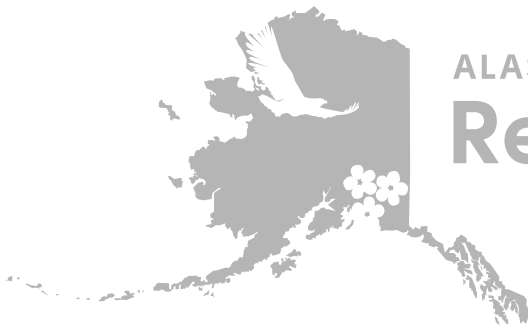




INVESTMENT SECTION



ALASKA DIVISION OF
**Retirement
and Benefits**



Callan Associates Inc.
1900 16th Street
Suite 1175
Denver, CO 80202



September 17, 2017

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, 2017.

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. ARMB's real estate consultant, the Townsend Group, calculates returns for the real estate segment of the portfolio and Callan incorporated Townsend data into the ARMB's Total Fund returns.

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.

Market Overview

Equity markets posted strong returns across the globe in fiscal year 2017. The Russell 3000 Index, a measure of broad U.S. equity, returned 18.51% in the period. Non-U.S. stocks outperformed their U.S. counterparts, aided by a declining dollar. International stocks, as measured by the MSCI ACWI ex-U.S. Index, gained 21.00% for the fiscal year. A broad measure of the total global equity market (MSCI All Country World Index) rose 19.42%.

Investment Section

Rising rates weighed on fixed income performance over the last 12 months. The Bloomberg Barclays U.S. Aggregate Bond Index, a widely used gauge of the investment grade domestic bond market, fell -0.31%. Absolute return hedge fund-of-fund strategies trailed the equity markets despite notching positive returns for the fiscal year. The Callan Absolute Return Hedge Fund-of-Funds Style median return was 6.50% (net-of-fees). Private real estate investments, as measured by the NCREIF Property Index, continued an impressive run of positive returns for every fiscal year going back to 2011. In fiscal year 2017, the NCREIF Property Index returned 6.97%. Publicly traded real estate, as measured by the NAREIT All Equity Index, lagged the private markets, gaining only 0.22%.

ARMB's various asset groups performed as follows:

Domestic Stocks:	17.74%
Int'l Stocks:	20.48%
Alternative Equity:	11.27%
Fixed Income:	2.89%
Real Assets:	5.98%
Private Equity:	17.04%
Absolute Return:	8.47%

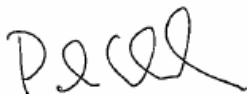
For the fiscal year ended 30 June 2017, the Public Employees Retirement System (PERS) had a time-weighted total return of 13.35%. The Teachers Retirement System (TRS) had a time-weighted total return of 13.36%. Both systems' gross return exceeded their strategic policy target return of 13.26% and the median return for Callan's Public Fund Sponsor database of 12.42%.

Over longer periods, PERS and TRS have closely tracked their target index returns. For example, PERS' 7-year annualized return was 9.55% while TRS's return was slightly higher at 9.60%. These returns were in line with but slightly above their target return of 9.44%. Over 25.75 years (the longest period for which Callan has detailed data), PERS and TRS achieved annualized total returns of 7.72% and 7.77%, respectively; the policy benchmark return for both Plans over this period was 7.69%.

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 2017 was a year in which the ARMB's asset class returns were positive across the board. The PERS and TRS portfolios are well-diversified. They produced returns well above the average public fund, ranking in the 29th percentile within the Public Fund Sponsor peer group.

Sincerely,



Paul Erlendson
Senior Vice President

Department of Revenue Treasury Division Staff As of June 30, 2017

Commissioner Randall Hoffbeck	Chief Investment Officer Bob G. Mitchell	Investment Officers Zachary Hanna Stephen R. Sikes Victor Djajalie Steve Verschoor Shane Carson Ross Alexander Nicolas Orr Sean Howard	Casey Colton Emily Howard Mackenzie Willems Kevin Lui Kevin Buckland Mike Barnhill
Deputy Commissioner Jerry Burnett	Comptroller Scott Jones, CPA		
Director Pamela Leary, CPA	Cash Management Michelle M. Prebula, MBA, CPA, CCM		
	ARMB Liaison Officer Stephanie Alexander		

External Money Managers and Consultants

Domestic Equity Large Capitalization

Allianz Global Investors
San Francisco, CA
Barrow, Hanley, Mewhinney & Strauss
Dallas, TX
McKinley Capital Management, Inc.
Anchorage, AK
Quantitative Management Associates
Newark, NJ
State Street Global Advisors
San Francisco, CA

Domestic Equity Small Capitalization

Barrow, Hanley, Mewhinney & Strauss
Dallas, TX
BMO Global Asset Management
Chicago, IL
Fidelity Investments
Smithfield, RI
Frontier Capital Management
Boston, MA
Jennison Associates LLC
New York, NY
Lord Abbett & Co.
Jersey City, NJ
Luther King Capital Management
Fort Worth, TX
State Street Global Advisors
San Francisco, CA
Sycamore Capital Management
Cincinnati, OH

Domestic Equity Micro Capitalization

DePrince, Race & Zollo, Inc.
Winter Park, FL
Lord Abbett & Co.
Jersey City, NJ
Zebra Capital Management
Mitford, 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 Equity – EAFE, Emerging Markets Non U.S., and Global Equity

Allianz Global Investors
San Francisco, CA
Arrowstreet Capital, LP
Boston, MA
BlackRock
San Francisco, CA
Baillie Gifford Overseas Ltd.
Edinburgh, Scotland
Brandes Investment Partners, L.P.
San Diego, CA
Capital Guardian Trust Co.
Los Angeles, CA
Lazard Asset Management
New York, NY
McKinley Capital Management, Inc.
Anchorage, AK
Parametric Clifton
Seattle, WA
State Street Global Advisors
San Francisco, CA

International Fixed Income

Mondrian Investment Partners
London, England
Lazard Asset Management
New York, NY
Schroders Investment Management NA
New York, NY

High Yield/Convertible Bond/Tactical Bond

Advent Capital Management
New York, NY
Columbia Threadneedle Investment Management
Minneapolis, MN
Eaton Vance Trust Company
Boston, MA
Fidelity Investment Asset Management
Smithfield, RI
MacKay Shields LLC
New York, NY

Alternative Equity

Analytic Investors
Los Angeles, CA
State Street Global Advisors
San Francisco, CA
Quantitative Management Associates
Newark, NJ

External Money Managers and Consultants (cont.)

