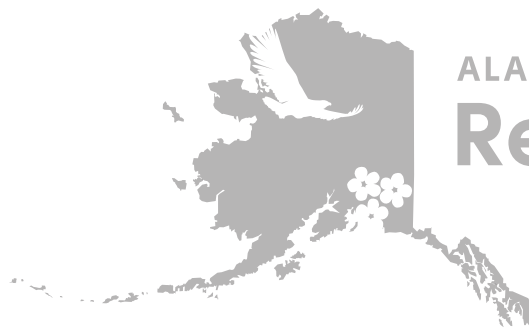




# INVESTMENT SECTION



ALASKA DIVISION OF  
**Retirement  
and Benefits**



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



Main 303.861.1900  
Fax 303.832.8230

[www.callan.com](http://www.callan.com)

October 16, 2019

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

Dear Board Members:

This letter reviews the investment performance of 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

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## 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, 2019<sup>1</sup>:

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%.

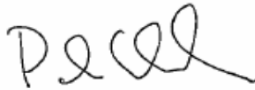
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<sup>1</sup>Note PERS asset class returns are used to represent the asset class performance of all plans.

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

<b>Commissioner</b> Bruce Tangeman	<b>Chief Investment Officer</b> Bob G. Mitchell	<b>Investment Officers</b> 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
<b>Deputy Commissioner</b> Greg Samorajski	<b>Comptroller</b> Scott Jones, CPA		
<b>Treasury Division Director</b> Pamela Leary, CPA	<b>Cash Management</b> Bronze Ickes, CTP, AAP  <b>ARMB Liaison Officer</b> 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*  
Bailie 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*



## Public Employees' Retirement System Investment Report

### INVESTMENTS

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

The ARMB categorizes its investments into eight asset classes: 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%.

