

**ALASKA RETIREMENT MANAGEMENT BOARD
FINANCIAL REPORT**

As of December 31, 2018

ALASKA RETIREMENT MANAGEMENT BOARD
Schedule of Investment Income and Changes in Invested Assets by Fund
Fiscal Year-to-Date through December 31, 2018

	Beginning Invested Assets	Investment Income ⁽¹⁾	Net Contributions (Withdrawals)	Ending Invested Assets	% Change in Invested Assets	% Change due to Investment Income ⁽²⁾
<u>Public Employees' Retirement System (PERS)</u>						
<u>Defined Benefit Plans:</u>						
Retirement Trust	\$ 9,279,978,252	\$ (325,583,248)	\$ (111,467,310)	\$ 8,842,927,694	-4.71%	-3.53%
Retirement Health Care Trust	7,653,992,293	(264,522,797)	(156,237,535)	7,233,231,961	-5.50%	-3.49%
Total Defined Benefit Plans	16,933,970,545	(590,106,045)	(267,704,845)	16,076,159,655	-5.07%	-3.51%
<u>Defined Contribution Plans:</u>						
Participant Directed Retirement	1,041,422,342	(73,925,122)	48,713,241	1,016,210,461	-2.42%	-6.94%
Health Reimbursement Arrangement	356,026,985	(13,144,584)	19,861,848	362,744,249	1.89%	-3.59%
Retiree Medical Plan	99,169,627	(3,667,610)	5,572,062	101,074,079	1.92%	-3.60%
Defined Benefit Occupational Death and Disability:						
Public Employees	20,872,152	(771,077)	1,195,225	21,296,300	2.03%	-3.59%
Police and Firefighters	9,776,610	(358,987)	470,578	9,888,201	1.14%	-3.59%
Total Defined Contribution Plans	1,527,267,716	(91,867,380)	75,812,954	1,511,213,290	-1.05%	-5.87%
Total PERS	18,461,238,261	(681,973,425)	(191,891,891)	17,587,372,945	-4.73%	-3.71%
<u>Teachers' Retirement System (TRS)</u>						
<u>Defined Benefit Plans:</u>						
Retirement Trust	5,466,056,988	(191,473,322)	(81,819,343)	5,192,764,323	-5.00%	-3.53%
Retirement Health Care Trust	2,883,838,182	(99,544,982)	(59,593,461)	2,724,699,739	-5.52%	-3.49%
Total Defined Benefit Plans	8,349,895,170	(291,018,304)	(141,412,804)	7,917,464,062	-5.18%	-3.52%
<u>Defined Contribution Plans:</u>						
Participant Directed Retirement	442,323,051	(31,368,393)	13,639,703	424,594,361	-4.01%	-6.98%
Health Reimbursement Arrangement	105,665,716	(3,819,454)	4,608,970	106,455,232	0.75%	-3.54%
Retiree Medical Plan	36,357,065	(1,306,720)	1,228,065	36,278,410	-0.22%	-3.53%
Defined Benefit Occupational Death and Disability	3,797,783	(134,685)	83,425	3,746,523	-1.35%	-3.51%
Total Defined Contribution Plans	588,143,615	(36,629,252)	19,560,163	571,074,526	-2.90%	-6.13%
Total TRS	8,938,038,785	(327,647,556)	(121,852,641)	8,488,538,588	-5.03%	-3.69%
<u>Judicial Retirement System (JRS)</u>						
Defined Benefit Plan Retirement Trust	176,358,294	(6,326,614)	1,229,177	171,260,857	-2.89%	-3.57%
Defined Benefit Retirement Health Care Trust	31,621,813	(1,109,193)	(79,203)	30,433,417	-3.76%	-3.51%
Total JRS	207,980,107	(7,435,807)	1,149,974	201,694,274	-3.02%	-3.57%
<u>National Guard/Naval Militia Retirement System (MRS)</u>						
Defined Benefit Plan Retirement Trust	39,449,053	(1,545,976)	55,739	37,958,816	-3.78%	-3.92%
<u>Other Participant Directed Plans</u>						
Supplemental Annuity Plan	3,905,659,481	(164,099,826)	(22,684,816)	3,718,874,839	-4.78%	-4.21%
Deferred Compensation Plan	938,806,799	(46,583,470)	(8,037,559)	884,185,770	-5.82%	-4.98%
Total All Funds	32,491,172,486	(1,229,286,060)	(343,261,194)	30,918,625,232		
Total Non-Participant Directed	26,162,960,813	(913,309,249)	(374,891,763)	24,874,759,801	-4.92%	-3.52%
Total Participant Directed	6,328,211,673	(315,976,811)	31,630,569	6,043,865,431	-4.49%	-4.98%
Total All Funds	\$ 32,491,172,486	\$ (1,229,286,060)	\$ (343,261,194)	\$ 30,918,625,232	-4.84%	-3.80%

Notes:

(1) Includes interest, dividends, securities lending, expenses, realized and unrealized gains/losses

(2) Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates and can be found at: <http://www.revenue.state.ak.us/treasury/programs/programs/other/armb/investmentresults.aspx>

ALASKA RETIREMENT MANAGEMENT BOARD
Schedule of Investment Income and Changes in Invested Assets by Fund
For the Month Ended December 31, 2018

	Beginning Invested Assets	Investment Income ⁽¹⁾	Net Contributions (Withdrawals)	Ending Invested Assets	% Change in Invested Assets	% Change due to Investment Income ⁽²⁾
<u>Public Employees' Retirement System (PERS)</u>						
<u>Defined Benefit Plans:</u>						
Retirement Trust	\$ 9,222,904,074	\$ (341,269,079)	\$ (38,707,301)	\$ 8,842,927,694	-4.12%	-3.71%
Retirement Health Care Trust	7,533,990,896	(278,815,282)	(21,943,653)	7,233,231,961	-3.99%	-3.71%
Total Defined Benefit Plans	16,756,894,970	(620,084,361)	(60,650,954)	16,076,159,655	-4.06%	-3.71%
<u>Defined Contribution Plans:</u>						
Participant Directed Retirement	1,069,048,491	(63,567,231)	10,729,201	1,016,210,461	-4.94%	-5.92%
Health Reimbursement Arrangement	372,698,907	(13,612,486)	3,657,828	362,744,249	-2.67%	-3.63%
Retiree Medical Plan	103,873,686	(3,795,202)	995,595	101,074,079	-2.70%	-3.64%
<u>Defined Benefit Occupational Death and Disability:</u>						
Public Employees	21,865,628	(798,235)	228,907	21,296,300	-2.60%	-3.63%
Police and Firefighters	10,161,206	(372,014)	99,009	9,888,201	-2.69%	-3.64%
Total Defined Contribution Plans	1,577,647,918	(82,145,168)	15,710,540	1,511,213,290	-4.21%	-5.18%
Total PERS	18,334,542,888	(702,229,529)	(44,940,414)	17,587,372,945	-4.08%	-3.83%
<u>Teachers' Retirement System (TRS)</u>						
<u>Defined Benefit Plans:</u>						
Retirement Trust	5,426,235,241	(201,020,880)	(32,450,038)	5,192,764,323	-4.30%	-3.72%
Retirement Health Care Trust	2,837,243,444	(104,982,010)	(7,561,695)	2,724,699,739	-3.97%	-3.71%
Total Defined Benefit Plans	8,263,478,685	(306,002,890)	(40,011,733)	7,917,464,062	-4.19%	-3.71%
<u>Defined Contribution Plans:</u>						
Participant Directed Retirement	446,421,565	(27,051,682)	5,224,478	424,594,361	-4.89%	-6.02%
Health Reimbursement Arrangement	109,288,145	(3,986,327)	1,153,414	106,455,232	-2.59%	-3.63%
Retiree Medical Plan	37,338,027	(1,365,210)	305,593	36,278,410	-2.84%	-3.64%
Defined Benefit Occupational Death and Disability	3,859,381	(141,231)	28,373	3,746,523	-2.92%	-3.65%
Total Defined Contribution Plans	596,907,118	(32,544,450)	6,711,858	571,074,526	-4.33%	-5.42%
Total TRS	8,860,385,803	(338,547,340)	(33,299,875)	8,488,538,588	-4.20%	-3.83%
<u>Judicial Retirement System (JRS)</u>						
Defined Benefit Plan Retirement Trust	178,444,252	(6,596,260)	(587,135)	171,260,857	-4.03%	-3.70%
Defined Benefit Retirement Health Care Trust	31,557,587	(1,164,068)	39,898	30,433,417	-3.56%	-3.69%
Total JRS	210,001,839	(7,760,328)	(547,237)	201,694,274	-3.96%	-3.70%
<u>National Guard/Naval Militia Retirement System (MRS)</u>						
Defined Benefit Plan Retirement Trust	39,284,947	(1,226,189)	(99,942)	37,958,816	-3.38%	-3.13%
<u>Other Participant Directed Plans</u>						
Supplemental Annuity Plan	3,884,962,976	(159,773,619)	(6,314,518)	3,718,874,839	-4.28%	-4.12%
Deferred Compensation Plan	931,868,372	(48,008,270)	325,668	884,185,770	-5.12%	-5.15%
Total All Funds	32,261,046,825	(1,257,545,275)	(84,876,318)	30,918,625,232		
Total Non-Participant Directed	25,928,745,421	(959,144,473)	(94,841,147)	24,874,759,801	-4.06%	-3.71%
Total Participant Directed	6,332,301,404	(298,400,802)	9,964,829	6,043,865,431	-4.55%	-4.71%
Total All Funds	\$ 32,261,046,825	\$ (1,257,545,275)	\$ (84,876,318)	\$ 30,918,625,232	-4.16%	-3.90%

Notes:

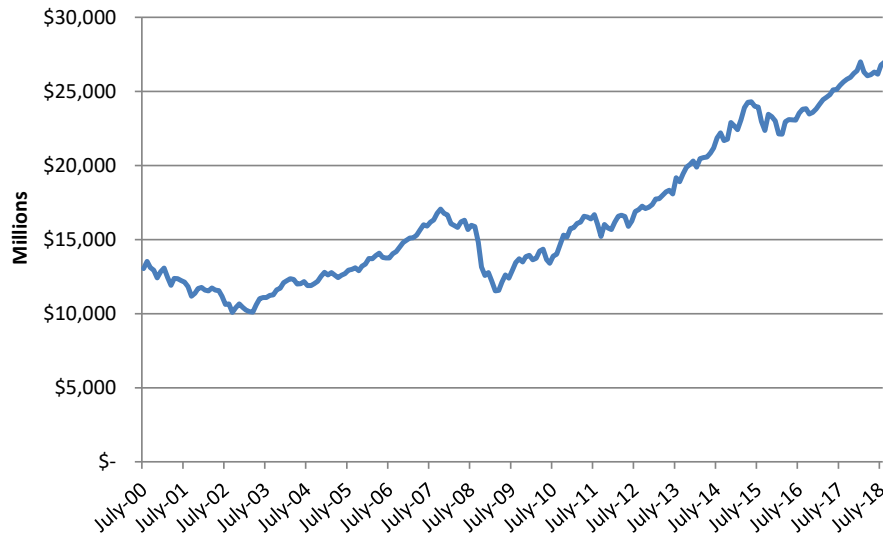
(1) Includes interest, dividends, securities lending, expenses, realized and unrealized gains/losses

(2) Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates and can be found at: <http://www.revenue.state.ak.us/treasury/programs/programs/other/armb/investmentresults.aspx>