Taxable Municipal Bonds

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

Master Limited Partnerships

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

Absolute Return

Allianz Global Investors
New York, NY
 Crestline Investors, Inc.
Fort Worth, TX
 Global Assets Management Inc.
New York, NY
 Prisma Capital
New York, NY
 Zebra Capital Management
Milford, CT

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

Real Assets – Infrastructure

Brookfield Investment Management
New York, NY
 Industry Funds Management
New York, NY
 JP Morgan Asset Management
New York, NY
 Lazard Asset Management
New York, NY

Real Assets – Farmland and Timber

Hancock Agricultural Investment Group
Boston, MA
 UBS Farmland Investors, LLC
Hartford, CT
 Hancock Timber Resource Group
Boston, MA
 Timberland Investment Resources LLC
Atlanta, GA

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
 State Street Global Advisors
Boston, MA
 T. Rowe Price Investment Services
Baltimore, MD

Tactical Fixed Income

Fidelity Investment Asset Management *Merrimack, NH*

Global Master Custodian

State Street Bank & Trust Co.
Boston, MA

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

Independent Auditors

KPMG, LLP
Anchorage, AK

Actuaries

Conduent HR Consulting, LLC
Denver, CO
 Gabriel Roeder Smith
Denver, CO

External Money Managers and Consultants (continued)

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 – Commingled Real Estate Funds

Almanac Realty Investors

New York, NY

BlackRock Realty

New York, NY

Baring Real Estate Advisors

Hartford, CT

Colony NorthStar Capital

Los Angeles, CA

Coventry Real Estate Fund II, LLC

New York, NY

Clarion Partners

New York, NY

KKR & Co.

New York, NY

J.P. Morgan Investment Management Inc.

New York, NY

LaSalle Investment Management

Chicago, IL

Lowe Hospitality Investment Partners, LLC

Los Angeles, CA

Sentinel Real Estate Corporation

New York, NY

Silverpeake Real Estate Partners

New York, NY

Tishman Speyer Properties

New York, NY

UBS Realty Investors, LLC

Hartford, CT

Real Assets – Energy

EIG Global Energy Partners

Washington, DC

Investment Section

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
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

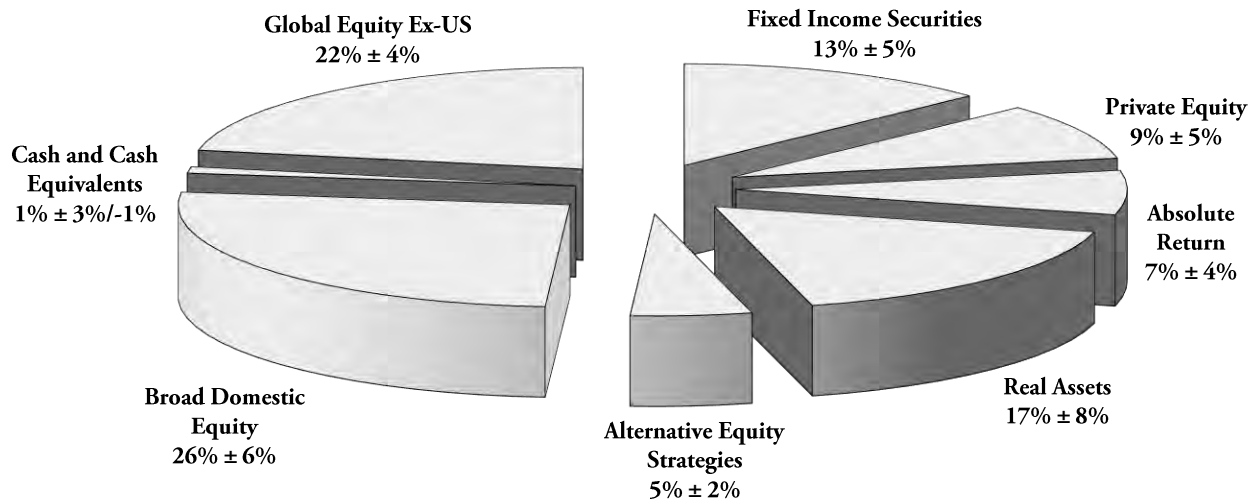
The target asset allocation is determined by the ARMB, utilizing capital market assumptions provided by its independent general investment consultant, Callan Associates. During the 2017 fiscal year, the ARMB's target asset allocation was 26% domestic equities, 22% global equities ex-U.S., 5% alternative equity strategies, 9% private equity, 17% real assets, 12% fixed income, 7% absolute return, and 1% cash equivalents. The target asset allocation is expected to generate a return of 7.1% with a standard deviation of 15.0%.

Teachers' Retirement System Schedule of Investment Results Fiscal Years Ended June 30							
	2013	2014	2015	2016	2017	Annualized	
						3 Year	5 Year
Total Fund							
TRS	12.59%	18.46%	3.30%	(0.36%)	13.36%	5.28%	9.27%
<i>Actuarial Earnings Rate</i>	8.00	8.00	8.00	8.00	8.00	8.00	8.00
U.S. Common Stock Returns							
TRS Domestic Equities	21.24	25.45	7.85	0.58	18.55	8.74	14.42
<i>Custom Composite Index</i>	21.46	25.22	7.29	2.14	18.51	9.10	14.58
Fixed Income							
TRS	0.57	5.14	(0.73)	5.15	2.91	2.41	2.58
<i>Custom Composite Index</i>	(0.04)	3.31	0.41	4.79	0.02	1.44	1.48
Real Assets							
TRS	10.65	12.71	3.69	4.76	5.98	4.81	7.61
<i>Custom Composite Index</i>	8.35	10.98	7.99	8.87	5.66	7.50	8.36
International Stock Returns							
TRS International Equities	15.03	23.41	(3.28)	(9.15)	20.42	1.90	8.47
<i>MSCI ACWI ex-US</i>	14.14	22.27	(4.85)	(9.80)	21.00	1.27	7.70
Private Equity							
TRS	11.68	24.19	13.77	4.71	17.04	11.72	14.10
<i>Custom Composite Index</i>	21.24	24.01	3.33	(4.41)	21.04	6.13	12.44
Absolute Return							
TRS	8.41	6.51	9.24	(3.09)	8.47	4.72	5.80
<i>3-month Treasury Bill +5%</i>	5.11	5.05	5.02	5.19	5.49	5.23	5.17
Alternative Equity							
TRS	—	24.55	(0.88)	3.41	11.38	4.51	6.92
<i>Custom Composite Index</i>	—	18.70	4.26	2.09	15.07	6.99	7.77
Cash Equivalents							
TRS	0.25	0.26	0.27	0.55	0.80	0.54	0.43
<i>3-month Treasury Bill</i>	0.11	0.05	0.02	0.19	0.49	0.23	0.17
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-Weighted rate of return based on the market rate of return.							

