

Callan

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September 30, 2024

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 assets under the purview of the Alaska Retirement Management Board (ARMB) for the fiscal year ended June 30, 2024.

Callan LLC (Callan) calculates time-weighted performance statistics based primarily on underlying custodial data provided by the Board's custodian, State Street Bank and Trust Company. The performance calculations were made using a time-weighted return methodology based upon fair values reported by the custodian.

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

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

## **2024 Fiscal Year Market Overview**

The most widely predicted recession in recent history did not materialize in 2023. In late 2022, 85% of economists polled by the *Financial Times* predicted a recession in 2023. Consumers were also gloomy, affected by post-pandemic blues and worries over rising inflation, especially gas and food prices, and stagnating wages.

Markets defied the early 2023 pessimism, and most asset classes and sectors (energy being an exception) posted robust gains for the calendar year. Global stocks surged and the S&P 500 closed 2023 just shy of a record. Even bond markets (taxable and tax-exempt) sharply reversed course in 4Q to bring 2023 results to an attractive 6%-ish figure. As a stark reminder of how quickly fortunes can be reversed, bond markets were on track to post a third consecutive calendar year

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of negative returns only three months prior. Gold also nearly hit a record in December, buoyed by geopolitical concerns and the prospect of lower interest rates.

As we entered 2024, the economic outlook improved from one year ago, but raging wars weighed heavily on investors' minds and government dysfunction and uncertainty over the lasting impact of sharply higher rates cast shadows on the economic picture. The path of short-term interest rates was likely downward, but the pace and timing were uncertain.

This fiscal year's well-publicized mantra—higher for longer—conjures up images of a tightrope, an apt descriptor of the Federal Reserve's current challenge. The economy has been resilient in the face of sharply rising rates, and while inflation has come down, it remains above the Fed's 2% target. The Fed must carefully balance the risks of too-high inflation with the impact of sharply higher rates on the economy while analyzing the ever-changing economic landscape.

The June meeting of the Federal Open Market Committee (FOMC) yielded no surprises for the market when the Fed Funds rate was kept on hold at 5.25% – 5.50%. Also widely expected, the median expectation for rate cuts was ratcheted down. In March (as well as in December 2023) the FOMC's median year-end expectation for the Fed Funds rate was 4.6%, or 3-4 cuts in 2024. In June, the Summary of Economic Projections median forecast was 5.1%, one cut from current levels. Stubborn inflation and resilient economic data were the twin motivators for the Fed's decision to delay rate cuts. The median projection from the FOMC is three more cuts in 2025, bringing the rate down to 4.1% by year-end 2025. The median forecast for the long-run rate ticked up slightly from 2.6% to 2.8%, reflecting the notion that the so-called "neutral rate" may be higher than previously thought. It is worth noting that the dispersion of forecasts is narrow in 2024 and for the long run, but expectations vary considerably for 2025 and 2026. Longer-term inflation expectations remain intact, reaching 2.0% by the end of 2026.

Real GDP grew at an annual rate of 1.4% in 1Q, down from the 3.4% pace in 4Q23. Consumer spending, which comprises about two-thirds of GDP, slowed from 3.3% in 4Q to 1.5% in 1Q as higher rates and declining savings took a toll. Growth modestly picked up in 2Q with GDP coming in at a brisk 2.8%, with consumer spending and business investment fueling the climb.

Unemployment rose slightly from 3.9% in April to 4.0% in May but remains relatively low by historical standards. The JOLTS (Job Openings and Labor Turnover Survey) June report showed job openings falling to 8.1 million at the end of April, below expectations and the lowest since February 2021. That said, job growth as measured by non-farm payrolls increased by 272,000 in May, far more than forecast and significantly more than the 175,000 created in April. Jobless claims and applications for unemployment benefits have risen in recent months, fueling speculation that the labor market may finally be softening, but further evidence is needed to support that notion.

U.S. equity markets finished fiscal year 2024 in positive territory and helped to recover losses after sharp drawdowns in 2022. The Russell 3000 Index, a measure of broad U.S. equity, was down 3.3% at the start of the fiscal year before rising 12.1% in 4Q23, 10.0% in 1Q24, and 3.2% in 2Q24. The S&P 500 Index hit 31 record highs over the first six months of 2024 gaining 15.3% for the period and 24.5% for the fiscal year. Technology stocks, namely the "Magnificent 7," were the clear winners as exuberance over artificial intelligence continues.

Central banks away from the U.S. have started to cut rates as growth has slowed and inflation moderated. In June, the Bank of Canada lowered its overnight rate 25 bps to 4.75%, and the European Central Bank cut rates for the first time this cycle. The Swiss National Bank has cut rates twice this year, and other cuts have come from Brazil, Mexico, Chile, and Sweden. Japan, on the other hand, raised rates very slightly in March (to 0% – 0.1%) and was the last country to exit a negative interest rate policy. Its 10-year government bond yield rose above 1% in May for the first time since 2013 as markets anticipated further rate increases. The yen, however, closed the quarter at just over 160 to the U.S. dollar, the lowest since 1986. The yen's weakness is due in part to the large differential in interest rates between Japan and other developed countries.