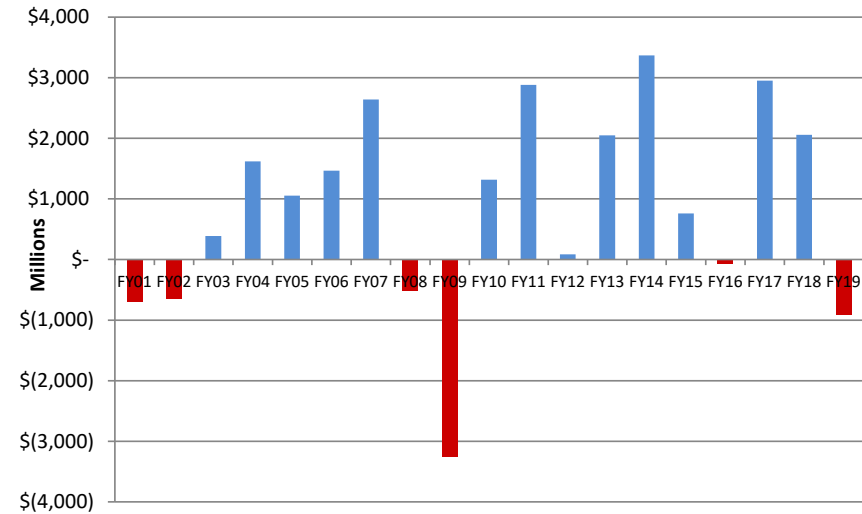
Total Non Participant Directed Assets

As of December 31, 2018

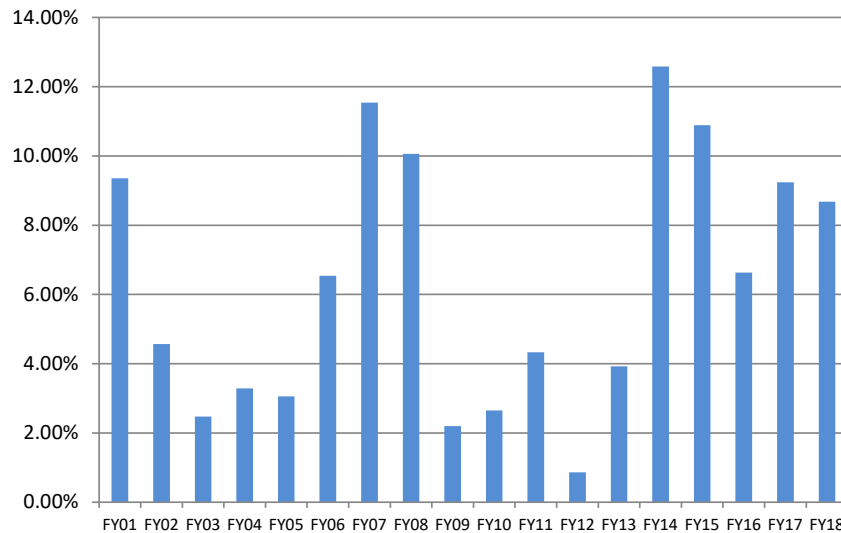
Total Assets History



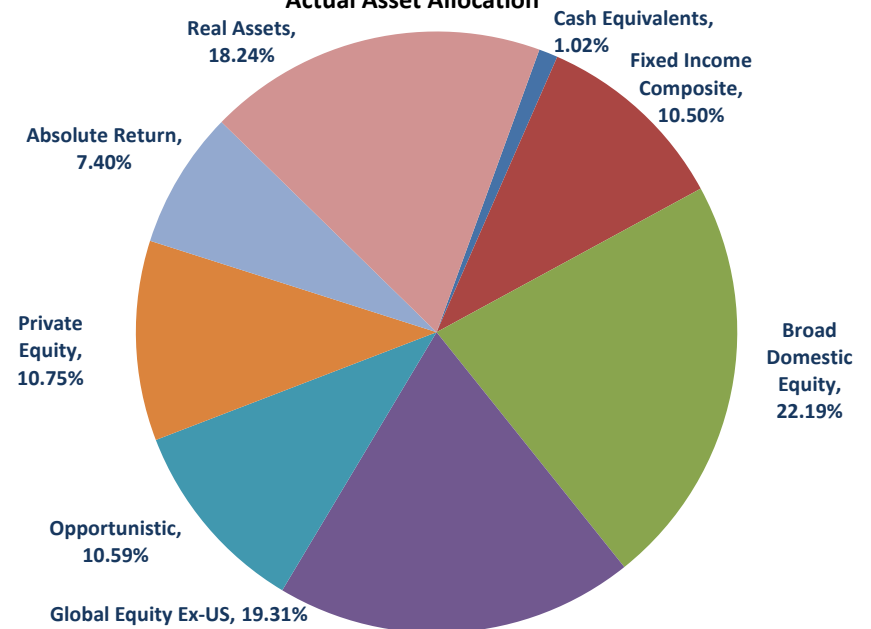
Income by Fiscal Year



5-year Annualized Returns as of Fiscal Year End



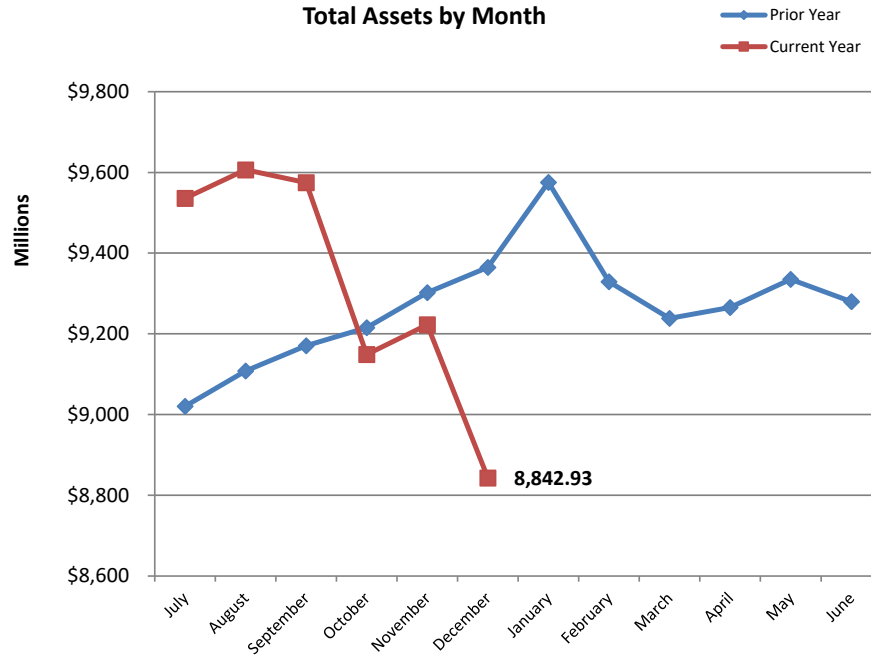
Actual Asset Allocation



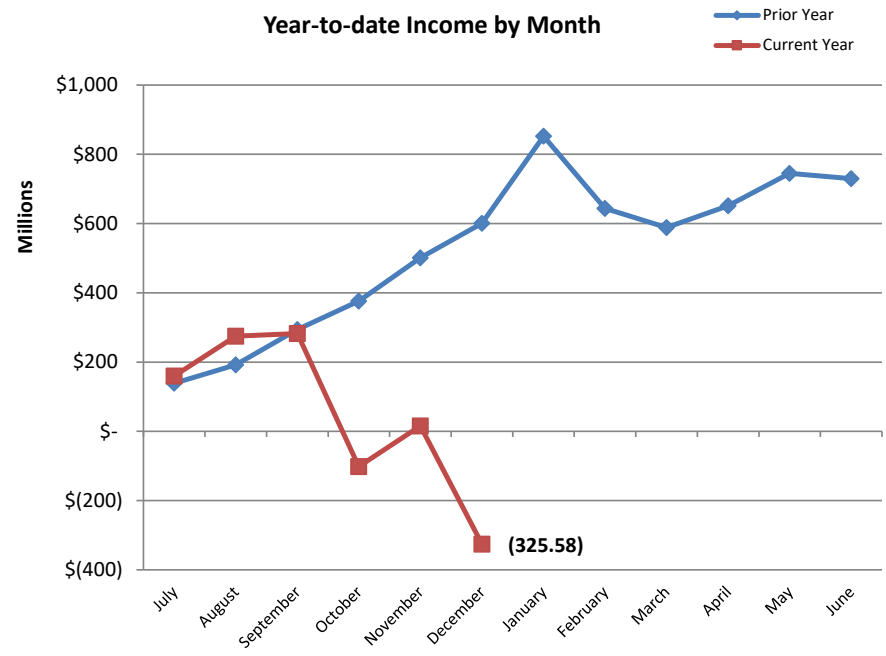
Public Employees' Retirement Pension Trust Fund

Fiscal Year-to-Date through December 31, 2018

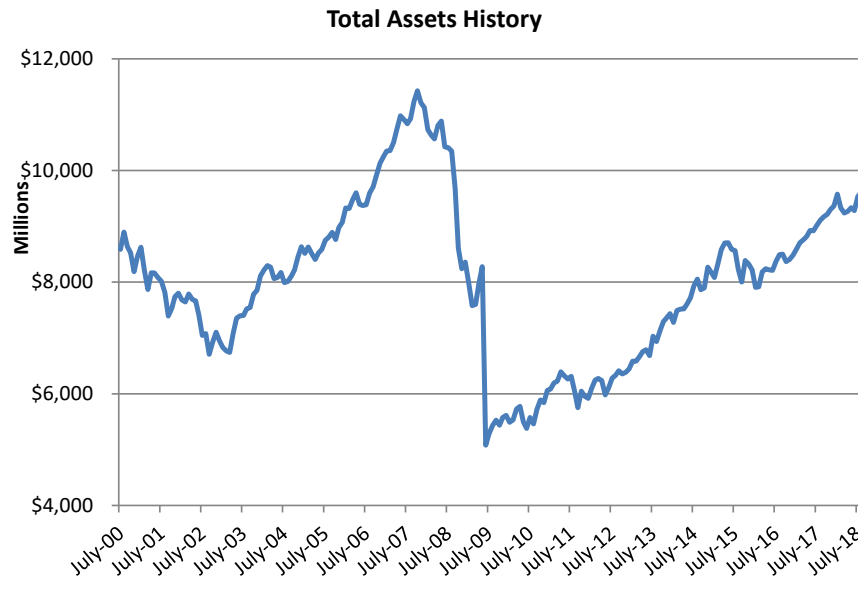
Total Assets by Month



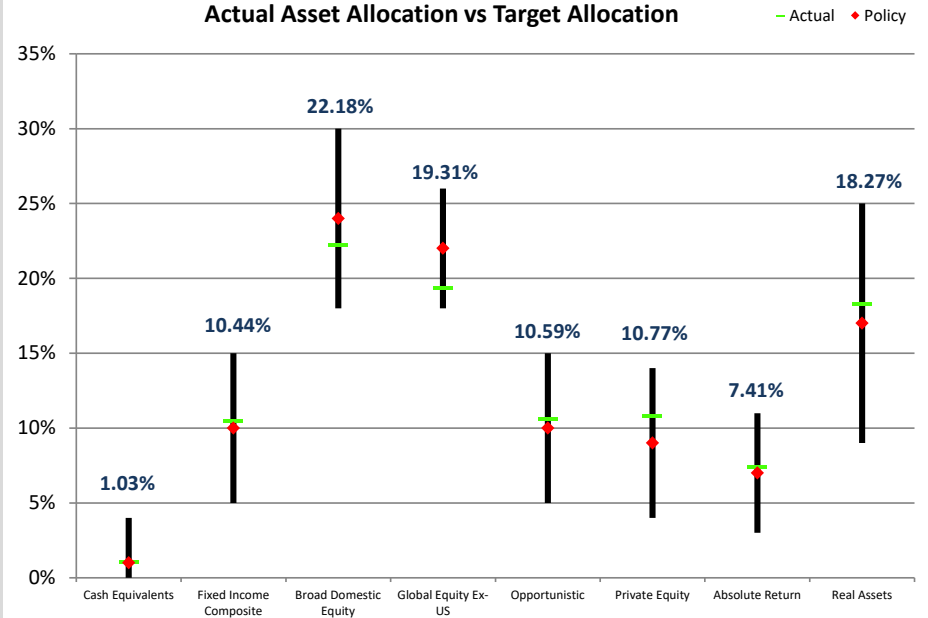
Year-to-date Income by Month



Total Assets History



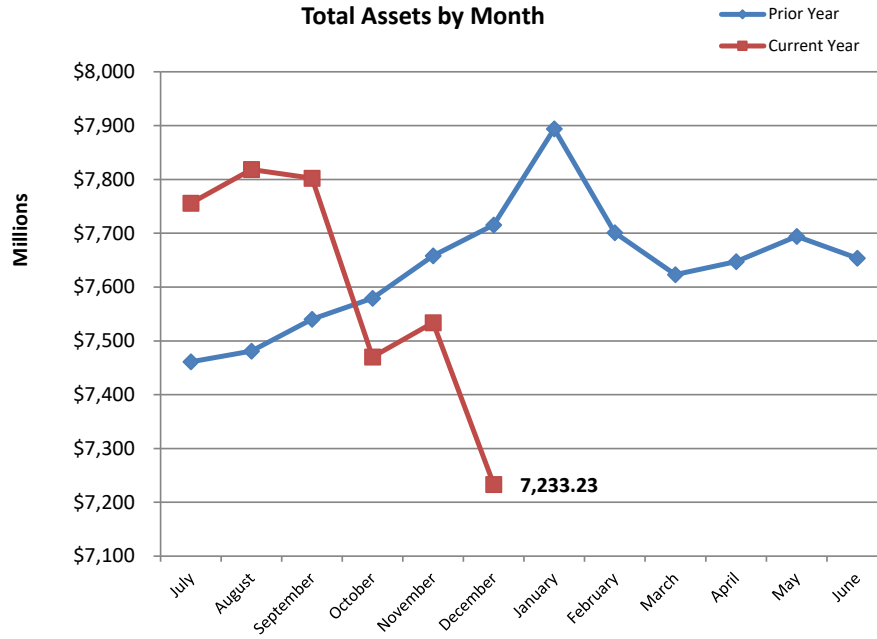
Actual Asset Allocation vs Target Allocation



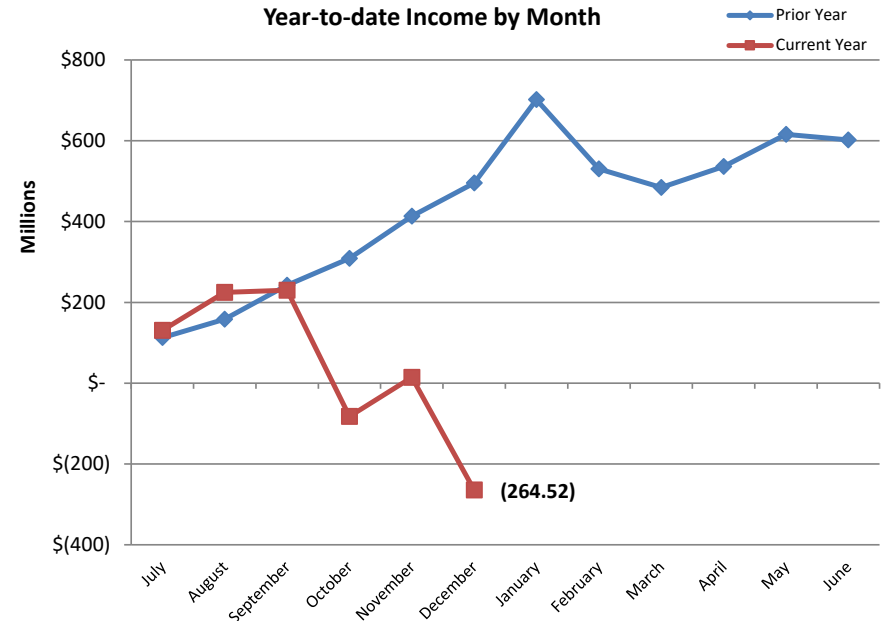
Public Employees' Retirement Health Care Trust Fund