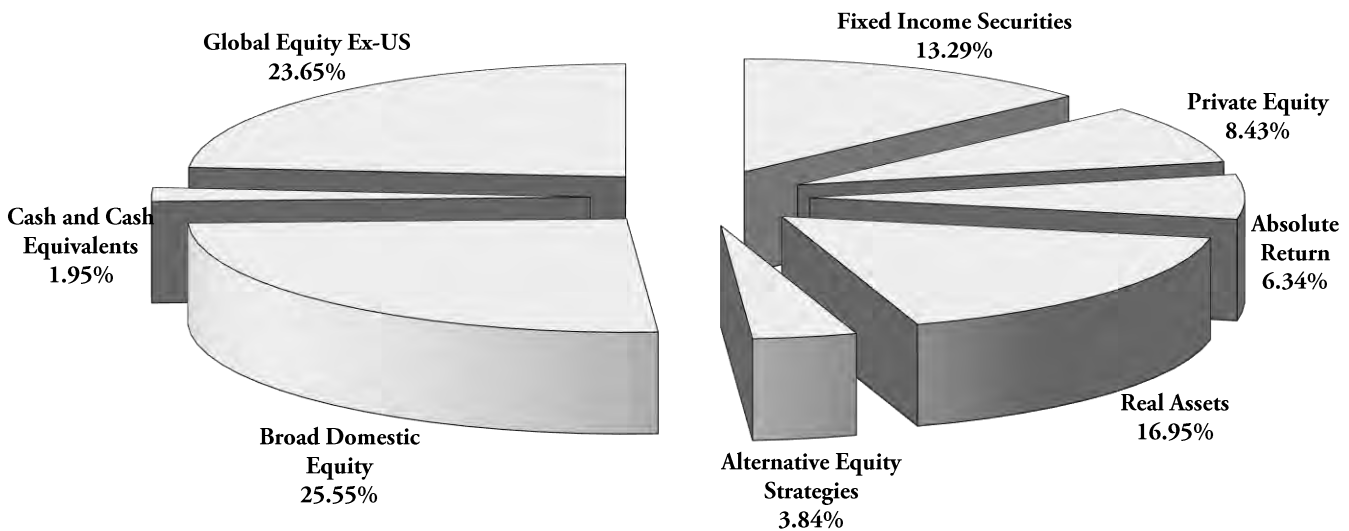
Investment Section

Teachers' Retirement System Asset Allocation June 30, 2017

Policy

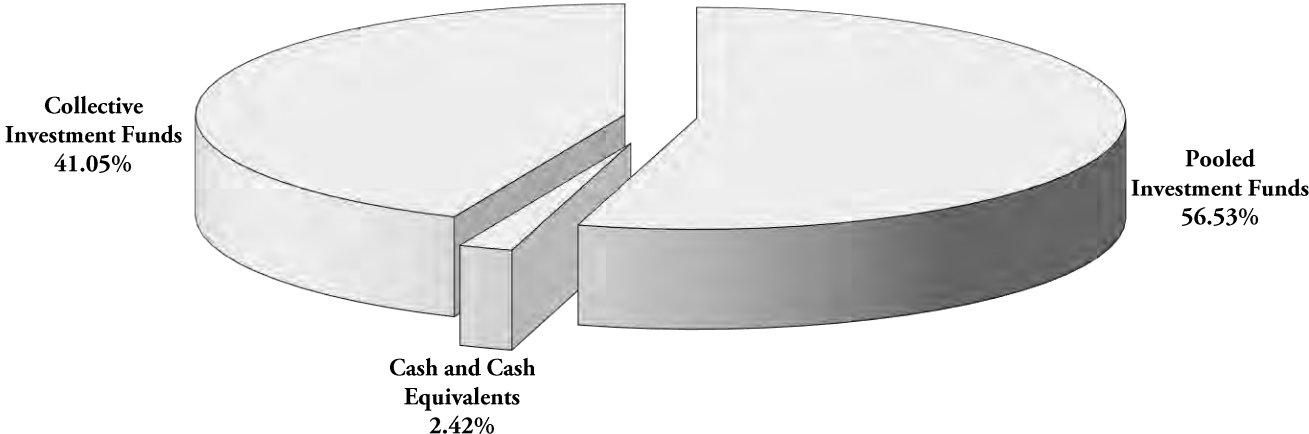


Actual — Defined Benefit Pension

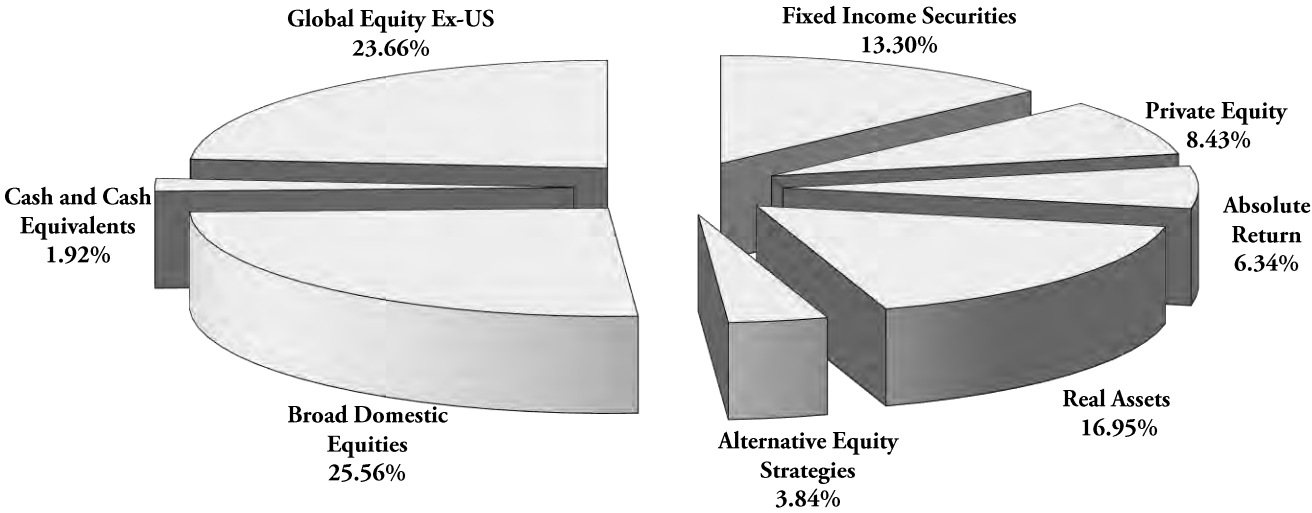


Teachers' Retirement System
Asset Allocation
June 30, 2017

Actual — Defined Contribution Participant Directed



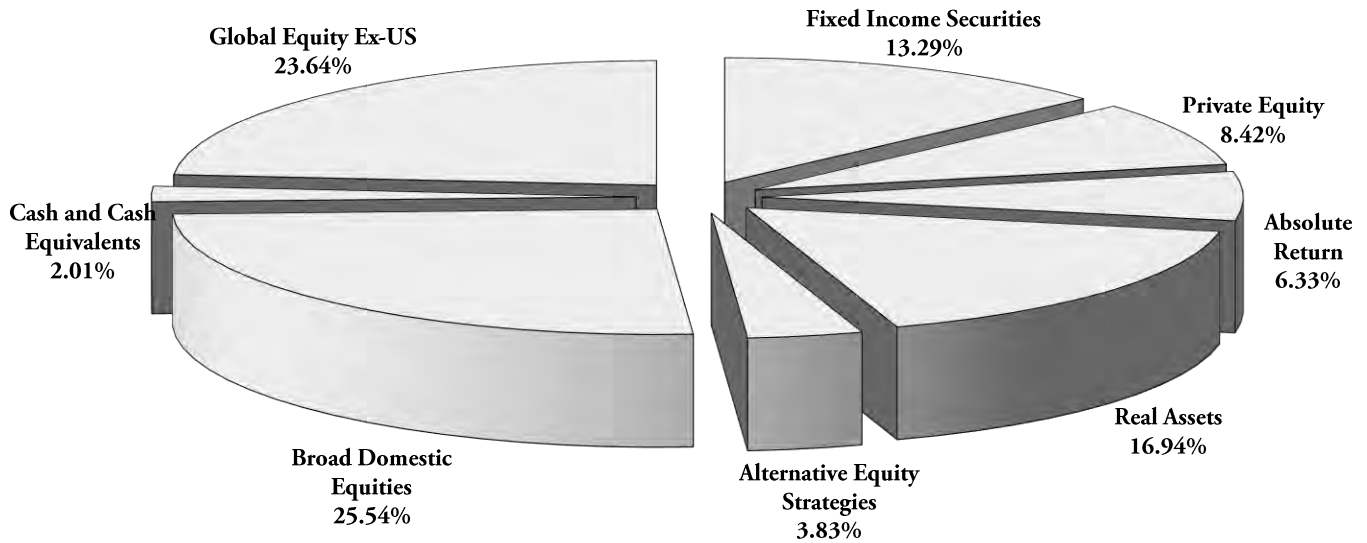
Actual — Defined Benefit Alaska Retiree Healthcare Trust



