

**ALASKA RETIREMENT MANAGEMENT BOARD  
FINANCIAL REPORT**

As of November 30, 2018

**ALASKA RETIREMENT MANAGEMENT BOARD**  
**Schedule of Investment Income and Changes in Invested Assets by Fund**  
**Fiscal Year-to-Date through November 30, 2018**

	Beginning Invested Assets	Investment Income <sup>(1)</sup>	Net Contributions (Withdrawals)	Ending Invested Assets	% Change in Invested Assets	% Change due to Investment Income <sup>(2)</sup>
<b><u>Public Employees' Retirement System (PERS)</u></b>						
<u>Defined Benefit Plans:</u>						
Retirement Trust	\$ 9,279,978,252	\$ 15,685,831	\$ (72,760,009)	\$ 9,222,904,074	-0.62%	0.17%
Retirement Health Care Trust	7,653,992,293	14,292,485	(134,293,882)	7,533,990,896	-1.57%	0.19%
Total Defined Benefit Plans	16,933,970,545	29,978,316	(207,053,891)	16,756,894,970	-1.05%	0.18%
<u>Defined Contribution Plans:</u>						
Participant Directed Retirement	1,041,422,342	(10,357,893)	37,984,041	1,069,048,491	2.65%	-0.98%
Health Reimbursement Arrangement	356,026,985	467,902	16,204,020	372,698,907	4.68%	0.13%
Retiree Medical Plan	99,169,627	127,593	4,576,466	103,873,686	4.74%	0.13%
<u>Defined Benefit Occupational Death and Disability:</u>						
Public Employees	20,872,152	27,158	966,318	21,865,628	4.76%	0.13%
Police and Firefighters	9,776,610	13,027	371,569	10,161,206	3.93%	0.13%
Total Defined Contribution Plans	1,527,267,716	(9,722,213)	60,102,414	1,577,647,918	3.30%	-0.62%
<b>Total PERS</b>	<b>18,461,238,261</b>	<b>20,256,103</b>	<b>(146,951,477)</b>	<b>18,334,542,888</b>	<b>-0.69%</b>	<b>0.11%</b>
<b><u>Teachers' Retirement System (TRS)</u></b>						
<u>Defined Benefit Plans:</u>						
Retirement Trust	5,466,056,988	9,547,558	(49,369,305)	5,426,235,241	-0.73%	0.18%
Retirement Health Care Trust	2,883,838,182	5,437,027	(52,031,765)	2,837,243,444	-1.62%	0.19%
Total Defined Benefit Plans	8,349,895,170	14,984,585	(101,401,070)	8,263,478,685	-1.03%	0.18%
<u>Defined Contribution Plans:</u>						
Participant Directed Retirement	442,323,051	(4,316,711)	8,415,225	446,421,565	0.93%	-0.97%
Health Reimbursement Arrangement	105,665,716	166,873	3,455,556	109,288,145	3.43%	0.16%
Retiree Medical Plan	36,357,065	58,490	922,472	37,338,027	2.70%	0.16%
Defined Benefit Occupational Death and Disability	3,797,783	6,546	55,052	3,859,381	1.62%	0.17%
Total Defined Contribution Plans	588,143,615	(4,084,802)	12,848,305	596,907,118	1.49%	-0.69%
<b>Total TRS</b>	<b>8,938,038,785</b>	<b>10,899,783</b>	<b>(88,552,765)</b>	<b>8,860,385,803</b>	<b>-0.87%</b>	<b>0.12%</b>
<b><u>Judicial Retirement System (JRS)</u></b>						
Defined Benefit Plan Retirement Trust	176,358,294	269,647	1,816,311	178,444,252	1.18%	0.15%
Defined Benefit Retirement Health Care Trust	31,621,813	54,875	(119,101)	31,557,587	-0.20%	0.17%
<b>Total JRS</b>	<b>207,980,107</b>	<b>324,522</b>	<b>1,697,210</b>	<b>210,001,839</b>	<b>0.97%</b>	<b>0.16%</b>
<b><u>National Guard/Naval Militia Retirement System (MRS)</u></b>						
Defined Benefit Plan Retirement Trust	39,449,053	(319,787)	155,681	39,284,947	-0.42%	-0.81%
<b><u>Other Participant Directed Plans</u></b>						
Supplemental Annuity Plan	3,905,659,481	(4,326,207)	(16,370,297)	3,884,962,976	-0.53%	-0.11%
Deferred Compensation Plan	938,806,799	1,424,800	(8,363,227)	931,868,372	-0.74%	0.15%
<b>Total All Funds</b>	<b>32,491,172,486</b>	<b>28,259,214</b>	<b>(258,384,875)</b>	<b>32,261,046,825</b>		
Total Non-Participant Directed	26,162,960,813	45,835,225	(280,050,617)	25,928,745,421	-0.90%	0.18%
Total Participant Directed	6,328,211,673	(17,576,011)	21,665,742	6,332,301,404	0.06%	-0.28%
<b>Total All Funds</b>	<b>\$ 32,491,172,486</b>	<b>\$ 28,259,214</b>	<b>\$ (258,384,875)</b>	<b>\$ 32,261,046,825</b>	<b>-0.71%</b>	<b>0.09%</b>