This year has also been marked by several elections that have yielded surprises and impacted markets. In India, Prime Minister Narendra Modi's party unexpectedly lost seats to the opposition, a result that caused its stock market to tumble

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on concerns over Modi’s ability to pursue a business-friendly agenda. In Mexico, Claudia Sheinbaum won by a landslide to become the country’s first woman president, but the wide margin of victory raised concerns that proposed changes to the constitution would be enacted, spooking investors and raising concerns over capital outflows. Subsequently, the peso dropped sharply, and the Mexican stock exchange was off roughly 6%. And in France, stock and bond markets were roiled with the far right gaining traction ahead of President Emmanuel Macron’s surprise elections, fueling worries over increased spending and a rising deficit that at about 5.5% of GDP (in 2023) is already higher than the 3% maximum set by the European Union. The European Commission recommended disciplinary action against France for its excessive deficit in June. The yield premium for French government bonds over Germany reached its highest level since 2012.

Overseas markets were positive for the year but continue to lag domestic markets the fiscal year aided by currency appreciation vs. the U.S. dollar. The MSCI ACWI ex-U.S. IMI (Net) Index, a broad benchmark reflecting developed and emerging markets outside of the U.S., climbed 11.6% for the fiscal year. The MSCI All Country World Index (Net), a broad measure of the total global equity market (including the U.S.), increased 19.4% for the fiscal year.

The Bloomberg U.S. Aggregate Bond Index, a widely-used gauge of the investment grade domestic U.S. bond market, was flat for the most recent quarter but ended the fiscal year in positive territory (+2.7%). Bond yields rose modestly in 2024 as expectations dwindled for aggressive rate cuts amid stubbornly high inflation. The 10-year U.S. Treasury yield ended the fiscal year-end at 4.36%, up from 4.20% at the end of 1Q 2024, and 3.88% at year-end 2023. Interest rates have been volatile as the markets assess when and how swiftly the Fed will begin easing. The yield curve remained inverted at quarter-end with the 2-year U.S Treasury yielding 4.71%.

Private real estate, as measured by the NCREIF Property Index, was negative for the second consecutive year after over a decade long positive streak. In fiscal year 2024, the NCREIF Property Index returned -5.5% hurt yet again by office property. Publicly traded real estate, as measured by the FTSE NAREIT All Equity Index, continued to outperform private markets, returning 5.8% for the fiscal year 2024.

ARMB’s actual asset groupings delivered the following one-year returns through June 30, 2024<sup>1</sup>:

Domestic Stocks:	21.21%
Global ex-U.S. Stocks:	12.77%
Multi-Asset:	8.03%
Fixed Income:	3.55%
Real Assets:	0.04%
Private Equity:	4.96%

For the fiscal year ended June 30, 2024, the Public Employees Retirement System (PERS) had a time-weighted total return of 9.22%. The Teachers Retirement System (TRS) had a time-weighted total return of 9.23%. Both systems’ gross return trailed their strategic policy target return of 12.62% and the median return for Callan’s Public Fund Sponsor database of 11.13%.

Over longer trailing periods, PERS and TRS have outperformed their target index returns. The 5-year annualized return was 8.24% for PERS and 8.24% for TRS, compared to the benchmark return of 7.88% for both Plans. The ten-year annualized return was 7.29% for PERS and 7.29% for TRS. Both were above the 10-year target return of 6.84%. Over 32.75 years – the longest period of available data – PERS and TRS achieved annualized total returns of 7.82% and 7.85%, respectively. Both exceeded the corresponding policy benchmark return of 7.64%.

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

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The 2024 fiscal year returns of the PERS and TRS pension (“DB”) and health care (“HC”) programs are listed in the table below.

	PERS DB	PERS HC	TRS DB	TRS HC
FY 2024	9.22%	9.32%	9.23%	9.31%

The pension and health care systems are well diversified and currently have asset allocation policies that, in our opinion, are consistent with achieving a long-term “real” (above inflation) return of 4.5%.

In summary, fiscal year 2024 was a year in which ARMB’s Total Fund returns were positive, as were those of most broad asset class returns. PERS and TRS produced lower returns than the average public fund, with both Plans ranking in the 82<sup>nd</sup> percentile within the Public Fund Sponsor peer group for the one-year period ended June 30, 2024. Lower peer group rankings were a result of the Funds’ relative underweight to equities and relative overweight to alternatives vs peers.

Sincerely,



Steven J Center, CFA  
Senior Vice President  
c: Zachary Hanna  
Ivan Cliff

# Investment Section

## Department of Revenue Treasury Division Staff As of June 30, 2024

<b>Commissioner</b> Adam Crum	<b>Chief Investment Officer</b> Zachary Hanna, CFA	<b>Investment Officers</b> Shane Carson, CFA James Cheng Casey Colton, CFA Victor Djajalie, CFA Kevin Elliot Benjamin Garrett Emily Howard, CFA Sean Howard, CFA	Tyler McCormack Robyn Mesdag, CFA Mark Moon Cahal Morehouse Nicholas Orr, CFA Stephanie Pham Steve Sikes, CFA
<b>Deputy Commissioner</b> Fadil Limani	<b>Head of Investment Operations</b> Scott Jones, CPA		
<b>Treasury Division Director</b> Pamela Leary, CPA	<b>Cash Management</b> Jesse Blackwell, CTP, AAP		
	<b>ARMB Liaison Officer</b> Alysia Jones		