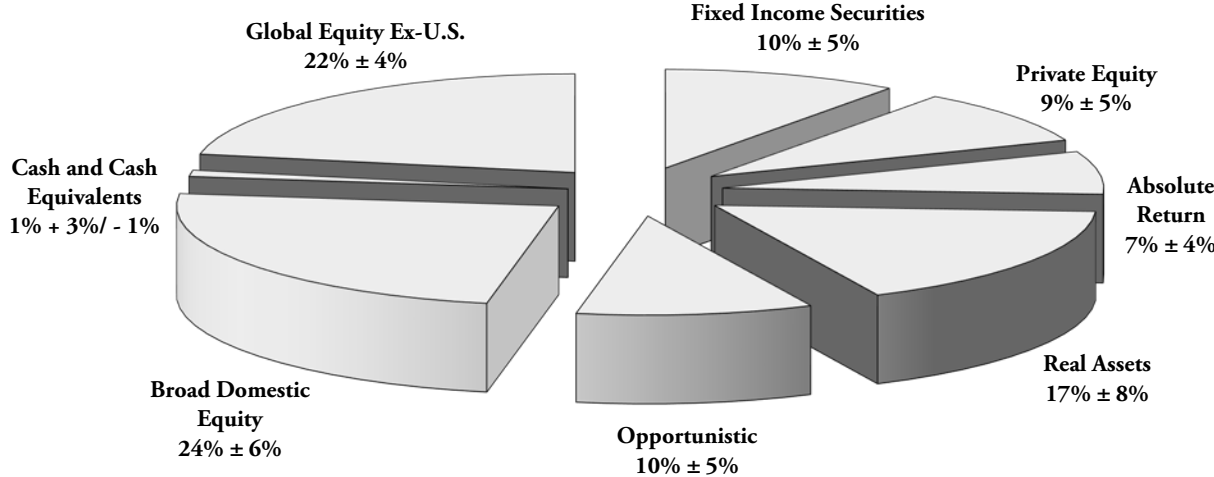
# Investment Section

Public Employees' Retirement System Schedule of Investment Results Fiscal Years Ended June 30							
	2015	2016	2017	2018	2019	Annualized	
						3 Year	5 Year
<b>Total Fund</b>							
PERS	3.29%	(0.36%)	13.35%	9.61%	6.40%	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
<b>Broad Domestic Equity</b>							
PERS	7.84	0.58	18.55	15.21	8.41	13.98	9.94
<i>Custom Composite Index</i>	7.29	2.14	18.51	14.78	8.98	14.02	10.19
<b>Fixed Income</b>							
PERS	(0.74)	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
<b>Opportunistic</b>							
PERS	-	-	-	5.64	7.21	-	-
<i>Custom Composite Index</i>	-	-	-	8.39	9.72	-	-
<b>Real Assets</b>							
PERS	3.70	4.76	5.98	7.53	6.08	6.53	5.60
<i>Custom Composite Index</i>	7.99	8.87	5.66	4.29	7.23	5.72	6.79
<b>Global Equity Ex-US</b>							
PERS	(3.32)	(9.15)	20.41	7.97	(0.08)	9.11	2.67
<i>MSCI ACWI ex-US</i>	(4.85)	(9.80)	21.00	7.75	0.26	9.34	2.33
<b>Private Equity</b>							
PERS	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
<b>Absolute Return</b>							
PERS	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
<b>Alternative Equity</b>							
PERS	(0.89)	3.41	11.38	-	-	-	-
<i>Custom Composite Index</i>	4.26	2.09	15.07	-	-	-	-
<b>Cash Equivalent</b>							
PERS	0.28	0.55	0.79	1.51	2.50	1.60	1.12
<i>3-month Treasury Bill</i>	0.02	0.19	0.49	1.36	2.31	1.38	0.87

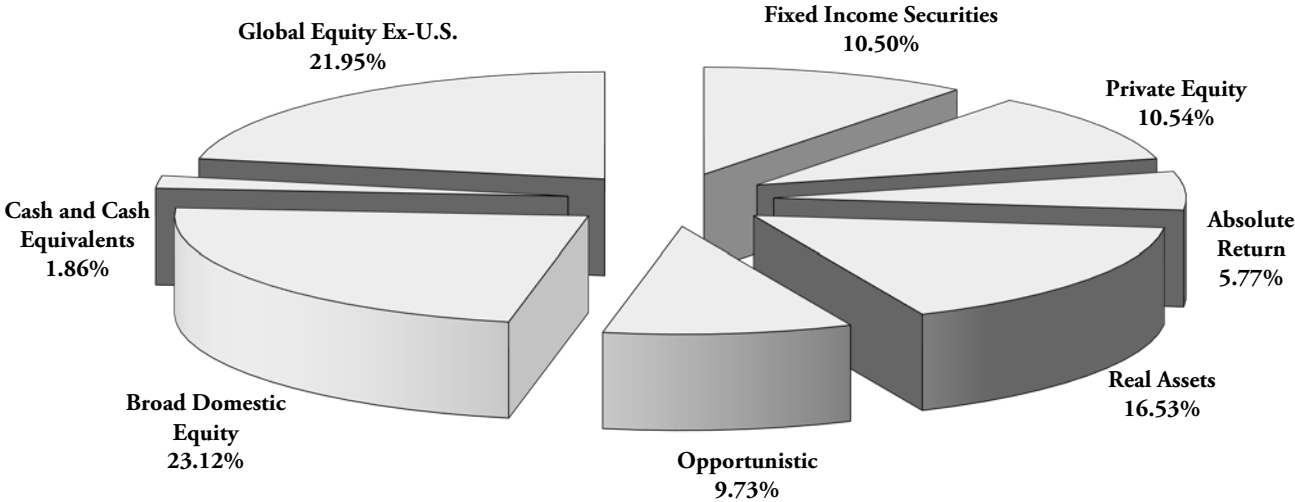
MSCI ACWI =Morgan Stanley Capital International All Country World Index  
Returns for periods longer than one year are reported on an annualized basis.  
Basis of calculation: Time-Weighed rate of return based on the market rate of return.