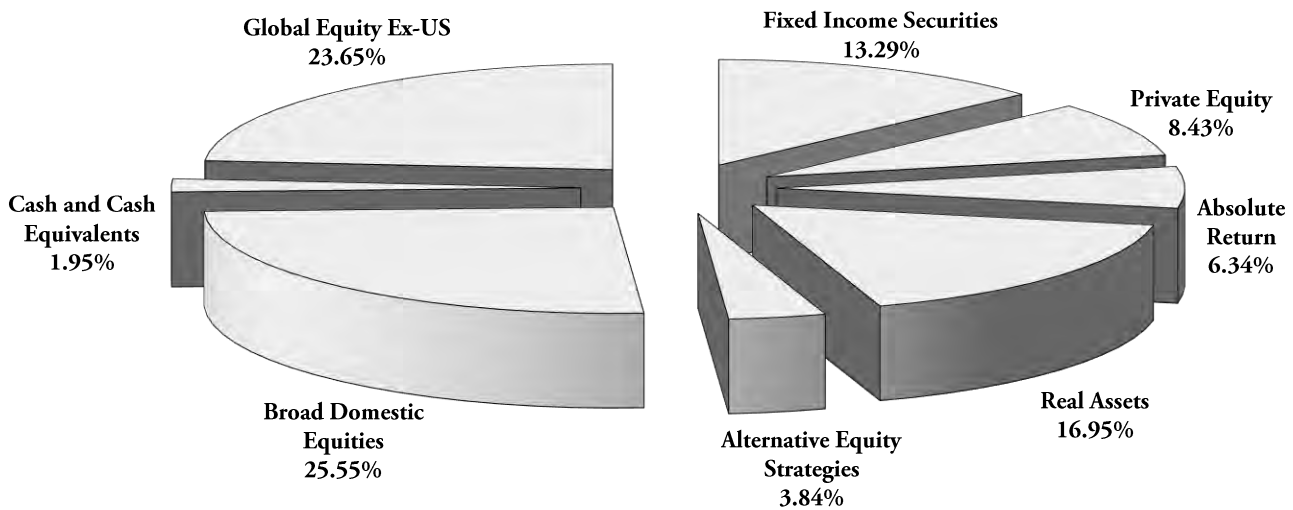
Investment Section

Teachers' Retirement System Asset Allocation June 30, 2017

Actual — Health Reimbursement Arrangement

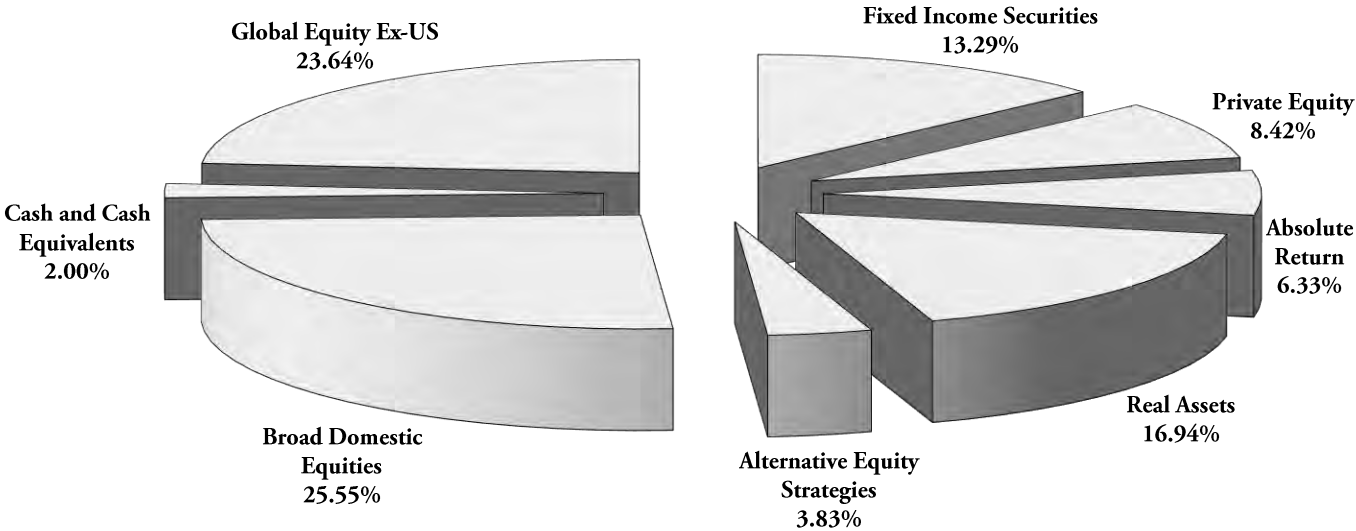


Actual — Occupational Death & Disability



Teachers' Retirement System
Asset Allocation
June 30, 2017

Actual — Retiree Medical Plan



Investment Section

Alaska Retirement Management Board Top Ten Holdings by Asset Type June 30, 2017

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

<u>Rank</u>	<u>Largest Fixed Income Holdings</u>	<u>Fair Value</u>	<u>Par Value</u>
1	US Treasury 2.125% 1/31/2021	\$69,020,885	\$67,974,687
2	US Treasury 1.375% 8/31/2020	44,295,560	44,609,207
3	US Treasury 2.125% 5/15/2025	28,769,219	28,951,294
4	US Treasury 2.625% 11/15/2020	25,914,576	25,108,372
5	US Treasury 2.000% 8/15/2025	24,618,927	25,044,483
6	US Treasury 1.125% 6/30/2021	24,255,776	24,852,816
7	US Treasury 2.375% 8/15/2024	23,739,591	23,383,369
8	US Treasury 1.375% 7/31/2018	19,662,739	19,645,863
9	US Treasury 0.750% 7/31/2018	17,942,892	18,048,639
10	US Treasury 2.250% 11/15/2024	15,939,449	15,852,135

Equities

<u>Rank</u>	<u>Largest Equity Holdings</u>	<u>Market Value</u>	<u>Par Value</u>
1	Apple Inc.	\$50723,832	\$352,200
2	Microsoft Corp.	39,601,433	574,517
3	Johnson & Johnson	30,372,777	229,592
4	Exxon Mobil Corp.	25,997,306	322,028
5	Facebook Inc.	23,967,946	158,749
6	Amazon.com Inc.	23,858,475	24,647
7	Pfizer Inc.	22,807,861	679,007
8	Alphabet, Inc.	21,059,208	22,652
9	JP Morgan & Chase	20,660,618	226,046
10	Procter & Gamble Co./The	18,825,916	216,017

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, 2017

	Total Fair Value	Fees
Fixed Income		
** Columbia Threadneedle	\$ 50,592,980	\$ 253,052
** Eaton Vance High Yield	41,437,404	250,635
** Fidelity Institute Asset Management	44,196,933	151,384
** Fidelity Institute Asset Management High Yield	68,932,706	466,907
** Guggenheim Partners	33,383,857	82,001
** Lazard Emerging Income	54,090,716	284,698
** MacKay Shields	49,000,943	294,335
** Mondrian Investment Partners	59,830,023	407,038
** Schroders Insurance Linked Securities	28,604,355	140,680
** Western Asset Management Company	35,068,002	89,594
Total Fixed Income	465,137,919	2,420,324
Broad Domestic Equity		