## External Money Managers and Consultants

<b>Opportunistic Fixed Income</b> Fidelity Investment Asset Management <i>Merrimack, NH</i> MacKay Shields LLC <i>New York, NY</i>	<b>Tactical Asset Allocation</b> Fidelity Investment Asset Management <i>Smithfield, RI</i> PineBridge Investments <i>New York, NY</i>
<b>Global Equities – Large Cap</b> Acadian Asset Management, LLC <i>Boston, MA</i> Arrowstreet Capital, LP <i>Boston, MA</i> Baillie Gifford Overseas Ltd. <i>Edinburgh, Scotland</i> Brandes Investment Partners, L.P. <i>San Diego, CA</i> Capital Guardian Trust Co. <i>Los Angeles, CA</i> Dimensional Fund Advisors <i>Austin, TX</i> First Eagle Investments <i>New York, NY</i> Legal and General Investment Management America, Inc. <i>Chicago, IL</i> State Street Global Advisors <i>Boston, MA</i>	<b>Private Equity</b> Abbott Capital Management, L.P. <i>New York, NY</i> Advent International <i>Boston, MA</i> Battery Ventures <i>Boston, MA</i> Clearlake Capital <i>Santa Monica, CA</i> Dyal Capital Partners <i>New York, NY</i> Genstar Capital <i>San Francisco, CA</i> Glendon Capital <i>Santa Monica, CA</i> Insight Partners <i>New York, NY</i> KKR Lending Partners <i>New York, NY</i> Lexington Partners <i>New York, NY</i> Merit Capital Partners <i>Chicago, IL</i> Neuberger Berman <i>New York, NY</i> New Mountain Partners <i>New York, NY</i> NGP <i>Irving, TX</i> Onex Partners <i>New York, NY</i> Pathway Capital Management, LLC <i>Irvine, CA</i> Sentinel Capital Partners <i>New York, NY</i> Summit Partners <i>Boston, MA</i> The Jordan Company <i>New York, NY</i> The Riverside Company <i>New York, NY</i> Warburg Pincus <i>New York, NY</i>
<b>Emerging Markets</b> Legal and General Investment Management America, Inc. <i>Chicago, IL</i>	
<b>Alternative Equity</b> McKinley Capital Management LLC <i>Anchorage, AK</i>	
<b>Alternate Beta</b> Man Group <i>London, UK</i>	
<b>Alternate Fixed Income</b> Ares Management <i>Los Angeles, CA</i> Comvest Credit Partners <i>West Palm Beach, FL</i> Crestline Investors, Inc. <i>Fort Worth, TX</i> Prisma Capital <i>New York, NY</i>	
<b>Other Opportunities</b> Schroders Investment Management North America <i>New York, NY</i>	

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## External Money Managers and Consultants (cont.)

### Real Assets – Farmland and Timber

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

### Real Assets – Energy

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

### Real Assets – Infrastructure

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

### Real Assets – Real Estate Core Commingled Accounts

BlackRock Realty  
*New York, NY*  
 J.P. Morgan Asset Management Inc.  
*New York, NY*  
 UBS Realty Investors, LLC  
*Hartford, CT*

### Real Assets – Real Estate Core Separate Accounts

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

### Real Assets – Non-Core Commingled Real Estate Funds

Almanac Realty Investors  
*New York, NY*  
 Clarion Partners  
*New York, NY*  
 KKR & Co.  
*New York, NY*  
 Silverpeak Real Estate Partners  
*New York, NY*

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

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

### Investment Consultants

Callan Associates, Inc.  
*Denver, CO*

### Investment Advisory Council

Ruth Traylor  
*Monument, CO*  
 Joshua Rabuck  
*Indianapolis IN*  
 William Jennings  
*Colorado Springs, CO*

### Independent Auditors

KPMG, LLP  
*Anchorage, AK*

### Actuaries

Arthur J. Gallagher and Company  
 (Formerly Buck Global LLC)  
*Chicago, IL*  
 Gabriel, Roeder, Smith & Company  
*Denver, CO*

### Global Master Custodian

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

## Teachers' Retirement System Investment Report

### INVESTMENTS

The investment goals of the State of Alaska Teachers' 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 six asset classes: Broad Domestic Equity, Global Equity Ex-US, Fixed Income, Multi-Asset, Real Assets, and Private Equity. The performance of each asset class is compared with a benchmark comprised of one or more market indices. The performance for the total portfolio is compared with its policy portfolio, determined by calculating the weighted performance of the underlying asset class benchmarks at the portfolio's target asset allocation. The asset class benchmarks are illustrated below:

Asset Class	Benchmark
Broad Domestic Equity	Russell 3000
Global Equities Ex-U.S.	MSCI All Country World Ex-U.S. IMI Net
Fixed Income	95% Bloomberg Barclays U.S. Aggregate 5% 3-Month Treasury Bill
Multi-Asset	60% MSCI All Country World IMI Net 40% Bloomberg Barclays U.S. Aggregate
Real Assets	35% NFI-ODCE 15% FTSE-NAREIT 25% NCREIF Farmland 10% NCREIF Timberland 15% CPI+4%
Private Equity	1/3 S&P 500 1/3 Russell 2000 1/3 MSCI EAFE Net

The target asset allocation is determined by the ARMB, utilizing capital market assumptions provided by its independent general investment consultant, Callan LLC. During the fiscal year, the ARMB's target asset allocation was 26% Broad Domestic Equity, 17% Global Equities Ex-US, 21% Fixed Income, 8% Multi-Asset, 14% Real Assets, and 14% Private Equity. Over the next 20 years, the target asset allocation is expected to generate a return of 7.59% with a standard deviation of 13.61%.

