey City, NJ
Zebra Capital Management
Stanford, CT

International Small Capitalization

Mondrian Investment Partners
London, England
Schroders Investment Management NA
London, England

Emerging Market Income

Lazard Asset Management
New York, NY

International Fixed Income

Mondrian Investment Partners
London, England
Schroder Investment Management NA
New York, NY

High Yield/Convertible Bond/Tactical Bond

Fidelity Investment Asset Management
Smithfield, RI
MacKay Shields LLC
New York, NY

Tactical Asset Allocation

PineBridge Investments
New York, NY
McKinley Capital Management, Inc.
Anchorage, AK
Fidelity Investment Asset Management
Smithfield, RI

International Equity – EAFE, Emerging Markets Non U.S., and Global Equity

Arrowstreet Capital, LP
Boston, MA
BlackRock
San Francisco, CA
Baille Gifford Overseas Ltd.
Edinburgh, Scotland
Brandes Investment Partners, L.P.
San Diego, CA
Capital Group Trust Co.
Los Angeles, CA
DePrince, Race & Zollo, Inc
Winter Park, FL
Lazard Asset Management
New York, NY
Legal and General Investment Management America
Chicago, IL
McKinley Capital Management, Inc.
Anchorage, AK
Parametric Clifton
Seattle, WA
State Street Global Advisors
San Francisco, CA

Absolute Return

Allianz Global Investors
New York, NY
Crestline Investors, Inc.
Fort Worth, TX
Global Assets Management Inc.
New York, NY
J.P. Morgan Asset Management
New York, NY
Man Group
London, UK
Prisma Capital
New York, NY
Zebra Capital Management
Stanford, CT

Alternative Equity

Analytic Investors
Los Angeles, CA
State Street Global Advisors
San Francisco, CA

Tactical Fixed Income

Fidelity Investment Asset Management
Merrimack, NH

External Money Managers and Consultants (cont.)

Private Equity

Abbott Capital Management, L.P.
New York, NY
 Angelo, Gordon & Co.
New York, NY
 Advent International,
Boston, MA
 Dyal Capital Partners
New York, NY
 Glendon Capital
Santa Monica, CA
 KKR Lending Partners
New York, NY
 Lexington Partners
New York, NY
 Merit Capital Partners
Chicago, IL
 Neuberger Berman
New York, NY
 New Mountain Partners
New York, NY
 NGP
Irvine, TX
 Onex
New York, NY
 Pathway Capital Management, LLC
Irvine, CA
 Summit Partners
Boston, MA
 The Jordan Company
New York, NY
 Warburg Pincus
New York, NY

Taxable Municipal Bonds

Western Asset Management Company
Pasadena, CA

Supplemental Benefits System, Deferred Compensation Plan and Defined Contribution Plan

Allianz Global Investors
San Francisco, CA
 BlackRock
San Francisco, CA
 Brandes Investment Partners
San Diego, CA
 Russell Investment Implementation Services
Seattle, WA
 State Street Global Advisors
Boston, MA
 T. Rowe Price Investment Services
Baltimore, MD

Investment Consultants

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

Investment Advisory Council

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

Independent Auditors

KPMG, LLP
Anchorage, AK

Actuaries

Buck Global, LLC
Denver, CO
 Gabriel Roeder Smith
Denver, CO

Master Limited Partnerships

Advisory Research
St. Louis, MO
 Tortoise Capital Advisors LLC
Leawood, KS

Global Master Custodian

State Street Bank & Trust Co.
Boston, MA

Real Assets – Real Estate Core Separate Accounts

LaSalle Investment Management
Chicago, IL
 Sentinel Real Estate Corporation
New York, NY
 UBS Realty Investors, LLC
Hartford, CT

Real Assets – Energy

EIG Global Energy Partners
Washington, DC

Real Assets – Infrastructure

Brookfield Investment Management
New York, NY
 IFM
New York, NY
 JP Morgan Asset Management
New York, NY
 Lazard Asset Management
New York, NY

Investment Section

External Money Managers and Consultants (cont.)

Real Estate – Commingled Real Estate Funds

Almanac Realty Investors

New York, NY

BlackRock Realty

New York, NY

Clarion Partners

New York, NY

Colony NorthStar Capital

Los Angeles, CA

Coventry Real Estate Fund II, LLC

New York, NY

J.P. Morgan Investment Management Inc.

New York, NY

KKR & Co.

