

**ALASKA RETIREMENT MANAGEMENT BOARD
FINANCIAL REPORT**

As of October 31, 2018

ALASKA RETIREMENT MANAGEMENT BOARD
Schedule of Investment Income and Changes in Invested Assets by Fund
Fiscal Year-to-Date through October 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	\$ (101,993,186)	\$ (28,996,481)	\$ 9,148,988,585	-1.41%	-1.10%
Retirement Health Care Trust	7,653,992,293	(82,448,689)	(101,517,092)	7,470,026,512	-2.40%	-1.08%
Total Defined Benefit Plans	16,933,970,545	(184,441,875)	(130,513,573)	16,619,015,097	-1.86%	-1.09%
<u>Defined Contribution Plans:</u>						
Participant Directed Retirement	1,041,422,342	(25,444,904)	28,965,812	1,044,943,250	0.34%	-2.41%
Health Reimbursement Arrangement	356,026,985	(4,248,417)	12,812,130	364,590,698	2.41%	-1.17%
Retiree Medical Plan	99,169,627	(1,187,592)	3,679,888	101,661,923	2.51%	-1.18%
<u>Defined Benefit Occupational Death and Disability:</u>						
Public Employees	20,872,152	(249,468)	751,340	21,374,024	2.40%	-1.17%
Police and Firefighters	9,776,610	(115,944)	301,585	9,962,251	1.90%	-1.17%
Total Defined Contribution Plans	1,527,267,716	(31,246,325)	46,510,755	1,542,532,146	1.00%	-2.02%
Total PERS	18,461,238,261	(215,688,200)	(84,002,818)	18,161,547,243	-1.62%	-1.17%
<u>Teachers' Retirement System (TRS)</u>						
<u>Defined Benefit Plans:</u>						
Retirement Trust	5,466,056,988	(59,767,909)	(14,513,402)	5,391,775,677	-1.36%	-1.09%
Retirement Health Care Trust	2,883,838,182	(30,983,598)	(39,734,628)	2,813,119,956	-2.45%	-1.08%
Total Defined Benefit Plans	8,349,895,170	(90,751,507)	(54,248,030)	8,204,895,633	-1.74%	-1.09%
<u>Defined Contribution Plans:</u>						
Participant Directed Retirement	442,323,051	(10,712,091)	5,872,086	437,483,046	-1.09%	-2.41%
Health Reimbursement Arrangement	105,665,716	(1,213,478)	2,512,635	106,964,873	1.23%	-1.13%
Retiree Medical Plan	36,357,065	(414,461)	681,519	36,624,123	0.73%	-1.13%
Defined Benefit Occupational Death and Disability	3,797,783	(42,385)	32,348	3,787,746	-0.26%	-1.11%
Total Defined Contribution Plans	588,143,615	(12,382,415)	9,098,588	584,859,788	-0.56%	-2.09%
Total TRS	8,938,038,785	(103,133,922)	(45,149,442)	8,789,755,421	-1.66%	-1.16%
<u>Judicial Retirement System (JRS)</u>						
Defined Benefit Plan Retirement Trust	176,358,294	(2,004,328)	2,711,864	177,065,830	0.40%	-1.13%
Defined Benefit Retirement Health Care Trust	31,621,813	(348,946)	(61,656)	31,211,211	-1.30%	-1.10%
Total JRS	207,980,107	(2,353,274)	2,650,208	208,277,041	0.14%	-1.12%
<u>National Guard/Naval Militia Retirement System (MRS)</u>						
Defined Benefit Plan Retirement Trust	39,449,053	(731,056)	288,013	39,006,010	-1.12%	-1.85%
<u>Other Participant Directed Plans</u>						
Supplemental Annuity Plan	3,905,659,481	(50,527,830)	(12,339,237)	3,842,792,414	-1.61%	-1.30%
Deferred Compensation Plan	938,806,799	(10,908,453)	(6,213,322)	921,685,024	-1.82%	-1.17%
Total All Funds	32,491,172,486	(383,342,735)	(144,766,598)	31,963,063,153		
Total Non-Participant Directed	26,162,960,813	(285,749,457)	(161,051,937)	25,716,159,419	-1.71%	-1.10%
Total Participant Directed	6,328,211,673	(97,593,278)	16,285,339	6,246,903,734	-1.28%	-1.54%
Total All Funds	\$ 32,491,172,486	\$ (383,342,735)	\$ (144,766,598)	\$ 31,963,063,153	-1.63%	-1.18%

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 October 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>						
Defined Benefit Plans:						
Retirement Trust	\$ 9,574,747,238	\$ (384,458,893)	\$ (41,299,760)	\$ 9,148,988,585	-4.45%	-4.02%
Retirement Health Care Trust	7,802,431,830	(312,629,206)	(19,776,112)	7,470,026,512	-4.26%	-4.01%
Total Defined Benefit Plans	17,377,179,068	(697,088,099)	(61,075,872)	16,619,015,097	-4.36%	-4.02%
Defined Contribution Plans:						
Participant Directed Retirement	1,103,202,792	(66,085,706)	7,826,164	1,044,943,250	-5.28%	-5.97%
Health Reimbursement Arrangement	376,133,104	(15,076,268)	3,533,862	364,590,698	-3.07%	-3.99%
Retiree Medical Plan	104,902,144	(4,205,128)	964,907	101,661,923	-3.09%	-3.99%
Defined Benefit Occupational Death and Disability:						
Public Employees	22,034,109	(883,791)	223,706	21,374,024	-3.00%	-3.99%
Police and Firefighters	10,296,000	(412,826)	79,077	9,962,251	-3.24%	-3.99%
Total Defined Contribution Plans	1,616,568,149	(86,663,719)	12,627,716	1,542,532,146	-4.58%	-5.34%
Total PERS	18,993,747,217	(783,751,818)	(48,448,156)	18,161,547,243	-4.38%	-4.13%
<u>Teachers' Retirement System (TRS)</u>						
Defined Benefit Plans:						
Retirement Trust	5,651,685,555	(226,814,964)	(33,094,914)	5,391,775,677	-4.60%	-4.03%
Retirement Health Care Trust	2,938,017,527	(117,700,255)	(7,197,316)	2,813,119,956	-4.25%	-4.01%
Total Defined Benefit Plans	8,589,703,082	(344,515,219)	(40,292,230)	8,204,895,633	-4.48%	-4.02%
Defined Contribution Plans:						
Participant Directed Retirement	461,219,063	(28,186,852)	4,450,835	437,483,046	-5.15%	-6.08%
Health Reimbursement Arrangement	110,277,544	(4,417,075)	1,104,404	106,964,873	-3.00%	-3.99%
Retiree Medical Plan	37,855,962	(1,516,117)	284,278	36,624,123	-3.25%	-3.99%
Defined Benefit Occupational Death and Disability	3,917,602	(156,942)	27,086	3,787,746	-3.31%	-3.99%
Total Defined Contribution Plans	613,270,171	(34,276,986)	5,866,603	584,859,788	-4.63%	-5.56%
Total TRS	9,202,973,253	(378,792,205)	(34,425,627)	8,789,755,421	-4.49%	-4.12%
<u>Judicial Retirement System (JRS)</u>						
Defined Benefit Plan Retirement Trust	184,883,880	(7,422,523)	(395,527)	177,065,830	-4.23%	-4.02%
Defined Benefit Retirement Health Care Trust	32,504,722	(1,302,296)	8,785	31,211,211	-3.98%	-4.01%
Total JRS	217,388,602	(8,724,819)	(386,742)	208,277,041	-4.19%	-4.02%
<u>National Guard/Naval Militia Retirement System (MRS)</u>						
Defined Benefit Plan Retirement Trust	40,771,449	(1,583,076)	(182,363)	39,006,010	-4.33%	-3.89%
<u>Other Participant Directed Plans</u>						
Supplemental Annuity Plan	4,014,083,280	(171,828,002)	537,136	3,842,792,414	-4.27%	-4.28%
Deferred Compensation Plan	969,841,280	(46,213,672)	(1,942,584)	921,685,024	-4.97%	-4.77%
Total All Funds	33,438,805,081	(1,390,893,592)	(84,848,336)	31,963,063,153		
Total Non-Participant Directed	26,890,458,666	(1,078,579,360)	(95,719,887)	25,716,159,419	-4.37%	-4.02%
Total Participant Directed	6,548,346,415	(312,314,232)	10,871,551	6,246,903,734	-4.60%	-4.77%
Total All Funds	\$ 33,438,805,081	\$ (1,390,893,592)	\$ (84,848,336)	\$ 31,963,063,153	-4.41%	-4.16%

Notes:

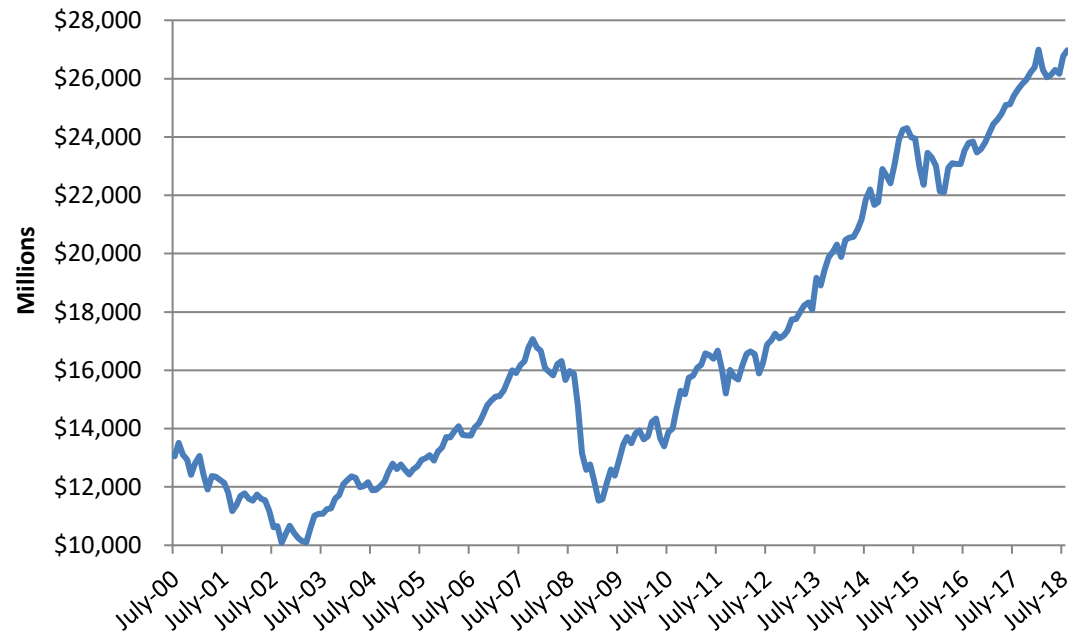
(1) Includes interest, dividends, securities lending, expenses, realized and unrealized gains/losses