**Public Employees' Retirement System  
Asset Allocation  
June 30, 2019**

**Policy**



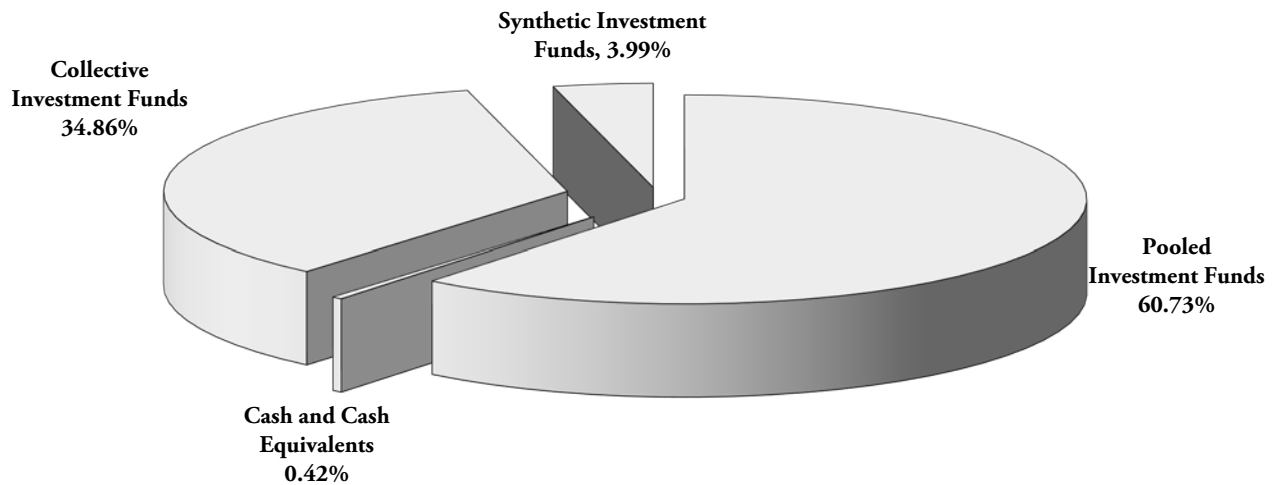
**Actual – Defined Benefit Pension**



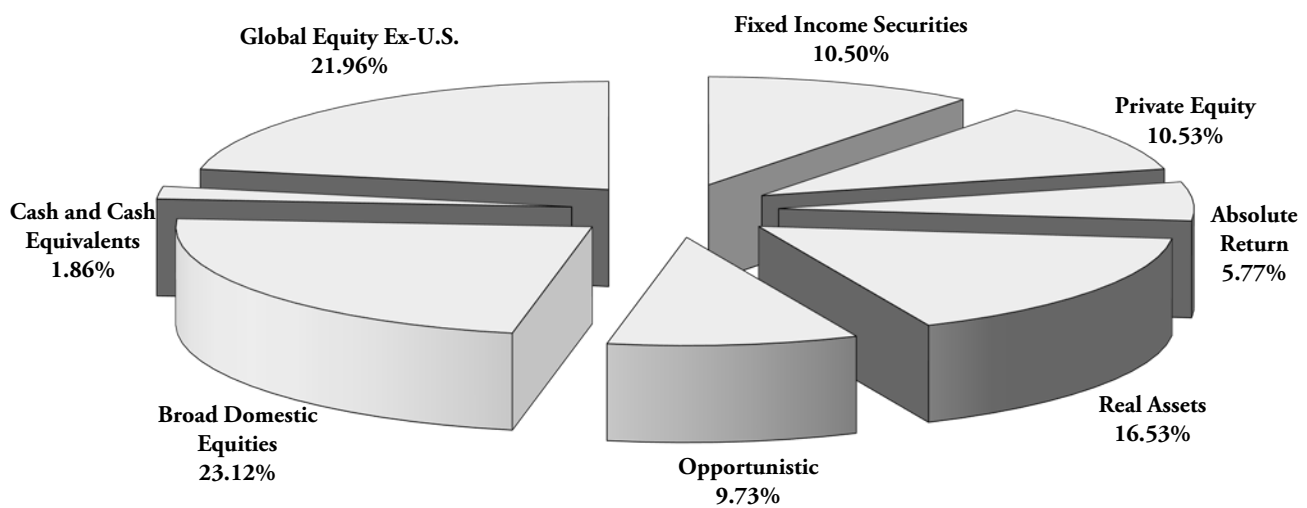
# Investment Section

## Public Employees' Retirement System Asset Allocation June 30, 2019

### Actual – Defined Contribution Participant Directed

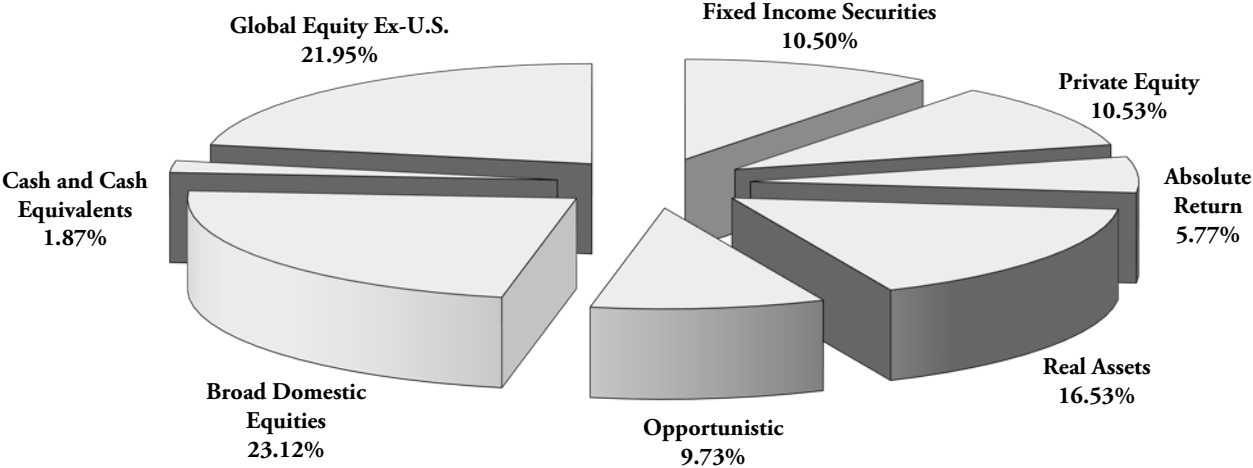