New York, NY

LaSalle Investment Management

Chicago, IL

Silverpeak Real Estate Partners

New York, NY

Tishman Speyer Properties

New York, NY

UBS Realty Investors, LLC

Hartford, CT

Real Assets – Farmland and Timber

Hancock Agricultural Investment Group

Boston, MA

Hancock Timber Resource Group

Boston, MA

Timberland Investment Resources LLC

Atlanta, GA

UBS Farmland Investors, LLC

Hartford, CT

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., opportunistic, 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
Opportunistic	60% Russell 1000 Index 40% Bloomberg Barclays Aggregate Index
Private Equity	1/3 S&P 500 Index 1/3 Russell 2000 Index 1/3 MSCI EAFE Index
Real Assets	31% NCREIF Total Property Index 25% NCREIF Farmland Index 10% NCREIF Timberland Index 17.5% S&P Global Infrastructure Index 12.5% Alerian MLP Index 4% FTSE NAREIT All Equity REIT Index
Fixed Income	Bloomberg Barclays Intermediate Treasury Index
Absolute Return	HFRI Fund of Funds Composite Index
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 LLC. During the 2019 fiscal year, the ARMB's target asset allocation was 24% domestic equities, 22% global equities ex-U.S., 10% opportunistic, 9% private equity, 17% real assets, 10% fixed income, 7% absolute return, and 1% cash equivalents. Over the next 10 years, the target asset allocation is expected to generate a return of 6.6% with a standard deviation of 14.7%.

Investment Section

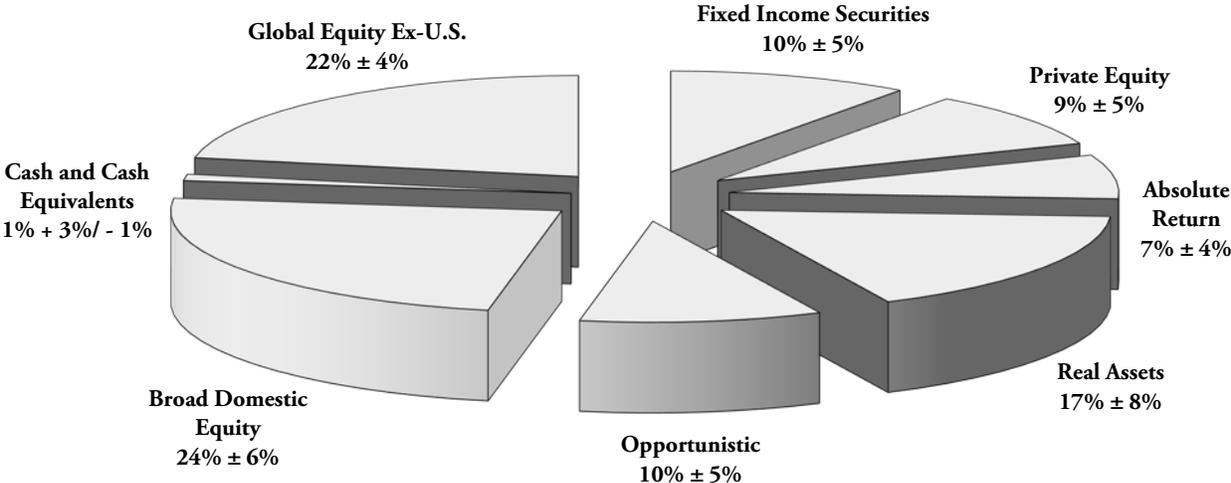
Teachers' Retirement System Schedule of Investment Results Fiscal Years Ended June 30

	2015	2016	2017	2018	2019	Annualized	
						3 Year	5 Year
Total Fund							
TRS	3.30%	(0.36%)	13.36%	9.62%	6.39%	9.75%	6.35%
<i>Custom Composite Index</i>	-	-	-	-	5.65	9.01	5.88
<i>Actuarial Earnings Rate</i>	8.00	8.00	8.00	8.00	7.38	7.38	7.38
Broad Domestic Equity							
TRS	7.85	0.58	18.55	15.22	8.40	13.98	9.94
<i>Custom Composite Index</i>	7.29	2.14	18.51	14.78	8.98	14.02	10.19
Fixed Income							
TRS	(0.73)	5.15	2.91	(0.71)	6.34	2.80	2.55
<i>Custom Composite Index</i>	0.41	4.79	0.02	(0.76)	6.19	1.77	1.93
Opportunistic							
TRS	-	-	-	5.63	7.21	-	-
<i>Custom Composite Index</i>	-	-	-	8.39	9.72	-	-
Real Assets							
TRS	3.69	4.76	5.98	7.53	6.09	6.53	5.61
<i>Custom Composite Index</i>	7.99	8.87	5.66	4.29	7.23	5.72	6.79
Global Equity Ex-US							
TRS	(3.28)	(9.15)	20.42	7.95	(0.08)	9.11	2.68
<i>MSCI ACWI ex-US</i>	(4.85)	(9.80)	21.00	7.75	0.26	9.34	2.33
Private Equity							
TRS	13.77	4.71	17.04	26.65	17.66	20.37	15.75
<i>Custom Composite Index</i>	3.33	(4.41)	21.04	12.92	2.71	11.97	6.75
Absolute Return							
TRS	9.24	(3.09)	8.47	4.78	4.08	5.76	4.60
<i>3-month Treasury Bill +5%</i>	5.02	5.19	5.49	5.18	1.15	3.92	4.39
Alternative Equity							
TRS	(0.88)	3.41	11.38	-	-	-	-
<i>Custom Composite Index</i>	4.26	2.09	15.07	-	-	-	-
Cash Equivalents							
TRS	0.27	0.55	0.80	1.53	2.50	1.61	1.13
<i>3-month Treasury Bill</i>	0.02	0.19	0.49	1.36	2.31	1.38	0.87