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 November 30, 2018**

	Beginning Invested Assets	Investment Income (1)	Net Contributions (Withdrawals)	Ending Invested Assets	% Change in Invested Assets	% Change due to Investment Income (2)
<b><u>Public Employees' Retirement System (PERS)</u></b>						
Defined Benefit Plans:						
Retirement Trust	\$ 9,148,988,585	\$ 117,679,016	\$ (43,763,527)	\$ 9,222,904,074	0.81%	1.29%
Retirement Health Care Trust	7,470,026,512	96,741,174	(32,776,790)	7,533,990,896	0.86%	1.30%
Total Defined Benefit Plans	16,619,015,097	214,420,190	(76,540,317)	16,756,894,970	0.83%	1.29%
Defined Contribution Plans:						
Participant Directed Retirement	1,044,943,250	15,087,012	9,018,229	1,069,048,491	2.31%	1.44%
Health Reimbursement Arrangement	364,590,698	4,716,319	3,391,890	372,698,907	2.22%	1.29%
Retiree Medical Plan	101,661,923	1,315,185	896,578	103,873,686	2.18%	1.29%
Defined Benefit Occupational Death and Disability:						
Public Employees	21,374,024	276,626	214,978	21,865,628	2.30%	1.29%
Police and Firefighters	9,962,251	128,971	69,984	10,161,206	2.00%	1.29%
Total Defined Contribution Plans	1,542,532,146	21,524,113	13,591,659	1,577,647,918	2.28%	1.39%
<b>Total PERS</b>	<b>18,161,547,243</b>	<b>235,944,303</b>	<b>(62,948,658)</b>	<b>18,334,542,888</b>	<b>0.95%</b>	<b>1.30%</b>
<b><u>Teachers' Retirement System (TRS)</u></b>						
Defined Benefit Plans:						
Retirement Trust	5,391,775,677	69,315,467	(34,855,903)	5,426,235,241	0.64%	1.29%
Retirement Health Care Trust	2,813,119,956	36,420,626	(12,297,138)	2,837,243,444	0.86%	1.30%
Total Defined Benefit Plans	8,204,895,633	105,736,093	(47,153,041)	8,263,478,685	0.71%	1.29%
Defined Contribution Plans:						
Participant Directed Retirement	437,483,046	6,395,379	2,543,140	446,421,565	2.04%	1.46%
Health Reimbursement Arrangement	106,964,873	1,380,351	942,921	109,288,145	2.17%	1.28%
Retiree Medical Plan	36,624,123	472,951	240,953	37,338,027	1.95%	1.29%
Defined Benefit Occupational Death and Disability	3,787,746	48,931	22,704	3,859,381	1.89%	1.29%
Total Defined Contribution Plans	584,859,788	8,297,612	3,749,718	596,907,118	2.06%	1.41%
<b>Total TRS</b>	<b>8,789,755,421</b>	<b>114,033,705</b>	<b>(43,403,323)</b>	<b>8,860,385,803</b>	<b>0.80%</b>	<b>1.30%</b>
<b><u>Judicial Retirement System (JRS)</u></b>						
Defined Benefit Plan Retirement Trust	177,065,830	2,273,975	(895,553)	178,444,252	0.78%	1.29%
Defined Benefit Retirement Health Care Trust	31,211,211	403,821	(57,445)	31,557,587	1.11%	1.30%
<b>Total JRS</b>	<b>208,277,041</b>	<b>2,677,796</b>	<b>(952,998)</b>	<b>210,001,839</b>	<b>0.83%</b>	<b>1.29%</b>
<b><u>National Guard/Naval Militia Retirement System (MRS)</u></b>						
Defined Benefit Plan Retirement Trust	39,006,010	411,269	(132,332)	39,284,947	0.72%	1.06%
<b><u>Other Participant Directed Plans</u></b>						
Supplemental Annuity Plan	3,842,792,414	46,201,622	(4,031,060)	3,884,962,976	1.10%	1.20%
Deferred Compensation Plan	921,685,024	12,333,254	(2,149,906)	931,868,372	1.10%	1.34%
<b>Total All Funds</b>	<b>31,963,063,153</b>	<b>411,601,949</b>	<b>(113,618,277)</b>	<b>32,261,046,825</b>		
Total Non-Participant Directed	25,716,159,419	331,584,682	(118,998,680)	25,928,745,421	0.83%	1.29%
Total Participant Directed	6,246,903,734	80,017,267	5,380,403	6,332,301,404	1.37%	1.28%
<b>Total All Funds</b>	<b>\$ 31,963,063,153</b>	<b>\$ 411,601,949</b>	<b>\$ (113,618,277)</b>	<b>\$ 32,261,046,825</b>	<b>0.93%</b>	<b>1.29%</b>