Fiscal Year-to-Date through December 31, 2018

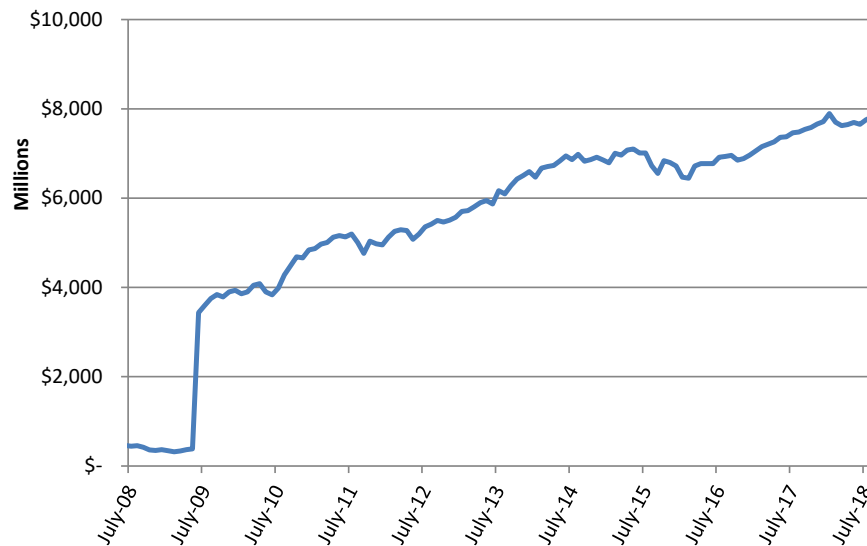
Total Assets by Month



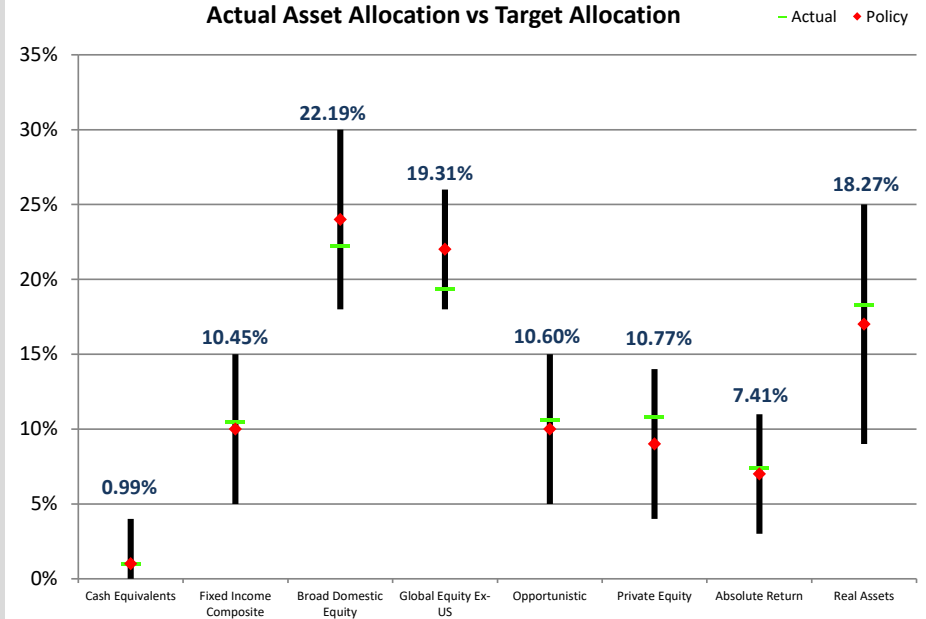
Year-to-date Income by Month



Total Assets History

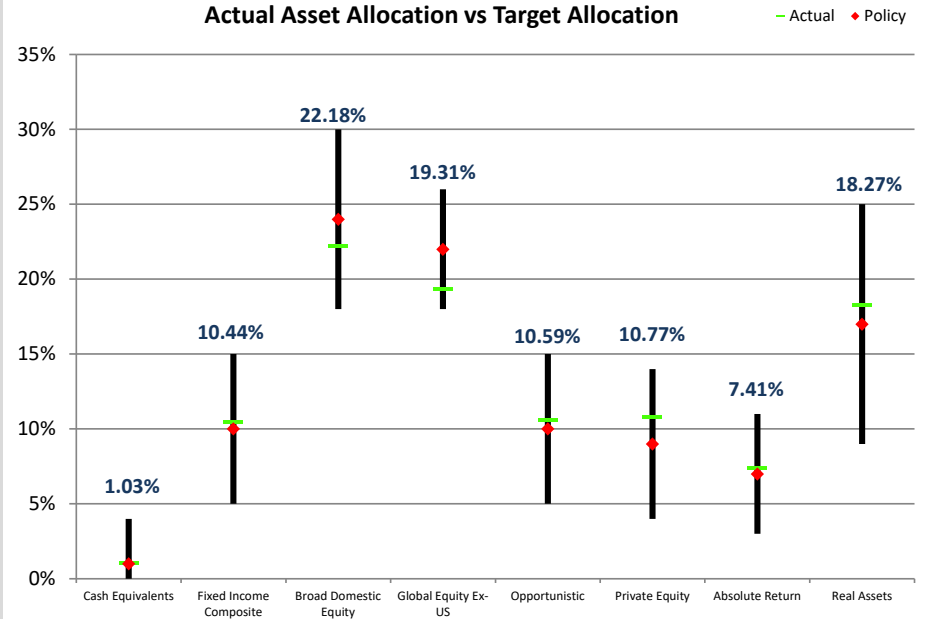
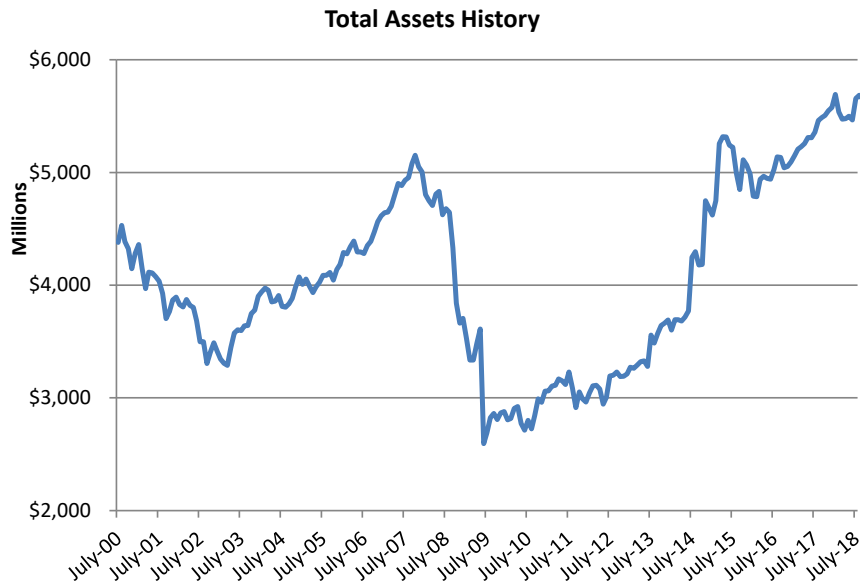
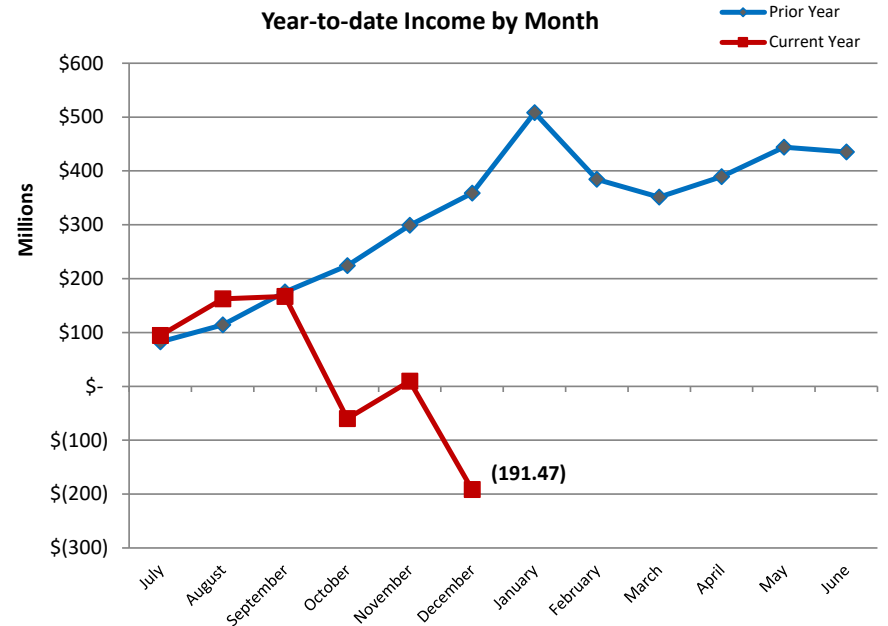
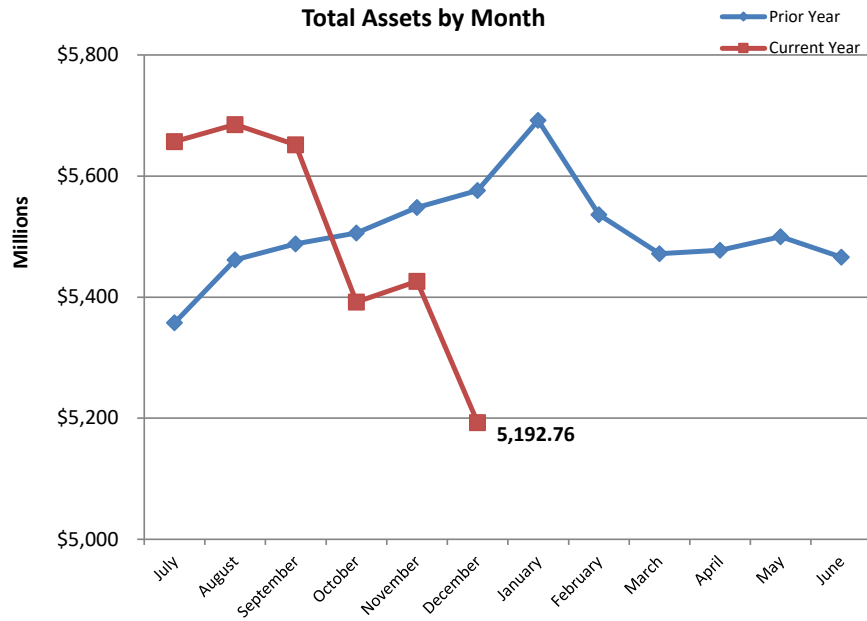


Actual Asset Allocation vs Target Allocation



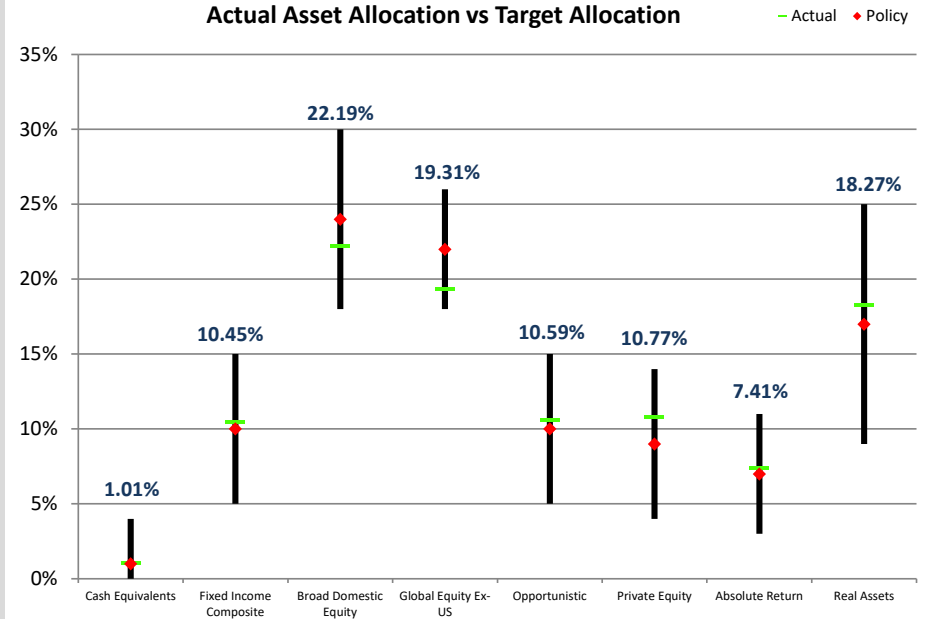
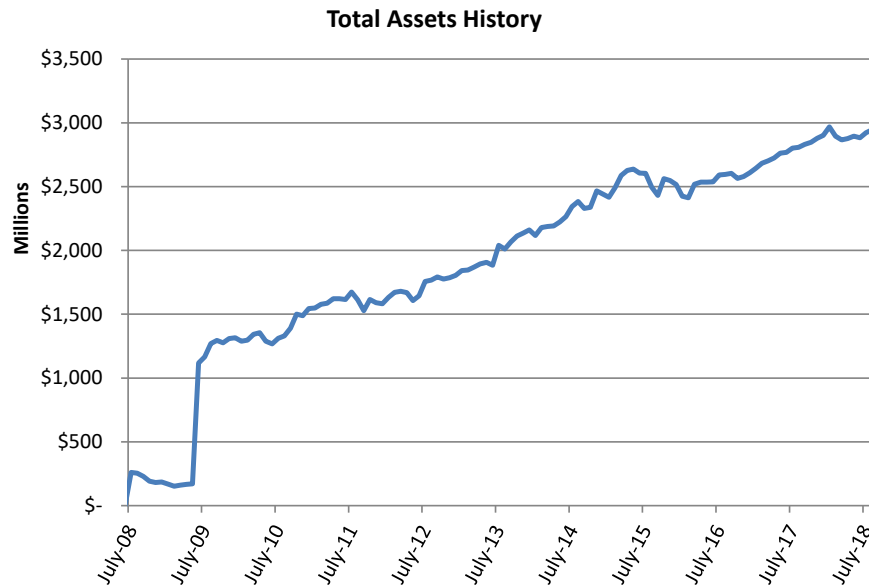
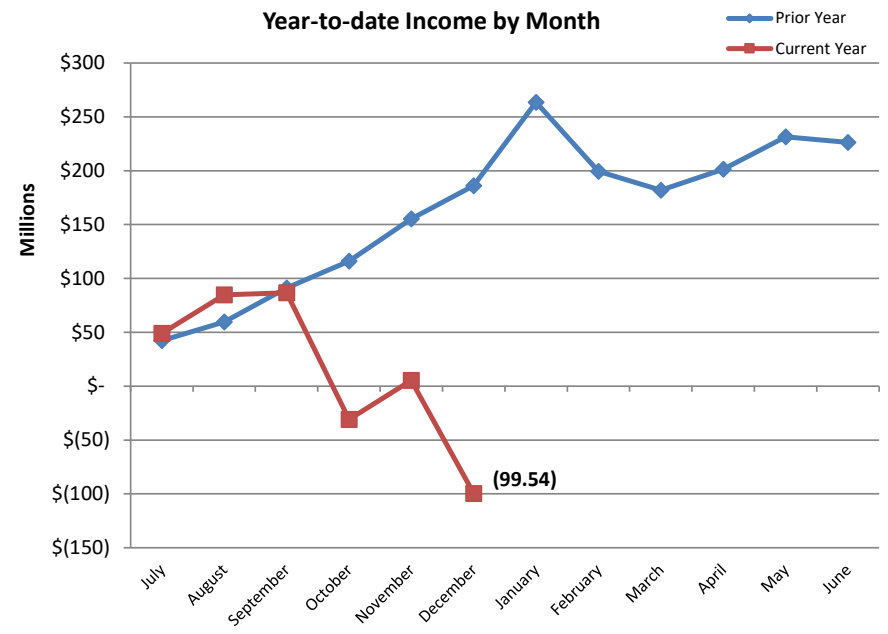
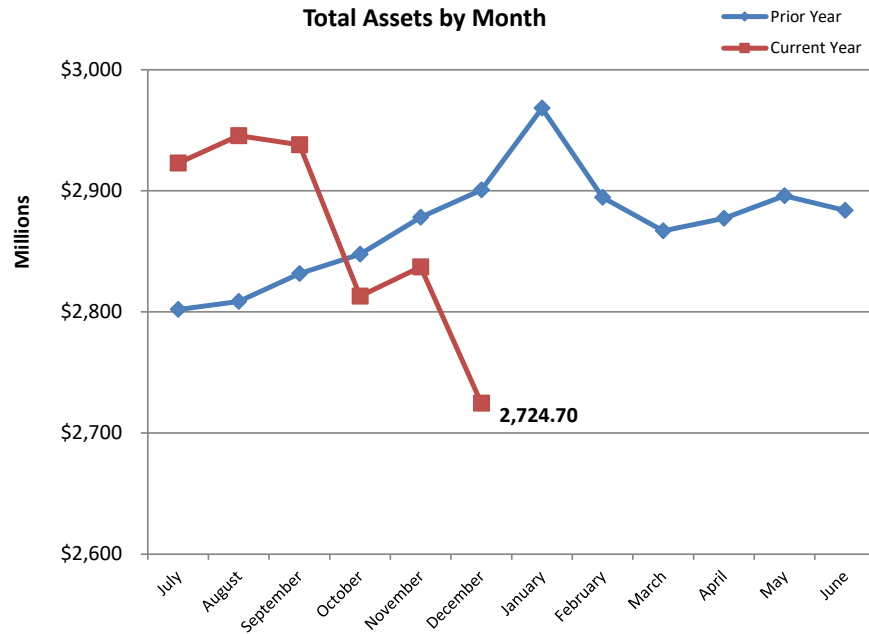
Teachers' Retirement Pension Trust Fund