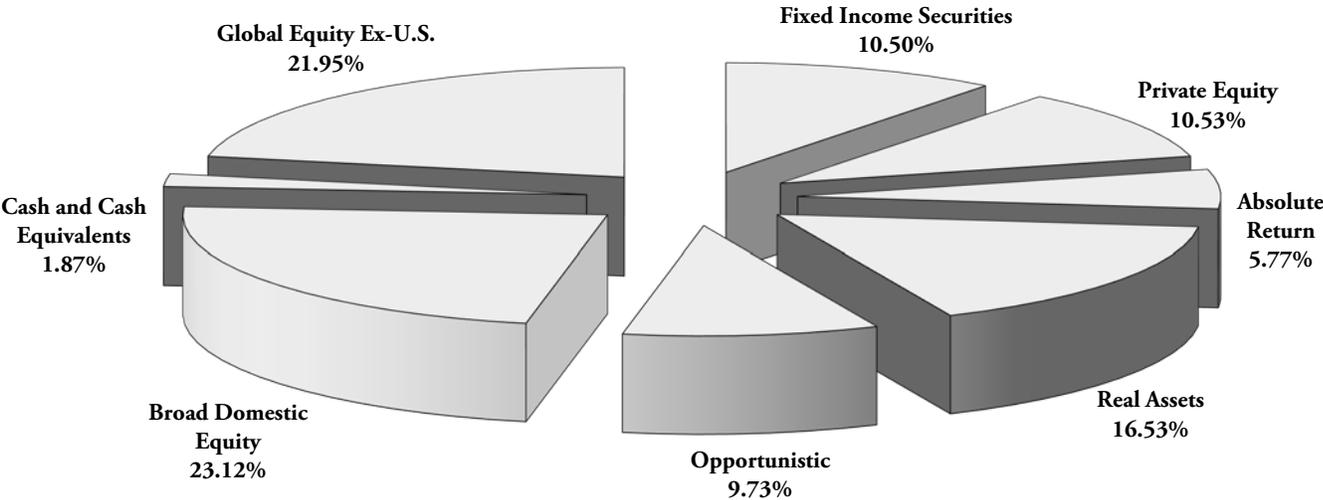
MSCI ACWI =Morgan Stanley Capital International All Country World Index
Returns for periods longer than one year are reported on an annualized basis.
Basis of calculation: Time-Weighed rate of return based on the market rate of return.