Notes:

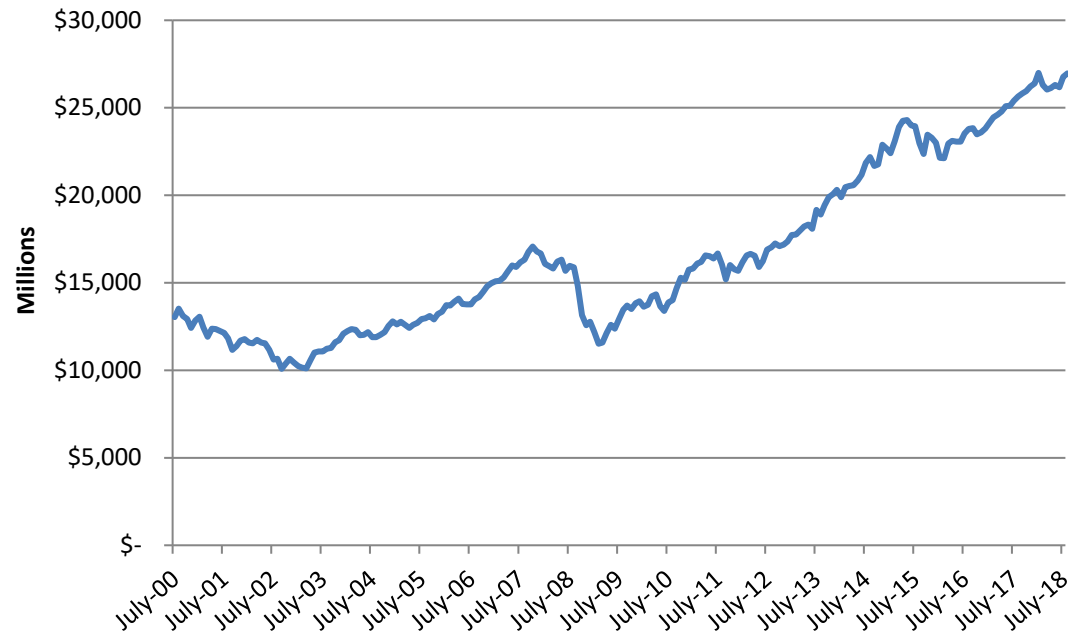
(1) Includes interest, dividends, securities lending, expenses, realized and unrealized gains/losses