(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>

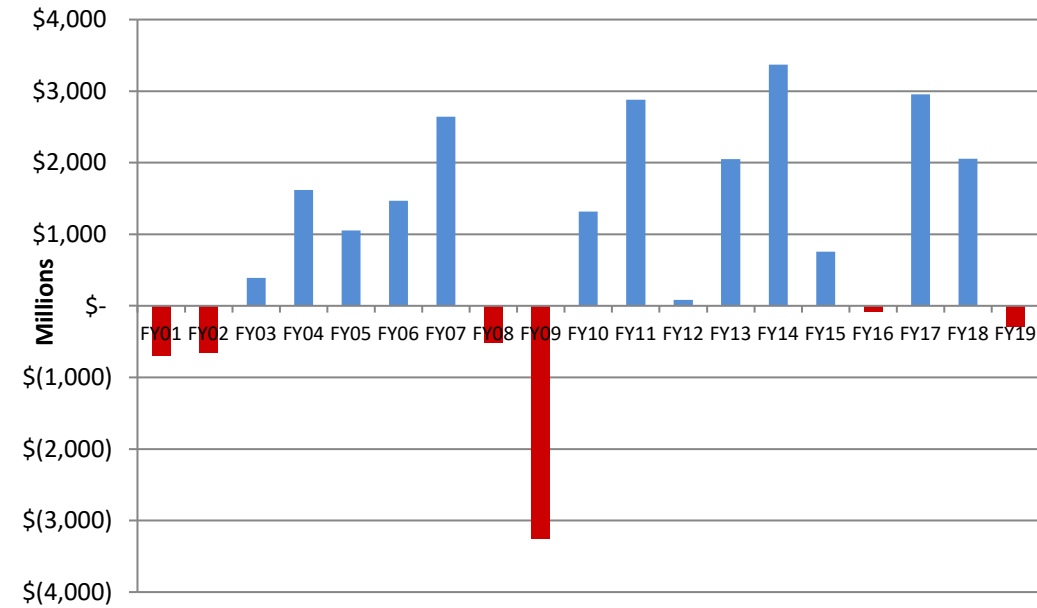
Total Non Participant Directed Assets

As of October 31, 2018

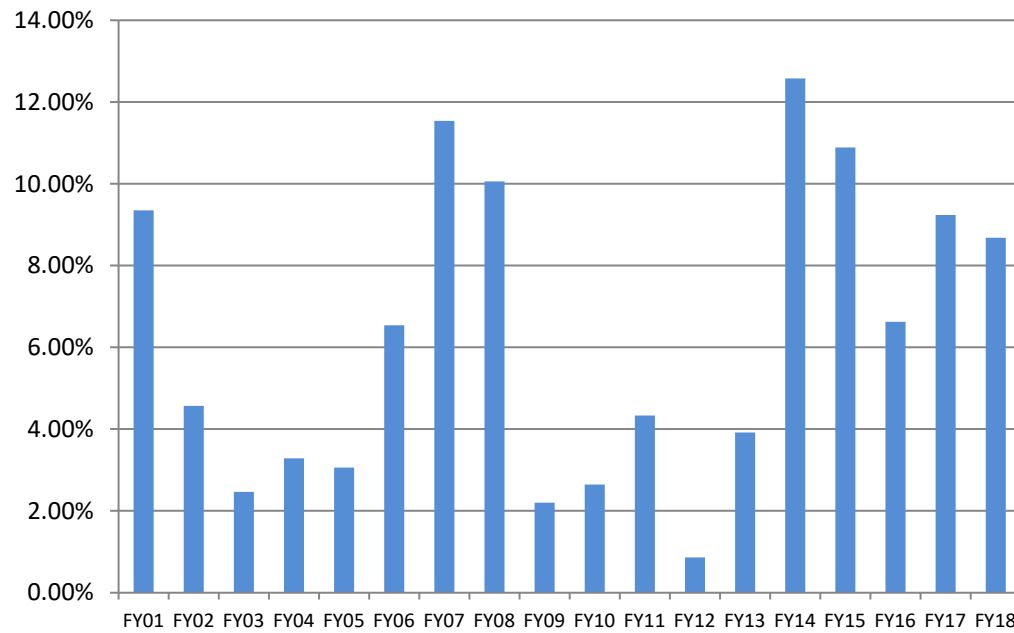
Total Assets History



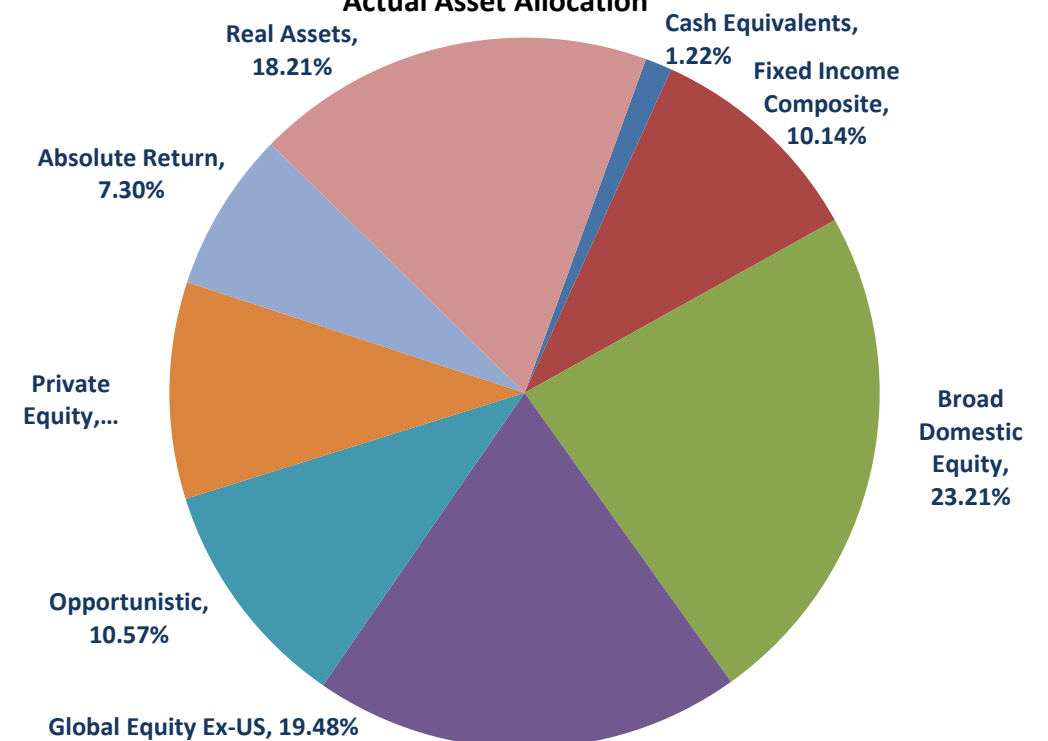
Income by Fiscal Year



5-year Annualized Returns as of Fiscal Year End



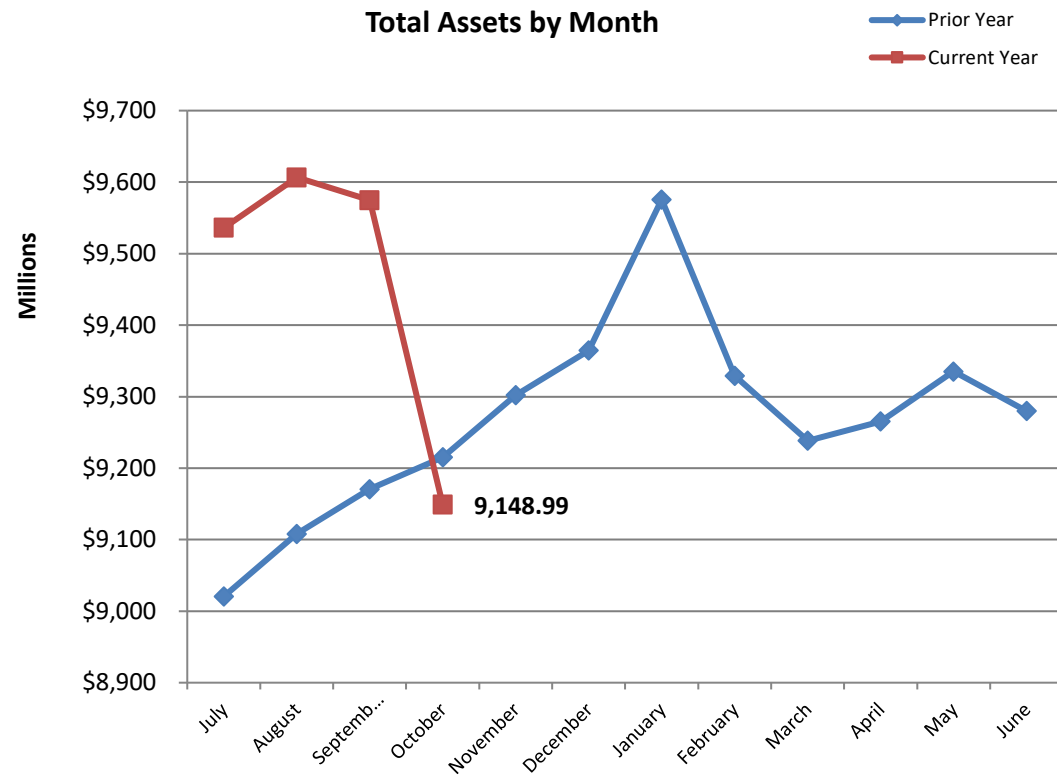
Actual Asset Allocation



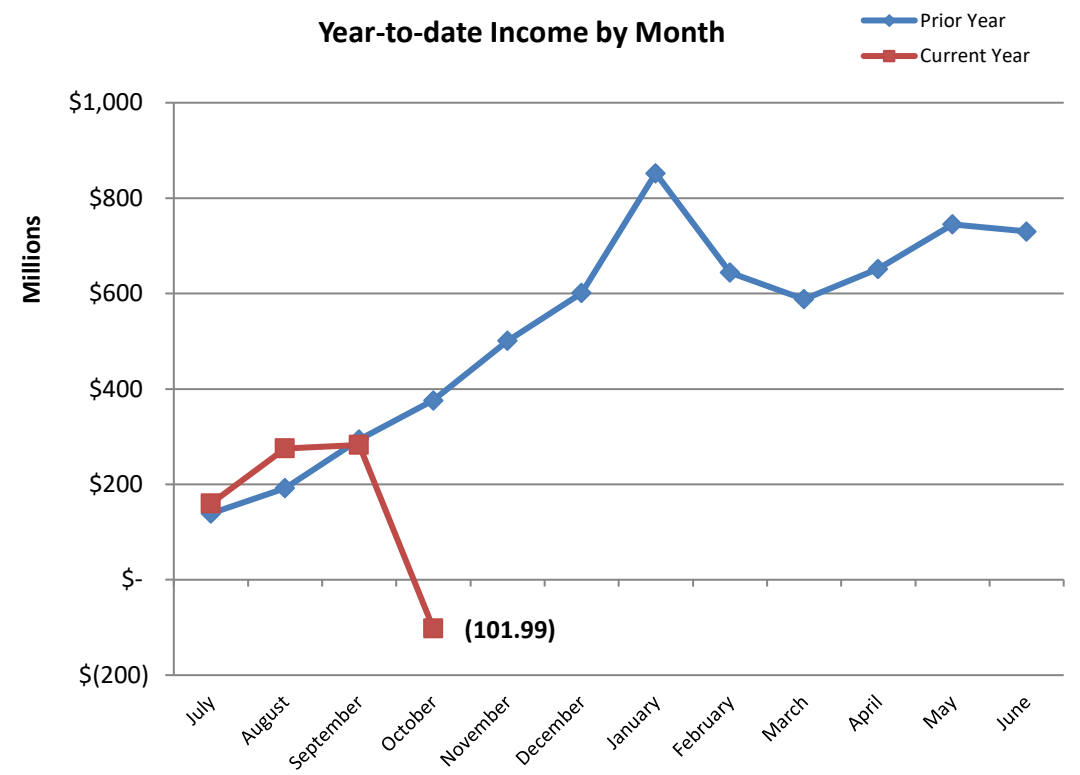
Public Employees' Retirement Pension Trust Fund

Fiscal Year-to-Date through October 31, 2018

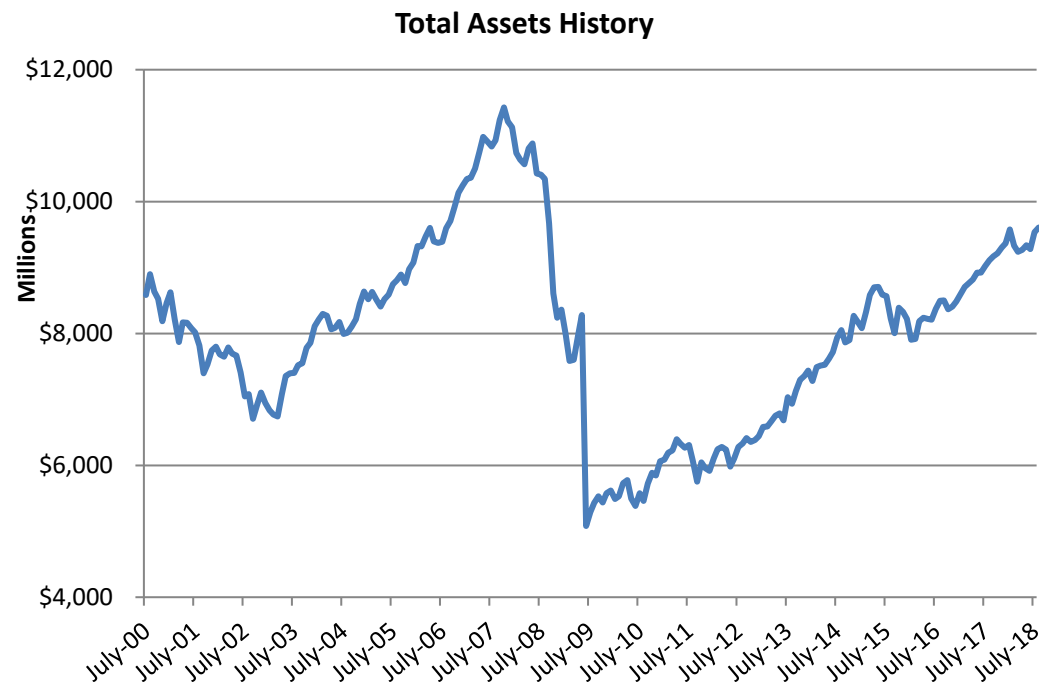
Total Assets by Month



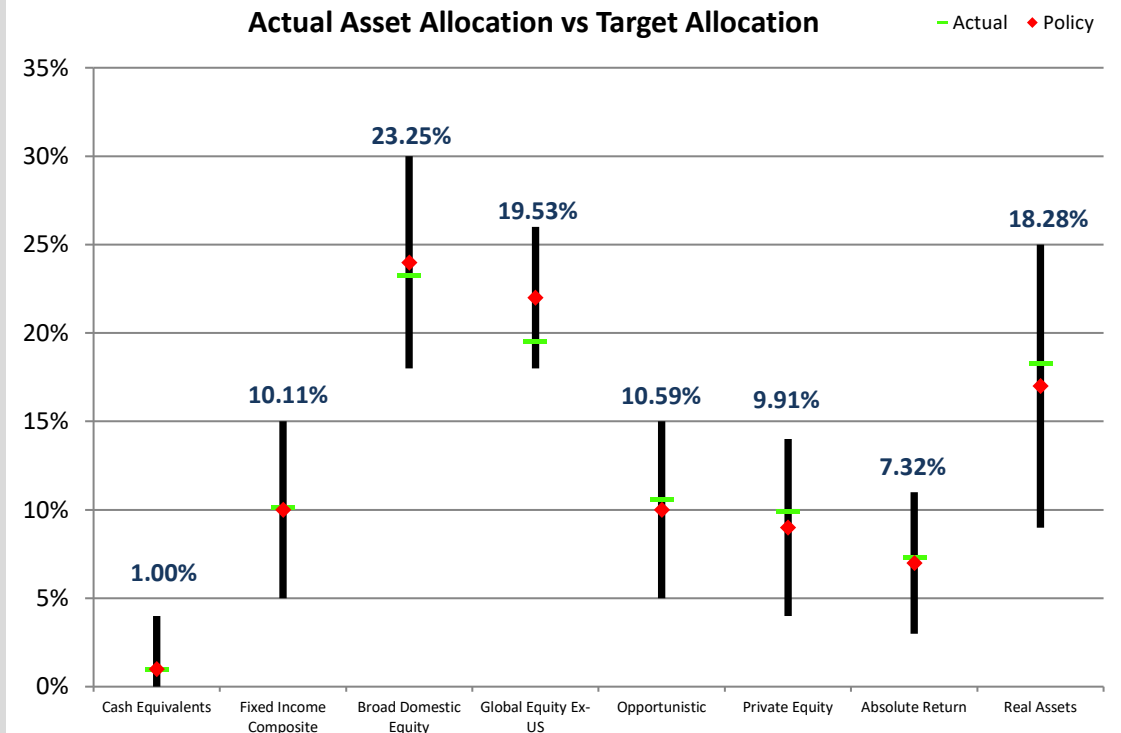
Year-to-date Income by Month



Total Assets History



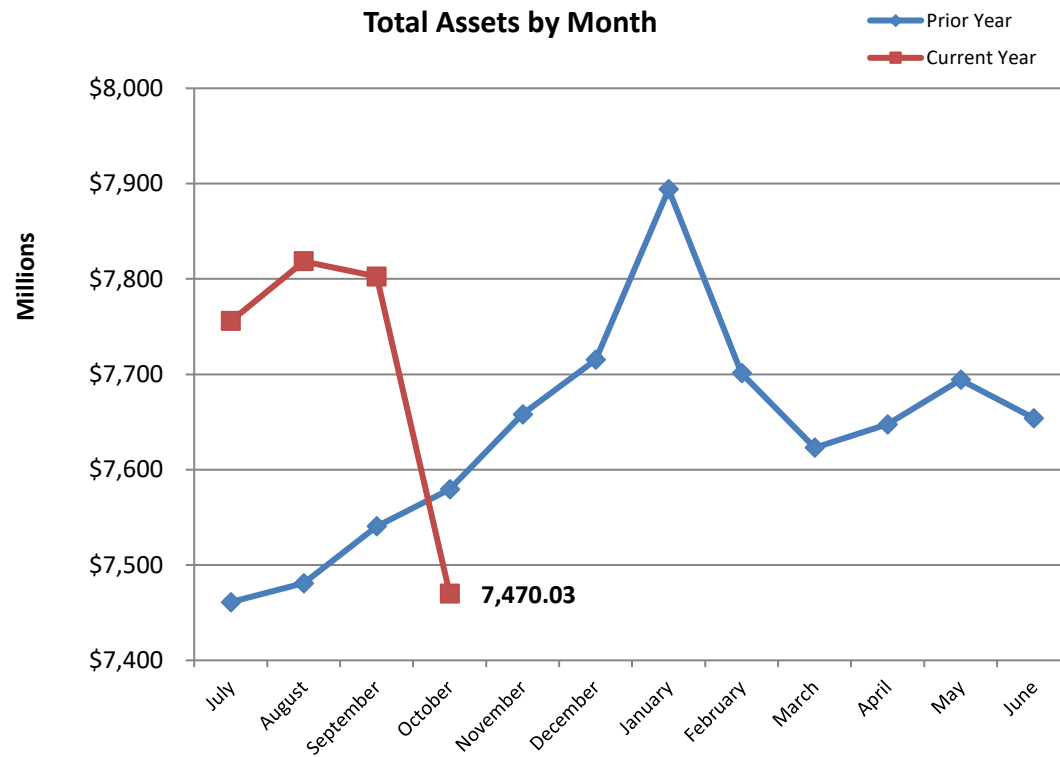
Actual Asset Allocation vs Target Allocation



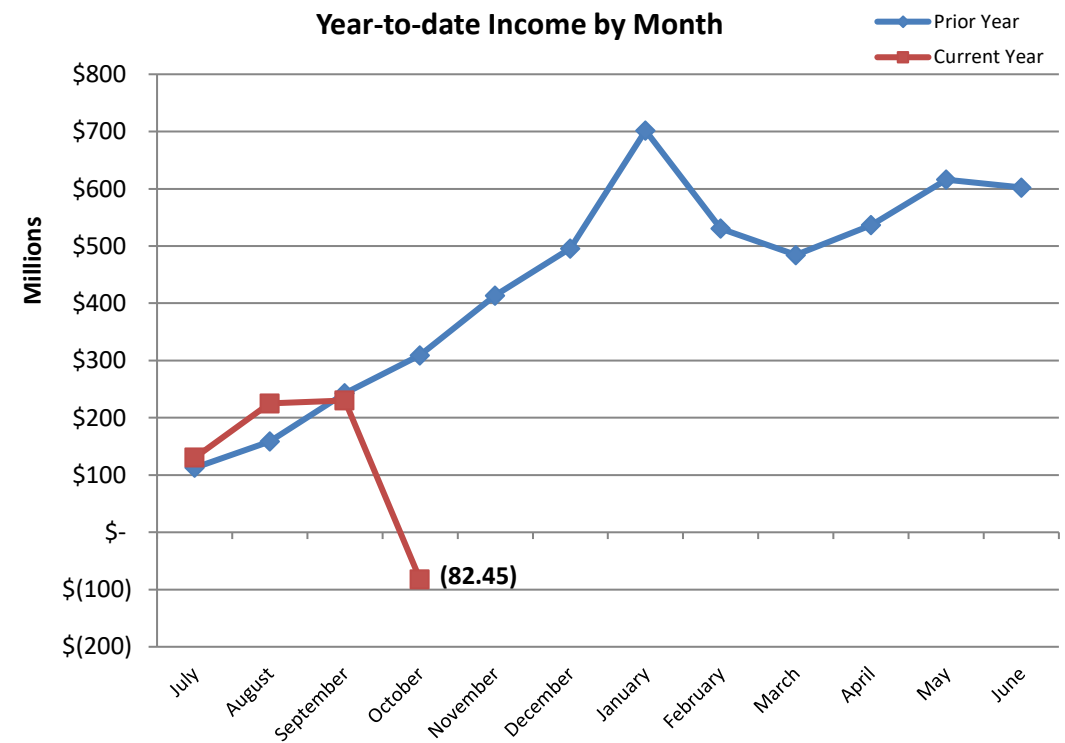
Public Employees' Retirement Health Care Trust Fund