Teachers' Retirement System
Asset Allocation
June 30, 2019

Policy



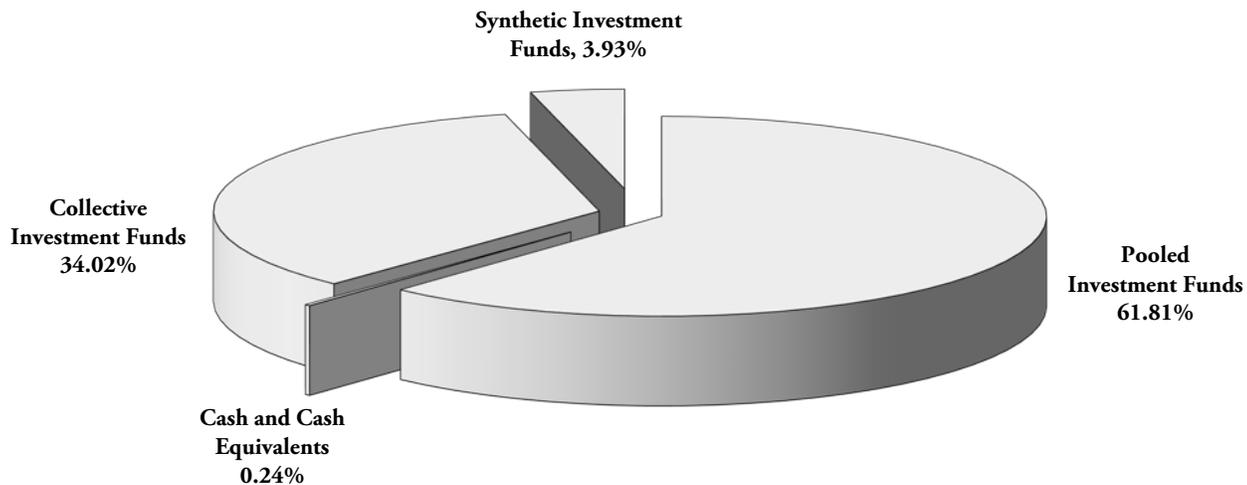
Actual — Defined Benefit Pension



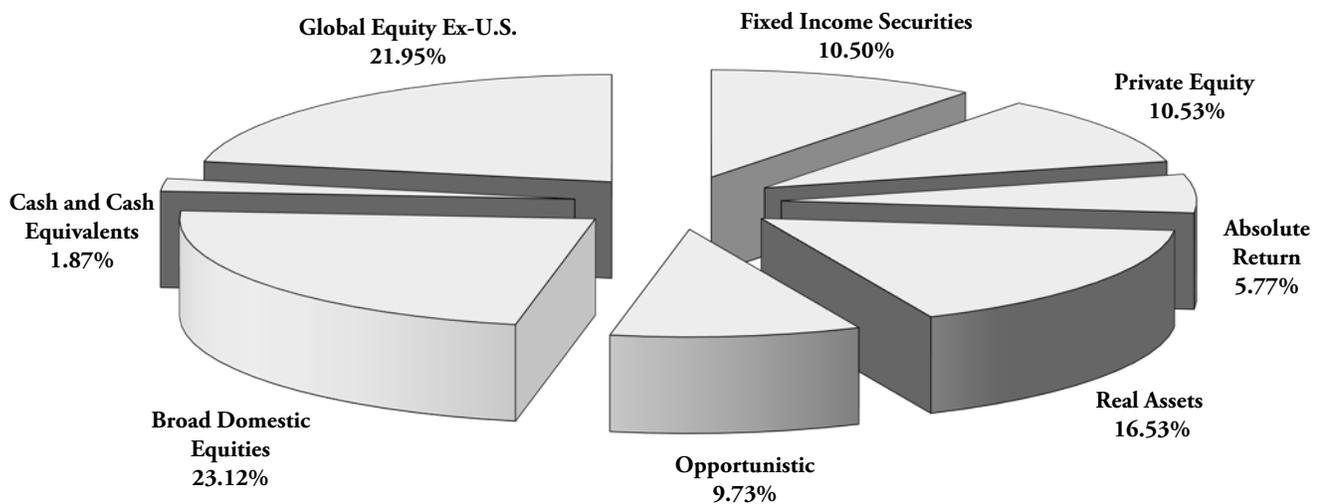
Investment Section

Teachers' Retirement System Asset Allocation June 30, 2019

Actual — Defined Contribution Participant Directed

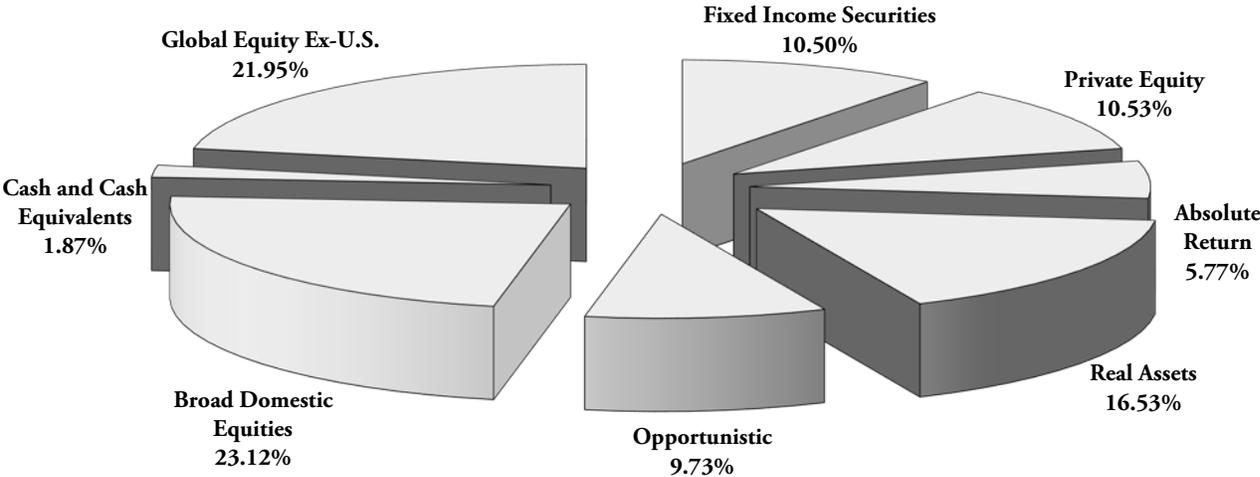


Actual — Defined Benefit Alaska Retiree Healthcare Trust

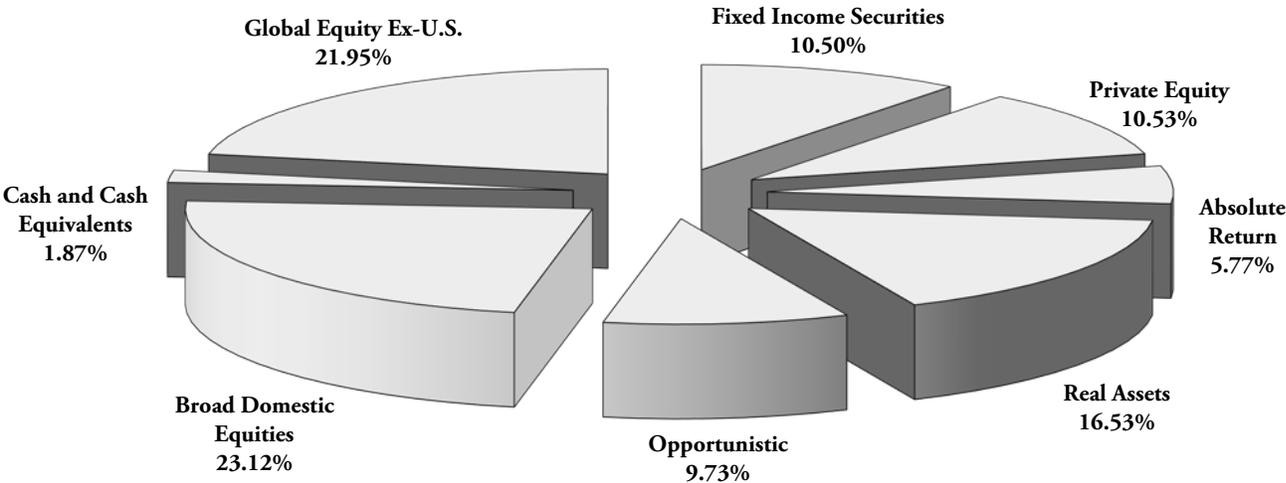


**Teachers' Retirement System
Asset Allocation
June 30, 2019**

Actual — Health Reimbursement Arrangement



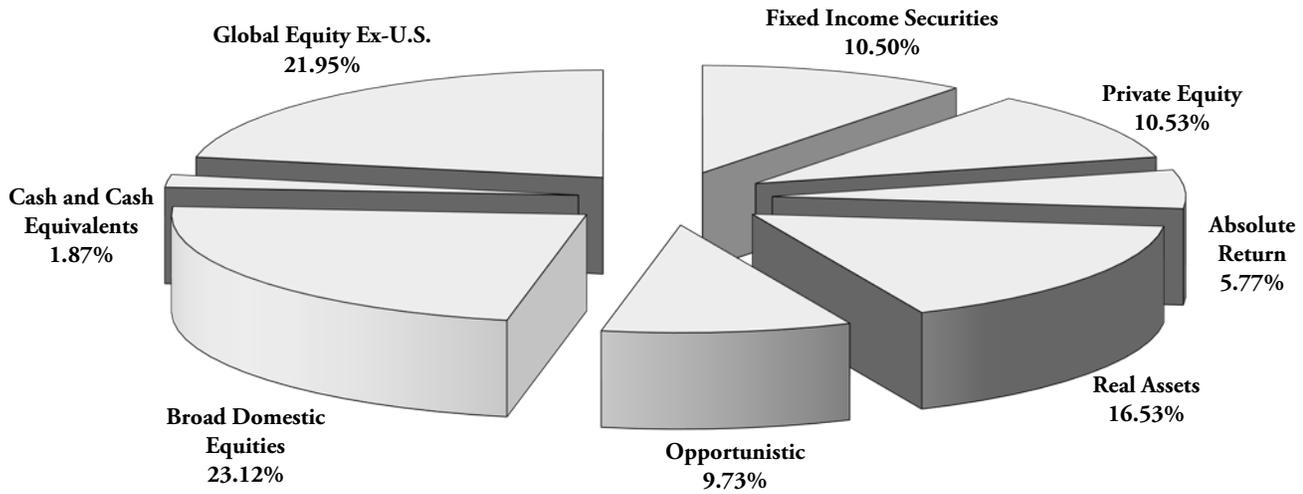
Actual — Occupational Death & Disability



Investment Section

**Teachers' Retirement System
Asset Allocation
June 30, 2019**

Actual — Retiree Medical Plan



Alaska Retirement Management Board

Top Ten Holdings by Asset Type

June 30, 2019

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

Fixed Income

Rank	Largest Fixed Income Holdings	Fair Value	Par Value
1	US Treasury 2.250% 12/31/2023	\$72,717,613	\$71,182,735
2	US Treasury 1.500% 3/31/2023	71,695,163	72,296,694
3	US Treasury 2.750% 2/15/2024	53,305,006	51,047,739
4	US Treasury 2.000% 5/31/2024	34,374,414	33,974,943
5	US Treasury 2.000% 8/15/2025	33,908,630	33,587,190
6	US Treasury 2.125% 5/15/2025	29,123,893	28,640,583
7	US Treasury 2.375% 8/15/2024	23,810,121	23,132,414
8	US Treasury 2.375% 5/15/2027	20,191,245	19,529,825
9	US Treasury 2.875% 8/15/2028	19,266,887	17,929,201
10	US Treasury 2.875% 5/15/2028	18,913,184	17,613,500