(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>

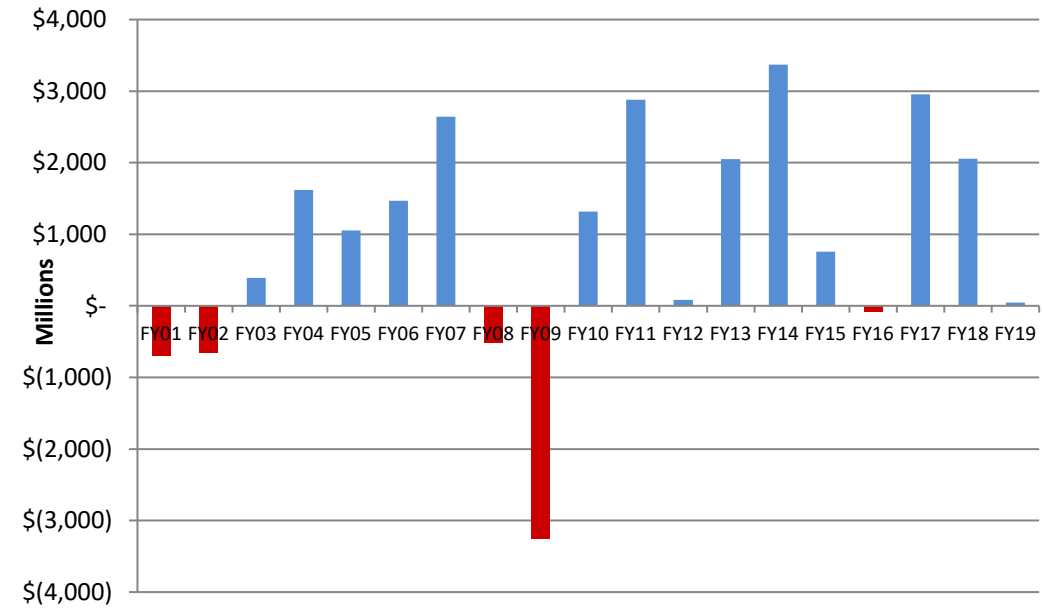
## Total Non Participant Directed Assets