** Allianz Global Investors Large Cap	74,742,651	280,924
** Barrow, Hanley, Mewhinney & Strauss Large Cap	71,522,259	364,453
** Barrow, Hanley, Mewhinney & Strauss Small Cap	9,636,166	180,311
** BMO DSCC Small Cap	24,671,303	76,924
** DePrince, Race & Zollo	32,924,868	306,282
** Fidelity Institutional Asset Management Small Cap	45,066,164	492,781
** Frontier Capital Management Small Cap	24,771,308	394,537
** Jennison Associates Small Cap	33,039,013	244,342
** Lazard Freres Asset Management	136,622,797	273,680
** Lord Abbett Large Cap	32,888,247	277,178
** Lord Abbett Small Cap	17,652,272	190,990
** McKinley Capital	71,721,508	332,223
** Portable Alpha	156,714,868	116,623
** Quantitative Management Associates	80,464,353	257,033
** SSgA Futures Large Cap	732,545	2,586
** SSgA Futures Small Cap	797,061	2,083
** SSgA Managed Volatility- Russell 1000	31,216,275	23,659
** SSgA Managed Volatility- Russell 2000	30,404,611	26,005
** SSgA Russell 1000 Growth	381,887,610	40,332
** SSgA Russell 1000 Value	343,280,824	37,187
** SSgA Russell 200	206,417,487	29,025
** SSgA Russell 2000 Growth	3,505	2,904
** SSgA Russell 2000 Value	74,368	5,288
** Victory Capital Management Small Cap	46,237,891	383,192
** Zebra Capital Management	30,884,804	161,911
Total Broad Domestic Equities	1,884,374,758	4,502,453
Global Equity Ex-U.S.		
** Allianz Global Investors International	93,047,780	334,664
** Arrowstreet Capital	114,370,220	489,779
** Baillie Gifford Overseas	143,364,008	554,710
** BlackRock ACWI Ex-US IMI	186,843,383	108,165
** Brandes Investment Partners	222,370,582	885,484
** Capital Guardian Trust	188,301,613	818,797
** Eaton Vance Management Emerging Markets	89,181,866	1,017,723
** Lazard Asset Management Emerging Markets	166,057,762	1,245,433
** Lazard Asset Management	125,776,362	125,304
** McKinley Capital International	190,852,746	817,046
** Mondrian Investment Partners	55,637,288	368,810
** Schroders Investment Management	61,810,617	424,798
** State Street Global Advisors International	301,514,155	164,506
Total International Equities	1,939,128,382	7,355,219
Alternative Equity Strategies		
** Advent Capital Convertible Bond	62,164,749	401,357
** Analytic Buy Write Account	2,756,193	127,102
** Analytic SSgA Account	91,389,842	11,309
** Quantitative Management Associates	54,475,848	166,784
Total Alternative Equity Strategies	210,786,632	706,552