Fiscal Year-to-Date through December 31, 2018



Teachers' Retirement Health Care Trust Fund

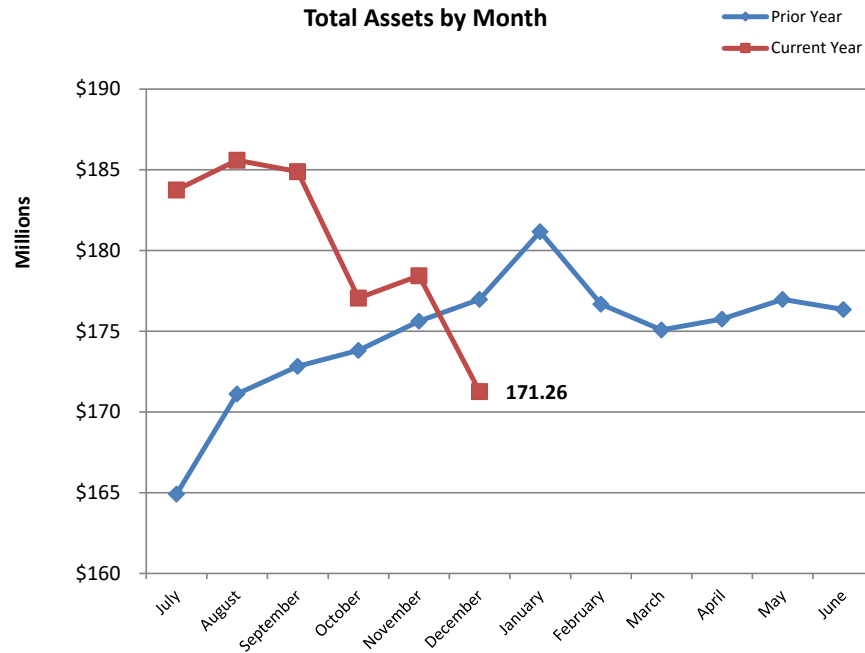
Fiscal Year-to-Date through December 31, 2018



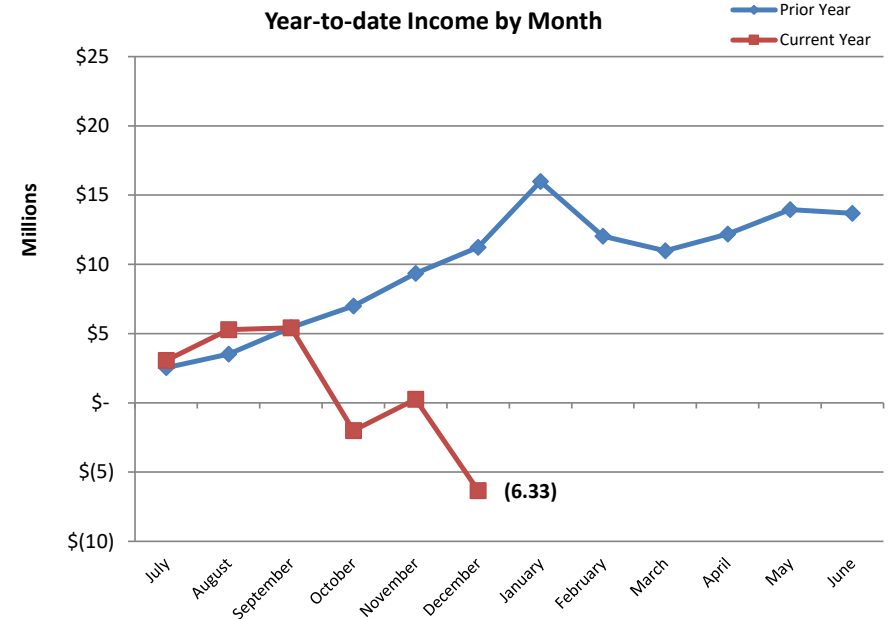
Judicial Retirement Pension Trust Fund

Fiscal Year-to-Date through December 31, 2018

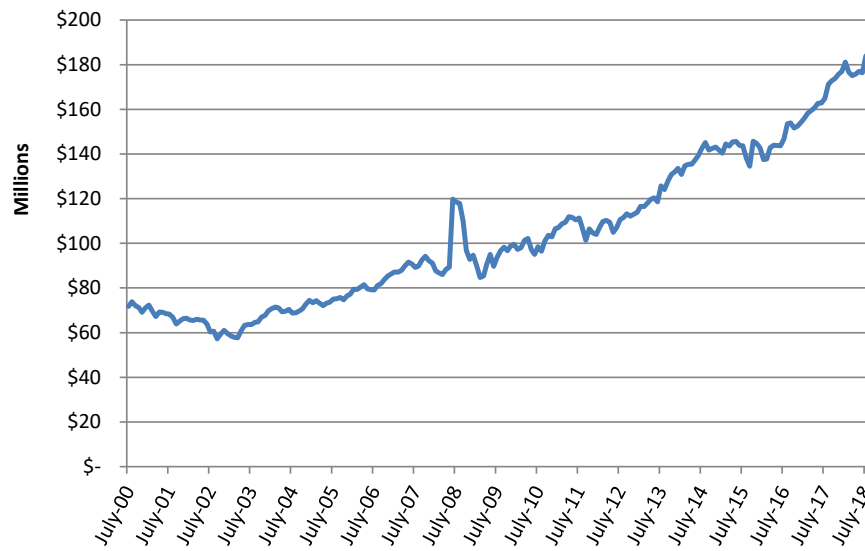
Total Assets by Month



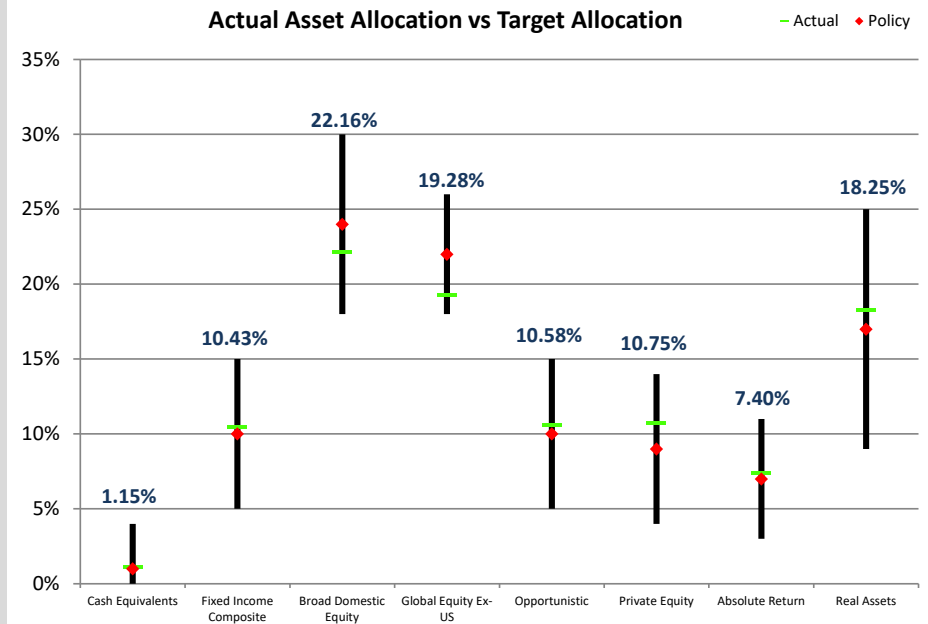
Year-to-date Income by Month



Total Assets History

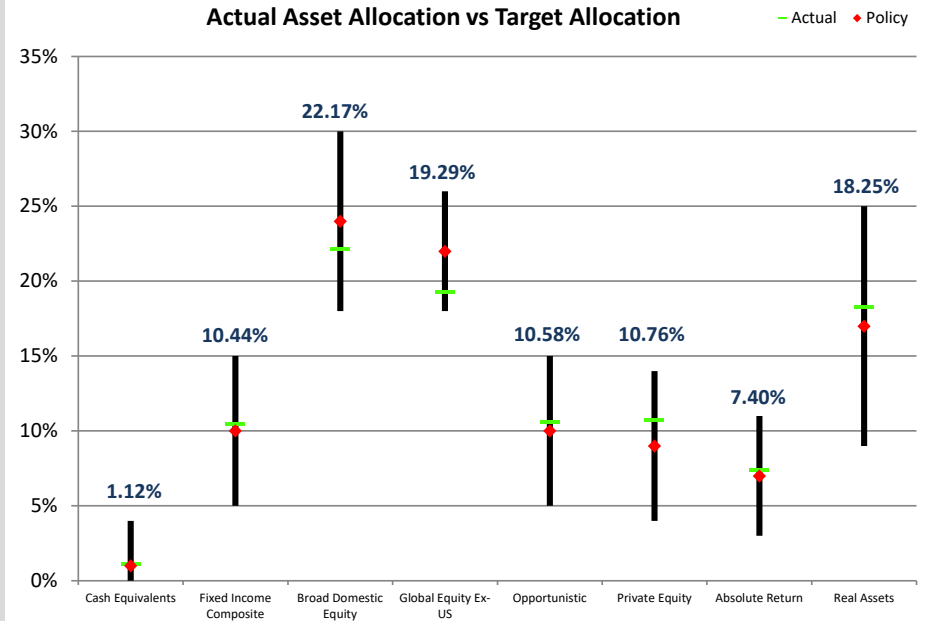
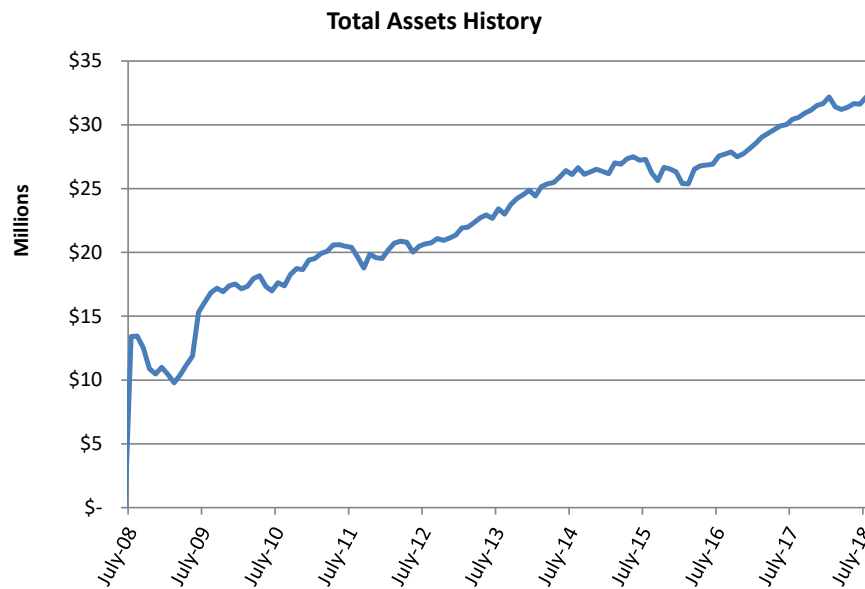
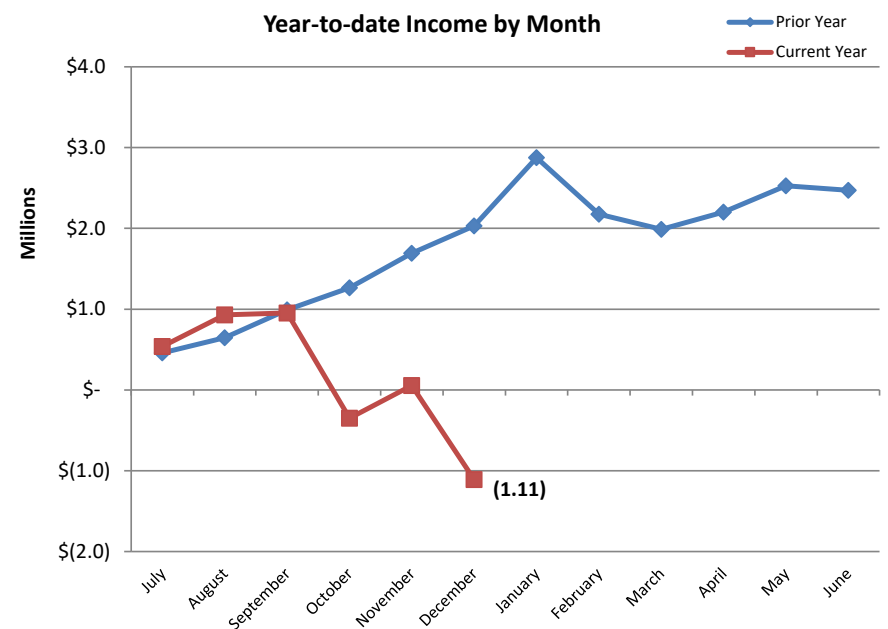
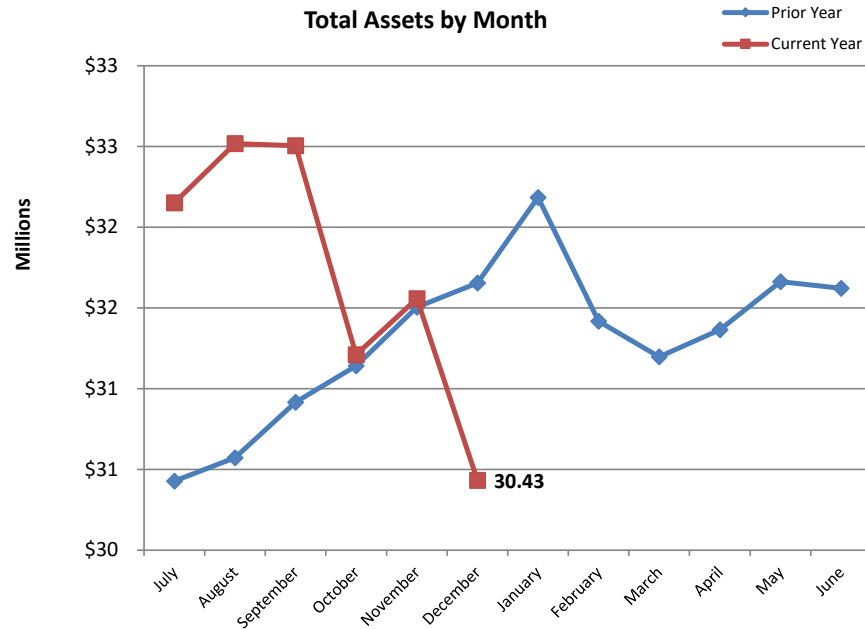