Equities

Rank	Largest Equity Holdings	Market Value	Par Value
1	Microsoft Corp	\$53,160,882	\$396,841
2	Apple Inc	46,009,853	232,467
3	Amazon.com Inc.	36,541,447	19,297
4	Exxon Mobil Corp.	23,888,945	311,744
5	Proctor & Gamble Co./The	23,727,908	216,397
6	Pfizer Inc	21,820,287	503,700
7	Facebook Inc	21,615,496	111,997
8	Johnson & Johnson	20,489,934	147,113
9	Alphabet Inc	19,771,707	18,260
10	Berkshire Hathaway Inc	19,609,763	91,991

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

Investment Section

Teachers' Retirement System Schedule of Investment Management Fees Year Ended June 30, 2019

	<u>Fair Value</u>	<u>Fees</u>
Investment Management		
Total Opportunistic	\$ 838,407,827	2,475,221
Total Broad Domestic Equity	1,992,347,631	2,710,921
Total Global Equity Ex-U.S.	1,891,583,148	6,017,340
Total Private Equity	907,782,495	4,656,394
Total Absolute Return	496,797,138	4,512,531
Total Real Assets	1,423,991,677	9,803,589
 Custodian		
State Street Bank		401,874
 Investment Advisory		
Callan Associates		101,011
Investment Advisory Council		29,896
Townsend Group		32,520
Total Investment Advisory		<u>163,427</u>
 Performance		
Callan Associates		98,105
	<u>\$ 7,550,909,916</u>	<u>30,839,402</u>

Investment Section

Teachers' Retirement System Investment Summary Schedule June 30, 2019

Investments (at Fair Value)	Defined Benefit - Pension			% of Total Assets
	Asset Allocation Policy	Range	Fair Value	
Cash and Cash Equivalents				
Short-Term Fixed Income Pool			\$ 103,139,279	
Securities Lending Income			37,573	
Total Cash and Cash Equivalents	1.00%	+ 3% / - 1%	103,176,852	1.87%
Fixed Income Securities				
U.S. Treasury Fixed Income Pool			577,914,545	
Total Fixed Income Securities	10.00%	± 5%	577,914,545	10.50%
Opportunistic				
Alternative Equity Strategies			273,085,645	
Tactical Allocation Strategies			88,444,839	
Opportunistic Fixed Income			149,442,782	
Other Opportunities			24,681,850	
Total Opportunistic	10.00%	± 5%	535,655,116	9.73%
Broad Domestic Equity				
Large Cap Pool			1,117,297,887	
Small Cap Pool			155,605,702	
Total Broad Domestic Equity	24.00%	± 6%	1,272,903,589	23.12%
Global Equity Ex-U.S.				
International Equity Pool			931,722,625	
International Equity Small Cap Pool			78,072,200	
Emerging Markets Equity Pool			198,729,423	
Total Global Equity Ex-U.S.	22.00%	± 4%	1,208,524,248	21.95%
Private Equity				
Private Equity Pool			579,978,290	
Total Private Equity	9.00%	± 5%	579,978,290	10.53%
Absolute Return				
Absolute Return Pool			317,401,532	
Total Absolute Return	7.00%	± 4%	317,401,532	5.77%
Real Assets				
Real Estate Pool			311,332,335	
Real Estate Investment Trust Pool			61,858,775	
Infrastructure Private Pool			117,663,549	
Infrastructure Public Pool			35,118,273	
Master Limited Partnership Pool			113,189,983	
Energy Pool			18,572,484	
Farmland Pool			176,720,973	
Timber Pool			75,303,558	
Total Real Assets	17.00%	± 8%	909,759,930	16.53%
Total Invested Assets	100.00%		\$ 5,505,314,102	100.00%

Investment Section

Teachers' Retirement System Investment Summary Schedule June 30, 2019

<u>Investments (at Fair Value)</u>	<u>Asset Allocation</u>		<u>Fair Value</u>	<u>% of Total Assets</u>
	<u>Policy</u>	<u>Range</u>		
Cash and Cash Equivalents				
Short-Term Fixed Income Pool	100.00%	0%	\$ 1,214,822	
Total Cash and Cash Equivalents			<u>1,214,822</u>	0.24%
Pooled Investment Funds (1)				
T. Rowe Price				
Alaska Balanced Trust			10,971,639	
Long-Term Balanced Fund			6,899,883	
Target 2010 Trust			839,400	
Target 2015 Trust			3,761,835	
Target 2020 Trust			10,761,001	
Target 2025 Trust			19,658,141	
Target 2030 Trust			22,829,423	
Target 2035 Trust			33,873,374	
Target 2040 Trust			36,849,622	
Target 2045 Trust			55,009,161	
Target 2050 Trust			76,919,214	
Target 2055 Trust			41,394,465	
Target 2060 Trust			517,265	
Total Pooled Investment Funds			<u>320,284,423</u>	61.81%
Collective Investment Funds (1)				
State Street Global Advisors				
SSgA Treasury Money Market Fund			3,207,999	
S&P Stock Index Fund			44,778,704	
Russell 3000 Index			4,249,284	
U.S. Real Estate Investment Trust Index			6,988,406	
World Equity Ex-U.S. Index			27,138,397	
U.S. Treasury Inflation Protected Securities Index			7,458,203	
Passive U.S. Bond Index Fund			21,041,186	
Brandes Institutional				
Alaska International Equity Fund			17,885,787	
RCM				
Sustainable Core Opportunities Fund			7,918,370	
T. Rowe Price				
Small-Cap Stock Fund			35,642,607	
Total Collective Investment Funds			<u>176,308,943</u>	34.02%
Synthetic Investment Funds (1)				
T. Rowe Price				
Stable Value Fund			20,367,882	
Total Collective Investment Funds			<u>20,367,882</u>	3.93%
Total Invested Assets			<u><u>\$ 518,176,070</u></u>	<u><u>100.00%</u></u>