Investment Section

Teachers' Retirement System Schedule of Investment Management Fees (continued) Year Ended June 30, 2017

	Total Fair Value	Fees
Private Equity		
Abbott Capital Management	271,817,850	669,158
Advent International GPE Fund VIII-B	1,877,134	109,376
Angelo, Gordon & Co.	287,069	14,423
Dyal Capital Partners III	6,477,158	574,221
Glendon Opportunities	9,998,943	177,692
Lexington Partners VII	9,551,687	175,692
Lexington Partners VIII	3,991,265	168,630
Merit Capital Partners	5,836,944	45,059
Neuberger Berman Secondary Opportunities Fund III	9,514,001	204,999
New Mountain Partners IV	6,948,413	94,921
NGP XI	9,699,043	219,603
Onex Partners III	4,982,629	60,291
Pathway Capital Management	296,786,327	894,778
Resolute Fund III	2,688,691	56,751
Warburg Pincus X	5,051,731	28,700
Warburg Pincus XI	10,011,832	69,656
Warburg Pincus XII	6,496,593	299,768
Total Private Equity	662,017,310	3,863,718
Absolute Return		
Allianz Global Investors	118,088,107	3,380,206
Crestline (Blue Glacier)	136,173,787	1,202,704
Crestline Specialty Fund	10,578,806	124,739
Global Asset Management (Glacier Bear)	30,075,333	581,964
KKR Apex Equity Fund	30,875,371	388,527
Prisma Capital Partners (Polar Bear)	127,368,013	915,187
Zebra Global Equity Advantage Fund	23,193,294	185,507
Zebra Global Equity Fund	43,209,764	347,654
Total Absolute Return	519,562,475	7,126,488
Real Assets		
Almanac Realty Securities V	1,354,894	32,747
Almanac Realty Securities VII	5,761,994	199,432
** Brookfield Infrastructure	34,043,200	221,499
Colony Investors VIII	1,820,205	43,806
Coventry Advisors	269,139	4,390
EIG Energy Fund XD	73,108	3,814
EIG Energy Fund XIV-A	4,568,401	169,390
EIG Energy Fund XV	10,011,272	154,324
EIG Energy Fund XVI	15,402,170	216,892
** FAMCO MLP	74,962,584	390,292
Hancock Agriculture	86,811,337	726,231
Hancock Natural Resource Group	30,518,703	220,198
IFM Global Infrastructure	95,547,206	556,037
ING Clarion Development Ventures IV	6,000,384	20,517
JP Morgan Strategic Property Fund	90,944,999	787,371
JPM Infrastructure Investment	33,162,583	315,581
KKR Real Estate Partners Americas	11,826,441	216,705
LaSalle Separate Account	59,853,159	397,806
** Lazard Infrastructure	46,122,212	256,100
Lowe Hospitality Partners	55,861	49,288
Sentinel Separate Account	60,301,606	364,595
Silverpeak Real Estate Partners II	3,531,139	75,558
Silverpeak Real Estate Partners III	1,785,075	59,734
Timberland Investment Resources	83,640,395	709,106
Tishman Speyer VI	10,689,791	73,037
Tishman Speyer VII	1,758,929	31,274
** Tortoise MLP	88,431,382	553,104
UBS Agrivest	185,160,037	1,466,411
UBS Separate Account	162,979,482	757,016
UBS Trumbull Property Fund	47,344,871	345,075
Total Real Assets	1,254,732,559	9,417,330
Custodian		
* State Street Bank		419,873
Investment Advisory		
* Callan Associates		65,798
* Investment Advisory Council		28,682
* Townsend Group		32,900
Total Investment Advisory		127,380
Investment Performance		
* Callan Associates		102,111
		\$ 36,041,448

*These fees are paid through the Integrated Resource Information System (IRIS)

**These fees are deducted from earnings by the fund manager and are not directly recorded in IRIS

Teachers' Retirement System
Investment Summary Schedule
June 30, 2017

Investments (at Fair Value)	Defined Benefit - Pension			
	Asset Allocation		Fair Value	% of Total Assets
	Policy	Range		
Cash and Cash Equivalents				
Short-term Fixed Income Pool			\$ 103,592,085	
Securities Lending Income			66,816	
Total Cash and Cash Equivalents	1.00%	± 3% / - 1%	103,658,901	1.95%
Fixed Income Securities				
U.S. Treasury Fixed Income Pool			404,590,877	
Taxable Municipal Bond Pool			44,316,833	
Tactical Fixed Income			47,132,723	
High Yield Pool			135,934,088	
International Fixed Income Pool			38,734,918	
Emerging Debt Pool			35,019,199	
Total Fixed Income Securities	13.00%	± 5%	705,728,638	13.29%
Broad Domestic Equity				
Large Cap Pool			1,125,840,039	
Small Cap Pool			230,717,099	
Total Broad Domestic Equity	26.00%	± 6%	1,356,557,138	25.55%
Global Equity Ex-U.S.				
International Equity Pool			1,014,138,972	
International Equity Small Cap Pool			76,037,660	
Emerging Markets Equity Pool			165,246,236	
Total Global Equity Ex-U.S.	22.00%	± 4%	1,255,422,868	23.65%
Alternative Equity Strategies				
Alternative Equity Strategies			163,374,034	
Convertible Bond Pool			40,246,457	
Total Alternative Equities	5.00%	± 2%	203,620,491	3.84%
Private Equity				
Private Equity Pool			447,288,349	
Total Private Equity	9.00%	± 5%	447,288,349	8.43%
Absolute Return				
Absolute Return Pool			336,373,094	
Total Absolute Return	7.00%	± 4%	336,373,094	6.34%
Real Assets				
Real Estate Pool			303,376,690	
Real Estate Investment Trust Pool			74,336,541	
Infrastructure Private Pool			83,328,785	
Infrastructure Public Pool			51,900,376	
Master Limited Partnership Pool			105,783,879	
Energy Pool			19,458,058	
Farmland Pool			176,078,637	
Timber Pool			73,908,435	
Treasury Inflation Protected Securities Pool			11,681,048	
Total Real Assets	17.00%	± 8%	899,852,449	16.95%
Total Invested Assets	100.00%		\$ 5,308,501,928	100.00%