Actual Asset Allocation vs Target Allocation



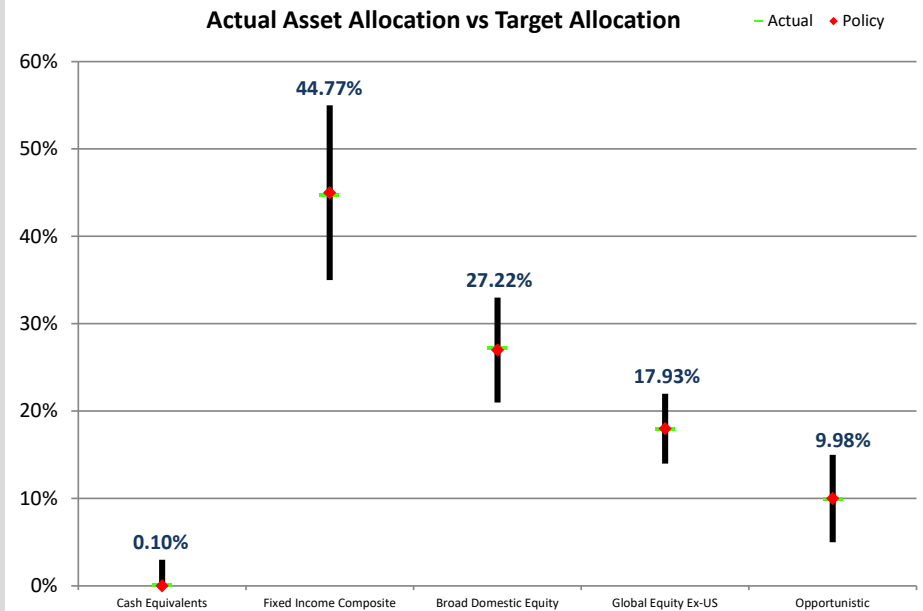
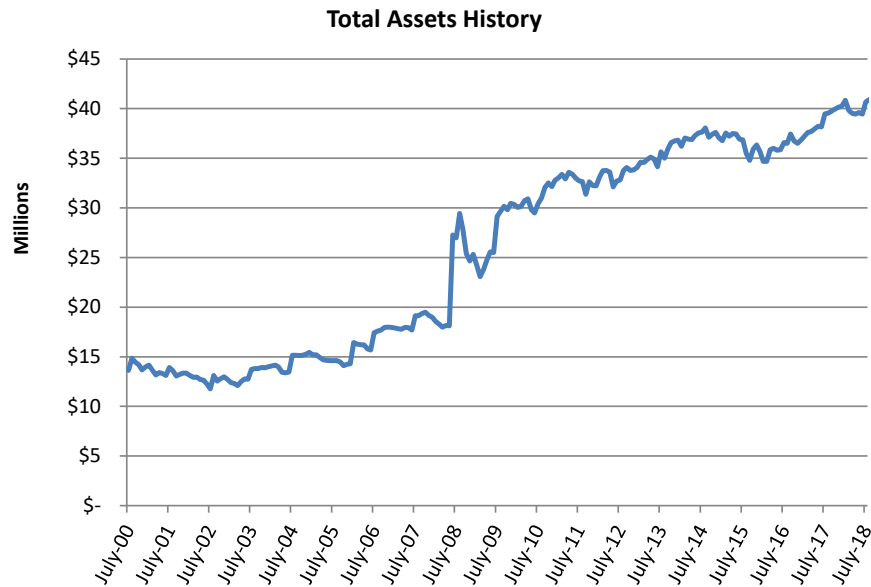
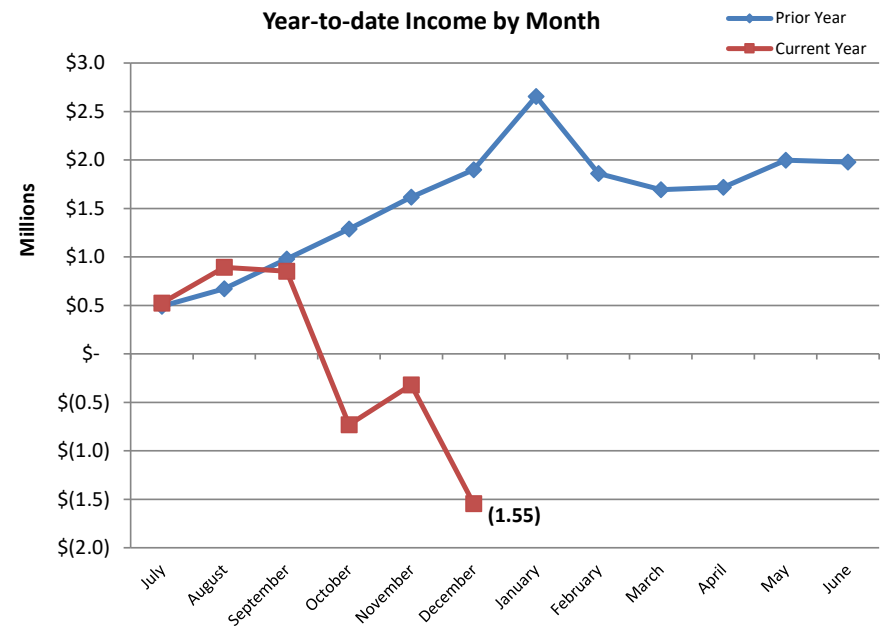
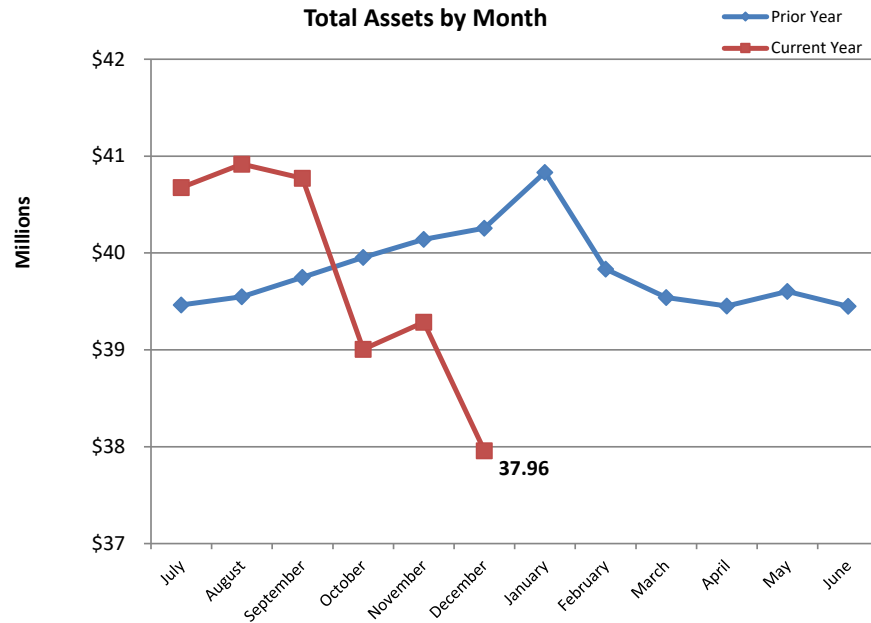
Judicial Retirement Health Care Trust Fund

Fiscal Year-to-Date through December 31, 2018



Military Retirement Trust Fund

Fiscal Year-to-Date through December 31, 2018



ALASKA RETIREMENT MANAGEMENT BOARD

Reporting of Funds by Manager

All Non-Participant Directed Plans

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For the Month Ended December 31, 2018

	Beginning Invested Assets	Investment Income	Net Contributions and (Withdrawals)	Ending Invested Assets	% increase (decrease)	% Change due to Investment Income
Cash						
Short-Term Fixed Income Pool	\$ 337,663,411	\$ 585,146	\$ (84,738,126)	\$ 253,510,431	-24.92%	0.20%
Securities Lending Income Pool	317,296	134,967	(316,772)	135,491	-57.30%	84.93%
Total Cash	<u>337,980,707</u>	<u>720,113</u>	<u>(85,054,898)</u>	<u>253,645,922</u>	-24.95%	0.24%
Fixed Income						
ARMB US Treasury Fixed Income	<u>2,573,738,315</u>	<u>37,751,624</u>	<u>-</u>	<u>2,611,489,939</u>	1.47%	1.47%
Domestic Equities						
Small Cap						
Passively Managed						
ARMB S&P 600	154,656,678	(18,640,720)	2,144	136,018,102	-12.05%	-12.05%
SSgA Russell 2000 Growth	5,568	20	-	5,588	0.36%	0.36%
SSgA Russell 2000 Value	12,948	5	-	12,953	0.04%	0.04%
Total Passive	<u>154,675,194</u>	<u>(18,640,695)</u>	<u>2,144</u>	<u>136,036,643</u>	-12.05%	-12.05%
Actively Managed						
ARMB Futures Small Cap	1,133,799	(1,856,040)	2,500,111	1,777,870	56.81%	-77.86%
Arrowmark	52,896,287	(5,887,105)	-	47,009,182	-11.13%	-11.13%
BMO Global Asset Management	49,217,612	(5,587,748)	-	43,629,864	-11.35%	-11.35%
DePrince, Race & Zollo Inc.- Micro Cap	84,905,789	(8,450,015)	-	76,455,774	-9.95%	-9.95%
Frontier Capital Mgmt. Co.	93,986,768	(10,556,283)	-	83,430,485	-11.23%	-11.23%
Jennison Associates, LLC	68,447,149	(8,089,420)	-	60,357,729	-11.82%	-11.82%
Lord Abbett & Co.- Micro Cap	79,799,923	(7,296,596)	-	72,503,327	-9.14%	-9.14%
SSgA Volatility-Russell 2000	-	1,445	-	1,445	100.00%	100.00%
T. Rowe Small Cap Growth	46,141,939	(5,282,711)	68,659	40,927,887	-11.30%	-11.44%
Transition Account	(1,520)	-	-	(1,520)	-	-
Victory Capital Management	121,154,287	(11,488,045)	-	109,666,242	-9.48%	-9.48%
Zebra Capital Management	84,887,000	(9,151,424)	-	75,735,576	-10.78%	-10.78%
Total Active	<u>682,569,033</u>	<u>(73,643,942)</u>	<u>2,568,770</u>	<u>611,493,861</u>	-10.41%	-10.77%
Total Small Cap	<u>837,244,227</u>	<u>(92,284,637)</u>	<u>2,570,914</u>	<u>747,530,504</u>	-10.72%	-11.01%

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For the Month Ended December 31, 2018

Large Cap

Passively Managed

ARMB Russell 1000 Growth	1,565,642,546	(134,591,848)	-	1,431,050,698	-8.60%	-8.60%
ARMB Russell 1000 Value	1,391,317,995	(133,660,093)	-	1,257,657,902	-9.61%	-9.61%
ARMB Russell Top 200	396,787,864	(34,870,694)	-	361,917,170	-8.79%	-8.79%
Total Passive	3,353,748,405	(303,122,635)	-	3,050,625,770	-9.04%	-9.04%

Actively Managed

ARMB Equity Yield	378,147,029	(31,006,533)	-	347,140,496	-8.20%	-8.20%
ARMB Futures Large Cap	3,566,475	(1,155,829)	177	2,410,823	-32.40%	-32.41%
ARMB Portable Alpha	436,366,296	(39,352,883)	(912,810)	396,100,603	-9.23%	-9.03%
ARMB S&P 500 Equal Weight	367,865,240	(35,655,965)	4,784	332,214,059	-9.69%	-9.69%
ARMB Scientific Beta	375,110,884	(34,964,189)	57,400	340,204,095	-9.31%	-9.32%
Barrow, Hanley, Mewhinney & Strauss	366	-	-	366	-	-
Lazard Freres	336,293,108	(31,590,940)	-	304,702,168	-9.39%	-9.39%
Transition Account	-	-	-	-	-	-
Total Active	1,897,349,398	(173,726,339)	(850,449)	1,722,772,610	-9.20%	-9.16%

Total Large Cap

Total Domestic Equity

	5,251,097,803	(476,848,974)	(850,449)	4,773,398,380	-9.10%	-9.08%
	6,088,342,030	(569,133,611)	1,720,465	5,520,928,884	-9.32%	-9.35%

Global Equities Ex US

Small Cap

Mondrian Investment Partners	176,250,652	(10,987,384)	-	165,263,268	-6.23%	-6.23%
Schroder Investment Management	183,531,334	(13,357,636)	408,586	170,582,284	-7.06%	-7.27%
Total Small Cap	359,781,986	(24,345,020)	408,586	335,845,552	-6.65%	-6.76%

Large Cap

Allianz Global Investors	1,041,211	3,535	-	1,044,746	0.34%	0.34%
Arrow Street Capital	358,576,362	(17,155,518)	-	341,420,844	-4.78%	-4.78%
Baillie Gifford Overseas Limited	338,825,148	(16,565,426)	-	322,259,722	-4.89%	-4.89%
Blackrock ACWI Ex-US IMI	492,231,489	(22,846,677)	77,968	469,462,780	-4.63%	-4.64%
Brandes Investment Partners	756,608,666	(40,069,709)	-	716,538,957	-5.30%	-5.30%
Cap Guardian Trust Co	523,206,998	(25,454,782)	-	497,752,216	-4.87%	-4.87%
Lazard Freres	309,691,293	(13,608,817)	-	296,082,476	-4.39%	-4.39%
McKinley Capital Management	322,272,153	(16,215,739)	-	306,056,414	-5.03%	-5.03%
State Street Global Advisors	927,000,556	(42,197,893)	150,597	884,953,260	-4.54%	-4.55%
Total Large Cap	4,029,453,876	(194,111,026)	228,565	3,835,571,415	-4.81%	-4.82%

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For the Month Ended December 31, 2018