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

Teachers' Retirement System Investment Summary Schedule June 30, 2019

Investments (at Fair Value)	Defined Benefit - Alaska Retiree Health Care Trust			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
Cash and Cash Equivalents				
Short-Term Fixed Income Pool			\$ 55,061,399	
Securities Lending Income			19,992	
Total Cash and Cash Equivalents	1.00%	+ 3% / - 1%	55,081,391	1.87%
Fixed Income Securities				
U.S. Treasury Fixed Income Pool			308,701,513	
Total Fixed Income Securities	10.00%	± 5%	308,701,513	10.50%
Opportunistic				
Alternative Equity Strategies			145,872,694	
Tactical Allocation Strategies			47,244,105	
Opportunistic Fixed Income			79,827,050	
Other Opportunities			13,184,171	
Total Opportunistic	10.00%	± 5%	286,128,020	9.73%
Broad Domestic Equity				
Large Cap Pool			596,821,021	
Small Cap Pool			83,119,064	
Total Broad Domestic Equity	24.00%	± 6%	679,940,085	23.12%
Global Equity Ex-U.S.				
International Equity Pool			497,693,279	
International Equity Small Cap Pool			41,703,409	
Emerging Markets Equity Pool			106,154,230	
Total Global Equity Ex-U.S.	22.00%	± 4%	645,550,918	21.95%
Private Equity				
Private Equity Pool			309,803,893	
Total Private Equity	9.00%	± 5%	309,803,893	10.53%
Absolute Return				
Absolute Return Pool			169,544,674	
Total Absolute Return	7.00%	± 4%	169,544,674	5.77%
Real Assets				
Real Estate Pool			166,335,505	
Real Estate Investment Trust Pool			33,042,770	
Infrastructure Private Pool			62,851,707	
Infrastructure Public Pool			18,758,939	
Master Limited Partnership Pool			60,462,086	
Energy Pool			9,920,764	
Farmland Pool			94,398,095	
Timber Pool			40,224,498	
Total Real Assets	17.00%	± 8%	485,994,364	16.53%
Total Invested Assets	100.00%		\$ 2,940,744,858	100.00%

Investment Section

Teachers' Retirement System Investment Summary Schedule June 30, 2019

Investments (at Fair Value)	Health Reimbursement Arrangement			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
Cash and Cash Equivalents				
Short-Term Fixed Income Pool	1.00%	+ 3% / - 1%	\$ 2,338,503	
Securities Lending Income			838	
Total Cash and Cash Equivalents			<u>2,339,341</u>	1.87%
Fixed Income Securities				
U.S. Treasury Fixed Income Pool			<u>13,104,955</u>	
Total Fixed Income Securities	10.00%	± 5%	<u>13,104,955</u>	10.50%
Opportunistic				
Alternative Equity Strategies			6,192,568	
Tactical Allocation Strategies			2,005,600	
Opportunistic Fixed Income			3,388,807	
Other Opportunities			<u>559,693</u>	
Total Opportunistic	10.00%	± 5%	<u>12,146,668</u>	9.73%
Broad Domestic Equity				
Large Cap Pool			25,336,165	
Small Cap Pool			<u>3,528,559</u>	
Total Broad Domestic Equity	24.00%	± 6%	<u>28,864,724</u>	23.12%
Global Equity Ex-U.S.				
International Equity Pool			21,128,008	
International Equity Small Cap Pool			1,770,387	
Emerging Markets Equity Pool			<u>4,506,445</u>	
Total Global Equity Ex-U.S.	22.00%	± 4%	<u>27,404,840</u>	21.95%
Private Equity				
Private Equity Pool			<u>13,151,753</u>	
Total Private Equity	9.00%	± 5%	<u>13,151,753</u>	10.53%
Absolute Return				
Absolute Return Pool			<u>7,197,488</u>	
Total Absolute Return	7.00%	± 4%	<u>7,197,488</u>	5.77%
Real Assets				
Real Estate Pool			7,061,252	
Real Estate Investment Trust Pool			1,402,727	
Infrastructure Private Pool			2,668,172	
Infrastructure Public Pool			796,352	
Master Limited Partnership Pool			2,566,728	
Energy Pool			421,155	
Farmland Pool			4,007,375	
Timber Pool			<u>1,707,605</u>	
Total Real Assets	17.00%	± 8%	<u>20,631,366</u>	16.53%
Total Invested Assets	100.00%		\$ <u>124,841,135</u>	100.00%