Investment Section

Teachers' Retirement System Investment Summary Schedule June 30, 2017

Investments (at Fair Value)	Asset Allocation		Fair Value	% of Total Assets
	Policy	Range		
Defined Contribution - Participant Directed				
Cash and Cash Equivalents				
Short-term Fixed Income Pool	100.00%	0%	\$ 9,113,407	
Total Cash and Cash Equivalents			9,113,407	2.42%
Pooled Investment Funds (1)				
T. Rowe Price				
Target 2010 Trust			547,306	
Target 2015 Trust			3,105,465	
Target 2020 Trust			8,019,175	
Target 2025 Trust			13,377,971	
Target 2030 Trust			15,466,447	
Target 2035 Trust			23,053,613	
Target 2040 Trust			24,265,494	
Target 2045 Trust			38,429,091	
Target 2050 Trust			53,674,663	
Target 2055 Trust			21,105,287	
Target 2060 Trust			65,389	
Alaska Balanced Fund			6,920,793	
Long-Term Balanced Fund			4,840,809	
Total Pooled Investment Funds			212,871,503	56.53%
Collective Investment Funds (1)				
State Street Global Advisors				
Money Market Fund			485,834	
Alaska Money Market			1,994,286	
S&P Stock Index Fund			33,520,684	
Russell 3000 Index			5,300,528	
Real Estate Investment Trust Index			5,901,906	
World Equity Ex-U.S. Index			17,568,494	
Long U.S. Treasury Bond Index			259,500	
Treasury Inflation Protected Securities Index			5,131,852	
World Government Bond Ex-U.S. Index			1,535,533	
Global Balanced Fund			9,187,197	
Barclays				
Daily Government/Corporate Bond Fund			16,160,455	
Intermediate Bond Fund			9,535,608	
Brandes Institutional				
Alaska International Equity Fund			17,437,423	
RCM				
Socially Responsible Fund			1,549,945	
T. Rowe Price				
Small-Cap Fund			28,996,875	
Total Collective Investment Funds			154,566,120	41.05%
Total Invested Assets			\$ 376,551,030	100.00%

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

Teachers' Retirement System Investment Summary Schedule June 30, 2017

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			\$ 53,121,149	
Securities Lending Income			34,644	
Total Cash and Cash Equivalents	1.00%	± 3% / - 1%	53,155,793	1.92%
Fixed Income Securities				
U.S. Treasury Fixed Income Pool			211,055,761	
Taxable Municipal Bond Pool			23,117,978	
Tactical Fixed Income			24,586,893	
High Yield Pool			70,910,329	
International Fixed Income Pool			20,206,159	
Emerging Debt Pool			18,267,846	
Total Fixed Income Securities	13.00%	± 5%	368,144,966	13.30%
Broad Domestic Equity				
Large Cap Pool			587,345,210	
Small Cap Pool			120,354,105	
Total Broad Domestic Equity	26.00%	± 6%	707,699,315	25.56%
Global Equity Ex-U.S.				
International Equity Pool			529,027,925	
International Equity Small Cap Pool			39,665,220	
Emerging Markets Equity Pool			86,201,079	
Total Global Equity Ex-U.S.	22.00%	± 4%	654,894,224	23.66%
Alternative Equity Strategies				
Alternative Equity Strategies			85,224,440	
Convertible Bond Pool			20,994,657	
Total Alternative Equities	5.00%	± 2%	106,219,097	3.84%
Private Equity				
Private Equity Pool			233,328,995	
Total Private Equity	9.00%	± 5%	233,328,995	8.43%
Absolute Return				
Absolute Return Pool			175,469,797	
Total Absolute Return	7.00%	± 4%	175,469,797	6.34%
Real Assets				
Real Estate Pool			158,121,140	
Real Estate Investment Trust Pool			38,777,827	
Infrastructure Private Pool			43,468,652	
Infrastructure Public Pool			27,073,950	
Master Limited Partnership Pool			55,182,403	
Energy Pool			10,150,341	
Farmland Pool			91,851,826	
Timber Pool			38,554,505	
Treasury Inflation Protected Securities Pool			6,093,445	
Total Real Assets	17.00%	± 8%	469,274,089	16.95%
Total Invested Assets	100.00%		\$ 2,768,186,276	100.00%

Investment Section

Teachers' Retirement System Investment Summary Schedule June 30, 2017

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%	\$ 1,759,165	
Securities Lending Income			1,077	
Total Cash and Cash Equivalents			<u>1,760,242</u>	2.01%
Fixed Income Securities				
U.S. Treasury Fixed Income Pool			6,685,039	
Taxable Municipal Bond Pool			732,245	
Tactical Fixed Income			778,772	
High Yield Pool			2,246,034	
International Fixed Income Pool			640,016	
Emerging Debt Pool			578,621	
Total Fixed Income Securities	13.00%	± 5%	<u>11,660,727</u>	13.29%
Broad Domestic Equity				
Large Cap Pool			18,607,692	
Small Cap Pool			3,812,130	
Total Broad Domestic Equity	26.00%	± 6%	<u>22,419,822</u>	25.54%
Global Equity Ex-U.S.				
International Equity Pool			16,756,578	
International Equity Small Cap Pool			1,256,367	
Emerging Markets Equity Pool			2,730,357	
Total Global Equity Ex-U.S.	22.00%	± 4%	<u>20,743,302</u>	23.64%
Alternative Equity Strategies				
Alternative Equity Strategies			2,699,423	
Convertible Bond Pool			664,991	
Total Alternative Equities	5.00%	± 2%	<u>3,364,414</u>	3.83%
Private Equity				
Private Equity Pool			7,390,528	
Total Private Equity	9.00%	± 5%	<u>7,390,528</u>	8.42%
Absolute Return				
Absolute Return Pool			5,557,879	
Total Absolute Return	7.00%	± 4%	<u>5,557,879</u>	6.33%
Real Assets				
Real Estate Pool			5,008,373	
Real Estate Investment Trust Pool			1,228,260	
Infrastructure Private Pool			1,376,838	
Infrastructure Public Pool			857,548	
Master Limited Partnership Pool			1,747,863	
Energy Pool			321,505	
Farmland Pool			2,909,340	
Timber Pool			1,221,186	
Treasury Inflation Protected Securities Pool			193,006	
Total Real Assets	17.00%	± 8%	<u>14,863,919</u>	16.94%
Total Invested Assets	100.00%		\$ <u>87,760,833</u>	100.00%