### Actual – Defined Benefit Alaska Retiree Healthcare Trust

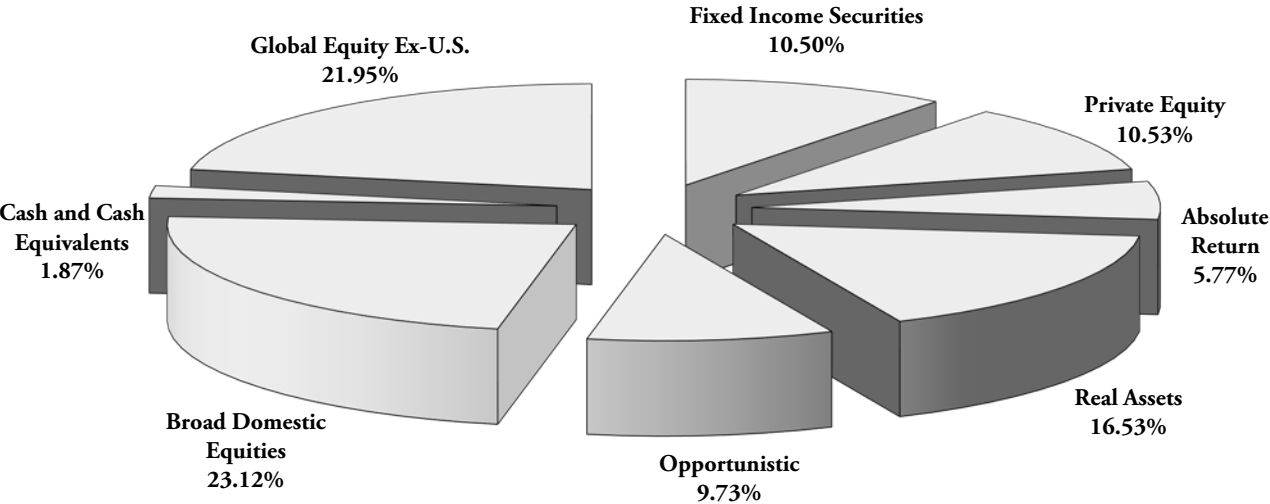


**Public Employees' Retirement System  
Asset Allocation  
June 30, 2019**

**Actual — Health Reimbursement Arrangement**



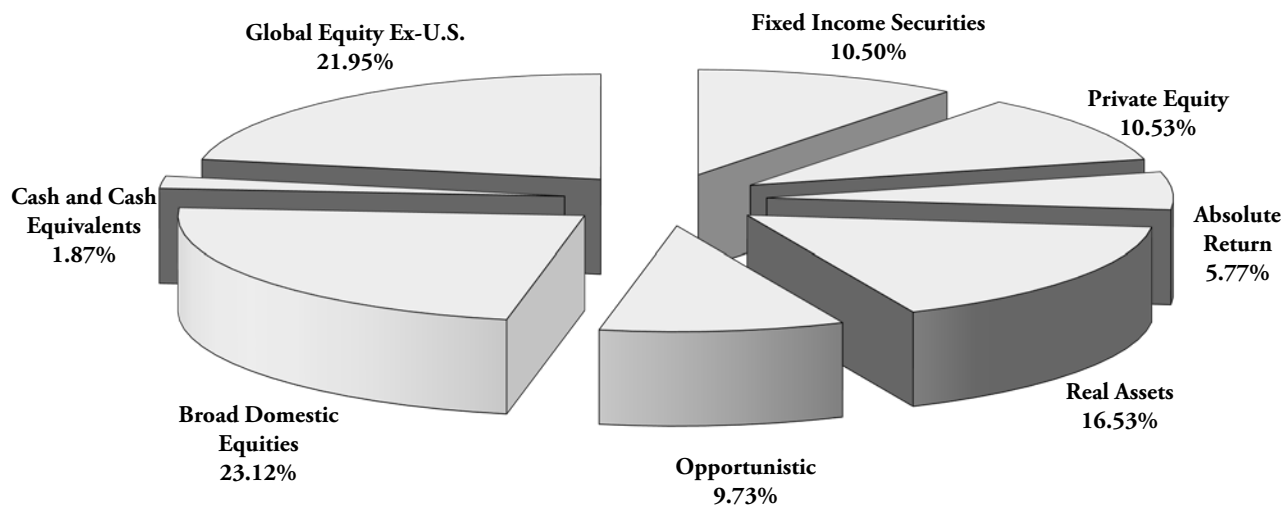
**Actual — Occupational Death & Disability**