Emerging Markets Equity						
DePrince, Race, and Zollo Emerging Markets	269,034,191	(8,455,454)	-	260,578,737	-3.14%	-3.14%
Lazard Asset Management	383,886,449	(13,602,634)	-	370,283,815	-3.54%	-3.54%
Total Emerging Markets	652,920,640	(22,058,088)	-	630,862,552	-3.38%	-3.38%
Total Global Equities	5,042,156,502	(240,514,134)	637,151	4,802,279,519	-4.76%	-4.77%
Opportunistic						
Alternative Equity Strategy						
Analytic Buy Write Account	736,254,630	(50,320,466)	56,246	685,990,410	-6.83%	-6.83%
ARMB STOXX Minimum Variance	631,035,012	(41,392,293)	-	589,642,719	-6.56%	-6.56%
Quantitative Management Associates MPS	(1,393,583)	1,393,583	-	-	100.00%	100.00%
Total Alternative Equity Strategy	1,365,896,059	(90,319,176)	56,246	1,275,633,129	-6.61%	-6.61%
Opportunistic Fixed Income						
Fidelity Inst. Asset Mgmt. High Yield CMBS	103,936,675	(527,629)	-	103,409,046	-0.51%	-0.51%
Fidelity Institutional Asset Management	202,038,590	764,673	174,628	202,977,891	0.46%	0.38%
Lazard Emerging Income	66,966,814	(338,368)	-	66,628,446	-0.51%	-0.51%
MacKay Shields, LLC	98,800,732	(1,692,247)	159,736	97,268,221	-1.55%	-1.71%
Mondrian Investment Partners	96,100,466	1,471,752	-	97,572,218	1.53%	1.53%
Western Asset Management	56,124,672	1,477,771	42,821	57,645,264	2.71%	2.63%
Total Opportunistic Fixed Income	623,967,949	1,155,952	377,185	625,501,086	0.25%	0.19%
Other Opportunities						
Project Pearl	10,048,968	(227,557)	-	9,821,411	-2.26%	-2.26%
Schroders Insurance Linked Securities	341,363,083	(5,603,483)	-	335,759,600	-1.64%	-1.64%
Total Other Opportunities	351,412,051	(5,831,040)	-	345,581,011	-1.66%	-1.66%
Tactical Allocation Strategies						
Columbia Threadneedle	585	-	-	585	-	-
Eaton Vance High Yield	23,404	-	-	23,404	-	-
Fidelity Signals	202,354,659	(8,092,234)	-	194,262,425	-4.00%	-4.00%
PineBridge	200,613,202	(7,069,614)	-	193,543,588	-3.52%	-3.52%
Total Tactical Allocation Strategies	402,991,850	(15,161,848)	-	387,830,002	-3.76%	-3.76%
Total Opportunistic	2,744,267,909	(110,156,112)	433,431	2,634,545,228	-4.00%	-4.01%

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For the Month Ended December 31, 2018

Private Equity						
Abbott Capital	1,016,061,082	2,828,515	4,183,465	1,023,073,062	0.69%	0.28%
Advent International GPE Fund VIII-B	18,820,903	-	-	18,820,903	-	-
Angelo, Gordon & Co.	64,927	(1)	(70,611)	(5,685)	-108.76%	0.00%
Dyal Capital Partners III	23,881,207	-	2,325,167	26,206,374	9.74%	-
Glendon Opportunities	38,541,173	-	2,000,000	40,541,173	5.19%	-
KKR Lending Partners II	55,693,996	-	(13,040,253)	42,653,743	-23.41%	-
Lexington Capital Partners VIII	31,304,871	-	2,735,747	34,040,618	8.74%	-
Lexington Partners VII	23,192,206	-	(560,127)	22,632,079	-2.42%	-
Merit Capital Partners	13,676,672	197,564	-	13,874,236	1.44%	1.44%
NB SOF III	30,035,517	978,393	(587,727)	30,426,183	1.30%	3.29%
NB SOF IV	7,001,339	835,891	2,825,745	10,662,975	52.30%	9.93%
New Mountain Partners IV	24,349,005	-	-	24,349,005	-	-
New Mountain Partners V	13,708,634	-	-	13,708,634	-	-
NGP XI	52,992,204	-	-	52,992,204	-	-
Onex Partnership III	12,943,626	-	56,660	13,000,286	0.44%	-
Pathway Capital Management LLC	1,148,959,993	10,665,557	4,222,949	1,163,848,499	1.30%	0.93%
Resolute Fund III	20,685,184	-	(60,754)	20,624,430	-0.29%	-
Resolute Fund IV	-	749,127	4,759,642	5,508,769	100.00%	31.48%
Summit Partners GE IX	20,913,134	-	4,184,000	25,097,134	20.01%	-
Warburg Pincus X	13,447,616	-	-	13,447,616	-	-
Warburg Pincus XI	28,670,134	-	(338,796)	28,331,338	-1.18%	-
Warburg Pincus XII	47,865,393	-	2,488,980	50,354,373	5.20%	-
Total Private Equity	2,642,808,816	16,255,046	15,124,087	2,674,187,949	1.19%	0.61%

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For the Month Ended December 31, 2018

Absolute Return

Allianz Global Investors	354,429,261	-	-	354,429,261	-	-
Crestline Investors, Inc.	460,905,103	4,913,335	29,840,743	495,659,181	7.54%	1.03%
Crestline Specialty Fund	30,363,743	979,373	-	31,343,116	3.23%	3.23%
Crestline Specialty Lending Fund II	11,816,670	352,455	6,159,674	18,328,799	55.11%	2.37%
JPM Systemic Alpha	174,889,231	1,351,919	-	176,241,150	0.77%	0.77%
KKR Apex Equity Fund	80,993,842	(5,652,214)	(71,069,442)	4,272,186	-94.73%	-12.43%
Man Group Alternative Risk Premia	207,744,245	(1,644,108)	-	206,100,137	-0.79%	-0.79%
Prisma Capital Partners	432,830,893	(6,799,117)	10,000,000	436,031,776	0.74%	-1.55%
Zebra Global Equity Advantage Fund	37,386,322	2,674,690	-	40,061,012	7.15%	7.15%
Zebra Global Equity Fund	75,285,873	2,657,526	-	77,943,399	3.53%	3.53%
Total Absolute Return Investments	<u>1,866,645,183</u>	<u>(1,166,141)</u>	<u>(25,069,025)</u>	<u>1,840,410,017</u>	-1.41%	-0.06%

Real Assets

Farmland

Hancock Agricultural Investment Group	269,658,193	-	8,975,000	278,633,193	3.33%	-
UBS Agrinvest, LLC	583,112,850	-	(5,980,946)	577,131,904	-1.03%	-
Total Farmland	<u>852,771,043</u>	<u>-</u>	<u>2,994,054</u>	<u>855,765,097</u>	0.35%	-

Timber

Hancock Natural Resource Group	96,594,901	-	(500,000)	96,094,901	-0.52%	-
Timberland Invst Resource LLC	264,204,322	-	-	264,204,322	-	-
Total Timber	<u>360,799,223</u>	<u>-</u>	<u>(500,000)</u>	<u>360,299,223</u>	-0.14%	-

Energy

EIG Energy Fund XIV-A	14,332,120	(26,901)	-	14,305,219	-0.19%	-0.19%
EIG Energy Fund XV	26,848,187	199,118	(1,354,480)	25,692,825	-4.30%	0.76%
EIG Energy Fund XVI	59,880,762	(744,996)	(1,735,612)	57,400,154	-4.14%	-1.26%
Total Energy	<u>101,061,069</u>	<u>(572,779)</u>	<u>(3,090,092)</u>	<u>97,398,198</u>	-3.62%	-0.58%

REIT

REIT Transition Account	-	-	-	-	-	-
ARMB REIT	207,675,396	(16,311,838)	-	191,363,558	-7.85%	-7.85%
Total REIT	<u>207,675,396</u>	<u>(16,311,838)</u>	<u>-</u>	<u>191,363,558</u>	-7.85%	-7.85%

Master Limited Partnerships

Advisory Research MLP	287,810,944	(27,042,991)	-	260,767,953	-9.40%	-9.40%
Tortoise Capital Advisors	460,848,059	(41,261,022)	-	419,587,037	-8.95%	-8.95%
Total Master Limited Partnerships	<u>748,659,003</u>	<u>(68,304,013)</u>	<u>-</u>	<u>680,354,990</u>	-9.12%	-9.12%

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For the Month Ended December 31, 2018

Infrastructure Private						
IFM Global Infrastructure Fund-Private	424,034,023	528,198	-	424,562,221	0.12%	0.12%
JP Morgan Infrastructure Fund-Private	117,756,755	-	-	117,756,755	-	-
Total Infrastructure Private	<u>541,790,778</u>	<u>528,198</u>	<u>-</u>	<u>542,318,976</u>	<u>0.10%</u>	<u>0.10%</u>
Infrastructure Public						
Brookfield Investment Mgmt.-Public	104,477,749	(5,398,914)	-	99,078,835	-5.17%	-5.17%
Lazard Asset Mgmt.-Public	145,626,955	(4,711,962)	-	140,914,993	-3.24%	-3.24%
Total Infrastructure Public	<u>250,104,704</u>	<u>(10,110,876)</u>	<u>-</u>	<u>239,993,828</u>	<u>-4.04%</u>	<u>-4.04%</u>
Real Estate						
Core Commingled Accounts						
JP Morgan	259,024,641	1,870,050	-	260,894,691	0.72%	0.72%
UBS Trumbull Property Fund	91,167,249	-	-	91,167,249	-	-
Total Core Commingled	<u>350,191,890</u>	<u>1,870,050</u>	<u>-</u>	<u>352,061,940</u>	<u>0.53%</u>	<u>0.53%</u>
Core Separate Accounts						
LaSalle Investment Management	201,142,943	-	387,880	201,530,823	0.19%	-
Sentinel Separate Account	171,300,667	-	(501,264)	170,799,403	-0.29%	-
UBS Realty	516,244,074	-	(1,727,398)	514,516,676	-0.33%	-
Total Core Separate	<u>888,687,684</u>	<u>-</u>	<u>(1,840,782)</u>	<u>886,846,902</u>	<u>-0.21%</u>	<u>-</u>
Non-Core Commingled Accounts						
Almanac Realty Securities V	1,456,254	-	-	1,456,254	-	-
Almanac Realty Securities VII	34,937,435	-	150,855	35,088,290	0.43%	-
Almanac Realty Securities VIII	-	-	125,785	125,785	100.00%	-
BlackRock Diamond Property Fund	68,967	-	-	68,967	-	-
BlackRock US Core Property Fund	205,044,855	-	-	205,044,855	-	-
Clarion Ventures 4	23,195,884	-	4,375,830	27,571,714	18.86%	-
Colony Investors VIII, L.P.	1,633,624	-	-	1,633,624	-	-
Coventry	255,803	-	-	255,803	-	-
ING Clarion Development Ventures III	2,519,880	-	-	2,519,880	-	-
KKR Real Estate Partners Americas II	6,692,634	-	(176,369)	6,516,265	-2.64%	-
KKR Real Estate Partners Americas LP.	21,074,230	-	-	21,074,230	-	-
Silverpeak Legacy Pension Partners II, L.P.	6,077,610	-	(2,459,659)	3,617,951	-40.47%	-
Silverpeak Legacy Pension Partners III, L.P.	4,472,944	-	-	4,472,944	-	-
Tishman Speyer Real Estate Venture VI	22,721,905	-	(2,080,109)	20,641,796	-9.15%	-
Tishman Speyer Real Estate Venture VII	913,144	-	(131,871)	781,273	-14.44%	-
Total Non-Core Commingled	<u>331,065,169</u>	<u>-</u>	<u>(195,538)</u>	<u>330,869,631</u>	<u>-0.06%</u>	<u>-</u>
Total Real Estate	<u>1,569,944,743</u>	<u>1,870,050</u>	<u>(2,036,320)</u>	<u>1,569,778,473</u>	<u>-0.01%</u>	<u>0.12%</u>
Total Real Assets	<u>4,632,805,959</u>	<u>(92,901,258)</u>	<u>(2,632,358)</u>	<u>4,537,272,343</u>	<u>-2.06%</u>	<u>-2.01%</u>
Total Assets	<u>\$ 25,928,745,421</u>	<u>\$ (959,144,473)</u>	<u>\$ (94,841,147)</u>	<u>\$ 24,874,759,801</u>	<u>-4.06%</u>	<u>-3.71%</u>

ALASKA RETIREMENT MANAGEMENT BOARD

Reporting of Funds by Manager

Participant Directed Plans

Supplemental Annuity Plan
Schedule of Investment Income and Changes in Invested Assets
for the Month Ended
December 31, 2018

	<u>Beginning Invested Assets</u>	<u>Investment Income</u>	<u>Net Contributions (Withdrawals)</u>	<u>Transfers In (Out)</u>	<u>Ending Invested Assets</u>	<u>% Change in Invested Assets</u>	<u>% Change due to Investment Income (1)</u>
Participant Options							
T. Rowe Price							
Stable Value Fund	\$ 374,495,380	\$ 807,604	\$ (2,005,180)	\$ 8,976,494	\$ 382,274,298	2.08%	0.21%
Small Cap Stock Fund	177,008,893	(18,084,143)	(25,297)	(2,457,362)	156,442,091	-11.62%	-10.29%
Alaska Balanced Trust	1,108,918,051	(20,149,970)	(6,034,408)	(451,851)	1,082,281,822	-2.40%	-1.82%
Long Term Balanced Fund	660,550,795	(26,939,236)	77,542	(3,053,888)	630,635,213	-4.53%	-4.09%
AK Target Date 2010 Trust	10,536,626	(297,511)	5,535	(34,763)	10,209,887	-3.10%	-2.83%
AK Target Date 2015 Trust	82,043,866	(2,758,428)	(160,918)	(558,831)	78,565,689	-4.24%	-3.38%
AK Target Date 2020 Trust	93,831,017	(3,964,183)	192,952	(545,624)	89,514,162	-4.60%	-4.23%
AK Target Date 2025 Trust	76,555,537	(3,809,613)	555,728	(556,058)	72,745,594	-4.98%	-4.98%
AK Target Date 2030 Trust	58,699,418	(3,308,176)	389,896	(547,548)	55,233,590	-5.90%	-5.64%
AK Target Date 2035 Trust	54,177,239	(3,369,462)	419,195	179,235	51,406,207	-5.11%	-6.19%
AK Target Date 2040 Trust	54,348,300	(3,654,782)	474,964	(132,352)	51,036,130	-6.09%	-6.70%
AK Target Date 2045 Trust	62,183,667	(4,352,643)	547,017	(366,917)	58,011,124	-6.71%	-6.99%
AK Target Date 2050 Trust	70,566,117	(4,936,532)	596,048	(547,019)	65,678,614	-6.93%	-6.99%
AK Target Date 2055 Trust	59,912,787	(4,204,947)	942,907	(364,724)	56,286,023	-6.05%	-6.98%
AK Target Date 2060 Trust	4,957,078	(347,849)	14,443	(64,995)	4,558,677	-8.04%	-7.05%
Total Investments with T. Rowe Price	<u>2,948,784,771</u>	<u>(99,369,871)</u>	<u>(4,009,576)</u>	<u>(526,203)</u>	<u>2,844,879,121</u>		
State Street Global Advisors							
Money Market	46,267,642	89,991	(28,128)	3,362,635	49,692,140	7.40%	0.19%
S&P 500 Stock Index Fund Series A	470,784,184	(42,491,850)	(829,145)	(2,301,027)	425,162,162	-9.69%	-9.06%
Russell 3000 Index	74,020,871	(6,855,691)	26,681	(2,049,532)	65,142,329	-11.99%	-9.39%
US Real Estate Investment Trust Index	36,531,823	(3,145,985)	3,903	(341,557)	33,048,184	-9.54%	-8.65%
World Equity Ex-US Index	55,446,669	(2,517,216)	4,600	1,975,785	54,909,838	-0.97%	-4.46%
US Treasury Inflation Protected Securities Index	40,096,496	217,317	(65,996)	802,936	41,050,753	2.38%	0.54%
Total Investments with SSgA	<u>723,147,685</u>	<u>(54,703,434)</u>	<u>(888,085)</u>	<u>1,449,240</u>	<u>669,005,406</u>		
BlackRock							
Passive U.S. Bond Index Fund	100,207,821	1,832,818	(1,189,152)	939,981	101,791,468	1.58%	1.83%
Brandes/Baillie Gifford (2)							
AK International Equity Fund	61,570,935	(3,128,701)	(12,437)	(349,472)	58,080,325	-5.67%	-5.10%
Northern Trust							
Environmental, Social, and Governance Fund	51,251,764	(4,404,431)	(215,268)	(1,513,546)	45,118,519	-11.97%	-8.74%
Total All Funds	<u>\$ 3,884,962,976</u>	<u>\$ (159,773,619)</u>	<u>\$ (6,314,518)</u>	<u>\$ -</u>	<u>\$ 3,718,874,839</u>	<u>-4.28%</u>	<u>-4.12%</u>

Notes: Source data provided by the record keeper, Empower Retirement.