**Teachers' Retirement System
Investment Summary Schedule
June 30, 2017**

Investments (at Fair Value)	Occupational Death and Disability			% of Total Assets
	Policy	Range	Fair Value	
Cash and Cash Equivalents				
Short-term Fixed Income Pool			\$ 68,910	
Securities Lending Income			44	
Total Cash and Cash Equivalents	1.00%	± 3% / - 1%	68,954	1.95%
Fixed Income Securities				
U.S. Treasury Fixed Income Pool			269,231	
Taxable Municipal Bond Pool			29,490	
Tactical Fixed Income			31,364	
High Yield Pool			90,456	
International Fixed Income Pool			25,776	
Emerging Debt Pool			23,303	
Total Fixed Income Securities	13.00%	± 5%	469,620	13.29%
Broad Domestic Equity				
Large Cap Pool			749,233	
Small Cap Pool			153,528	
Total Broad Domestic Equity	26.00%	± 6%	902,761	25.55%
Global Equity Ex-U.S.				
International Equity Pool			674,847	
International Equity Small Cap Pool			50,598	
Emerging Markets Equity Pool			109,961	
Total Global Equity Ex-U.S.	22.00%	± 4%	835,406	23.65%
Alternative Equity Strategies				
Alternative Equity Strategies			108,715	
Convertible Bond Pool			26,782	
Total Alternative Equities	5.00%	± 2%	135,497	3.84%
Private Equity				
Private Equity Pool			297,643	
Total Private Equity	9.00%	± 5%	297,643	8.43%
Absolute Return				
Absolute Return Pool			223,836	
Total Absolute Return	7.00%	± 4%	223,836	6.34%
Real Assets				
Real Estate Pool			201,705	
Real Estate Investment Trust Pool			49,466	
Infrastructure Private Pool			55,450	
Infrastructure Public Pool			34,537	
Master Limited Partnership Pool			70,393	
Energy Pool			12,948	
Farmland Pool			117,170	
Timber Pool			49,182	
Treasury Inflation Protected Securities Pool			7,773	
Total Real Assets	17.00%	± 8%	598,624	16.95%
Total Invested Assets	100.00%		\$ 3,532,341	100.00%

Investment Section

Teachers' Retirement System Investment Summary Schedule June 30, 2017

Investments (at Fair Value)	Retiree Medical Plan			% of Total Assets
	Policy	Range	Fair Value	
Cash and Cash Equivalents				
Short-term Fixed Income Pool			\$ 611,803	
Securities Lending Income			375	
Total Cash and Cash Equivalents	1.00%	± 3% / - 1%	<u>612,178</u>	2.00%
Fixed Income Securities				
U.S. Treasury Fixed Income Pool			2,330,876	
Taxable Municipal Bond Pool			255,312	
Tactical Fixed Income			271,535	
High Yield Pool			783,126	
International Fixed Income Pool			223,155	
Emerging Debt Pool			201,748	
Total Fixed Income Securities	13.00%	± 5%	<u>4,065,752</u>	13.29%
Broad Domestic Equity				
Large Cap Pool			6,488,068	
Small Cap Pool			1,329,177	
Total Broad Domestic Equity	26.00%	± 6%	<u>7,817,245</u>	25.55%
Global Equity Ex-U.S.				
International Equity Pool			5,842,525	
International Equity Small Cap Pool			438,058	
Emerging Markets Equity Pool			951,995	
Total Global Equity Ex-U.S.	22.00%	± 4%	<u>7,232,578</u>	23.64%
Alternative Equity Strategies				
Alternative Equity Strategies			941,209	
Convertible Bond Pool			231,863	
Total Alternative Equities	5.00%	± 2%	<u>1,173,072</u>	3.83%
Private Equity				
Private Equity Pool			2,576,859	
Total Private Equity	9.00%	± 5%	<u>2,576,859</u>	8.42%
Absolute Return				
Absolute Return Pool			1,937,869	
Total Absolute Return	7.00%	± 4%	<u>1,937,869</u>	6.33%
Real Assets				
Real Estate Pool			1,746,272	
Real Estate Investment Trust Pool			428,258	
Infrastructure Private Pool			480,063	
Infrastructure Public Pool			299,002	
Master Limited Partnership Pool			609,428	
Energy Pool			112,099	
Farmland Pool			1,014,401	
Timber Pool			425,792	
Treasury Inflation Protected Securities Pool			67,295	
Total Real Assets	<u>17.00%</u>	± 8%	<u>5,182,610</u>	<u>16.94%</u>
Total Invested Assets	<u>100.00%</u>		<u>\$ 30,598,163</u>	<u>100.00%</u>

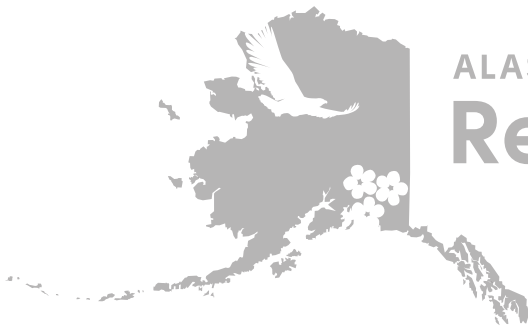
**Teachers' Retirement System
Recaptured Commission Fees
Year Ended June 30, 2017**

Fund	Broad Domestic Equity Pool	Global Equity Ex-U.S.	Total
Defined Benefit Plan - Pension	\$35,879	\$34,473	\$70,352
Postemployment Benefit - Alaska Retiree Healthcare Trust	18,718	17,983	36,701
Postemployment Benefit - Occupational Death & Disability	24	23	47
Postemployment Benefit - Retiree Medical Plan	207	199	406
Postemployment Benefit - Health Reimbursement Arrangement	593	570	1,163
Total Recapture Commission Fees	\$55,421	\$53,248	\$108,669

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**