**Teachers' Retirement System
Investment Summary Schedule
June 30, 2019**

Investments (at Fair Value)	Occupational Death and Disability			% of Total Assets
	Asset Allocation Policy	Range	Fair Value	
Cash and Cash Equivalents				
Short-Term Fixed Income Pool			\$ 80,416	
Securities Lending Income			29	
Total Cash and Cash Equivalents	1.00%	+ 3% / - 1%	80,445	1.87%
Fixed Income Securities				
U.S. Treasury Fixed Income Pool			450,751	
Total Fixed Income Securities	10.00%	± 5%	450,751	10.50%
Opportunistic				
Alternative Equity Strategies			212,996	
Tactical Allocation Strategies			68,984	
Opportunistic Fixed Income			116,560	
Other Opportunities			19,251	
Total Opportunistic	10.00%	± 5%	417,791	9.73%
Broad Domestic Equity				
Large Cap Pool			871,450	
Small Cap Pool			121,367	
Total Broad Domestic Equity	24.00%	± 6%	992,817	23.12%
Global Equity Ex-U.S.				
International Equity Pool			726,708	
International Equity Small Cap Pool			60,893	
Emerging Markets Equity Pool			155,001	
Total Global Equity Ex-U.S.	22.00%	± 4%	942,602	21.95%
Private Equity				
Private Equity Pool			452,361	
Total Private Equity	9.00%	± 5%	452,361	10.53%
Absolute Return				
Absolute Return Pool			247,561	
Total Absolute Return	7.00%	± 4%	247,561	5.77%
Real Assets				
Real Estate Pool			242,875	
Real Estate Investment Trust Pool			48,248	
Infrastructure Private Pool			91,773	
Infrastructure Public Pool			27,391	
Master Limited Partnership Pool			88,284	
Energy Pool			14,486	
Farmland Pool			137,836	
Timber Pool			58,734	
Total Real Assets	17.00%	± 8%	709,627	16.53%
Total Invested Assets	100.00%		\$ 4,293,955	100.00%

Investment Section

Teachers' Retirement System Investment Summary Schedule June 30, 2019

Investments (at Fair Value)	Retiree Medical Plan			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
Cash and Cash Equivalents				
Short-Term Fixed Income Pool			\$ 781,515	
Securities Lending Income			281	
Total Cash and Cash Equivalents	1.00%	+ 3% / - 1%	<u>781,796</u>	1.87%
Fixed Income Securities				
U.S. Treasury Fixed Income Pool			4,380,556	
Total Fixed Income Securities	10.00%	± 5%	<u>4,380,556</u>	10.50%
Opportunistic				
Alternative Equity Strategies			2,069,972	
Tactical Allocation Strategies			670,406	
Opportunistic Fixed Income			1,132,767	
Other Opportunities			187,087	
Total Opportunistic	10.00%	± 5%	<u>4,060,232</u>	9.73%
Broad Domestic Equity				
Large Cap Pool			8,469,048	
Small Cap Pool			1,179,481	
Total Broad Domestic Equity	24.00%	± 6%	<u>9,648,529</u>	23.12%
Global Equity Ex-U.S.				
International Equity Pool			7,062,399	
International Equity Small Cap Pool			591,782	
Emerging Markets Equity Pool			1,506,357	
Total Global Equity Ex-U.S.	22.00%	± 4%	<u>9,160,538</u>	21.95%
Private Equity				
Private Equity Pool			4,396,199	
Total Private Equity	9.00%	± 5%	<u>4,396,199</u>	10.53%
Absolute Return				
Absolute Return Pool			2,405,884	
Total Absolute Return	7.00%	± 4%	<u>2,405,884</u>	5.77%
Real Assets				
Real Estate Pool			2,360,345	
Real Estate Investment Trust Pool			468,886	
Infrastructure Private Pool			891,882	
Infrastructure Public Pool			266,194	
Master Limited Partnership Pool			857,973	
Energy Pool			140,778	
Farmland Pool			1,339,534	
Timber Pool			570,796	
Total Real Assets	17.00%	± 8%	<u>6,896,388</u>	16.53%
Total Invested Assets	100.00%		\$ <u>41,730,122</u>	100.00%

**Teachers' Retirement System
Recaptured Commission Fees
Year Ended June 30, 2019**

Fund	Broad Domestic Equity Pool	Global Equity Ex-U.S.	Total
Defined Benefit Plan – Pension	\$ 4,772	3,010	7,782
Postemployment Benefit – Alaska Retiree Healthcare Trust	2,490	1,575	4,065
Postemployment Benefit – Health Reimbursement Arrangement	96	61	157
Postemployment Benefit – Retiree Medical Plan	33	21	54
Postemployment Benefit – Occupational Death & Disability	3	2	5
Total Recapture Commission Fees	\$ 7,394	4,669	12,063

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.



ALASKA DIVISION OF
**Retirement
and Benefits**