Fiscal Year-to-Date through October 31, 2018

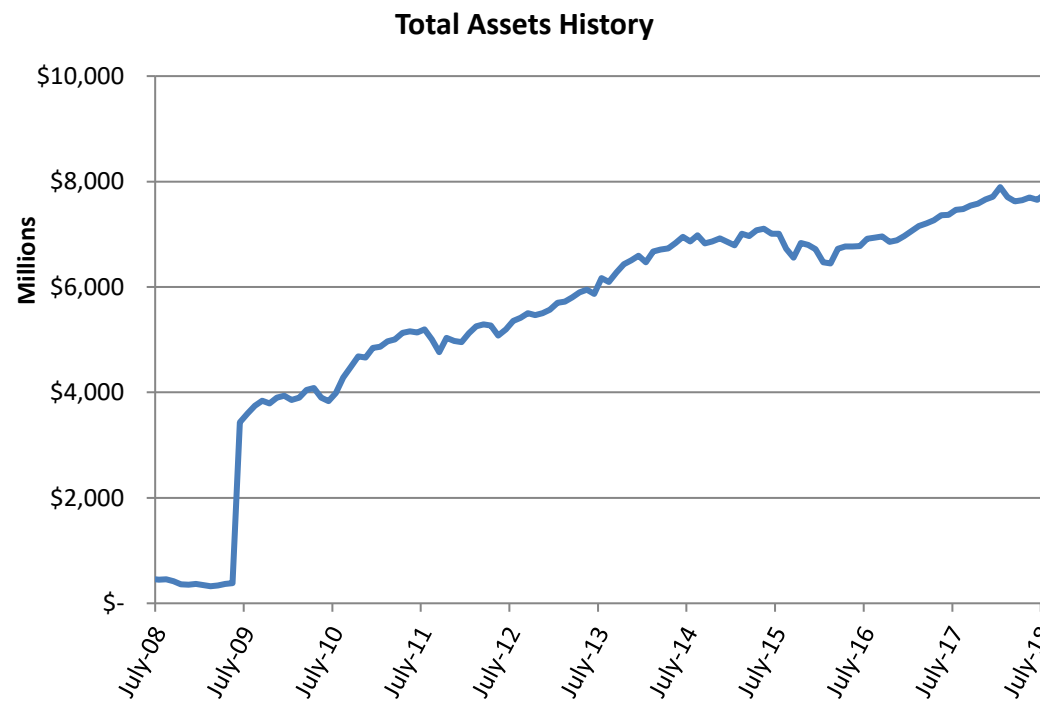
Total Assets by Month



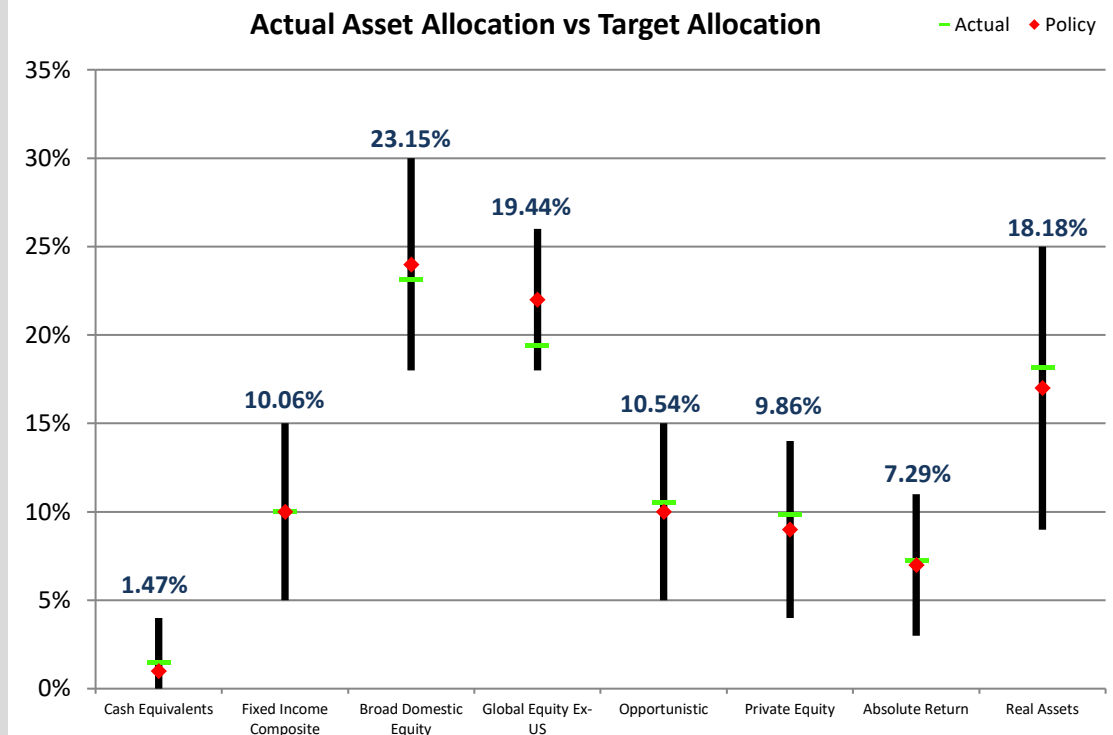
Year-to-date Income by Month



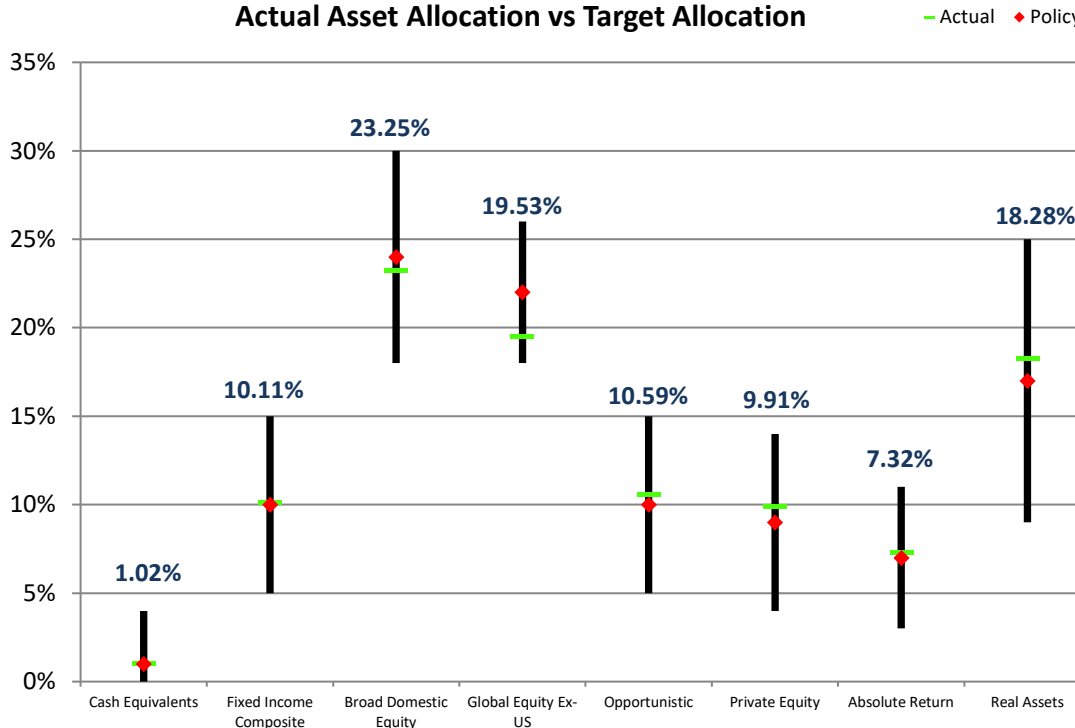
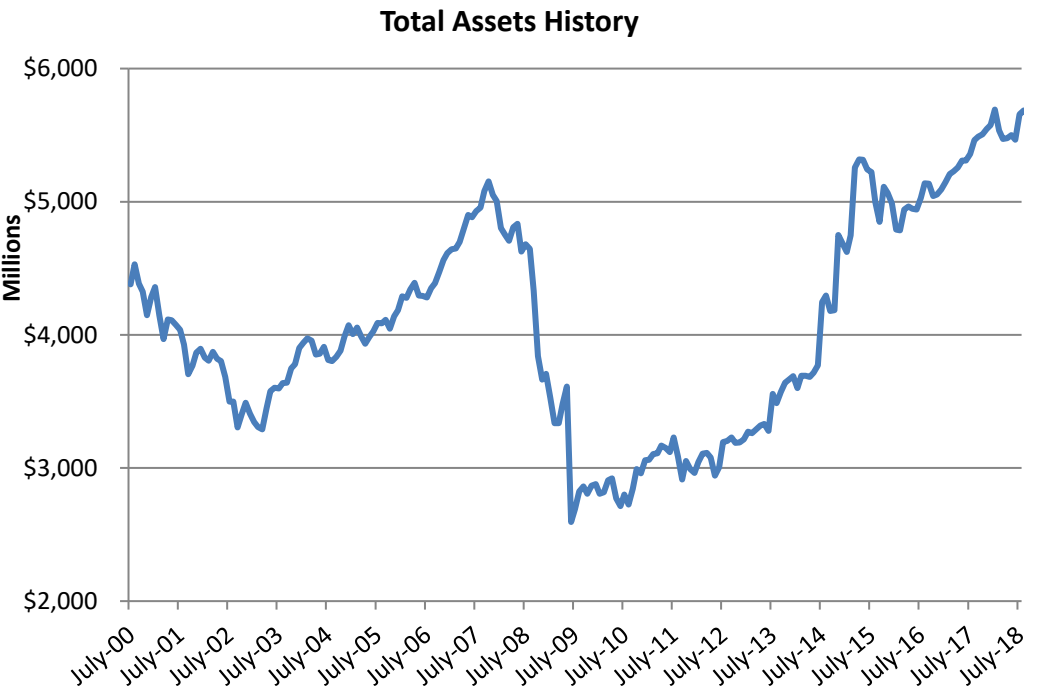
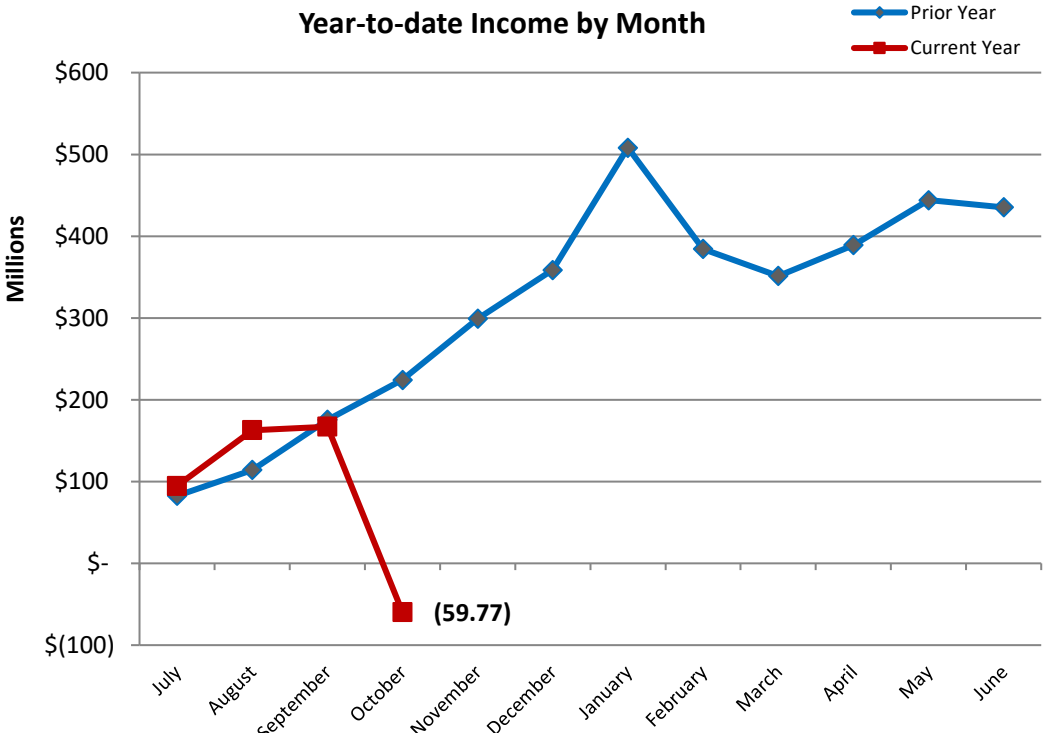
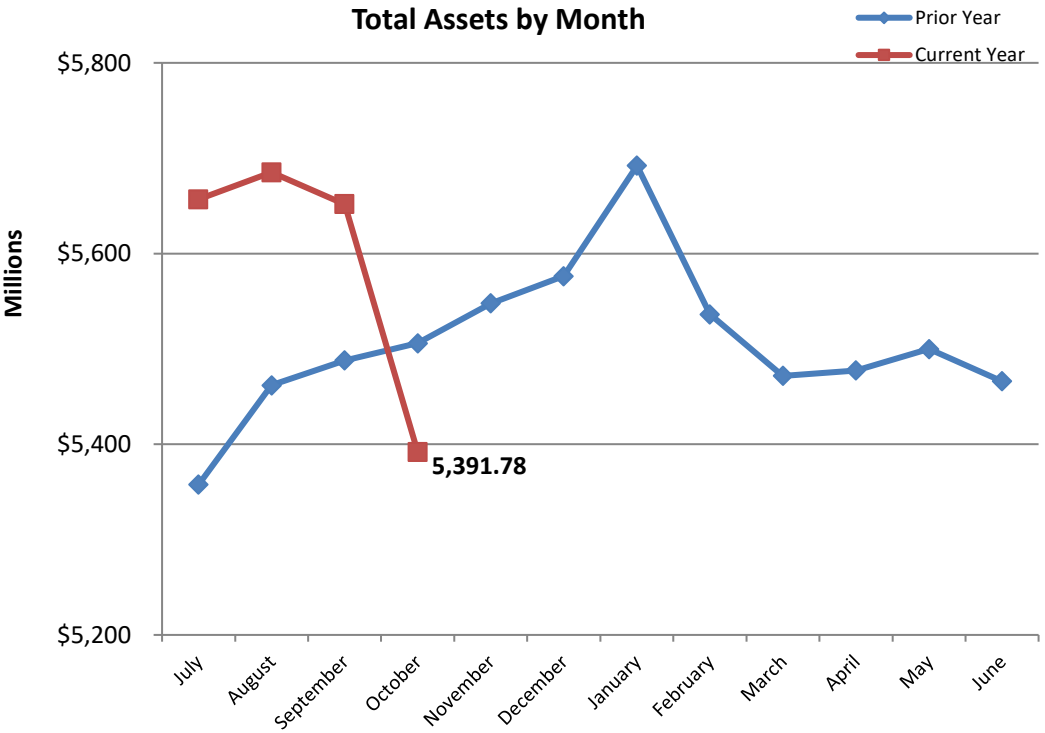
Total Assets History