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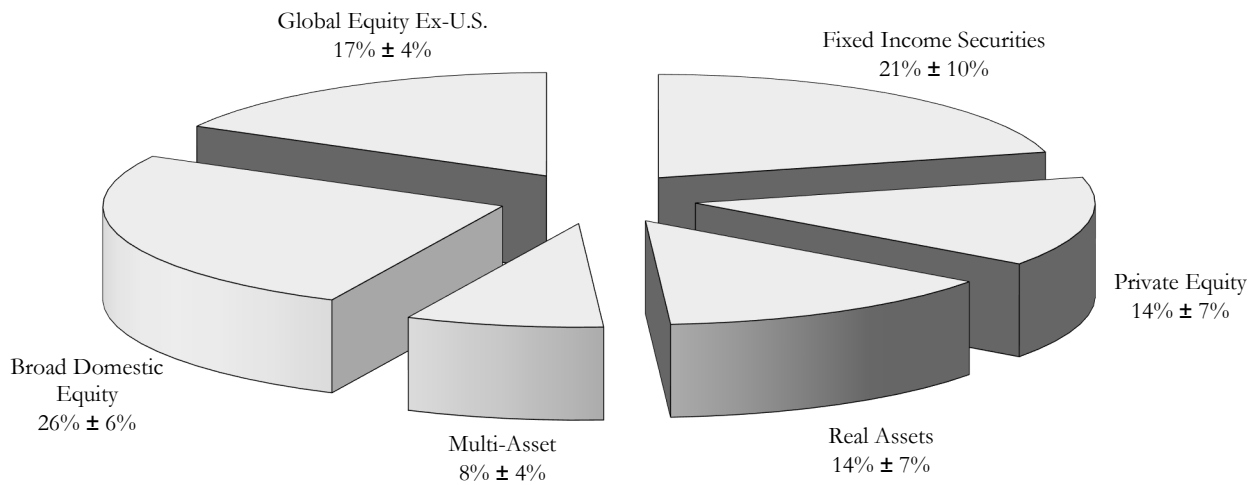
Teachers' Retirement System Schedule of Investment Results Fiscal Years Ended June 30							
	2020	2021	2022	2023	2024	Annualized	
						3 Year	5 Year
<b>Total Fund</b>							
TRS	3.83%	27.65%	(4.10%)	7.02%	9.23%	3.88%	8.24%
<i>Custom Composite Index</i>	4.64	24.95	(7.86)	7.53	12.62	3.72	7.89
<i>Actuarial Earnings Rate</i>	7.38	7.38	7.38	7.25	7.25	7.25	7.25
<b>Broad Domestic Equity</b>							
TRS	2.62	42.68	(11.73)	17.76	21.21	8.00	13.03
<i>Custom Composite Index</i>	6.53	44.16	(13.87)	18.95	23.13	8.05	14.14
<b>Fixed Income</b>							
TRS	7.31	2.20	(6.99)	0.43	3.58	-1.10	1.20
<i>Custom Composite Index</i>	7.67	(0.31)	(9.78)	(0.71)	2.78	-2.72	-0.24
<b>Multi-Asset</b>							
TRS	0.52	23.86	(10.58)	4.09	8.04	0.19	4.60
<i>Custom Composite Index</i>	9.32	23.20	(13.89)	9.14	11.94	1.70	7.22
<b>Real Assets</b>							
TRS	2.06	9.86	14.29	2.37	0.04	5.39	5.59
<i>Custom Composite Index</i>	1.19	4.62	14.80	3.41	0.63	6.11	5.19
<b>Global Equity Ex-U.S.</b>							
TRS	(3.59)	38.53	(20.96)	15.14	12.77	0.87	6.51
<i>MSCI ACWI ex-U.S.</i>	(4.74)	37.18	(19.86)	12.47	11.57	0.19	5.62
<b>Private Equity</b>							
TRS	10.47	50.67	26.25	(3.29)	4.96	8.62	16.35
<i>Custom Composite Index</i>	(1.35)	36.80	3.42	(6.83)	21.56	5.41	9.59
<p>MSCI ACWI = Morgan Stanley Capital International All Country World Index  Returns for periods longer than one year are reported on an annualized basis.  Basis of calculation: Time-Weighted rate of return based on the market rate of return.</p>							



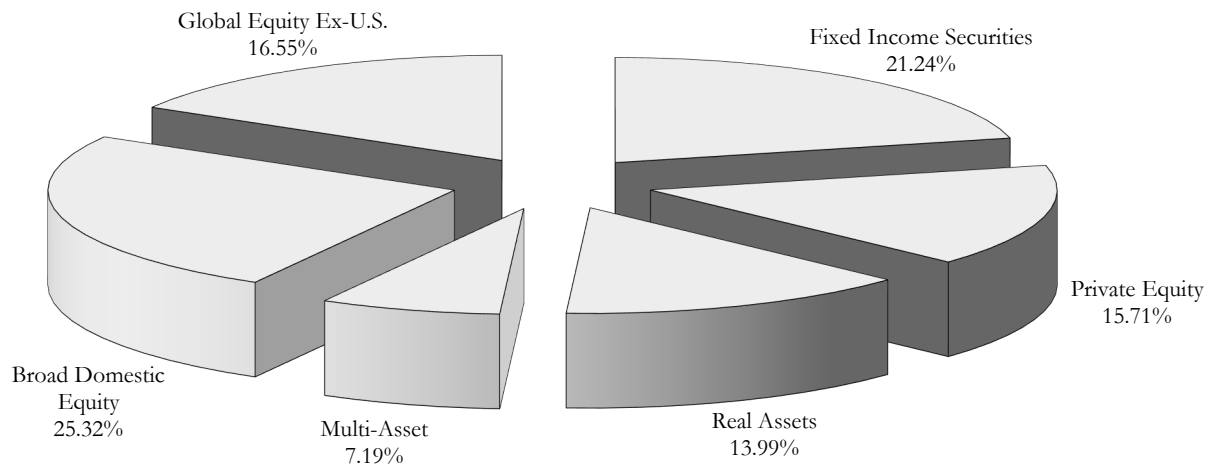
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## Teachers' Retirement System Asset Allocation June 30, 2024