(1) Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates.

(2) This investment is comprised of two funds, Brandes International Equity Fund and Baillie Gifford International Equity Fund.

Supplemental Annuity Plan
Schedule of Invested Assets with
Schedule of Investment Income and Changes in Invested Assets
By Month Through the Month Ended
December 31, 2018
\$ (Thousands)

<u>Invested Assets (at fair value)</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
Investments with T. Rowe Price						
Stable Value Fund	\$ 355,917	\$ 363,879	\$ 369,544	\$ 373,441	\$ 374,495	\$ 382,274
Small Cap Stock Fund	181,818	192,895	189,729	172,923	177,009	156,442
Alaska Balanced Trust	1,149,694	1,155,054	1,144,920	1,104,106	1,108,918	1,082,282
Long Term Balanced Fund	690,744	693,992	690,403	654,861	660,551	630,635
AK Target Date 2010 Trust	10,224	10,332	10,477	10,540	10,537	10,210
AK Target Date 2015 Trust	85,669	85,913	85,682	81,246	82,044	78,566
AK Target Date 2020 Trust	95,933	97,261	97,663	93,194	93,831	89,514
AK Target Date 2025 Trust	77,962	79,810	79,145	75,437	76,556	72,746
AK Target Date 2030 Trust	58,998	60,191	60,272	57,512	58,699	55,234
AK Target Date 2035 Trust	54,648	56,123	56,190	53,521	54,177	51,406
AK Target Date 2040 Trust	54,939	56,321	56,549	53,608	54,348	51,036
AK Target Date 2045 Trust	62,116	63,775	64,636	60,954	62,184	58,011
AK Target Date 2050 Trust	71,313	72,734	73,411	69,234	70,566	65,679
AK Target Date 2055 Trust	58,693	60,532	61,791	58,774	59,913	56,286
AK Target Date 2060 Trust	3,459	4,069	4,121	4,345	4,957	4,559
State Street Global Advisors						
Money Market	42,005	40,850	43,080	46,118	46,268	49,692
S&P 500 Stock Index Fund Series A	469,954	484,173	488,706	461,005	470,784	425,162
Russell 3000 Index	76,432	78,281	77,681	72,900	74,021	65,142
US Real Estate Investment Trust Index	35,067	36,342	35,138	34,078	36,532	33,048
World Equity Ex-US Index	55,690	55,661	58,202	54,600	55,447	54,910
Long US Treasury Bond Index	12,732	-	-	-	-	-
US Treasury Inflation Protected Securities Index	33,228	36,218	38,180	39,322	40,096	41,051
World Government Bond Ex-US Index	12,569	-	-	-	-	-
Investments with BlackRock						
Passive U.S. Bond Index Fund	-	111,572	107,003	100,001	100,208	101,791
Government/Credit Bond Fund	49,922	-	-	-	-	-
Intermediate Bond Fund	41,183	-	-	-	-	-
Investments with Brandes/Baillie Gifford						
AK International Equity Fund	69,890	68,052	68,018	61,819	61,571	58,080
Investments with Northern Trust						
Environmental, Social, and Governance Fund	54,712	53,437	53,544	49,257	51,252	45,119
Total Invested Assets	\$ 3,965,512	\$ 4,017,465	\$ 4,014,083	\$ 3,842,792	\$ 3,884,963	\$ 3,718,875
<u>Change in Invested Assets</u>						
Beginning Assets	\$ 3,905,659	\$ 3,965,512	\$ 4,017,465	\$ 4,014,083	\$ 3,842,792	\$ 3,884,963
Investment Earnings	64,770	58,603	(2,073)	(171,828)	46,202	(159,774)
Net Contributions (Withdrawals)	(4,918)	(6,650)	(1,309)	537	(4,031)	(6,315)
Ending Invested Assets	\$ 3,965,512	\$ 4,017,465	\$ 4,014,083	\$ 3,842,792	\$ 3,884,963	\$ 3,718,875

Deferred Compensation Plan
Schedule of Invested Assets and Changes in Invested Assets
for the Month Ended
December 31, 2018

	<u>Beginning Invested</u>		<u>Net Contributions</u>		<u>Ending Invested</u>	<u>% Change in</u>	<u>% Change due to</u>
	<u>Assets</u>	<u>Investment Income</u>	<u>(Withdrawals)</u>	<u>Transfers In (Out)</u>	<u>Assets</u>	<u>Invested Assets</u>	<u>Investment Income (1)</u>
Participant Options							
T. Rowe Price							
Stable Value Fund	\$ 181,120,220	\$ 388,389	\$ (1,321,942)	\$ 3,054,976	\$ 183,241,643	1.17%	0.21%
Small Cap Stock Fund	110,186,027	(11,329,823)	145,733	(902,184)	98,099,753	-10.97%	-10.32%
Alaska Balanced Trust	29,587,173	(529,357)	(37,123)	669,038	29,689,731	0.35%	-1.77%
Long Term Balanced Fund	85,535,280	(3,505,382)	210,700	(486,994)	81,753,604	-4.42%	-4.10%
AK Target Date 2010 Trust	3,714,288	(102,892)	(964)	16,338	3,626,770	-2.36%	-2.76%
AK Target Date 2015 Trust	8,918,749	(299,008)	(41,232)	(154,767)	8,423,742	-5.55%	-3.39%
AK Target Date 2020 Trust	24,957,261	(1,049,001)	(236,205)	(412,922)	23,259,133	-6.80%	-4.26%
AK Target Date 2025 Trust	17,951,298	(908,533)	189,255	(191,140)	17,040,880	-5.07%	-5.06%
AK Target Date 2030 Trust	11,977,183	(680,708)	186,491	(40,869)	11,442,097	-4.47%	-5.65%
AK Target Date 2035 Trust	7,245,488	(456,409)	173,038	(185,593)	6,776,524	-6.47%	-6.30%
AK Target Date 2040 Trust	7,797,657	(526,558)	127,897	(27,085)	7,371,911	-5.46%	-6.71%
AK Target Date 2045 Trust	5,698,389	(400,071)	114,885	(204,644)	5,208,559	-8.60%	-7.08%
AK Target Date 2050 Trust	4,168,801	(287,695)	114,215	(192,098)	3,803,223	-8.77%	-6.97%
AK Target Date 2055 Trust	4,058,455	(290,733)	75,896	(239,608)	3,604,010	-11.20%	-7.31%
AK Target Date 2060 Trust	891,371	(63,049)	12,530	(10,086)	830,766	-6.80%	-7.06%
Total Investments with T. Rowe Price	<u>503,807,640</u>	<u>(20,040,830)</u>	<u>(286,826)</u>	<u>692,362</u>	<u>484,172,346</u>		
State Street Global Advisors							
Money Market	13,718,564	27,630	53,892	1,962,195	15,762,281	14.90%	0.19%
Russell 3000 Index	45,322,393	(4,226,651)	358,785	(490,888)	40,963,639	-9.62%	-9.34%
US Real Estate Investment Trust Index	13,411,753	(1,158,034)	61,763	(521,095)	11,794,387	-12.06%	-8.78%
World Equity Ex-US Index	17,737,566	(814,329)	189,369	716,343	17,828,949	0.52%	-4.48%
US Treasury Inflation Protected Securities Index	15,909,790	85,304	(9,215)	(23,855)	15,962,024	0.33%	0.54%
Total Investments with SSgA	<u>106,100,066</u>	<u>(6,086,080)</u>	<u>654,594</u>	<u>1,642,700</u>	<u>102,311,280</u>		
BlackRock							
S&P 500 Index Fund	214,013,758	(19,323,213)	(103,398)	(1,595,718)	192,991,429	-9.82%	-9.06%
Passive U.S. Bond Index Fund	53,252,638	971,869	(24,837)	45,697	54,245,367	1.86%	1.82%
Total Investments with BlackRock	<u>267,266,396</u>	<u>(18,351,344)</u>	<u>(128,235)</u>	<u>(1,550,021)</u>	<u>247,236,796</u>		
Brandes/Baillie Gifford (2)							
AK International Equity Fund	32,466,921	(1,651,696)	89,086	59,012	30,963,323	-4.63%	-5.08%
Northern Trust							
Environmental, Social, and Governance Fund	22,227,349	(1,878,320)	(2,951)	(844,053)	19,502,025	-12.26%	-8.61%
Total All Funds	<u>\$ 931,868,372</u>	<u>\$ (48,008,270)</u>	<u>\$ 325,668</u>	<u>\$ -</u>	<u>\$ 884,185,770</u>	<u>-5.12%</u>	<u>-5.15%</u>

Notes: Source data provided by the record keeper, Empower Retirement.

(1) Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates.

(2) This investment is comprised of two funds, Brandes International Equity Fund and Baillie Gifford International Equity Fund.

Deferred Compensation Plan
Schedule of Invested Assets with
Schedule of Investment Income and Changes in Invested Assets
By Month Through the Month Ended
December 31, 2018
\$ (Thousands)

<u>Invested Assets (at fair value)</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
Investments with T. Rowe Price						
Interest Income Fund	\$ 175,629	\$ -	\$ -	\$ -	\$ -	\$ -
Stable Value Fund	-	179,111	178,901	181,148	181,120	183,242
Small Cap Stock Fund	114,946	121,797	119,170	108,520	110,186	98,100
Alaska Balanced Trust	29,501	30,253	30,453	29,783	29,587	29,690
Long Term Balanced Fund	91,224	91,105	90,275	84,960	85,535	81,754
AK Target Date 2010 Trust	4,051	4,078	4,033	3,719	3,714	3,627
AK Target Date 2015 Trust	9,541	9,477	9,462	8,904	8,919	8,424
AK Target Date 2020 Trust	26,229	26,594	26,248	24,788	24,957	23,259
AK Target Date 2025 Trust	17,470	18,025	18,796	17,895	17,951	17,041
AK Target Date 2030 Trust	11,744	12,182	12,394	11,761	11,977	11,442
AK Target Date 2035 Trust	6,910	7,082	7,175	7,003	7,245	6,777
AK Target Date 2040 Trust	7,998	8,245	8,258	7,661	7,798	7,372
AK Target Date 2045 Trust	5,688	5,882	6,020	5,585	5,698	5,209
AK Target Date 2050 Trust	3,958	4,104	4,123	3,927	4,169	3,803
AK Target Date 2055 Trust	4,248	4,300	4,309	3,993	4,058	3,604
AK Target Date 2060 Trust	399	873	885	871	891	831
State Street Global Advisors						
Money Market	13,653	13,538	13,947	13,871	13,719	15,762
Russell 3000 Index	43,890	45,212	46,616	44,549	45,322	40,964
US Real Estate Investment Trust Index	12,810	13,334	12,770	12,568	13,412	11,794
World Equity Ex-US Index	18,373	18,043	18,531	17,578	17,738	17,829
Long US Treasury Bond Index	5,169	-	-	-	-	-
US Treasury Inflation Protected Securities Index	13,533	14,313	15,603	15,686	15,910	15,962
World Government Bond Ex-US Index	4,626	-	-	-	-	-
Investments with BlackRock						
S&P 500 Index Fund	220,701	226,134	226,417	210,346	214,014	192,991
Passive U.S. Bond Index Fund	-	57,464	55,702	52,868	53,253	54,245
Government/Credit Bond Fund	27,364	-	-	-	-	-
Intermediate Bond Fund	22,131	-	-	-	-	-
Investments with Brandes/Baillie Gifford						
AK International Equity Fund	38,417	37,121	36,340	32,598	32,467	30,963
Investments with Northern Trust						
Environmental, Social, and Governance Fund	23,391	23,420	23,413	21,103	22,227	19,502
Total Invested Assets	\$ 953,592	\$ 971,688	\$ 969,841	\$ 921,685	\$ 931,868	\$ 884,186
<u>Change in Invested Assets</u>						
Beginning Assets	\$ 938,807	\$ 953,592	\$ 971,688	\$ 969,841	\$ 921,685	\$ 931,868
Investment Earnings	17,321	18,962	(977)	(46,214)	12,333	(48,008)
Net Contributions (Withdrawals)	(2,536)	(866)	(869)	(1,943)	(2,150)	326
Ending Invested Assets	\$ 953,592	\$ 971,688	\$ 969,841	\$ 921,685	\$ 931,868	\$ 884,186

Defined Contribution Retirement - Participant Directed PERS
Schedule of Investment Income and Changes in Invested Assets
for the Month Ended
December 31, 2018