Actual Asset Allocation vs Target Allocation

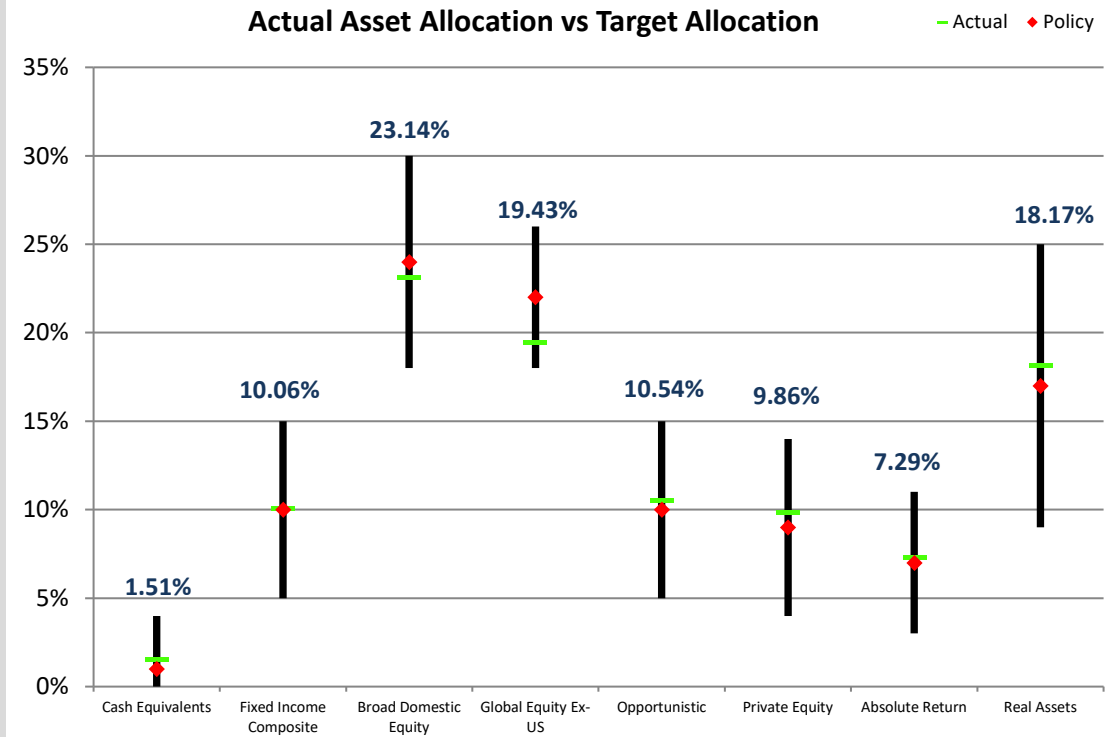
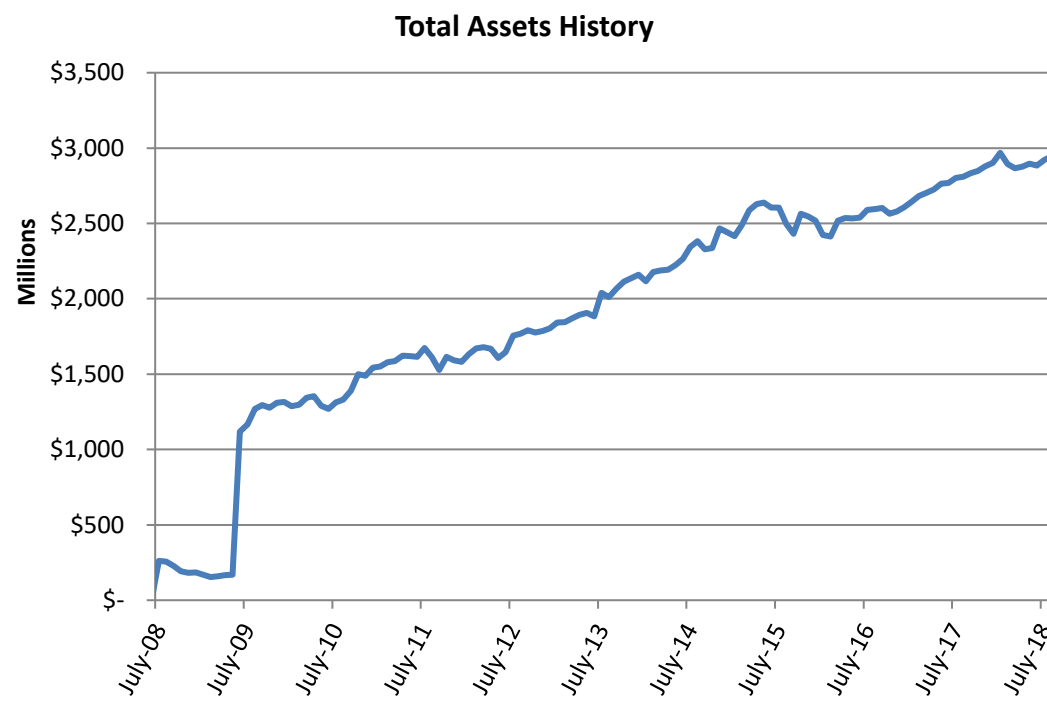
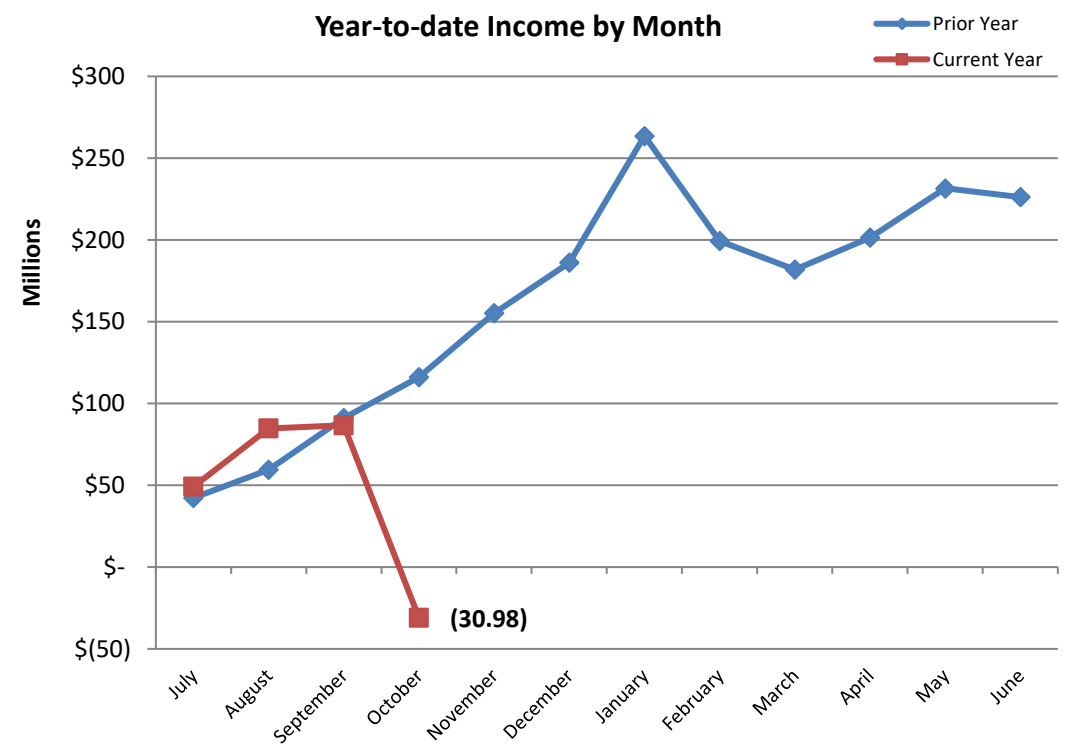
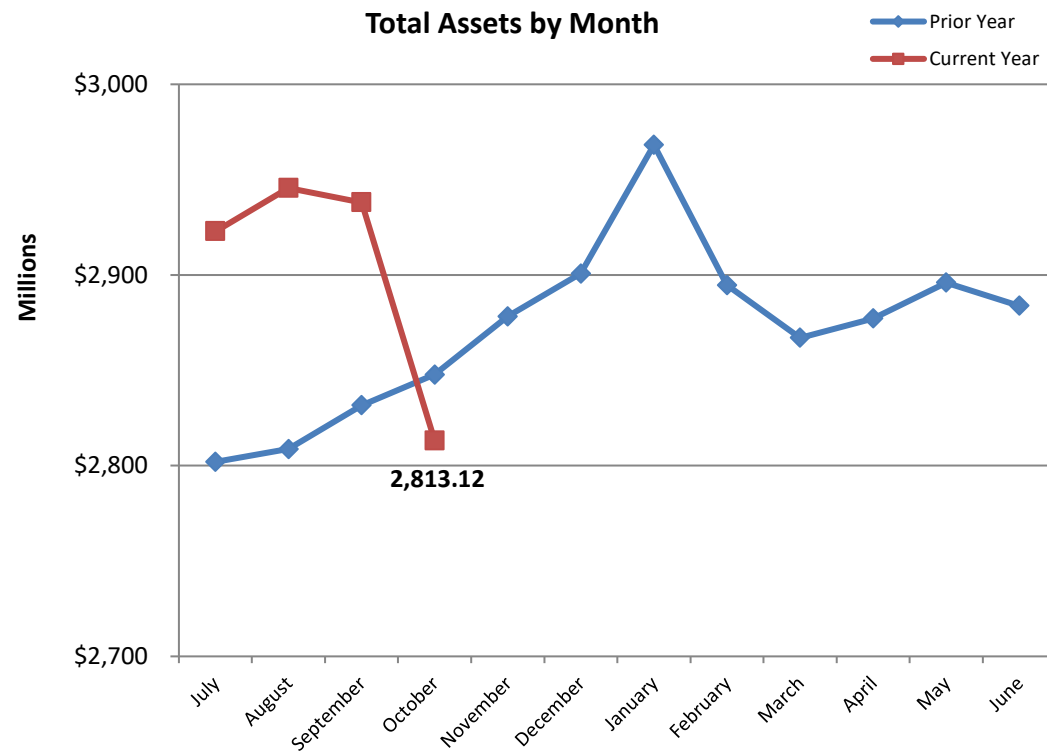


Teachers' Retirement Pension Trust Fund Fiscal Year-to-Date through October 31, 2018



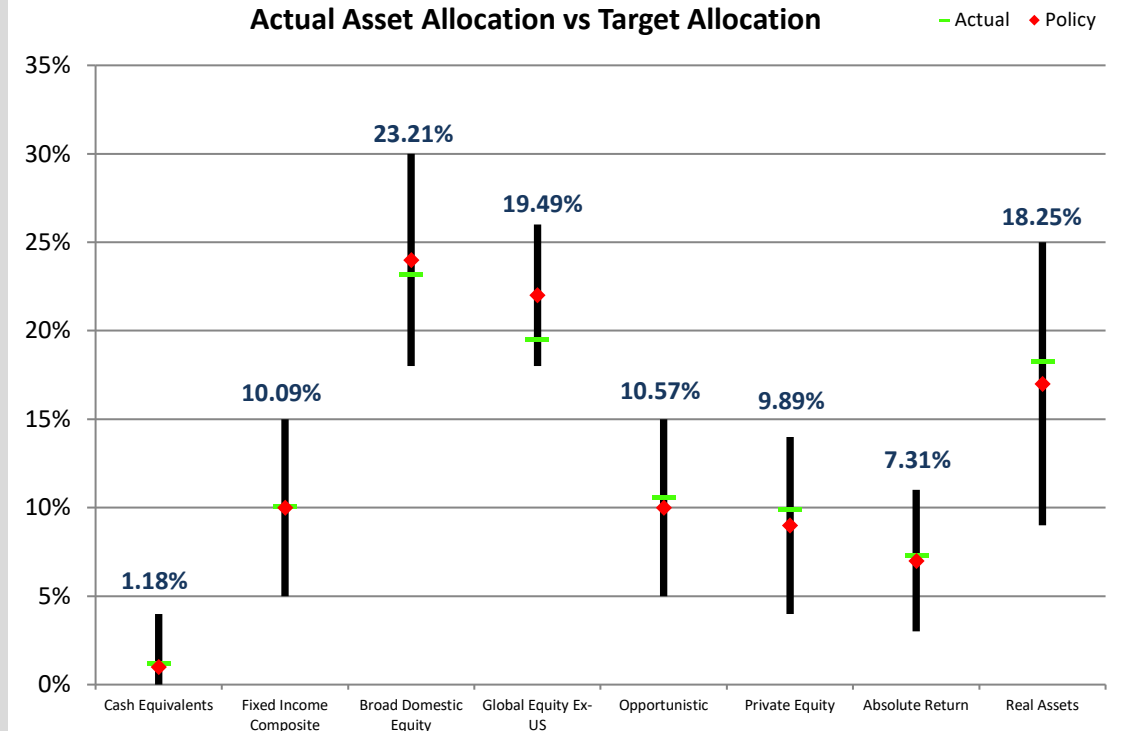
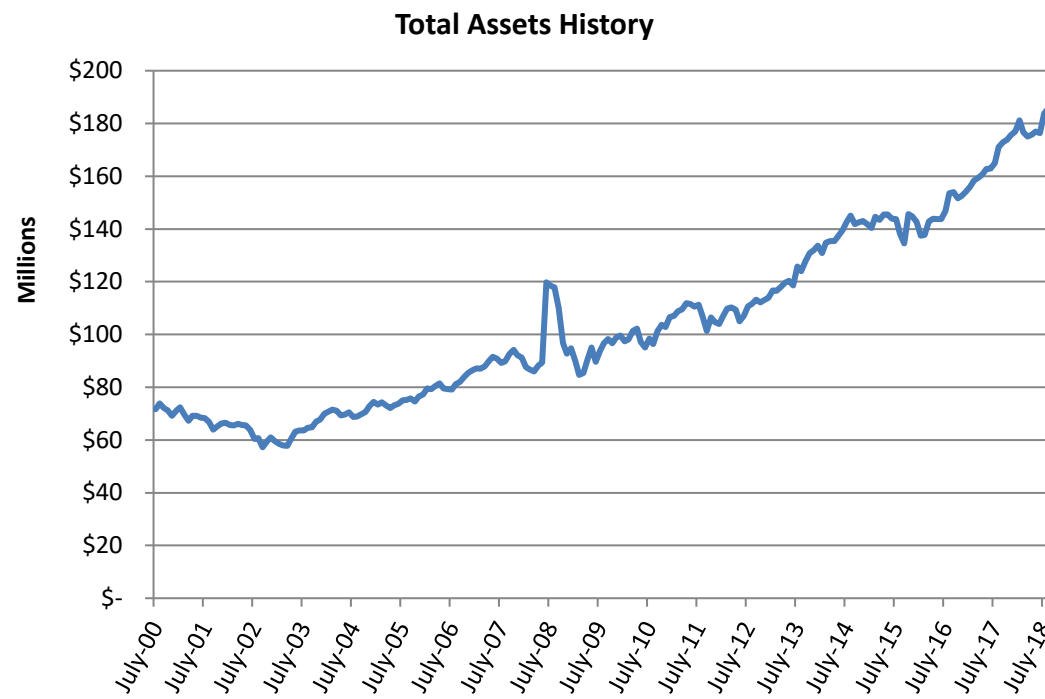
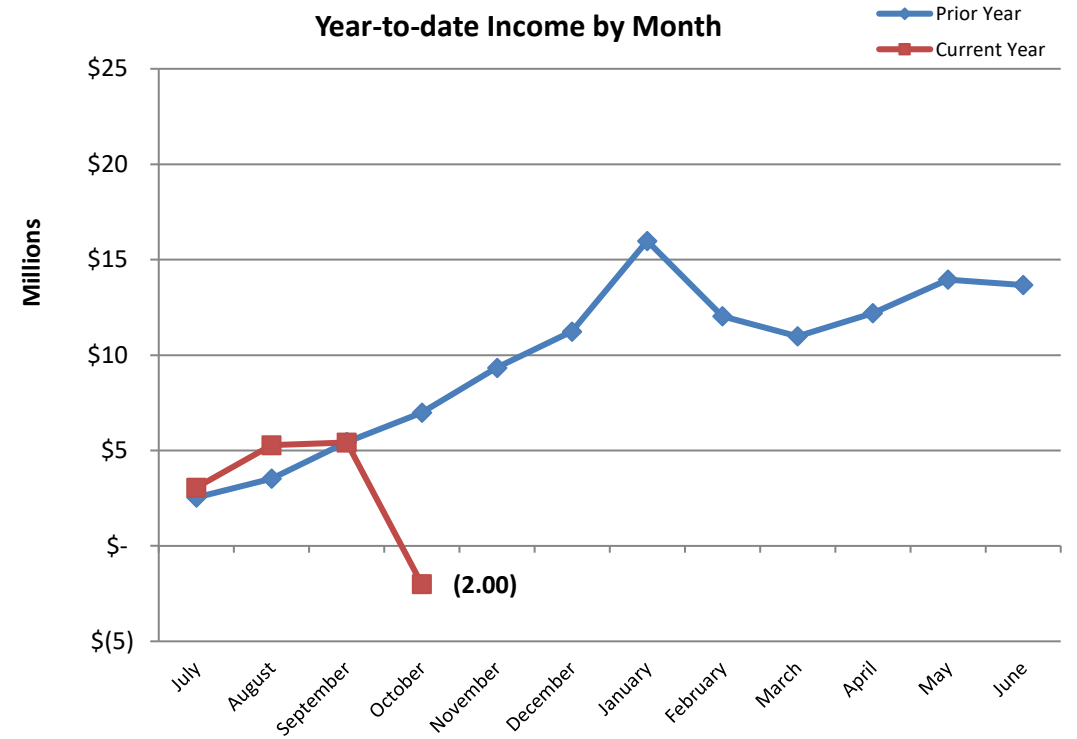
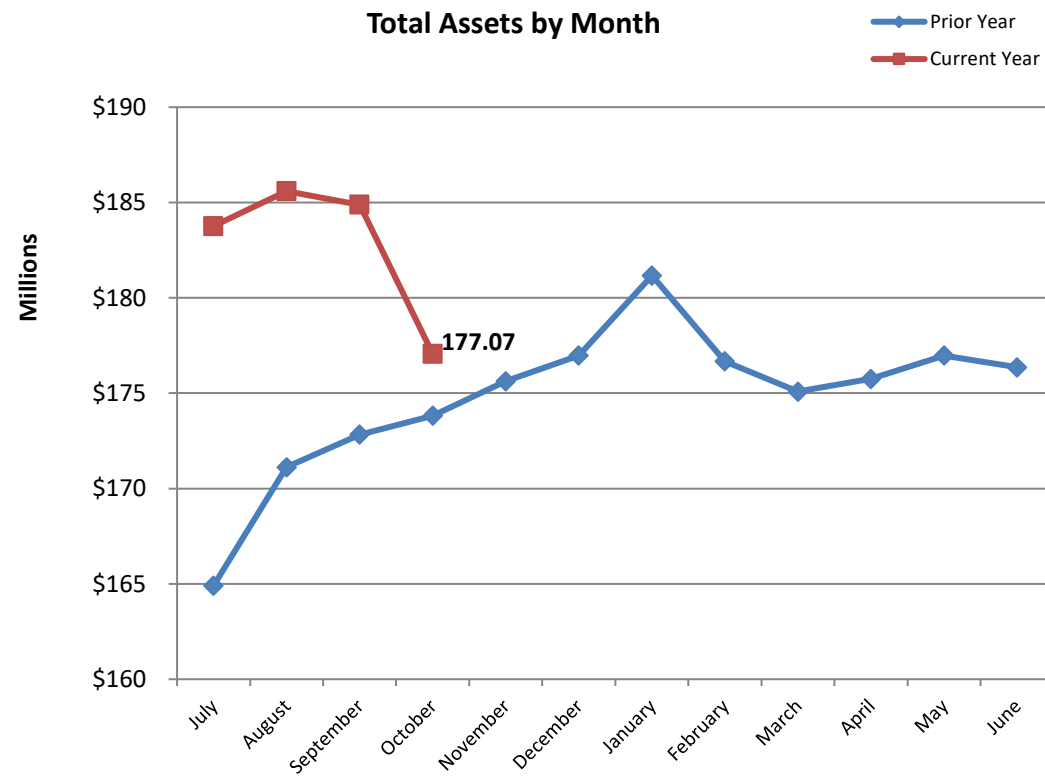
Teachers' Retirement Health Care Trust Fund