# Investment Section

## Public Employees' 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

<u>Rank</u>	<u>Largest Fixed Income Holdings</u>	<u>Market Value</u>	<u>Par Value</u>
1	US Treasury 2.250% 12/31/2023	\$148,716,519	\$145,577,504
2	US Treasury 1.500% 3/31/2023	146,625,482	14,855,687
3	US Treasury 2.750% 2/15/2024	109,015,335	104,398,944
4	US Treasury 2.000% 5/31/2024	70,299,931	69,482,963
5	US Treasury 2.000% 8/15/2025	69,347,346	68,689,962
6	US Treasury 2.125% 5/15/2025	59,561,965	58,573,537
7	US Treasury 2.375% 8/15/2024	48,694,645	47,308,649
8	US Treasury 2.375% 5/15/2027	41,293,595	39,940,909
9	US Treasury 2.875% 8/15/2028	39,403,169	36,667,435
10	US Treasury 2.875% 5/15/2028	38,679,802	36,021,788

## Equities

<u>Rank</u>	<u>Largest Equity Holdings</u>	<u>Market Value</u>	<u>Par Value</u>
1	Microsoft Corp	\$108,720,583	\$811,590
2	Apple Inc	94,095,845	475,424
3	Amazon.com Inc	74,731,781	39,465
4	Exxon Mobil Corp.	48,855,849	637,555
5	Procter & Gamble Co/The	48,526,509	442,558
6	Pfizer Inc.	44,625,187	1,030,129
7	Facebook Inc	44,206,366	229,049
8	Johnson & Johnson	41,904,450	300,865
9	Alphabet Inc	40,435,588	37,344
10	Berkshire Hathaway Inc	40,104,392	188,133

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

# Investment Section

**Public Employees' Retirement System  
Schedule of Investment Management Fees  
Year Ended June 30, 2019**

	<u>Fair Value</u>	<u>Fees</u>
<b>Investment Management</b>		
Total Opportunistic	\$ 1,736,365,611	5,084,983
Total Broad Domestic Equity	4,126,206,600	5,594,039
Total Global Equity Ex-U.S.	3,917,520,592	12,380,414
Total Private Equity	1,880,042,452	9,577,192
Total Absolute Return	1,028,880,502	9,272,536
Total Real Assets	2,949,147,408	20,033,974
 <b>Custodian</b>		
State Street Bank		830,169
 <b>Investment Advisory</b>		
Callan Associates		209,324
Investment Advisory Council		61,748
Townsend Group		66,690
Total Investment Advisory		<u>337,762</u>
 <b>Performance</b>		
Callan Associates		203,303
	<u>\$ 15,638,163,165</u>	<u>63,314,372</u>



## Public Employees' Retirement System Investment Summary Schedule June 30, 2019

<u>Investments (at Fair Value)</u>	<u>Defined Benefit - Pension</u>			<u>% of Total Assets</u>
	<u>Asset Allocation</u>		<u>Fair Value</u>	
	<u>Policy</u>	<u>Range</u>		
<b>Cash and Cash Equivalents</b>				
Short-Term Fixed Income Pool			\$ 177,108,312	
Securities Lending Income			64,574	
Total Cash and Cash Equivalents	1.00%	+ 3% / - 1%	177,172,886	1.86%
<b>Fixed Income Securities</b>				
U.S. Treasury Fixed Income Pool			993,678,226	
Total Fixed Income Securities	10.00%	± 5%	993,678,226	10.50%
<b>Opportunistic</b>				
Alternative Equity Strategies			469,549,108	
Tactical Allocation Strategies			152,073,886	
Opportunistic Fixed Income			256,955,012	
Other Opportunities			42,438,483	
Total Opportunistic	10.00%	± 5%	921,016,489	9.73%
<b>Broad Domestic Equity</b>				
Large Cap Pool			1,921,105,106	
Small Cap Pool			267,551,664	
Total Broad Domestic Equity	24.00%	± 6%	2,188,656,770	23.12%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			1,602,023,161	
International Equity Small Cap Pool			134,238,956	
Emerging Markets Equity Pool			341,699,483	
Total Global Equity Ex-U.S.	22.00%	± 4%	2,077,961,600	21.95%
<b>Private Equity</b>				
Private Equity Pool			997,226,673	
Total Private Equity	9.00%	± 5%	997,226,673	10.54%
<b>Absolute Return</b>				
Absolute Return Pool			545,746,761	
Total Absolute Return	7.00%	± 4%	545,746,761	5.77%
<b>Real Assets</b>				
Real Estate Pool			535,311,262	
Real Estate Investment Trust Pool			106,361,258	
Infrastructure Private Pool			202,313,141	
Infrastructure Public Pool			60,383,085	
Master Limited Partnership Pool			194,621,199	
Energy Pool			31,933,913	
Farmland Pool			303,857,698	
Timber Pool			129,478,496	
Total Real Assets	17.00%	± 8%	1,564,260,052	16.53%
<b>Total Invested Assets</b>	<b>100.00%</b>		<b>\$ 9,465,719,457</b>	<b>100.00%</b>