### Policy



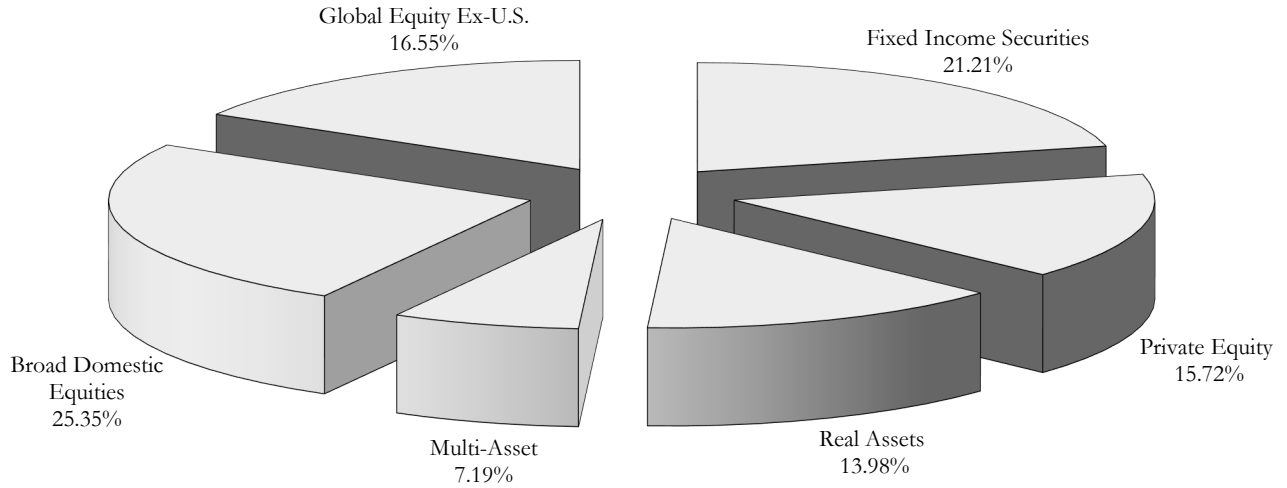
### Actual — Defined Benefit Pension



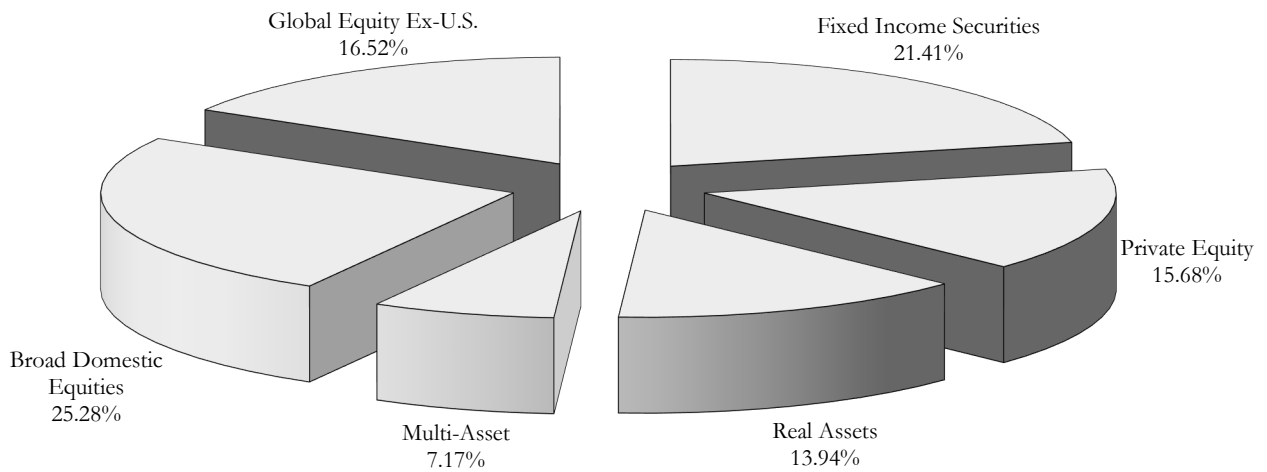
# Investment Section

## Teachers' Retirement System Asset Allocation June 30, 2024

### Actual — Defined Benefit Alaska Retiree Healthcare Trust



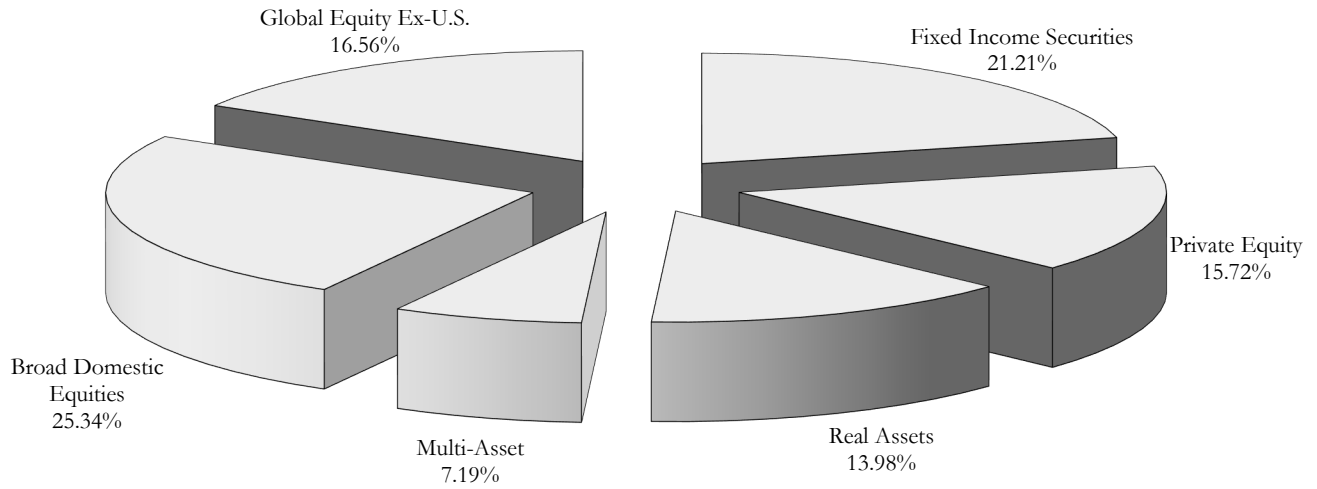
### Actual — Occupational Death & Disability



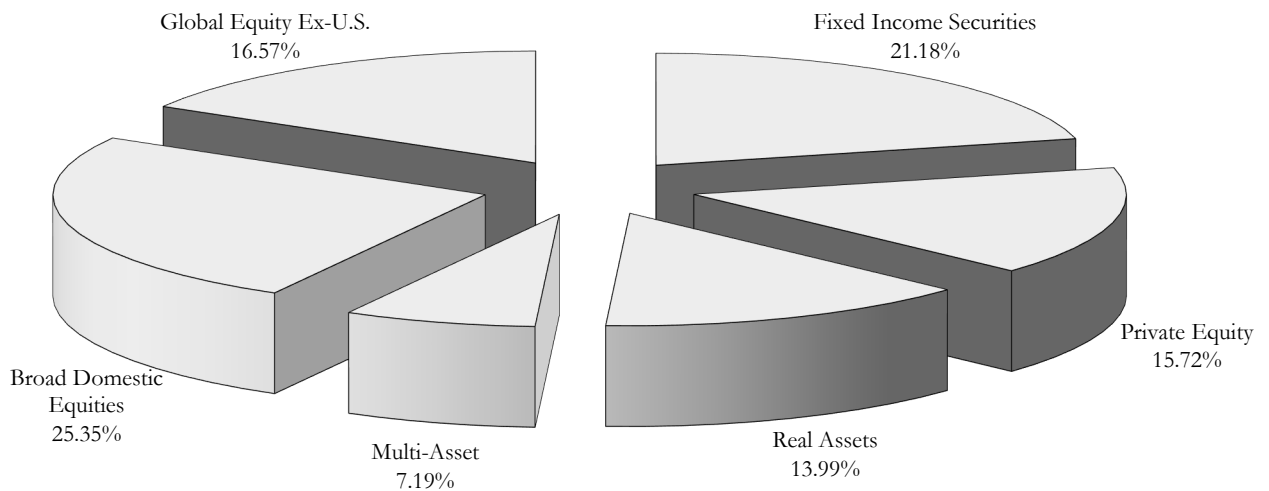
# Investment Section

## Teachers' Retirement System Asset Allocation June 30, 2024

### Actual — Retiree Medical Plan



### Actual — Health Reimbursement Arrangement



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## Alaska Retirement Management Board Top Ten Holdings by Asset Type June 30, 2024

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Invested assets under the fiduciary responsibility of the 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	U.S. Treasury N/B 4.5% 5/31/2029	\$ 52,763,289	\$ 52,403,018