Fiscal Year-to-Date through October 31, 2018



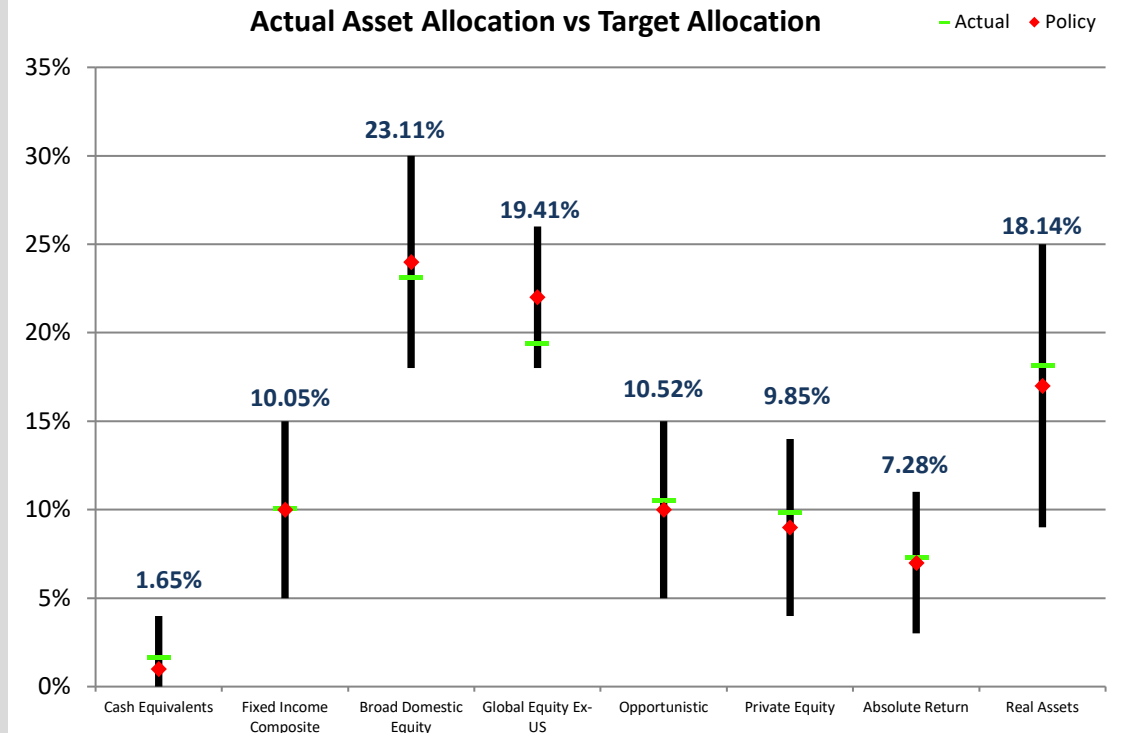
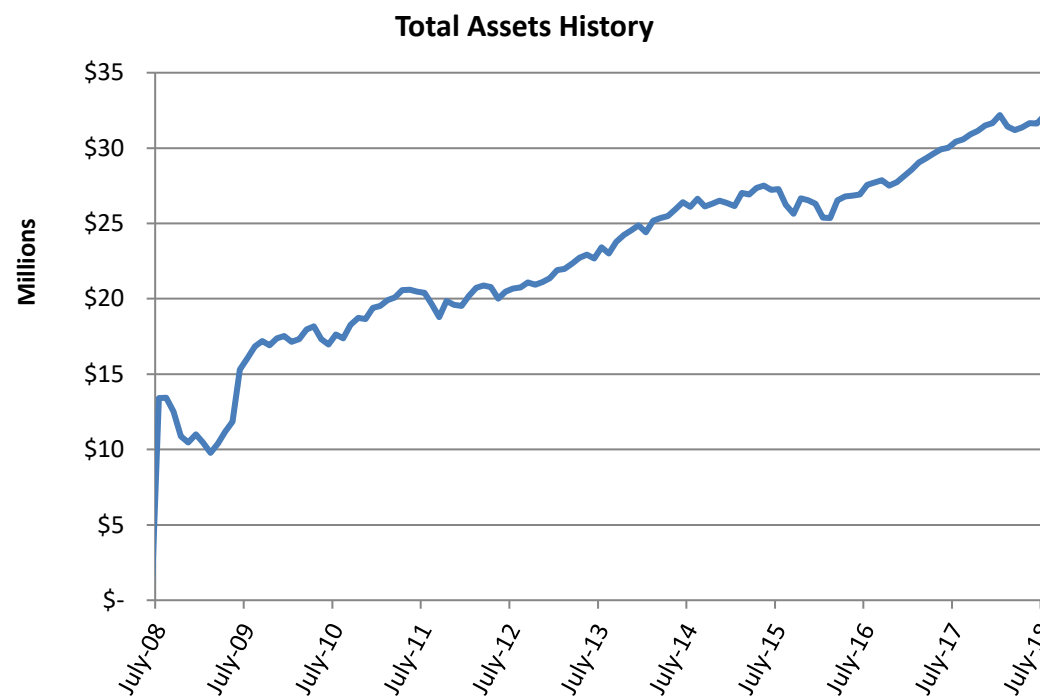
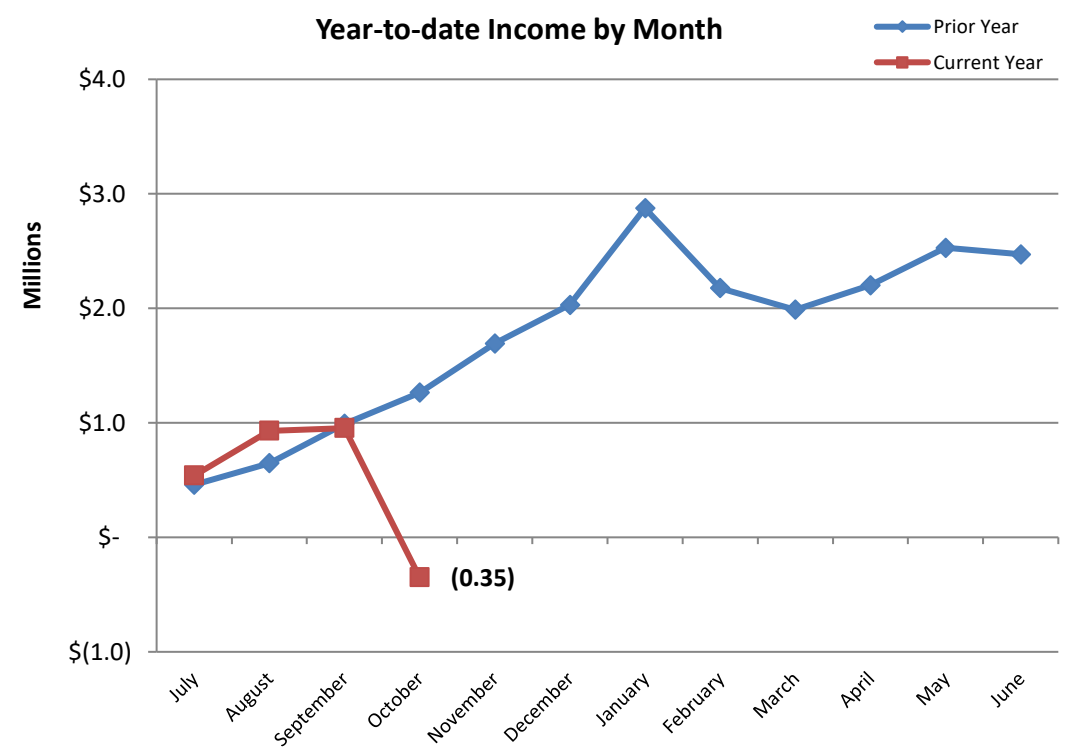
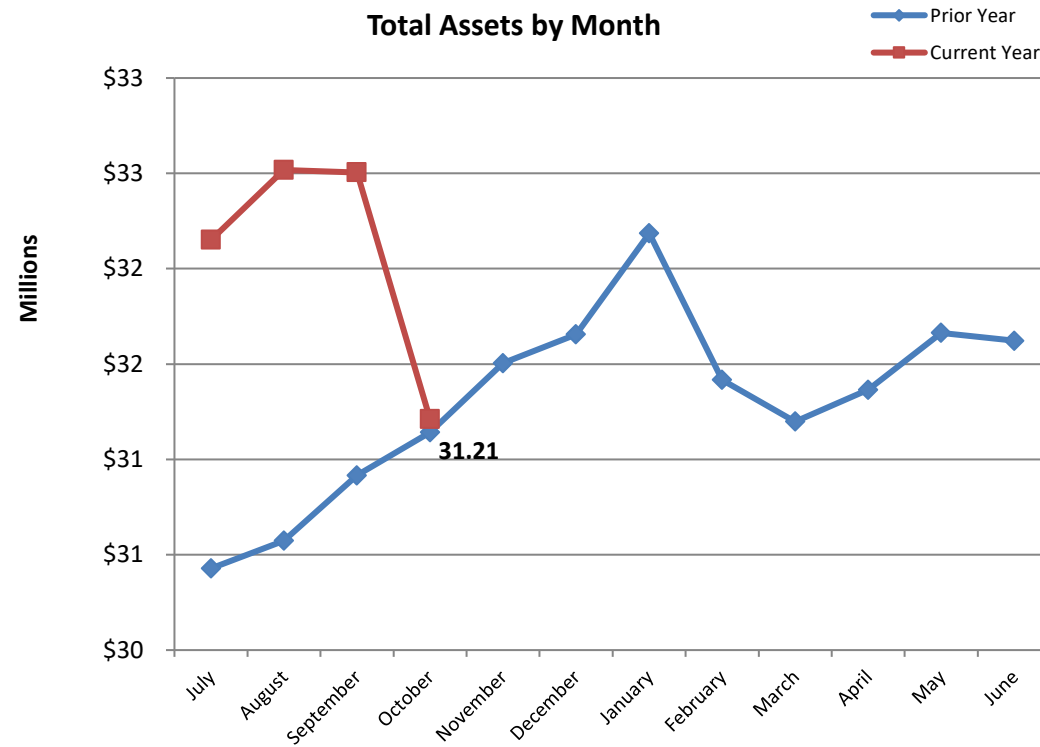
Judicial Retirement Pension Trust Fund

Fiscal Year-to-Date through October 31, 2018

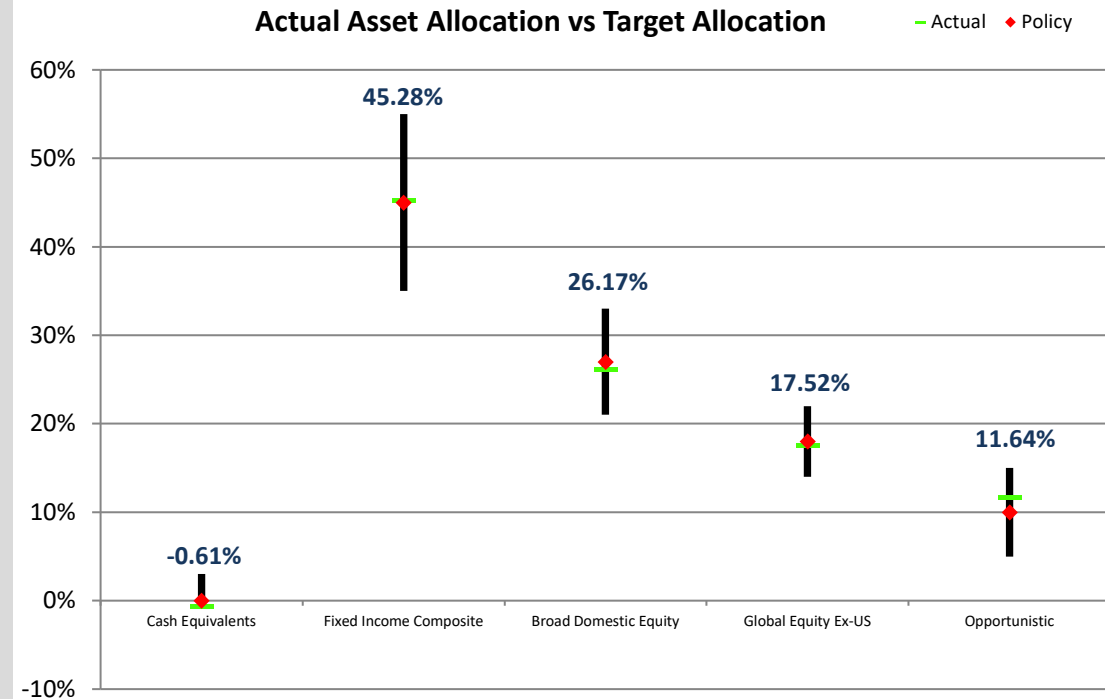
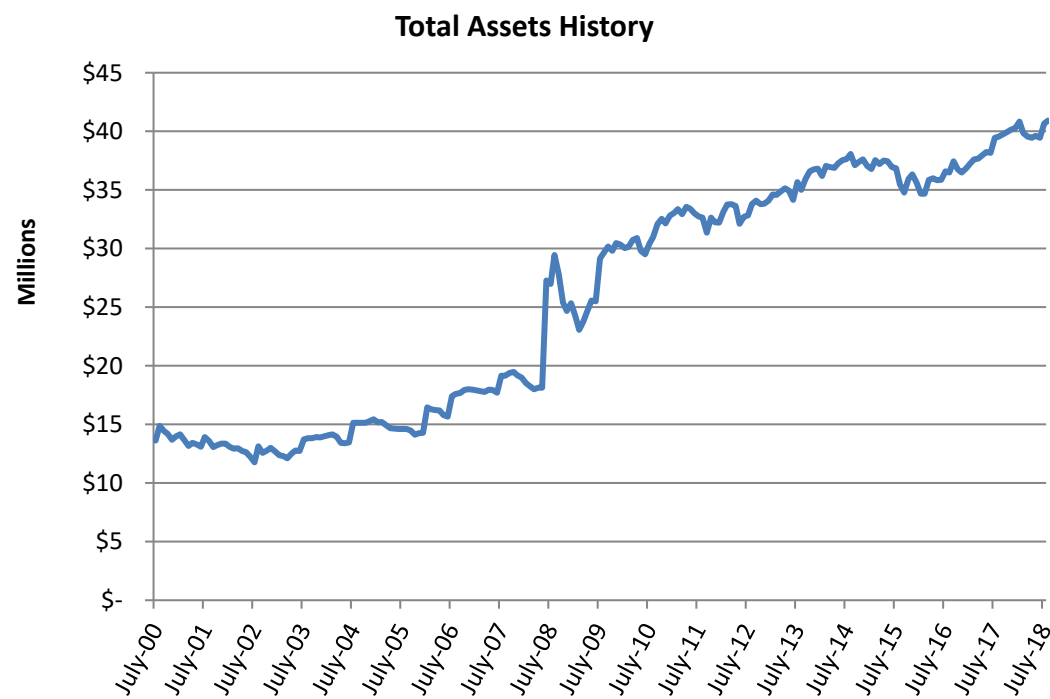
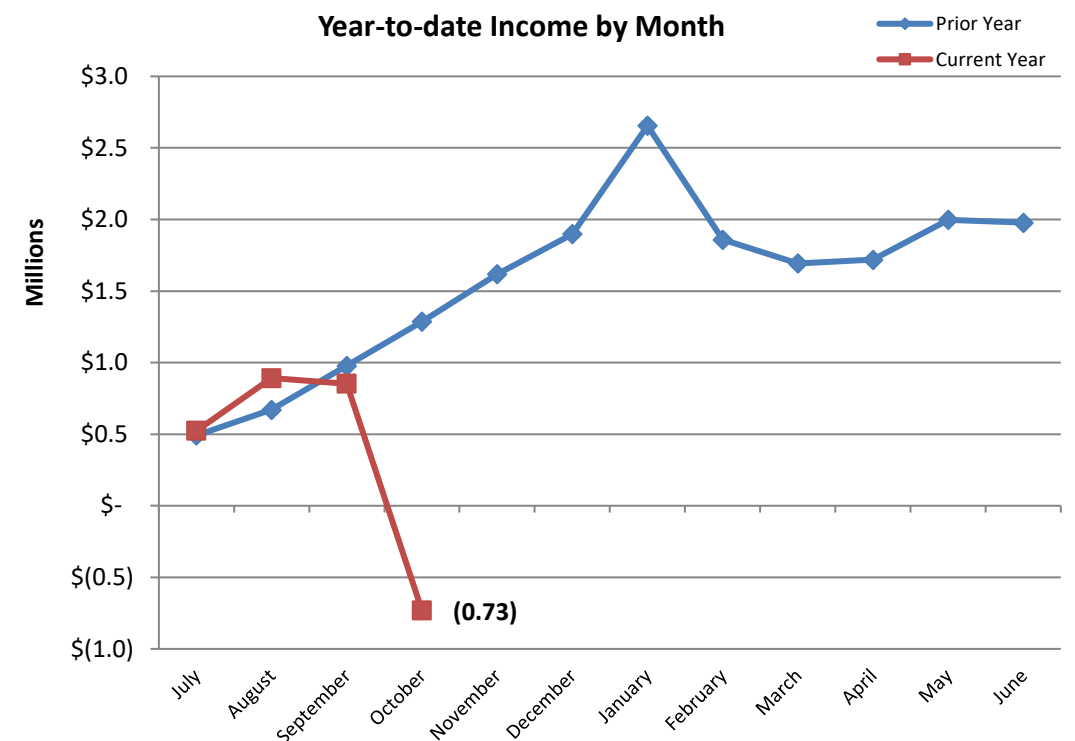
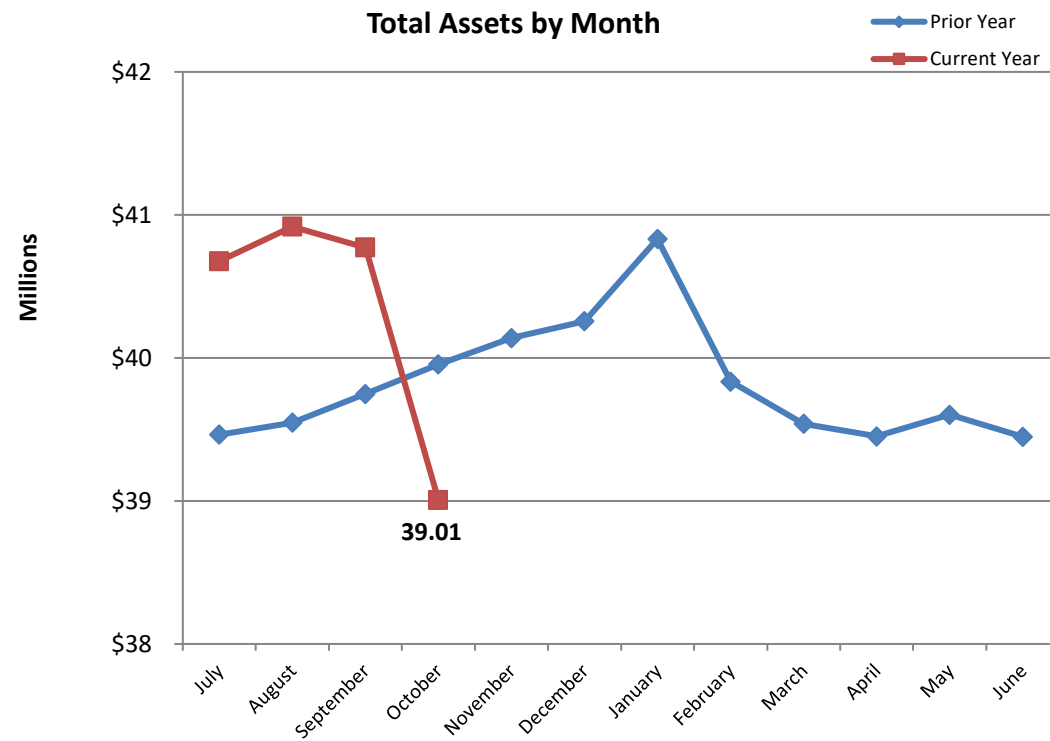