# Investment Section

## Public Employees' Retirement System Investment Summary Schedule June 30, 2019

Investments (at Fair Value)	Defined Contribution - Participant Directed			% of Total Assets
	Asset Allocation Policy	Range	Fair Value	
<b>Cash and Cash Equivalents</b>				
Short-Term Fixed Income Pool	100.00%	0%	\$ 5,128,341	
Total Cash and Cash Equivalents			<u>5,128,341</u>	0.42%
<b>Pooled Investment Funds (1)</b>				
T. Rowe Price				
Alaska Balanced Fund Trust			25,583,482	
Long-Term Balanced Fund			16,080,306	
Target 2010 Trust			2,533,390	
Target 2015 Trust			12,408,599	
Target 2020 Trust			36,166,681	
Target 2025 Trust			58,674,346	
Target 2030 Trust			61,156,888	
Target 2035 Trust			74,274,030	
Target 2040 Trust			87,892,278	
Target 2045 Trust			113,245,184	
Target 2050 Trust			134,446,874	
Target 2055 Trust			121,818,939	
Target 2060 Trust			1,360,975	
Total Pooled Investment Funds			<u>745,641,972</u>	60.73%
<b>Collective Investment Funds (1)</b>				
State Street Global Advisors				
SSgA Treasury Money Market Fund			11,559,536	
S&P Stock Index Fund			110,571,930	
Russell 3000 Index			12,820,967	
U.S. Real Estate Investment Trust Index			17,394,501	
World Equity Ex-U.S. Index			60,336,269	
U.S. Treasury Inflation Protected Securities Index			20,376,883	
Passive U.S. Bond Index Fund			51,886,248	
Brandes Institutional				
Alaska International Equity Fund			40,591,437	
RCM				
Sustainable Core Opportunities Fund			18,894,062	
T. Rowe Price				
Small-Cap Stock Fund			83,582,937	
Total Collective Investment Funds			<u>428,014,770</u>	34.86%
<b>Synthetic Investment Funds (1)</b>				
T. Rowe Price				
Stable Value Fund			48,964,250	
			<u>48,964,250</u>	3.99%
<b>Total Invested Assets</b>			<u><b>\$1,227,749,333</b></u>	<u><b>100.00%</b></u>

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

## Public Employees' Retirement System Investment Summary Schedule June 30, 2019

Investments (at Fair Value)	Asset Allocation		Fair Value	% of Total Assets
	Policy	Range		
<b>Defined Benefit - Alaska Retiree Health Care Trust</b>				
<b>Cash and Cash Equivalents</b>				
Short-Term Fixed Income Pool			\$ 146,182,787	
Securities Lending Income			53,087	
Total Cash and Cash Equivalents	1.00%	+ 3% / - 1%	<u>146,235,874</u>	1.86%
<b>Fixed Income Securities</b>				
U.S. Treasury Fixed Income Pool			819,561,349	
Total Fixed Income Securities	10.00%	± 5%	<u>819,561,349</u>	10.50%
<b>Opportunistic</b>				
Alternative Equity Strategies			387,272,550	
Tactical Allocation Strategies			125,426,799	
Opportunistic Fixed Income			211,930,171	
Other Opportunities			35,002,217	
Total Opportunistic	10.00%	± 5%	<u>759,631,737</u>	9.73%
<b>Broad Domestic Equity</b>				
Large Cap Pool			1,584,480,218	
Small Cap Pool			220,670,029	
Total Broad Domestic Equity	24.00%	± 6%	<u>1,805,150,247</u>	23.12%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			1,321,309,281	
International Equity Small Cap Pool			110,716,988	
Emerging Markets Equity Pool			281,825,325	
Total Global Equity Ex-U.S.	22.00%	± 4%	<u>1,713,851,594</u>	21.96%
<b>Private Equity</b>				
Private Equity Pool			822,488,021	
Total Private Equity	9.00%	± 5%	<u>822,488,021</u>	10.53%
<b>Absolute Return</b>				
Absolute Return Pool			450,118,499	
Total Absolute Return	7.00%	± 4%	<u>450,118,499</u>	5.77%
<b>Real Assets</b>				
Real Estate Pool			441,598,582	
Real Estate Investment Trust Pool			87,724,148	
Infrastructure Private Pool			166,862,900	
Infrastructure Public Pool			49,802,482	
Master Limited Partnership Pool			160,518,776	
Energy Pool			26,338,306	
Farmland Pool			250,614,352	
Timber Pool			106,790,678	
Total Real Assets	<u>17.00%</u>	± 8%	<u>1,290,250,224</u>	<u>16.53%</u>
<b>Total Invested Assets</b>	<b><u>100.00%</u></b>		<b><u>\$ 7,807,287,545</u></b>	<b><u>100.00%</u></b>