	<u>Beginning Invested</u>		<u>Net Contributions</u>		<u>Ending Invested</u>	<u>% Change in</u>	<u>% Change due to</u>
	<u>Assets</u>	<u>Investment Income</u>	<u>(Withdrawals)</u>	<u>Transfers In (Out)</u>	<u>Assets</u>	<u>Invested Assets</u>	<u>Investment Income (1)</u>
Participant Options							
T. Rowe Price							
Stable Value Fund	\$ 42,923,417	\$ 91,658	\$ 143,285	\$ (423,159)	\$ 42,735,201	-0.44%	0.21%
Small Cap Stock Fund	72,994,913	(7,512,667)	453,073	318,291	66,253,610	-9.24%	-10.24%
Alaska Balanced Trust	26,389,745	(481,977)	128,976	(689,617)	25,347,127	-3.95%	-1.85%
Long Term Balanced Fund	18,334,561	(751,215)	82,928	(343,828)	17,322,446	-5.52%	-4.13%
AK Target Date 2010 Trust	2,497,580	(68,466)	10,176	(48,770)	2,390,520	-4.29%	-2.76%
AK Target Date 2015 Trust	11,609,688	(390,542)	41,013	(31)	11,260,128	-3.01%	-3.36%
AK Target Date 2020 Trust	32,372,702	(1,370,164)	342,906	95,691	31,441,135	-2.88%	-4.20%
AK Target Date 2025 Trust	51,842,082	(2,587,998)	534,304	(39,618)	49,748,770	-4.04%	-4.97%
AK Target Date 2030 Trust	53,924,186	(3,041,873)	511,739	(191,273)	51,202,779	-5.05%	-5.62%
AK Target Date 2035 Trust	64,639,150	(4,053,548)	860,658	(178,052)	61,268,208	-5.22%	-6.24%
AK Target Date 2040 Trust	76,486,375	(5,166,396)	974,003	(191,529)	72,102,453	-5.73%	-6.72%
AK Target Date 2045 Trust	98,572,389	(6,944,187)	1,262,878	(349,519)	92,541,561	-6.12%	-7.01%
AK Target Date 2050 Trust	116,862,393	(8,238,774)	1,496,128	(251,312)	109,868,435	-5.98%	-7.01%
AK Target Date 2055 Trust	98,511,938	(6,965,651)	2,290,563	(224,549)	93,612,301	-4.97%	-7.00%
AK Target Date 2060 Trust	870,828	(62,818)	20,365	20,026	848,401	-2.58%	-7.05%
Total Investments with T. Rowe Price	<u>768,831,947</u>	<u>(47,544,618)</u>	<u>9,152,995</u>	<u>(2,497,249)</u>	<u>727,943,075</u>		
State Street Global Advisors							
Money Market	10,831,044	20,865	52,354	390,763	11,295,026	4.28%	0.19%
S&P 500 Stock Index Fund Series A	102,188,233	(9,258,359)	534,055	1,467,861	94,931,790	-7.10%	-8.97%
Russell 3000 Index	11,203,529	(1,043,985)	105,203	(175,736)	10,089,011	-9.95%	-9.35%
US Real Estate Investment Trust Index	16,180,111	(1,387,540)	82,785	30,415	14,905,771	-7.88%	-8.55%
World Equity Ex-US Index	47,989,469	(2,179,990)	290,219	1,038,162	47,137,860	-1.77%	-4.48%
US Treasury Inflation Protected Securities Index	18,826,640	101,336	33,678	(130,759)	18,830,895	0.02%	0.54%
Total Investments with SSgA	<u>207,219,026</u>	<u>(13,747,673)</u>	<u>1,098,294</u>	<u>2,620,706</u>	<u>197,190,353</u>		
BlackRock							
Passive U.S. Bond Index Fund	40,658,516	743,207	147,806	(461,652)	41,087,877	1.06%	1.84%
Brandes/Baillie Gifford (2)							
AK International Equity Fund	42,312,647	(2,157,831)	285,793	307,889	40,748,498	-3.70%	-5.06%
Northern Trust							
Environmental, Social, and Governance Fund	10,026,355	(860,316)	44,313	30,306	9,240,658	-7.84%	-8.55%
Total All Funds	<u>\$ 1,069,048,491</u>	<u>\$ (63,567,231)</u>	<u>\$ 10,729,201</u>	<u>\$ -</u>	<u>\$ 1,016,210,461</u>	<u>-4.94%</u>	<u>-5.92%</u>

Notes: Source data provided by the record keeper, Empower Retirement.

(1) Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates.

(2) This investment is comprised of two funds, Brandes International Equity Fund and Baillie Gifford International Equity Fund.

Defined Contribution Retirement - Participant Directed PERS
Schedule of Invested Assets with
Schedule of Investment Income and Changes in Invested Assets
By Month Through the Month Ended
December 31, 2018
\$ (Thousands)

<u>Invested Assets</u> (at fair value)	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
Investments with T. Rowe Price						
Alaska Money Market	\$ 5,386	\$ -	\$ -	\$ -	\$ -	\$ -
Stable Value Fund	-	14,421	27,852	43,006	42,923	42,735
Small Cap Stock Fund	78,194	80,707	78,140	70,928	72,995	66,254
Alaska Balanced Trust	27,299	27,398	27,772	26,476	26,390	25,347
Long Term Balanced Fund	24,785	23,022	21,415	18,340	18,335	17,322
AK Target Date 2010 Trust	2,508	2,531	2,485	2,475	2,498	2,391
AK Target Date 2015 Trust	11,859	12,041	12,061	11,560	11,610	11,260
AK Target Date 2020 Trust	32,186	32,603	32,961	31,733	32,373	31,441
AK Target Date 2025 Trust	51,239	52,236	52,640	50,610	51,842	49,749
AK Target Date 2030 Trust	54,629	55,604	55,869	52,674	53,924	51,203
AK Target Date 2035 Trust	64,604	65,985	66,600	62,955	64,639	61,268
AK Target Date 2040 Trust	76,369	78,405	79,081	74,522	76,486	72,102
AK Target Date 2045 Trust	98,208	100,893	102,389	95,950	98,572	92,542
AK Target Date 2050 Trust	116,864	119,654	121,128	113,790	116,862	109,868
AK Target Date 2055 Trust	95,705	98,774	100,844	95,643	98,512	93,612
AK Target Date 2060 Trust	815	862	993	910	871	848
State Street Global Advisors						
Money Market	4,623	10,005	10,109	10,920	10,831	11,295
S&P 500 Stock Index Fund Series A	98,610	102,254	104,741	98,753	102,188	94,932
Russell 3000 Index	10,944	11,591	11,693	10,948	11,204	10,089
US Real Estate Investment Trust Index	16,265	16,461	15,806	15,382	16,180	14,906
World Equity Ex-US Index	46,988	47,280	49,117	46,658	47,989	47,138
Long US Treasury Bond Index	1,210	-	-	-	-	-
US Treasury Inflation Protected Securities Index	14,922	16,824	17,904	18,781	18,827	18,831
World Government Bond Ex-US Index	7,351	-	-	-	-	-
Investments with BlackRock						
Government/Credit Bond Fund	49,222	-	-	-	-	-
Passive U.S. Bond Index Fund	-	68,174	55,842	40,665	40,659	41,088
Intermediate Bond Fund	22,335	-	-	-	-	-
Investments with Brandes/Baillie Gifford						
AK International Equity Fund	45,645	45,336	45,452	41,823	42,313	40,748
Investments with Northern Trust						
Environmental, Social, and Governance Fund	10,616	10,404	10,307	9,439	10,026	9,241
Total Invested Assets	\$ 1,069,378	\$ 1,093,466	\$ 1,103,203	\$ 1,044,943	\$ 1,069,048	\$ 1,016,210
<u>Change in Invested Assets</u>						
Beginning Assets	\$ 1,041,422	\$ 1,069,378	\$ 1,093,466	\$ 1,103,203	\$ 1,044,943	\$ 1,069,048
Investment Earnings	23,080	17,895	(334)	(66,086)	15,087	(63,567)
Net Contributions (Withdrawals)	4,876	6,192	10,071	7,826	9,018	10,729
Ending Invested Assets	\$ 1,069,378	\$ 1,093,466	\$ 1,103,203	\$ 1,044,943	\$ 1,069,048	\$ 1,016,210

Defined Contribution Retirement - Participant Directed TRS
Schedule of Investment Income and Changes in Invested Assets
for the Month Ended
December 31, 2018

	Beginning Invested		Investment Income	Net Contributions		Transfers In (Out)	Ending Invested	% Change in	% Change due to
	Assets			(Withdrawals)			Assets	Invested Assets	Investment Income (1)
Participant Options									
T. Rowe Price									
Stable Value Fund	\$ 17,485,080	\$	36,889	\$ 109,200	\$	(485,339)	\$ 17,145,830	-1.94%	0.21%
Small Cap Stock Fund	31,368,379		(3,219,658)	178,368		34,787	28,361,876	-9.58%	-10.23%
Alaska Balanced Trust	10,957,334		(202,227)	71,487		(143,975)	10,682,619	-2.51%	-1.85%
Long Term Balanced Fund	7,647,571		(313,135)	53,187		(108,425)	7,279,198	-4.82%	-4.11%
AK Target Date 2010 Trust	726,985		(20,222)	7,941		-	714,704	-1.69%	-2.77%
AK Target Date 2015 Trust	3,360,113		(113,283)	42,475		-	3,289,305	-2.11%	-3.35%
AK Target Date 2020 Trust	9,742,672		(412,213)	106,285		(51,599)	9,385,145	-3.67%	-4.22%
AK Target Date 2025 Trust	16,761,143		(835,855)	224,398		-	16,149,686	-3.65%	-4.95%
AK Target Date 2030 Trust	19,640,747		(1,117,543)	295,740		54,336	18,873,280	-3.91%	-5.64%
AK Target Date 2035 Trust	29,335,484		(1,838,683)	454,165		(71,136)	27,879,830	-4.96%	-6.23%
AK Target Date 2040 Trust	31,092,023		(2,098,967)	457,497		(70,857)	29,379,696	-5.51%	-6.71%
AK Target Date 2045 Trust	47,609,626		(3,347,055)	628,391		-	44,890,962	-5.71%	-6.98%
AK Target Date 2050 Trust	66,484,903		(4,668,602)	895,146		(48,371)	62,663,076	-5.75%	-6.98%
AK Target Date 2055 Trust	32,484,724		(2,289,526)	906,610		(36,515)	31,065,293	-4.37%	-6.95%
AK Target Date 2060 Trust	243,536		(17,116)	2,604		-	229,024	-5.96%	-6.99%
Total Investments with T. Rowe Price	324,940,320		(20,457,196)	4,433,494		(927,094)	307,989,524		
State Street Global Advisors									
Money Market	2,746,442		5,381	29,924		184,706	2,966,453	8.01%	0.19%
S&P 500 Stock Index Fund Series A	41,452,285		(3,746,468)	268,077		410,874	38,384,768	-7.40%	-8.96%
Russell 3000 Index	3,634,283		(337,264)	28,161		(20,502)	3,304,678	-9.07%	-9.27%
US Real Estate Investment Trust Index	6,576,501		(562,686)	38,957		671	6,053,443	-7.95%	-8.53%
World Equity Ex-US Index	21,522,759		(976,016)	133,566		384,725	21,065,034	-2.13%	-4.48%
US Treasury Inflation Protected Securities Index	6,923,647		37,373	46,147		(55,842)	6,951,325	0.40%	0.54%
Total Investments with SSgA	82,855,917		(5,579,680)	544,832		904,632	78,725,701		
BlackRock									
Passive U.S. Bond Index Fund	15,796,171		289,445	102,855		(138,893)	16,049,578	1.60%	1.83%
Brandes/Baillie Gifford (2)									
AK International Equity Fund	18,781,687		(956,759)	116,005.00		93,726	18,034,659	-3.98%	-5.07%
Northern Trust									
Environmental, Social, and Governance Fund	4,047,470		(347,492)	27,292.00		67,629	3,794,899	-6.24%	-8.49%
Total All Funds	\$ 446,421,565	\$	(27,051,682)	\$ 5,224,478	\$	-	\$ 424,594,361	-4.89%	-6.02%

Notes: Source data provided by the record keeper, Empower Retirement.

(1) Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates.

(2) This investment is comprised of two funds, Brandes International Equity Fund and Baillie Gifford International Equity Fund.

Defined Contribution Retirement - Participant Directed TRS
Schedule of Invested Assets with
Schedule of Investment Income and Changes in Invested Assets
By Month Through the Month Ended
December 31, 2018
\$ (Thousands)

<u>Invested Assets</u> (at fair value)	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>
Investments with T. Rowe Price						
Alaska Money Market	\$ 1,894	\$ -	\$ -	\$ -	\$ -	\$ -
Stable Value Fund	-	5,764	10,959	17,254	17,485	17,146
Small Cap Stock Fund	34,424	35,326	33,876	30,707	31,368	28,362
Alaska Balanced Trust	11,394	11,458	11,456	11,077	10,957	10,683
Long Term Balanced Fund	10,335	9,630	8,893	7,621	7,648	7,279
AK Target Date 2010 Trust	826	836	843	725	727	715
AK Target Date 2015 Trust	3,397	3,396	3,354	3,221	3,360	3,289
AK Target Date 2020 Trust	9,951	9,943	9,992	9,600	9,743	9,385
AK Target Date 2025 Trust	16,938	17,131	17,113	16,474	16,761	16,150
AK Target Date 2030 Trust	20,121	20,288	20,233	19,384	19,641	18,873
AK Target Date 2035 Trust	29,766	29,990	30,167	28,528	29,335	27,880
AK Target Date 2040 Trust	31,409	31,857	32,148	30,214	31,092	29,380
AK Target Date 2045 Trust	48,740	49,511	49,641	46,683	47,610	44,891
AK Target Date 2050 Trust	68,156	69,233	69,024	65,046	66,485	62,663
AK Target Date 2055 Trust	32,138	32,606	32,751	31,327	32,485	31,065
AK Target Date 2060 Trust	179	195	250	238	244	229
State Street Global Advisors						
Money Market	690	2,573	2,677	2,894	2,746	2,966
S&P 500 Stock Index Fund Series A	41,127	42,492	42,944	40,386	41,452	38,385
Russell 3000 Index	3,621	3,663	3,757	3,505	3,634	3,305
US Real Estate Investment Trust Index	6,751	6,695	6,396	6,212	6,577	6,053
World Equity Ex-US Index	21,323	21,370	22,069	21,074	21,523	21,065
Long US Treasury Bond Index	306	-	-	-	-	-
US Treasury Inflation Protected Securities Index	5,367	6,094	6,486	6,939	6,924	6,951
World Government Bond Ex-US Index	2,765	-	-	-	-	-
Investments with BlackRock						
Government/Credit Bond Fund	20,232	-	-	-	-	-
Passive U.S. Bond Index Fund	-	26,480	21,597	15,809	15,796	16,050
Intermediate Bond Fund	8,292	-	-	-	-	-
Investments with Brandes/Baillie Gifford						
AK International Equity Fund	20,619	20,325	20,320	18,707	18,782	18,035
Investments with Northern Trust						
Environmental, Social, and Governance Fund	4,614	4,398	4,270	3,858	4,047	3,795
Total Invested Assets	\$ 455,376	\$ 461,254	\$ 461,219	\$ 437,483	\$ 446,422	\$ 424,594
<u>Change in Invested Assets</u>						
Beginning Assets	\$ 442,323	\$ 455,376	\$ 461,254	\$ 461,219	\$ 437,483	\$ 446,422
Investment Earnings	10,017	7,587	(129)	(28,187)	6,395	(27,052)
Net Contributions (Withdrawals)	3,036	(1,709)	95	4,451	2,543	5,224
Ending Invested Assets	\$ 455,376	\$ 461,254	\$ 461,219	\$ 437,483	\$ 446,422	\$ 424,594