Judicial Retirement Health Care Trust Fund

Fiscal Year-to-Date through October 31, 2018



Military Retirement Trust Fund Fiscal Year-to-Date through October 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 October 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	\$ 350,652,276	\$ 821,630	\$ (37,025,352)	\$ 314,448,554	-10.32%	0.25%
Securities Lending Income Pool	119,867	181,004	(125,393)	175,478	46.39%	316.60%
Total Cash	<u>350,772,143</u>	<u>1,002,634</u>	<u>(37,150,745)</u>	<u>314,624,032</u>	-10.31%	0.30%
Fixed Income						
ARMB US Treasury Fixed Income	<u>2,686,959,981</u>	<u>593,357</u>	<u>(80,100,000)</u>	<u>2,607,453,338</u>	-2.96%	0.02%
Domestic Equities						
Small Cap						
Passively Managed						
ARMB S&P 600	170,047,534	(17,767,828)	-	152,279,706	-10.45%	-10.45%
SSgA Russell 2000 Growth	17,668	568	-	18,236	3.21%	3.21%
SSgA Russell 2000 Value	180,313	3,194	(153,113)	30,394	-83.14%	3.08%
Total Passive	<u>170,245,515</u>	<u>(17,764,066)</u>	<u>(153,113)</u>	<u>152,328,336</u>	-10.52%	-10.44%
Actively Managed						
ARMB Futures Small Cap	2,416,847	(1,461,284)	611	956,174	-60.44%	-60.45%
Arrowmark	57,629,034	(5,538,741)	114,097	52,204,390	-9.41%	-9.60%
BMO Global Asset Management	56,028,703	(7,192,322)	-	48,836,381	-12.84%	-12.84%
DePrince, Race & Zollo Inc.- Micro Cap	125,305,485	(11,419,567)	(29,681,021)	84,204,897	-32.80%	-10.34%
Fidelity (FIAM) Small Company	(9,019)	(462)	462	(9,019)	-	5.26%
Frontier Capital Mgmt. Co.	105,764,726	(11,705,593)	228,018	94,287,151	-10.85%	-11.06%
Jennison Associates, LLC	76,035,901	(8,631,089)	139,456	67,544,268	-11.17%	-11.34%
Lord Abbett & Co.- Micro Cap	130,688,824	(22,576,206)	(30,000,000)	78,112,618	-40.23%	-19.51%
T. Rowe Small Cap Growth	50,658,578	(5,383,412)	-	45,275,166	-10.63%	-10.63%
Transition Account	(1,520)	-	-	(1,520)	-	-
Victory Capital Management	128,405,375	(11,003,223)	-	117,402,152	-8.57%	-8.57%
Zebra Capital Management	115,643,573	(9,850,771)	(19,831,036)	85,961,766	-25.67%	-9.32%
Total Active	<u>848,566,507</u>	<u>(94,762,670)</u>	<u>(79,029,413)</u>	<u>674,774,424</u>	-20.48%	-11.71%
Total Small Cap	<u>1,018,812,022</u>	<u>(112,526,736)</u>	<u>(79,182,526)</u>	<u>827,102,760</u>	-18.82%	-11.49%

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

Large Cap

Passively Managed						
ARMB Russell 1000 Growth	1,701,191,081	(152,054,334)	-	1,549,136,747	-8.94%	-8.94%
ARMB Russell 1000 Value	1,424,155,097	(73,555,187)	153,113	1,350,753,023	-5.15%	-5.16%
ARMB Russell Top 200	416,970,218	(27,494,676)	-	389,475,542	-6.59%	-6.59%
Total Passive	<u>3,542,316,396</u>	<u>(253,104,197)</u>	<u>153,113</u>	<u>3,289,365,312</u>	-7.14%	-7.15%
Actively Managed						
Allianz Global Investors	5,635	5	-	5,640	0.09%	0.09%
ARMB Equity Yield	388,166,031	(22,563,027)	10,815	365,613,819	-5.81%	-5.81%
ARMB Futures Large Cap	4,380,208	(1,063,607)	883	3,317,484	-24.26%	-24.28%
ARMB Portable Alpha	461,700,290	(32,758,465)	604,411	429,546,236	-6.96%	-7.09%
ARMB S&P 500 Equal Weight	385,680,060	(27,728,822)	-	357,951,238	-7.19%	-7.19%
ARMB Scientific Beta	391,972,559	(25,266,566)	56,453	366,762,446	-6.43%	-6.45%
Barrow, Hanley, Mewhinney & Strauss	13,679	4,340	-	18,019	31.73%	31.73%
Lazard Freres	354,893,484	(26,302,956)	199,455	328,789,983	-7.36%	-7.41%
McKinley Capital Mgmt	-	45	-	45	-	-
Transition Account	2	-	-	2	-	-
Total Active	<u>1,986,811,948</u>	<u>(135,679,053)</u>	<u>872,017</u>	<u>1,852,004,912</u>	-6.79%	-6.83%
Total Large Cap	<u>5,529,128,344</u>	<u>(388,783,250)</u>	<u>1,025,130</u>	<u>5,141,370,224</u>	-7.01%	-7.03%
Total Domestic Equity	<u>6,547,940,366</u>	<u>(501,309,986)</u>	<u>(78,157,396)</u>	<u>5,968,472,984</u>	-8.85%	-7.70%

Global Equities Ex US

Small Cap

Mondrian Investment Partners	192,822,501	(19,613,204)	344,358	173,553,655	-9.99%	-10.16%
Schroder Investment Management	209,370,779	(26,217,636)	-	183,153,143	-12.52%	-12.52%
Total Small Cap	<u>402,193,280</u>	<u>(45,830,840)</u>	<u>344,358</u>	<u>356,706,798</u>	-11.31%	-11.39%

Large Cap

Allianz Global Investors	1,042,069	(2,025)	-	1,040,044	-0.19%	-0.19%
Arrow Street Capital	390,430,822	(31,621,781)	-	358,809,041	-8.10%	-8.10%
Baillie Gifford Overseas Limited	379,606,963	(44,347,298)	-	335,259,665	-11.68%	-11.68%
Blackrock ACWI Ex-US IMI	621,491,473	(53,198,426)	(80,000,000)	488,293,047	-21.43%	-9.15%
Brandes Investment Partners	812,245,861	(45,758,938)	666,119	767,153,042	-5.55%	-5.63%
Cap Guardian Trust Co	573,479,575	(51,909,926)	-	521,569,649	-9.05%	-9.05%
Lazard Freres	330,736,226	(23,456,945)	101,451	307,380,732	-7.06%	-7.09%
McKinley Capital Management	360,536,845	(33,920,869)	446,434	327,062,410	-9.28%	-9.40%
State Street Global Advisors	1,001,518,221	(83,155,024)	460,630	918,823,827	-8.26%	-8.30%
Total Large Cap	<u>4,471,088,055</u>	<u>(367,371,232)</u>	<u>(78,325,366)</u>	<u>4,025,391,457</u>	-9.97%	-8.29%

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

Emerging Markets Equity						
DePrince, Race, and Zollo Emerging Markets	282,416,819	(25,527,934)	-	256,888,885	-9.04%	-9.04%
Lazard Asset Management	392,044,603	(20,395,384)	-	371,649,219	-5.20%	-5.20%
Total Emerging Markets	<u>674,461,422</u>	<u>(45,923,318)</u>	<u>-</u>	<u>628,538,104</u>	<u>-6.81%</u>	<u>-6.81%</u>
Total Global Equities	<u>5,547,742,757</u>	<u>(459,125,390)</u>	<u>(77,981,008)</u>	<u>5,010,636,359</u>	<u>-9.68%</u>	<u>-8.33%</u>
Opportunistic						
Alternative Equity Strategy						
Analytic Buy Write Account	759,864,127	(40,959,317)	405,654	719,310,464	-5.34%	-5.39%
ARMB STOXX Min Var	639,958,123	(22,366,063)	-	617,592,060	-3.49%	-3.49%
Quantitative Management Associates MPS	(675,211)	(1,161,479)	-	(1,836,690)	-172.02%	-172.02%
Total Alternative Equity Strategy	<u>1,399,147,039</u>	<u>(64,486,859)</u>	<u>405,654</u>	<u>1,335,065,834</u>	<u>-4.58%</u>	<u>-4.61%</u>
Opportunistic Fixed Income						
Fidelity Inst. Asset Mgmt. High Yield CMBS	104,091,375	(254,114)	-	103,837,261	-0.24%	-0.24%
Fidelity Institutional Asset Management.	204,952,456	(2,528,120)	-	202,424,336	-1.23%	-1.23%
Lazard Emerging Income	86,476,699	(336,296)	(20,000,000)	66,140,403	-23.52%	-0.44%
MacKay Shields, LLC	160,087,146	(1,160,689)	(53,200,000)	105,726,457	-33.96%	-0.87%
Mondrian Investment Partners	96,467,816	(1,257,392)	105,104	95,315,528	-1.19%	-1.30%
Western Asset Management	56,477,990	(764,338)	-	55,713,652	-1.35%	-1.35%
Total Opportunistic Fixed Income	<u>708,553,482</u>	<u>(6,300,949)</u>	<u>(73,094,896)</u>	<u>629,157,637</u>	<u>-11.21%</u>	<u>-0.94%</u>
Other Opportunities						
Project Pearl	10,049,468	-	-	10,049,468	-	-
Schroders Insurance Linked Securities	341,877,874	1,461,514	-	343,339,388	0.43%	0.43%
Total Other Opportunities	<u>351,927,342</u>	<u>1,461,514</u>	<u>-</u>	<u>353,388,856</u>	<u>0.42%</u>	<u>0.42%</u>
Tactical Allocation Strategies						
Columbia Threadneedle	4,095	(3,510)	-	585	-85.71%	-85.71%
Eaton Vance High Yield	44,725	(21,321)	-	23,404	-47.67%	-47.67%
Fidelity Signals	-	-	200,000,000	200,000,000	100.00%	-
PineBridge	-	-	200,000,000	200,000,000	100.00%	-
Total Tactical Allocation Strategies	<u>48,820</u>	<u>(24,831)</u>	<u>400,000,000</u>	<u>400,023,989</u>	<u>819285.48%</u>	<u>-0.01%</u>
Total Opportunistic	<u>2,459,676,683</u>	<u>(69,351,125)</u>	<u>327,310,758</u>	<u>2,717,636,316</u>	<u>10.49%</u>	<u>-2.64%</u>

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

Private Equity

Abbott Capital	979,944,695	2,470,630	(11,259,400)	971,155,925	-0.90%	0.25%
Advent International GPE Fund VIII-B	17,473,014	-	-	17,473,014	-	-
Angelo, Gordon & Co.	64,699	-	-	64,699	-	-
Dyal Capital Partners III	24,328,645	413,957	(861,395)	23,881,207	-1.84%	1.73%
Glendon Opportunities	37,800,497	-	-	37,800,497	-	-
Glendon Opportunities II	-	-	-	-	-	-
KKR Lending Partners II	55,035,785	658,211	-	55,693,996	1.20%	1.20%
Lexington Capital Partners VIII	31,216,712	-	(922,697)	30,294,015	-2.96%	-
Lexington Partners VII	22,887,852	-	(505,257)	22,382,595	-2.21%	-
Merit Capital Partners	14,166,259	-	(489,587)	13,676,672	-3.46%	-
NB SOF III	30,035,517	-	-	30,035,517	-	-
NB SOF IV	6,271,594	-	729,745	7,001,339	11.64%	-
New Mountain Partners IV	23,528,357	-	-	23,528,357	-	-
New Mountain Partners V	12,514,884	-	-	12,514,884	-	-
NGP XI	52,051,628	-	-	52,051,628	-	-
Onex Partnership III	13,812,348	-	-	13,812,348	-	-
Pathway Capital Management LLC	1,111,166,946	(7,461,408)	(3,319,462)	1,100,386,076	-0.97%	-0.67%
Resolute Fund III	19,642,781	-	(2,946)	19,639,835	-0.01%	-
Summit Partners GE IX	18,093,544	-	-	18,093,544	-	-
Warburg Pincus X	14,220,090	-	-	14,220,090	-	-
Warburg Pincus XI	28,394,311	-	-	28,394,311	-	-
Warburg Pincus XII	46,417,040	-	-	46,417,040	-	-
Total Private Equity	2,559,067,198	(3,918,610)	(16,630,999)	2,538,517,589	-0.80%	-0.15%

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

Absolute Return

Allianz Global Investors	349,308,843	5,120,418	-	354,429,261	1.47%	1.47%
Crestline Investors, Inc.	462,733,482	7,461,495	(9,289,874)	460,905,103	-0.40%	1.63%
Crestline Specialty Fund	37,440,945	-	(953,158)	36,487,787	-2.55%	-
Crestline Specialty Lending Fund II	14,387,413	-	-	14,387,413	-	-
JPM Systemic Alpha	177,224,364	(1,106,116)	-	176,118,248	-0.62%	-0.62%
KKR Apex Equity Fund	80,753,933	239,909	-	80,993,842	0.30%	0.30%
Man Group Alternative Risk Premia	212,209,487	1,605,294	-	213,814,781	0.76%	0.76%
Prisma Capital Partners	429,290,277	(1,160,939)	-	428,129,338	-0.27%	-0.27%
Zebra Global Equity Advantage Fund	37,691,745	(1,126,371)	-	36,565,374	-2.99%	-2.99%
Zebra Global Equity Fund	76,124,348	(1,265,530)	-	74,858,818	-1.66%	-1.66%
Total Absolute Return Investments	<u>1,877,164,837</u>	<u>9,768,160</u>	<u>(10,243,032)</u>	<u>1,876,689,965</u>	-0.03%	0.52%