2	U.S. Treasury N/B 4.625% 6/15/2027	52,655,033	52,499,177
3	U.S. Treasury N/B 1.375% 11/15/2040	34,900,982	55,329,770
4	U.S. Treasury N/B 4.875% 5/31/2026	34,372,579	34,302,902
5	U.S. Treasury N/B 3.875% 5/15/2043	29,320,992	32,494,259
6	FNMA Pool CB2662 3.0% 1/1/2052	27,378,076	31,918,643
7	FED HM LN PC Pool SD8230 4.5% 6/1/2052	26,782,441	28,368,753
8	U.S. Treasury N/B 3.625% 3/31/2028	26,553,825	27,322,264
9	U.S. Treasury N/B 4.25% 2/15/2054	26,528,352	27,851,289
10	U.S. Treasury N/B 3.625% 5/15/2053	25,533,661	30,000,996

### Equities

Rank	Largest Equity Holdings	Fair Value	Shares
1	Microsoft Corp.	\$ 154,040,639	344,648
2	Apple Inc.	134,841,445	640,212
3	Nvidia Corp.	120,415,666	974,710
4	Amazon.com Inc.	74,150,667	383,703
5	Meta Platforms Inc. Class A	53,965,253	107,027
6	Alphabet Inc. Class A	49,171,315	269,950
7	Alphabet Inc. Class C	42,357,994	230,934
8	Berkshire Hathaway Inc. Class B	38,507,000	94,658
9	Broadcom Inc.	33,087,305	20,608
10	Eli Lilly and Co.	28,831,968	31,845