# Investment Section

## Public Employees' Retirement System Investment Summary Schedule June 30, 2019

Investments (at Fair Value)	Health Reimbursement Arrangement			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
<b>Cash and Cash Equivalents</b>				
Short-Term Fixed Income Pool			\$ 7,846,732	
Securities Lending Income			2,839	
Total Cash and Cash Equivalents	1.00%	+ 3% / - 1%	7,849,571	1.87%
<b>Fixed Income Securities</b>				
U.S. Treasury Fixed Income Pool			43,986,453	
Total Fixed Income Securities	10.00%	± 5%	43,986,453	10.50%
<b>Opportunistic</b>				
Alternative Equity Strategies			20,785,199	
Tactical Allocation Strategies			6,731,747	
Opportunistic Fixed Income			11,374,446	
Other Opportunities			1,878,594	
Total Opportunistic	10.00%	± 5%	40,769,986	9.73%
<b>Broad Domestic Equity</b>				
Large Cap Pool			85,040,204	
Small Cap Pool			11,843,521	
Total Broad Domestic Equity	24.00%	± 6%	96,883,725	23.12%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			70,915,629	
International Equity Small Cap Pool			5,942,261	
Emerging Markets Equity Pool			15,125,770	
Total Global Equity Ex-U.S.	22.00%	± 4%	91,983,660	21.95%
<b>Private Equity</b>				
Private Equity Pool			44,143,530	
Total Private Equity	9.00%	± 5%	44,143,530	10.53%
<b>Absolute Return</b>				
Absolute Return Pool			24,158,187	
Total Absolute Return	7.00%	± 4%	24,158,187	5.77%
<b>Real Assets</b>				
Real Estate Pool			23,700,917	
Real Estate Investment Trust Pool			4,708,219	
Infrastructure Private Pool			8,955,653	
Infrastructure Public Pool			2,672,935	
Master Limited Partnership Pool			8,615,159	
Energy Pool			1,413,596	
Farmland Pool			13,450,654	
Timber Pool			5,731,533	
Total Real Assets	17.00%	± 8%	69,248,666	16.53%
<b>Total Invested Assets</b>	<b>100.00%</b>		<b>\$ 419,023,778</b>	<b>100.00%</b>

**Public Employees' Retirement System**  
**Investment Summary Schedule**  
**June 30, 2019**

<u>Investments (at Fair Value)</u>	Occupational Death and Disability			<u>% of Total Assets</u>
	Asset Allocation		Fair Value	
<u>Cash and Cash Equivalents</u>	<u>Policy</u>	<u>Range</u>	<u>Fair Value</u>	<u>% of Total Assets</u>
Short-Term Fixed Income Pool			\$ 678,526	
Securities Lending Income			245	
Total Cash and Cash Equivalents	1.00%	+ 3% / - 1%	678,771	1.87%
<b>Fixed Income Securities</b>				
U.S. Treasury Fixed Income Pool			3,802,843	
Total Fixed Income Securities	10.00%	± 5%	3,802,843	10.50%
<b>Opportunistic</b>				
Alternative Equity Strategies			1,796,981	
Tactical Allocation Strategies			581,992	
Opportunistic Fixed Income			983,376	
Other Opportunities			162,414	
Total Opportunistic	10.00%	± 5%	3,524,763	9.73%
<b>Broad Domestic Equity</b>				
Large Cap Pool			7,352,139	
Small Cap Pool			1,023,930	
Total Broad Domestic Equity	24.00%	± 6%	8,376,069	23.12%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			6,131,001	
International Equity Small Cap Pool			513,737	
Emerging Markets Equity Pool			1,307,696	
Total Global Equity Ex-U.S.	22.00%	± 4%	7,952,434	21.95%
<b>Private Equity</b>				
Private Equity Pool			3,816,423	
Total Private Equity	9.00%	± 5%	3,816,423	10.53%
<b>Absolute Return</b>				
Absolute Return Pool			2,088,593	
Total Absolute Return	7.00%	± 4%	2,088,593	5.77%
<b>Real Assets</b>				
Real Estate Pool			2,049,059	
Real Estate Investment Trust Pool			407,048	
Infrastructure Private Pool			774,260	
Infrastructure Public Pool			231,088	
Master Limited Partnership Pool			744,822	
Energy Pool			122,212	
Farmland Pool			1,162,874	
Timber Pool			495,519	
Total Real Assets	17.00%	± 8%	5,986,882	16.53%
<b>Total Invested Assets</b>	<b>100.00%</b>		<b>\$ 36,226,778</b>	<b>100.00%</b>