Real Assets

Farmland

Hancock Agricultural Investment Group	267,290,263	-	250,000	267,540,263	0.09%	-
UBS Agrivest, LLC	580,502,027	-	-	580,502,027	-	-
Total Farmland	<u>847,792,290</u>	<u>-</u>	<u>250,000</u>	<u>848,042,290</u>	0.03%	-

Timber

Hancock Natural Resource Group	96,533,654	-	-	96,533,654	-	-
Timberland Inv't Resource LLC	263,618,531	-	(1,000,000)	262,618,531	-0.38%	-
Total Timber	<u>360,152,185</u>	<u>-</u>	<u>(1,000,000)</u>	<u>359,152,185</u>	-0.28%	-

Energy

EIG Energy Fund XIV-A	14,135,151	218,345	-	14,353,496	1.54%	1.54%
EIG Energy Fund XV	26,456,735	470,430	(187,412)	26,739,753	1.07%	1.78%
EIG Energy Fund XVI	59,813,454	(644,822)	(1,445,603)	57,723,029	-3.49%	-1.09%
Total Energy	<u>100,405,340</u>	<u>43,953</u>	<u>(1,633,015)</u>	<u>98,816,278</u>	-1.58%	0.04%

REIT

REIT Transition Account	-	-	-	-	-	-
ARMB REIT	203,565,411	(5,302,622)	-	198,262,789	-2.60%	-2.60%
Total REIT	<u>203,565,411</u>	<u>(5,302,622)</u>	<u>-</u>	<u>198,262,789</u>	-2.60%	-2.60%

TIPS

ARMB Treasury Inflation Protected Securities	27,198	-	(27,198)	-	-100.00%	-
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Master Limited Partnerships

Advisory Research MLP	357,364,526	(25,454,144)	(39,467,938)	292,442,444	-18.17%	-7.54%
Tortoise Capital Advisors	541,245,889	(37,212,777)	(39,304,269)	464,728,843	-14.14%	-7.13%
Total Master Limited Partnerships	<u>898,610,415</u>	<u>(62,666,921)</u>	<u>(78,772,207)</u>	<u>757,171,287</u>	-15.74%	-7.29%

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

Infrastructure Private

IFM Global Infrastructure Fund-Private	417,823,871	8,035,106	-	425,858,977	1.92%	1.92%
JP Morgan Infrastructure Fund-Private	115,395,118	-	-	115,395,118	-	-
Total Infrastructure Private	<u>533,218,989</u>	<u>8,035,106</u>	<u>-</u>	<u>541,254,095</u>	1.51%	1.51%

Infrastructure Public

Brookfield Investment Mgmt.-Public	105,492,908	(2,474,024)	183,644	103,202,528	-2.17%	-2.34%
Lazard Asset Mgmt.-Public	149,051,150	(2,685,655)	-	146,365,495	-1.80%	-1.80%
Total Infrastructure Public	<u>254,544,058</u>	<u>(5,159,679)</u>	<u>183,644</u>	<u>249,568,023</u>	-1.95%	-2.03%

Real Estate

Core Commingled Accounts

JP Morgan	257,474,178	2,326,829	(1,882,438)	257,918,569	0.17%	0.91%
UBS Trumbull Property Fund	126,664,120	1,542,788	(37,039,659)	91,167,249	-28.02%	1.43%
Total Core Commingled	<u>384,138,298</u>	<u>3,869,617</u>	<u>(38,922,097)</u>	<u>349,085,818</u>	-9.12%	1.06%

Core Separate Accounts

LaSalle Investment Management	200,267,050	-	(708,218)	199,558,832	-0.35%	-
Sentinel Separate Account	242,128,203	-	(956,653)	241,171,550	-0.40%	-
UBS Realty	510,343,062	-	(1,892,105)	508,450,957	-0.37%	-
Total Core Separate	<u>952,738,315</u>	<u>-</u>	<u>(3,556,976)</u>	<u>949,181,339</u>	-0.37%	-

Non-Core Commingled Accounts

Almanac Realty Securities V	2,020,878	-	-	2,020,878	-	-
Almanac Realty Securities VII	33,753,045	-	-	33,753,045	-	-
BlackRock Diamond Property Fund	69,377	(410)	-	68,967	-0.59%	-0.59%
BlackRock US Core Property Fund	201,418,071	3,626,784	-	205,044,855	1.80%	1.80%
Clarion Ventures 4	23,108,222	-	-	23,108,222	-	-
Colony Investors VIII, L.P.	1,637,059	-	-	1,637,059	-	-
Coventry	265,083	-	-	265,083	-	-
ING Clarion Development Ventures III	2,482,226	-	-	2,482,226	-	-
KKR Real Estate Partners Americas II	4,823,956	199,274	607,653	5,630,883	16.73%	3.89%
KKR Real Estate Partners Americas LP.	22,628,370	1,116,498	102,731	23,847,599	5.39%	4.92%
Silverpeak Legacy Pension Partners II, L.P.	6,091,339	-	-	6,091,339	-	-
Silverpeak Legacy Pension Partners III, L.P.	4,487,072	-	-	4,487,072	-	-
Tishman Speyer Real Estate Venture VI	22,157,920	-	-	22,157,920	-	-
Tishman Speyer Real Estate Venture VII	999,584	-	-	999,584	-	-
Total Non-Core Commingled	<u>325,942,202</u>	<u>4,942,146</u>	<u>710,384</u>	<u>331,594,732</u>	1.73%	1.51%

Total Real Estate

	<u>1,662,818,815</u>	<u>8,811,763</u>	<u>(41,768,689)</u>	<u>1,629,861,889</u>	-1.98%	0.54%
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Total Real Assets

Total Assets	<u>\$ 26,890,458,666</u>	<u>\$ (1,078,579,360)</u>	<u>\$ (95,719,887)</u>	<u>\$ 25,716,159,419</u>	-4.37%	-4.02%
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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
October 31, 2018

	<u>Beginning Invested</u>		<u>Net Contributions</u>		<u>Ending Invested</u>	<u>% Change in</u>	<u>% Change due</u>
	<u>Assets</u>	<u>Investment Income</u>	<u>(Withdrawals)</u>	<u>Transfers In (Out)</u>	<u>Assets</u>	<u>Invested</u>	<u>to Investment</u>
						<u>Assets</u>	<u>Income (1)</u>
Participant Options							
T. Rowe Price							
Stable Value Fund	\$ 369,543,897	\$ 773,815	\$ (651,063)	\$ 3,773,892	\$ 373,440,541	1.05%	0.21%
Small Cap Stock Fund	189,729,455	(16,005,454)	(357,454)	(443,048)	172,923,499	-8.86%	-8.45%
Alaska Balanced Trust	1,144,919,857	(31,847,838)	(5,017,326)	(3,949,109)	1,104,105,584	-3.56%	-2.79%
Long Term Balanced Fund	690,402,521	(31,654,803)	406,466	(4,293,375)	654,860,809	-5.15%	-4.60%
AK Target Date 2010 Trust	10,476,863	(354,980)	(2,770)	420,532	10,539,645	0.60%	-3.32%
AK Target Date 2015 Trust	85,682,069	(3,297,517)	(811,422)	(327,157)	81,245,973	-5.18%	-3.87%
AK Target Date 2020 Trust	97,662,776	(4,472,808)	270,996	(266,549)	93,194,415	-4.58%	-4.58%
AK Target Date 2025 Trust	79,144,560	(4,134,113)	285,020	141,529	75,436,996	-4.68%	-5.21%
AK Target Date 2030 Trust	60,271,688	(3,488,508)	566,765	161,604	57,511,549	-4.58%	-5.75%
AK Target Date 2035 Trust	56,190,001	(3,551,897)	507,032	376,272	53,521,408	-4.75%	-6.27%
AK Target Date 2040 Trust	56,549,050	(3,786,854)	658,672	186,733	53,607,601	-5.20%	-6.65%
AK Target Date 2045 Trust	64,635,526	(4,462,475)	832,469	(51,995)	60,953,525	-5.70%	-6.86%
AK Target Date 2050 Trust	73,411,494	(5,063,782)	1,047,998	(162,151)	69,233,559	-5.69%	-6.86%
AK Target Date 2055 Trust	61,791,262	(4,282,704)	1,489,721	(224,710)	58,773,569	-4.88%	-6.86%
AK Target Date 2060 Trust	4,120,908	(303,076)	(11,894)	538,784	4,344,722	5.43%	-6.91%
Total Investments with T. Rowe Price	<u>3,044,531,927</u>	<u>(115,932,994)</u>	<u>(786,790)</u>	<u>(4,118,748)</u>	<u>2,923,693,395</u>		
State Street Global Advisors							
State Street Treasury Money Market Fund - Inst.	43,079,529	76,611	(145,764)	3,107,233	46,117,609	7.05%	0.17%
S&P 500 Stock Index Fund Series A	488,706,455	(33,603,122)	527,633	5,373,802	461,004,768	-5.67%	-6.83%
Russell 3000 Index	77,680,729	(5,690,856)	172,940	737,171	72,899,984	-6.15%	-7.28%
US Real Estate Investment Trust Index	35,137,862	(895,710)	82,945	(247,297)	34,077,800	-3.02%	-2.56%
World Equity Ex-US Index	58,201,987	(4,759,852)	209,987	947,630	54,599,752	-6.19%	-8.10%
US Treasury Inflation Protected Securities Index	38,180,164	(559,477)	29,027	1,672,482	39,322,196	2.99%	-1.43%
Total Investments with SSGA	<u>740,986,726</u>	<u>(45,432,406)</u>	<u>876,768</u>	<u>11,591,021</u>	<u>708,022,109</u>		
BlackRock							
Passive U.S. Bond Index Fund	107,002,719	(845,098)	155,687	(6,312,197)	100,001,111	-6.54%	-0.81%
Brandes/Baillie Gifford							
AK International Equity Fund	68,018,237	(5,906,516)	199,107	(492,130)	61,818,698	-9.11%	-8.70%
Northern Trust							
Environmental, Social, and Governance Fund	53,543,671	(3,710,988)	92,364	(667,946)	49,257,101	-8.01%	-6.97%
Total All Funds	<u>\$ 4,014,083,280</u>	<u>\$ (171,828,002)</u>	<u>\$ 537,136</u>	<u>\$ -</u>	<u>\$ 3,842,792,414</u>	<u>-4.27%</u>	<u>-4.28%</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
October 31, 2018
\$ (Thousands)

<u>Invested Assets</u> (at fair value)	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>
Investments with T. Rowe Price				
Stable Value Fund	\$ 355,917	\$ 363,879	\$ 369,544	\$ 373,441
Small Cap Stock Fund	181,818	192,895	189,729	172,923
Alaska Balanced Trust	1,149,694	1,155,054	1,144,920	1,104,106
Long Term Balanced Fund	690,744	693,992	690,403	654,861
AK Target Date 2010 Trust	10,224	10,332	10,477	10,540
AK Target Date 2015 Trust	85,669	85,913	85,682	81,246
AK Target Date 2020 Trust	95,933	97,261	97,663	93,194
AK Target Date 2025 Trust	77,962	79,810	79,145	75,437
AK Target Date 2030 Trust	58,998	60,191	60,272	57,512
AK Target Date 2035 Trust	54,648	56,123	56,190	53,521
AK Target Date 2040 Trust	54,939	56,321	56,549	53,608
AK Target Date 2045 Trust	62,116	63,775	64,636	60,954
AK Target Date 2050 Trust	71,313	72,734	73,411	69,234
AK Target Date 2055 Trust	58,693	60,532	61,791	58,774
AK Target Date 2060 Trust	3,459	4,069	4,121	4,345
State Street Global Advisors				
State Street Treasury Money Market Fund - Inst.	42,005	40,850	43,080	46,118
S&P 500 Stock Index Fund Series A	469,954	484,173	488,706	461,005
Russell 3000 Index	76,432	78,281	77,681	72,900
US Real Estate Investment Trust Index	35,067	36,342	35,138	34,078
World Equity Ex-US Index	55,690	55,661	58,202	54,600
Long US Treasury Bond Index	12,732	-	-	-
US Treasury Inflation Protected Securities Index	33,228	36,218	38,180	39,322
World Government Bond Ex-US Index	12,569	-	-	-
Investments with BlackRock				
Passive U.S. Bond Index Fund	-	111,572	107,003	100,001
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
Investments with Northern Trust				
Environmental, Social, and Governance Fund	54,712	53,437	53,544	49,257
Total Invested Assets	\$ 3,965,512	\$ 4,017,465	\$ 4,014,083	\$ 3,842,792
<u>Change in Invested Assets</u>				
Beginning Assets	\$ 3,905,659	\$ 3,965,512	\$ 4,017,465	\$ 4,014,083
Investment Earnings	64,770	58,603	(2,073)	(171,828)
Net Contributions (Withdrawals)	(4,918)	(6,650)	(1,309)	537
Ending Invested Assets	\$ 3,965,512	\$ 4,017,465	\$ 4,014,083	\$ 3,842,792

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

	<u>Beginning Invested</u> <u>Assets</u>	<u>Investment Income</u>	<u>Net Contributions</u> <u>(Withdrawals)</u>	<u>Transfers In (Out)</u>	<u>Ending Invested</u> <u>Assets</u>	<u>% Change in</u> <u>Invested</u> <u>Assets</u>	<u>% Change due</u> <u>to Investment</u> <u>Income (1)</u>
Participant Options							
T. Rowe Price							
Stable Value Fund	\$ 178,901,038	\$ 374,954	\$ (389,212)	\$ 2,261,451	\$ 181,148,231	1.26%	0.21%
Small Cap Stock Fund	119,170,462	(10,048,980)	(211,734)	(389,312)	108,520,436	-8.94%	-8.45%
Alaska Balanced Trust	30,452,918	(851,131)	(102,211)	283,753	29,783,329	-2.20%	-2.79%
Long Term Balanced Fund	90,274,958	(4,105,837)	(624,336)	(584,825)	84,959,960	-5.89%	-4.58%
AK Target Date 2010 Trust	4,033,409	(133,450)	1,188	(182,345)	3,718,802	-7.80%	-3.38%
AK Target Date 2015 Trust	9,462,420	(365,524)	(223,373)	30,662	8,904,185	-5.90%	-3.90%
AK Target Date 2020 Trust	26,247,664	(1,199,934)	(199,979)	(59,719)	24,788,032	-5.56%	-4.59%
AK Target Date 2025 Trust	18,796,041	(977,654)	119,032	(42,529)	17,894,890	-4.79%	-5.19%
AK Target Date 2030 Trust	12,393,893	(716,947)	100,159	(15,969)	11,761,136	-5.11%	-5.77%
AK Target Date 2035 Trust	7,175,315	(456,018)	93,531	190,628	7,003,456	-2.40%	-6.23%
AK Target Date 2040 Trust	8,258,089	(549,241)	80,453	(128,649)	7,660,652	-7.23%	-6.67%
AK Target Date 2045 Trust	6,019,833	(419,668)	76,451	(91,385)	5,585,231	-7.22%	-6.98%
AK Target Date 2050 Trust	4,122,945	(284,054)	67,556	20,584	3,927,031	-4.75%	-6.82%
AK Target Date 2055 Trust	4,308,683	(295,416)	24,238	(44,572)	3,992,933	-7.33%	-6.87%
AK Target Date 2060 Trust	884,540	(62,238)	9,065	39,226	870,593	-1.58%	-6.85%
Total Investments with T. Rowe Price	<u>520,502,208</u>	<u>(20,091,138)</u>	<u>(1,179,172)</u>	<u>1,286,999</u>	<u>500,518,897</u>		
State Street Global Advisors							
State Street Treasury Money Market Fund - Inst.	13,946,644	24,266	(415,263)	315,084	13,870,731	-0.54%	0.17%
Russell 3000 Index	46,616,242	(3,417,443)	170,522	1,179,463	44,548,784	-4.44%	-7.23%
US Real Estate Investment Trust Index	12,769,773	(320,179)	35,223	82,773	12,567,590	-1.58%	-2.50%
World Equity Ex-US Index	18,531,076	(1,522,630)	88,205	480,946	17,577,597	-5.15%	-8.09%
US Treasury Inflation Protected Securities Index	15,603,145	(227,803)	22,210	288,582	15,686,134	0.53%	-1.45%
Total Investments with SSGA	<u>107,466,880</u>	<u>(5,463,789)</u>	<u>(99,103)</u>	<u>2,346,848</u>	<u>104,250,836</u>		
BlackRock							
S&P 500 Index Fund	226,416,967	(15,485,424)	(488,385)	(97,642)	210,345,516	-7.10%	-6.85%
Passive U.S. Bond Index Fund	55,702,369	(441,542)	(66,810)	(2,325,675)	52,868,342	-5.09%	-0.81%
Total Investments with BlackRock	<u>282,119,336</u>	<u>(15,926,966)</u>	<u>(555,195)</u>	<u>(2,423,317)</u>	<u>263,213,858</u>		
Brandes/Baillie Gifford							
AK International Equity Fund	36,339,997	(3,142,939)	(27,942)	(571,118)	32,597,998	-10.30%	-8.72%
Northern Trust							
Environmental, Social, and Governance Fund	23,412,859	(1,588,840)	(81,172)	(639,412)	21,103,435	-9.86%	-6.89%
Total All Funds	<u>\$ 969,841,280</u>	<u>\$ (46,213,672)</u>	<u>\$ (1,942,584)</u>	<u>\$ -</u>	<u>\$ 921,685,024</u>	<u>-4.97%</u>	<u>-4.77%</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
October 31, 2018
\$ (Thousands)