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

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## Teachers' Retirement System Schedule of Investment Management Fees Year Ended June 30, 2024

	<u>Fair Value</u>	<u>Fees</u>
<b>Investment Management</b>		
Total Fixed Income	\$ 2,176,326,600	808,400
Total Multi-Asset	737,076,291	4,949,768
Total Broad Domestic Equity	2,596,503,145	220,570
Total Global Equity Ex-U.S.	1,696,514,337	3,257,324
Total Private Equity	1,610,468,541	6,693,009
Total Real Assets	1,433,336,454	7,949,312
Total Investment Management		<u>23,878,383</u>
<b>Custodian</b>		
State Street Bank		<u>474,308</u>
<b>Investment Advisory and Performance</b>		
Callan Associates		245,970
Investment Advisory Council		32,055
Total Investment Advisory and Performance		<u>278,025</u>
<b>Participant Directed</b>		
Custodian - State Street Bank		81,668
Investment Management		767,487
Synthetic Investment Contract Wrap Fees		72,093
Total Participant Directed		<u>921,248</u>
	<u>\$ 10,250,225,368</u>	<u>25,551,964</u>

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## Teachers' Retirement System Investment Summary Schedule June 30, 2024

Investments (at Fair Value)	Defined Benefit - Pension			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
<b>Fixed Income Securities</b>				
Short-term Fixed Income Pool			\$ 75,415,310	
Opportunistic Fixed Income			247,397,508	
Barclays Aggregate Bond Fund			996,420,617	
Total Fixed Income Securities	21.00%	± 10%	1,319,233,435	21.24%
<b>Multi-Asset</b>				
Alternative Equity Strategies Pool			40,448,485	
Tactical Allocation Strategies Pool			179,756,208	
Alternative Beta Pool			64,546,626	
Alternative Fixed Income			161,843,943	
Total Multi-Asset	8.00%	± 4%	446,595,262	7.19%
<b>Broad Domestic Equity</b>				
Large Cap Pool			1,440,084,082	
Small Cap Pool			133,025,079	
Total Broad Domestic Equity	26.00%	± 6%	1,573,109,161	25.32%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			827,801,618	
Emerging Markets Equity Pool			200,043,269	
Total Global Equity Ex-U.S.	17.00%	± 4%	1,027,844,887	16.55%
<b>Private Equity</b>				
Private Equity Pool			975,713,319	
Total Private Equity	14.00%	± 7%	975,713,319	15.71%
<b>Real Assets</b>				
Real Estate Pool			310,536,221	
Real Estate Investment Trust Pool			96,653,273	
Infrastructure Private Pool			167,214,226	
Energy Pool			8,166,045	
Farmland Pool			207,858,363	
Timber Pool			78,351,001	
Total Real Assets	14.00%	± 7%	868,779,129	13.99%
<b>Total Invested Assets</b>	<b>100.00%</b>		<b>\$ 6,211,275,193</b>	<b>100.00%</b>

# Investment Section

## Teachers' Retirement System Investment Summary Schedule June 30, 2024

Investments (at Fair Value)	Defined Benefit - Alaska Retiree Healthcare Trust			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
<b>Fixed Income Securities</b>				
Short-term Fixed Income Pool			\$ 43,772,302	
Opportunistic Fixed Income Pool			146,535,567	
Barclays Aggregate Bond Fund			590,188,165	
Total Fixed Income Securities	21.00%	± 10%	780,496,034	21.21%
<b>Multi-Asset</b>				
Alternative Equity Strategies Pool			23,958,000	
Tactical Allocation Strategies Pool			106,427,190	
Alternative Beta Pool			38,231,538	
Alternative Fixed Income			95,861,448	
Total Multi-Asset	8.00%	± 4%	264,478,176	7.19%
<b>Broad Domestic Equity</b>				
Large Cap Pool			852,973,690	
Small Cap Pool			78,791,843	
Total Broad Domestic Equity	26.00%	± 6%	931,765,533	25.35%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			490,313,692	
Emerging Markets Equity Pool			118,487,290	
Total Global Equity Ex-U.S.	17.00%	± 4%	608,800,982	16.55%
<b>Private Equity</b>				
Private Equity Pool			577,923,035	
Total Private Equity	14.00%	± 7%	577,923,035	15.72%
<b>Real Assets</b>				
Real Estate Pool			183,358,300	
Real Estate Investment Trust Pool			57,248,598	
Infrastructure Private Pool			99,042,373	
Energy Pool			4,836,828	
Farmland Pool			123,116,249	
Timber Pool			46,407,937	
Total Real Assets	14.00%	± 7%	514,010,285	13.98%
<b>Total Invested Assets</b>	<b>100.00%</b>		<b>\$ 3,677,474,045</b>	<b>100.00%</b>