# Investment Section

## Public Employees' Retirement System Investment Summary Schedule June 30, 2019

Investments (at Fair Value)	Retiree Medical Plan			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
<b>Cash and Cash Equivalents</b>				
Short-Term Fixed Income Pool			\$ 2,198,856	
Securities Lending Income			793	
Total Cash and Cash Equivalents	1.00%	+ 3% / - 1%	<u>2,199,649</u>	1.87%
<b>Fixed Income Securities</b>				
U.S. Treasury Fixed Income Pool			12,323,800	
Total Fixed Income Securities	10.00%	± 5%	<u>12,323,800</u>	10.50%
<b>Opportunistic</b>				
Alternative Equity Strategies			5,823,444	
Tactical Allocation Strategies			1,886,051	
Opportunistic Fixed Income			3,186,808	
Other Opportunities			526,331	
Total Opportunistic	10.00%	± 5%	<u>11,422,634</u>	9.73%
<b>Broad Domestic Equity</b>				
Large Cap Pool			23,825,937	
Small Cap Pool			3,318,230	
Total Broad Domestic Equity	24.00%	± 6%	<u>27,144,167</u>	23.12%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			19,868,618	
International Equity Small Cap Pool			1,664,859	
Emerging Markets Equity Pool			4,237,827	
Total Global Equity Ex-U.S.	22.00%	± 4%	<u>25,771,304</u>	21.95%
<b>Private Equity</b>				
Private Equity Pool			12,367,809	
Total Private Equity	9.00%	± 5%	<u>12,367,809</u>	10.53%
<b>Absolute Return</b>				
Absolute Return Pool			6,768,463	
Total Absolute Return	7.00%	± 4%	<u>6,768,463</u>	5.77%
<b>Real Assets</b>				
Real Estate Pool			6,640,348	
Real Estate Investment Trust Pool			1,319,114	
Infrastructure Private Pool			2,509,129	
Infrastructure Public Pool			748,883	
Master Limited Partnership Pool			2,413,732	
Energy Pool			396,051	
Farmland Pool			3,768,505	
Timber Pool			1,605,819	
Total Real Assets	17.00%	± 8%	<u>19,401,581</u>	16.53%
<b>Total Invested Assets</b>	<b>100.00%</b>		<b>\$ 117,399,407</b>	<b>100.00%</b>

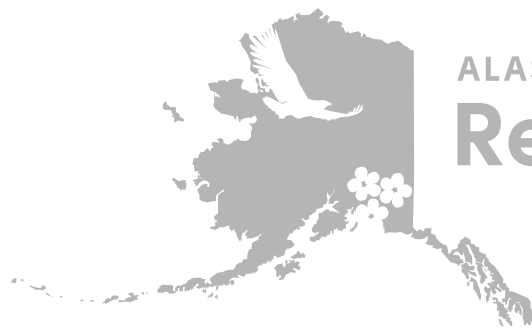
**Public Employees' Retirement System  
Recaptured Commission Fees  
Year Ended June 30, 2019**

<b>Fund</b>	<b>Broad Domestic Equity Pool</b>	<b>Global Equity Ex-U.S.</b>	<b>Total</b>
Defined Benefit Plan – Pension	\$ 8,113	5,116	13,229
Postemployment Benefit – Alaska Retiree Healthcare Trust	6,614	4,181	10,795
Postemployment Benefit – Health Reimbursement Arrangement	327	208	535
Postemployment Benefit – Retiree Medical Plan	91	58	149
Postemployment Benefit – Occupational Death & Disability	28	18	46
<b>Total Recapture Commission Fees</b>	<b>\$ 15,173</b>	<b>9,581</b>	<b>24,754</b>

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**