<u>Invested Assets</u> (at fair value)	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>
Investments with T. Rowe Price				
Interest Income Fund	\$ 175,629	\$ -	\$ -	\$ -
Stable Value Fund	-	179,111	178,901	181,148
Small Cap Stock Fund	114,946	121,797	119,170	108,520
Alaska Balanced Trust	29,501	30,253	30,453	29,783
Long Term Balanced Fund	91,224	91,105	90,275	84,960
AK Target Date 2010 Trust	4,051	4,078	4,033	3,719
AK Target Date 2015 Trust	9,541	9,477	9,462	8,904
AK Target Date 2020 Trust	26,229	26,594	26,248	24,788
AK Target Date 2025 Trust	17,470	18,025	18,796	17,895
AK Target Date 2030 Trust	11,744	12,182	12,394	11,761
AK Target Date 2035 Trust	6,910	7,082	7,175	7,003
AK Target Date 2040 Trust	7,998	8,245	8,258	7,661
AK Target Date 2045 Trust	5,688	5,882	6,020	5,585
AK Target Date 2050 Trust	3,958	4,104	4,123	3,927
AK Target Date 2055 Trust	4,248	4,300	4,309	3,993
AK Target Date 2060 Trust	399	873	885	871
State Street Global Advisors				
State Street Treasury Money Market Fund - Inst.	13,653	13,538	13,947	13,871
Russell 3000 Index	43,890	45,212	46,616	44,549
US Real Estate Investment Trust Index	12,810	13,334	12,770	12,568
World Equity Ex-US Index	18,373	18,043	18,531	17,578
Long US Treasury Bond Index	5,169	-	-	-
US Treasury Inflation Protected Securities Index	13,533	14,313	15,603	15,686
World Government Bond Ex-US Index	4,626	-	-	-
Investments with BlackRock				
S&P 500 Index Fund	220,701	226,134	226,417	210,346
Passive U.S. Bond Index Fund	-	57,464	55,702	52,868
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
Investments with Northern Trust				
Environmental, Social, and Governance Fund	23,391	23,420	23,413	21,103
Total Invested Assets	\$ 953,592	\$ 971,688	\$ 969,841	\$ 921,685
<u>Change in Invested Assets</u>				
Beginning Assets	\$ 938,807	\$ 953,592	\$ 971,688	\$ 969,841
Investment Earnings	17,321	18,962	(977)	(46,214)
Net Contributions (Withdrawals)	(2,536)	(866)	(869)	(1,943)
Ending Invested Assets	\$ 953,592	\$ 971,688	\$ 969,841	\$ 921,685

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

	<u>Beginning Invested</u>		<u>Net Contributions</u>		<u>Ending Invested</u>	<u>% Change in</u>	<u>% Change due</u>
	<u>Assets</u>	<u>Investment Income</u>	<u>(Withdrawals)</u>	<u>Transfers In (Out)</u>	<u>Assets</u>	<u>Invested</u>	<u>to Investment</u>
						<u>Assets</u>	<u>Income (1)</u>
Participant Options							
T. Rowe Price							
Stable Value Fund	\$ 27,851,984	\$ 74,002	\$ (111,807)	\$ 15,192,161	\$ 43,006,340	54.41%	0.21%
Small Cap Stock Fund	78,139,550	(6,599,933)	92,096	(703,886)	70,927,827	-9.23%	-8.48%
Alaska Balanced Trust	27,771,893	(775,965)	40,008	(560,170)	26,475,766	-4.67%	-2.82%
Long Term Balanced Fund	21,415,172	(951,666)	33,475	(2,156,547)	18,340,434	-14.36%	-4.68%
AK Target Date 2010 Trust	2,485,428	(82,967)	7,880	64,751	2,475,092	-0.42%	-3.29%
AK Target Date 2015 Trust	12,061,476	(457,989)	86,941	(130,666)	11,559,762	-4.16%	-3.80%
AK Target Date 2020 Trust	32,961,300	(1,521,345)	317,213	(24,208)	31,732,960	-3.73%	-4.60%
AK Target Date 2025 Trust	52,639,964	(2,762,691)	703,427	29,454	50,610,154	-3.86%	-5.21%
AK Target Date 2030 Trust	55,869,310	(3,235,071)	431,836	(392,156)	52,673,919	-5.72%	-5.79%
AK Target Date 2035 Trust	66,600,093	(4,206,889)	711,897	(149,788)	62,955,313	-5.47%	-6.29%
AK Target Date 2040 Trust	79,081,398	(5,293,921)	806,964	(72,340)	74,522,101	-5.77%	-6.66%
AK Target Date 2045 Trust	102,389,211	(7,056,378)	1,041,814	(424,459)	95,950,188	-6.29%	-6.87%
AK Target Date 2050 Trust	121,128,408	(8,360,542)	1,335,060	(313,271)	113,789,655	-6.06%	-6.87%
AK Target Date 2055 Trust	100,844,045	(6,984,789)	1,909,186	(125,174)	95,643,268	-5.16%	-6.87%
AK Target Date 2060 Trust	992,602	(69,208)	(10,538)	(2,805)	910,051	-8.32%	-7.02%
Total Investments with T. Rowe Price	<u>782,231,834</u>	<u>(48,285,352)</u>	<u>7,395,452</u>	<u>10,230,896</u>	<u>751,572,830</u>		
State Street Global Advisors							
Money Market	10,109,408	18,087	(71,345)	864,110	10,920,260	8.02%	0.17%
S&P 500 Stock Index Fund Series A	104,740,512	(7,163,618)	304,963	871,438	98,753,295	-5.72%	-6.80%
Russell 3000 Index	11,692,790	(862,379)	76,766	40,703	10,947,880	-6.37%	-7.34%
US Real Estate Investment Trust Index	15,806,268	(402,957)	5,231	(26,638)	15,381,904	-2.68%	-2.55%
World Equity Ex-US Index	49,117,387	(4,039,433)	130,183	1,450,309	46,658,446	-5.01%	-8.09%
US Treasury Inflation Protected Securities Index	17,903,869	(264,263)	(86,258)	1,228,035	18,781,383	4.90%	-1.43%
Total Investments with SSGA	<u>209,370,234</u>	<u>(12,714,563)</u>	<u>359,540</u>	<u>4,427,957</u>	<u>201,443,168</u>		
BlackRock							
Passive U.S. Bond Index Fund	55,842,410	(420,714)	(96,585)	(14,659,696)	40,665,415	-27.18%	-0.87%
Brandes/Baillie Gifford							
AK International Equity Fund	45,451,639	(3,956,134)	156,039	171,417	41,822,961	-7.98%	-8.67%
Northern Trust							
Environmental, Social, and Governance Fund	10,306,675	(708,943)	11,718	(170,574)	9,438,876	-8.42%	-6.93%
Total All Funds	<u>\$ 1,103,202,792</u>	<u>\$ (66,085,706)</u>	<u>\$ 7,826,164</u>	<u>\$ -</u>	<u>\$ 1,044,943,250</u>	-5.28%	-5.97%

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
October 31, 2018
\$ (Thousands)

<u>Invested Assets (at fair value)</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>
Investments with T. Rowe Price				
Alaska Money Market	\$ 5,386	\$ -	\$ -	\$ -
Stable Value Fund	-	14,421	27,852	43,006
Small Cap Stock Fund	78,194	80,707	78,140	70,928
Alaska Balanced Trust	27,299	27,398	27,772	26,476
Long Term Balanced Fund	24,785	23,022	21,415	18,340
AK Target Date 2010 Trust	2,508	2,531	2,485	2,475
AK Target Date 2015 Trust	11,859	12,041	12,061	11,560
AK Target Date 2020 Trust	32,186	32,603	32,961	31,733
AK Target Date 2025 Trust	51,239	52,236	52,640	50,610
AK Target Date 2030 Trust	54,629	55,604	55,869	52,674
AK Target Date 2035 Trust	64,604	65,985	66,600	62,955
AK Target Date 2040 Trust	76,369	78,405	79,081	74,522
AK Target Date 2045 Trust	98,208	100,893	102,389	95,950
AK Target Date 2050 Trust	116,864	119,654	121,128	113,790
AK Target Date 2055 Trust	95,705	98,774	100,844	95,643
AK Target Date 2060 Trust	815	862	993	910
State Street Global Advisors				
Money Market	4,623	10,005	10,109	10,920
S&P 500 Stock Index Fund Series A	98,610	102,254	104,741	98,753
Russell 3000 Index	10,944	11,591	11,693	10,948
US Real Estate Investment Trust Index	16,265	16,461	15,806	15,382
World Equity Ex-US Index	46,988	47,280	49,117	46,658
Long US Treasury Bond Index	1,210	-	-	-
US Treasury Inflation Protected Securities Index	14,922	16,824	17,904	18,781
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
Intermediate Bond Fund	22,335	-	-	-
Investments with Brandes/Baillie Gifford				
AK International Equity Fund	45,645	45,336	45,452	41,823
Investments with Northern Trust				
Environmental, Social, and Governance Fund	10,616	10,404	10,307	9,439
Total Invested Assets	\$ 1,069,378	\$ 1,093,466	\$ 1,103,203	\$ 1,044,943
<u>Change in Invested Assets</u>				
Beginning Assets	\$ 1,041,422	\$ 1,069,378	\$ 1,093,466	\$ 1,103,203
Investment Earnings	23,080	17,895	(334)	(66,086)
Net Contributions (Withdrawals)	4,876	6,192	10,071	7,826
Ending Invested Assets	\$ 1,069,378	\$ 1,093,466	\$ 1,103,203	\$ 1,044,943

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

	<u>Beginning Invested</u> <u>Assets</u>	<u>Investment Income</u>	<u>Net Contributions</u> <u>(Withdrawals)</u>	<u>Transfers In (Out)</u>	<u>Ending Invested</u> <u>Assets</u>	<u>% Change in</u> <u>Invested</u> <u>Assets</u>	<u>% Change due</u> <u>to Investment</u> <u>Income (1)</u>
Participant Options							
T. Rowe Price							
Stable Value Fund	\$ 10,958,572	\$ 29,279	\$ 72,115	\$ 6,194,156	\$ 17,254,122	57.45%	0.21%
Small Cap Stock Fund	33,875,859	(2,854,163)	75,375	(390,244)	30,706,827	-9.35%	-8.46%
Alaska Balanced Trust	11,456,226	(320,301)	53,903	(112,590)	11,077,238	-3.31%	-2.80%
Long Term Balanced Fund	8,893,396	(394,011)	28,612	(907,476)	7,620,521	-14.31%	-4.66%
AK Target Date 2010 Trust	843,209	(29,080)	9,144	(98,175)	725,098	-14.01%	-3.64%
AK Target Date 2015 Trust	3,354,093	(129,115)	34,640	(38,665)	3,220,953	-3.97%	-3.85%
AK Target Date 2020 Trust	9,992,445	(457,636)	68,730	(3,225)	9,600,314	-3.92%	-4.56%
AK Target Date 2025 Trust	17,113,427	(896,785)	257,040	62	16,473,744	-3.74%	-5.20%
AK Target Date 2030 Trust	20,232,515	(1,173,440)	326,246	(1,252)	19,384,069	-4.19%	-5.75%
AK Target Date 2035 Trust	30,167,040	(1,897,937)	286,423	(27,895)	28,527,631	-5.43%	-6.26%
AK Target Date 2040 Trust	32,147,702	(2,130,172)	419,694	(223,458)	30,213,766	-6.02%	-6.61%
AK Target Date 2045 Trust	49,641,218	(3,412,201)	720,902	(266,665)	46,683,254	-5.96%	-6.84%
AK Target Date 2050 Trust	69,023,856	(4,744,009)	753,294	12,681	65,045,822	-5.76%	-6.84%
AK Target Date 2055 Trust	32,751,209	(2,260,244)	861,785	(26,070)	31,326,680	-4.35%	-6.81%
AK Target Date 2060 Trust	250,495	(17,461)	1,852	2,801	237,687	-5.11%	-6.91%
Total Investments with T. Rowe Price	<u>330,701,262</u>	<u>(20,687,276)</u>	<u>3,969,755</u>	<u>4,113,985</u>	<u>318,097,726</u>		
State Street Global Advisors							
Money Market	2,676,521	4,868	27,376	185,161	2,893,926	8.12%	0.17%
S&P 500 Stock Index Fund Series A	42,944,084	(2,932,715)	104,514	270,376	40,386,259	-5.96%	-6.80%
Russell 3000 Index	3,757,481	(275,910)	36,538	(13,397)	3,504,712	-6.73%	-7.32%
US Real Estate Investment Trust Index	6,396,156	(162,360)	30,763	(52,352)	6,212,207	-2.88%	-2.54%
World Equity Ex-US Index	22,069,359	(1,814,964)	104,206	715,370	21,073,971	-4.51%	-8.07%
US Treasury Inflation Protected Securities Index	6,486,407	(96,295)	34,640	514,102	6,938,854	6.98%	-1.42%
Total Investments with SSGA	<u>84,330,008</u>	<u>(5,277,376)</u>	<u>338,037</u>	<u>1,619,260</u>	<u>81,009,929</u>		
BlackRock							
Passive U.S. Bond Index Fund	21,597,054	(163,407)	78,168	(5,702,409)	15,809,406	-26.80%	-0.87%
Brandes/Baillie Gifford							
AK International Equity Fund	20,320,303	(1,765,023)	42,681.00	109,535	18,707,496	-7.94%	-8.65%
Northern Trust							
Environmental, Social, and Governance Fund	4,270,436	(293,770)	22,194.00	(140,371)	3,858,489	-9.65%	-6.98%
Total All Funds	<u>\$ 461,219,063</u>	<u>\$ (28,186,852)</u>	<u>\$ 4,450,835</u>	<u>\$ -</u>	<u>\$ 437,483,046</u>	<u>-5.15%</u>	<u>-6.08%</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 TRS
Schedule of Invested Assets with
Schedule of Investment Income and Changes in Invested Assets
By Month Through the Month Ended
October 31, 2018
\$ (Thousands)

<u>Invested Assets</u> (at fair value)	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>
Investments with T. Rowe Price				
Alaska Money Market	\$ 1,894	\$ -	\$ -	\$ -
Stable Value Fund	-	5,764	10,959	17,254
Small Cap Stock Fund	34,424	35,326	33,876	30,707
Alaska Balanced Trust	11,394	11,458	11,456	11,077
Long Term Balanced Fund	10,335	9,630	8,893	7,621
AK Target Date 2010 Trust	826	836	843	725
AK Target Date 2015 Trust	3,397	3,396	3,354	3,221
AK Target Date 2020 Trust	9,951	9,943	9,992	9,600
AK Target Date 2025 Trust	16,938	17,131	17,113	16,474
AK Target Date 2030 Trust	20,121	20,288	20,233	19,384
AK Target Date 2035 Trust	29,766	29,990	30,167	28,528
AK Target Date 2040 Trust	31,409	31,857	32,148	30,214
AK Target Date 2045 Trust	48,740	49,511	49,641	46,683
AK Target Date 2050 Trust	68,156	69,233	69,024	65,046
AK Target Date 2055 Trust	32,138	32,606	32,751	31,327
AK Target Date 2060 Trust	179	195	250	238
State Street Global Advisors				
Money Market	690	2,573	2,677	2,894
S&P 500 Stock Index Fund Series A	41,127	42,492	42,944	40,386
Russell 3000 Index	3,621	3,663	3,757	3,505
US Real Estate Investment Trust Index	6,751	6,695	6,396	6,212
World Equity Ex-US Index	21,323	21,370	22,069	21,074
Long US Treasury Bond Index	306	-	-	-
US Treasury Inflation Protected Securities Index	5,367	6,094	6,486	6,939
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
Intermediate Bond Fund	8,292	-	-	-
Investments with Brandes/Baillie Gifford				
AK International Equity Fund	20,619	20,325	20,320	18,707
Investments with Northern Trust				
Environmental, Social, and Governance Fund	4,614	4,398	4,270	3,858
Total Invested Assets	\$ 455,376	\$ 461,254	\$ 461,219	\$ 437,483
<u>Change in Invested Assets</u>				
Beginning Assets	\$ 442,323	\$ 455,376	\$ 461,254	\$ 461,219
Investment Earnings	10,017	7,587	(129)	(28,187)
Net Contributions (Withdrawals)	3,036	(1,709)	95	4,451
Ending Invested Assets	\$ 455,376	\$ 461,254	\$ 461,219	\$ 437,483