# Investment Section

## Teachers' Retirement System Investment Summary Schedule June 30, 2024

Investments (at Fair Value)	Occupational Death and Disability			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
<b>Fixed Income Securities</b>				
Short-term Fixed Income Pool			\$ 120,772	
Opportunistic Fixed Income Pool			336,870	
Barclays Aggregate Bond Fund			1,356,743	
Total Fixed Income Securities	21.00%	± 10%	1,814,385	21.41%
<b>Multi-Asset</b>				
Alternative Equity Strategies Pool			55,076	
Tactical Allocation Strategies Pool			244,544	
Alternative Beta Pool			87,933	
Alternative Fixed Income			220,360	
Total Multi-Asset	8.00%	± 4%	607,913	7.17%
<b>Broad Domestic Equity</b>				
Large Cap Pool			1,960,870	
Small Cap Pool			181,096	
Total Broad Domestic Equity	26.00%	± 6%	2,141,966	25.28%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			1,127,130	
Emerging Markets Equity Pool			272,391	
Total Global Equity Ex-U.S.	17.00%	± 4%	1,399,521	16.52%
<b>Private Equity</b>				
Private Equity Pool			1,328,595	
Total Private Equity	14.00%	± 7%	1,328,595	15.68%
<b>Real Assets</b>				
Real Estate Pool			421,471	
Real Estate Investment Trust Pool			131,591	
Infrastructure Private Pool			227,713	
Energy Pool			11,084	
Farmland Pool			283,017	
Timber Pool			106,709	
Total Real Assets	14.00%	± 7%	1,181,585	13.94%
<b>Total Invested Assets</b>	<b>100.00%</b>		<b>\$ 8,473,965</b>	<b>100.00%</b>



# Investment Section

## Teachers' Retirement System Investment Summary Schedule June 30, 2024

Investments (at Fair Value)	Retiree Medical Plan			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
<b>Fixed Income Securities</b>				
Short-term Fixed Income Pool			\$ 1,021,172	
Opportunistic Fixed Income Pool			3,473,245	
Barclays Aggregate Bond Fund			13,988,724	
Total Fixed Income Securities	21.00%	± 10%	18,483,141	21.21%
<b>Multi-Asset</b>				
Alternative Equity Strategies Pool			567,887	
Tactical Allocation Strategies Pool			2,521,113	
Alternative Beta Pool			906,145	
Alternative Fixed Income			2,272,135	
Total Multi-Asset	8.00%	± 4%	6,267,280	7.19%
<b>Broad Domestic Equity</b>				
Large Cap Pool			20,217,264	
Small Cap Pool			1,867,582	
Total Broad Domestic Equity	26.00%	± 6%	22,084,846	25.34%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			11,621,438	
Emerging Markets Equity Pool			2,808,421	
Total Global Equity Ex-U.S.	17.00%	± 4%	14,429,859	16.56%
<b>Private Equity</b>				
Private Equity Pool			13,698,059	
Total Private Equity	14.00%	± 7%	13,698,059	15.72%
<b>Real Assets</b>				
Real Estate Pool			4,345,975	
Real Estate Investment Trust Pool			1,356,961	
Infrastructure Private Pool			2,347,528	
Energy Pool			114,616	
Farmland Pool			2,918,116	
Timber Pool			1,100,014	
Total Real Assets	14.00%	± 7%	12,183,210	13.98%
<b>Total Invested Assets</b>	<b>100.00%</b>		<b>\$ 87,146,395</b>	<b>100.00%</b>

# Investment Section

## Teachers' Retirement System Investment Summary Schedule June 30, 2024

Investments (at Fair Value)	Health Reimbursement Arrangement			% of Total Assets
	Asset Allocation Policy	Range	Fair Value	
<b>Fixed Income Securities</b>				
Short-term Fixed Income Pool			\$ 3,006,817	
Opportunistic Fixed Income Pool			10,600,035	
Barclays Aggregate Bond Fund			42,692,755	
Total Fixed Income Securities	21.00%	± 10%	56,299,607	21.18%
<b>Multi-Asset</b>				
Alternative Equity Strategies Pool			1,733,022	
Tactical Allocation Strategies Pool			7,694,745	
Alternative Beta Pool			2,765,522	
Alternate Fixed Income			6,934,374	
Total Multi-Asset	8.00%	± 4%	19,127,663	7.19%
<b>Broad Domestic Equity</b>				
Large Cap Pool			61,702,000	
Small Cap Pool			5,699,641	
Total Broad Domestic Equity	26.00%	± 6%	67,401,641	25.35%
<b>Global Equity Ex-U.S.</b>				
International Equity Pool			35,468,023	
Emerging Markets Equity Pool			8,571,065	
Total Global Equity Ex-U.S.	17.00%	± 4%	44,039,088	16.57%
<b>Private Equity</b>				
Private Equity Pool			41,805,534	
Total Private Equity	14.00%	± 7%	41,805,534	15.72%
<b>Real Assets</b>				
Real Estate Pool			13,263,647	
Real Estate Investment Trust Pool			4,141,175	
Infrastructure Private Pool			7,164,514	
Energy Pool			349,908	
Farmland Pool			8,905,946	
Timber Pool			3,357,057	
Total Real Assets	14.00%	± 7%	37,182,247	13.99%
<b>Total Invested Assets</b>	<b>100.00%</b>		<b>\$ 265,855,780</b>	<b>100.00%</b>

# Investment Section

## Teachers' Retirement System Recaptured Commission Fees Year Ended June 30, 2024

Fund	Global Equity Ex-U.S.	Multi-Asset	Total
Defined Benefit Plan – Pension	\$ 268	4,002	4,270
Postemployment Benefit – Alaska Retiree Healthcare Trust	158	2,293	2,451
Postemployment Benefit – Occupational Death and Disability	-	5	5
Postemployment Benefit – Retiree Medical Plan	3	51	54
Postemployment Benefit – Health Reimbursement Arrangement	11	154	165
Total Recapture Commission Fees	\$ 440	6,505	6,945

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.