As of November 30, 2018

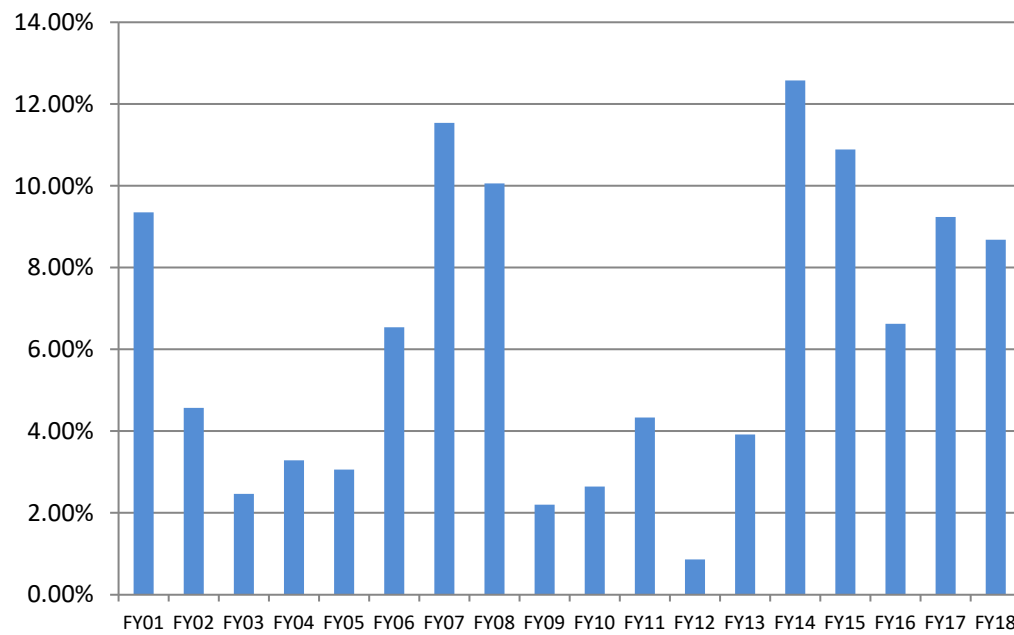
**Total Assets History**



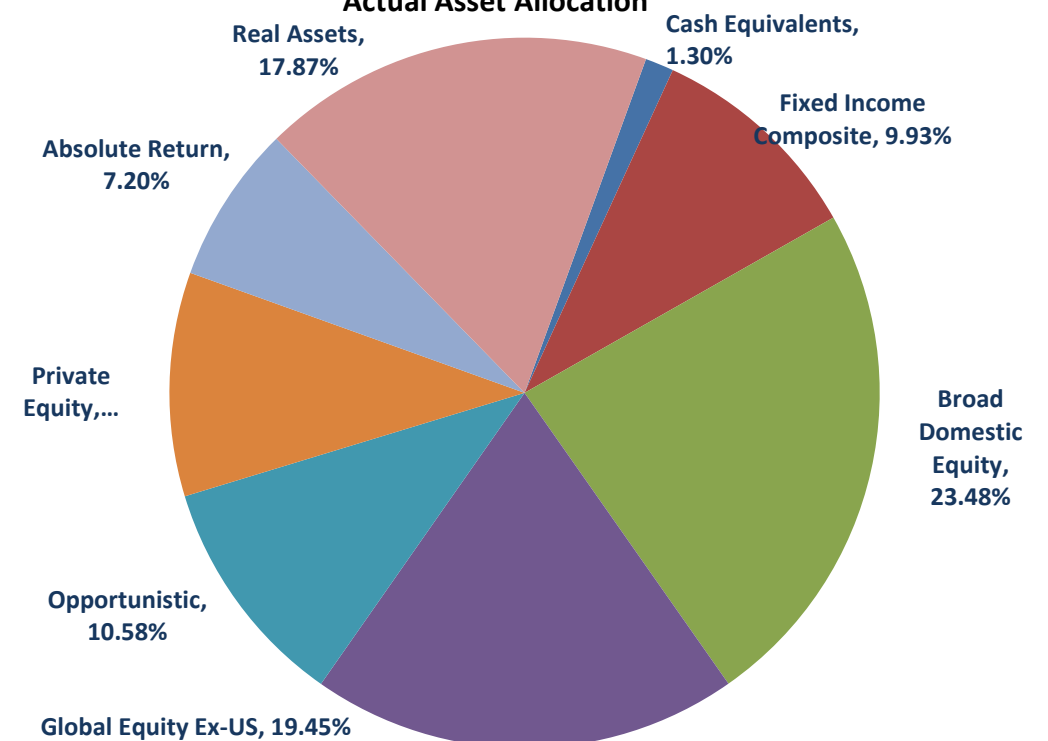
**Income by Fiscal Year**



**5-year Annualized Returns as of Fiscal Year End**



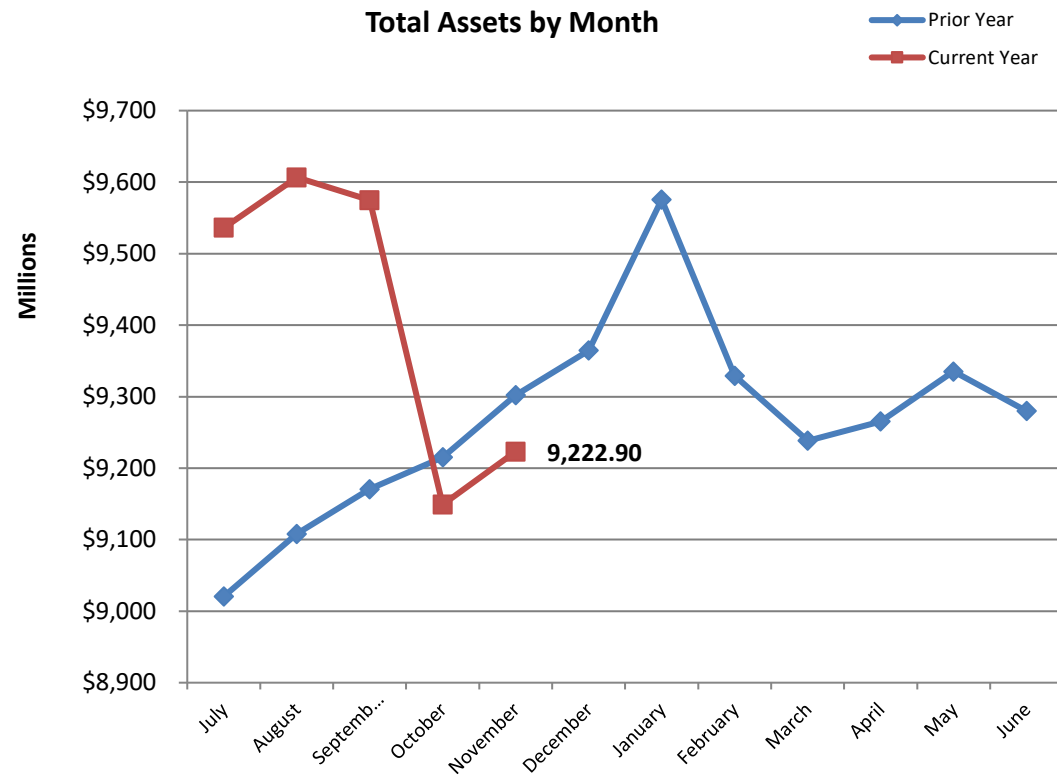
**Actual Asset Allocation**



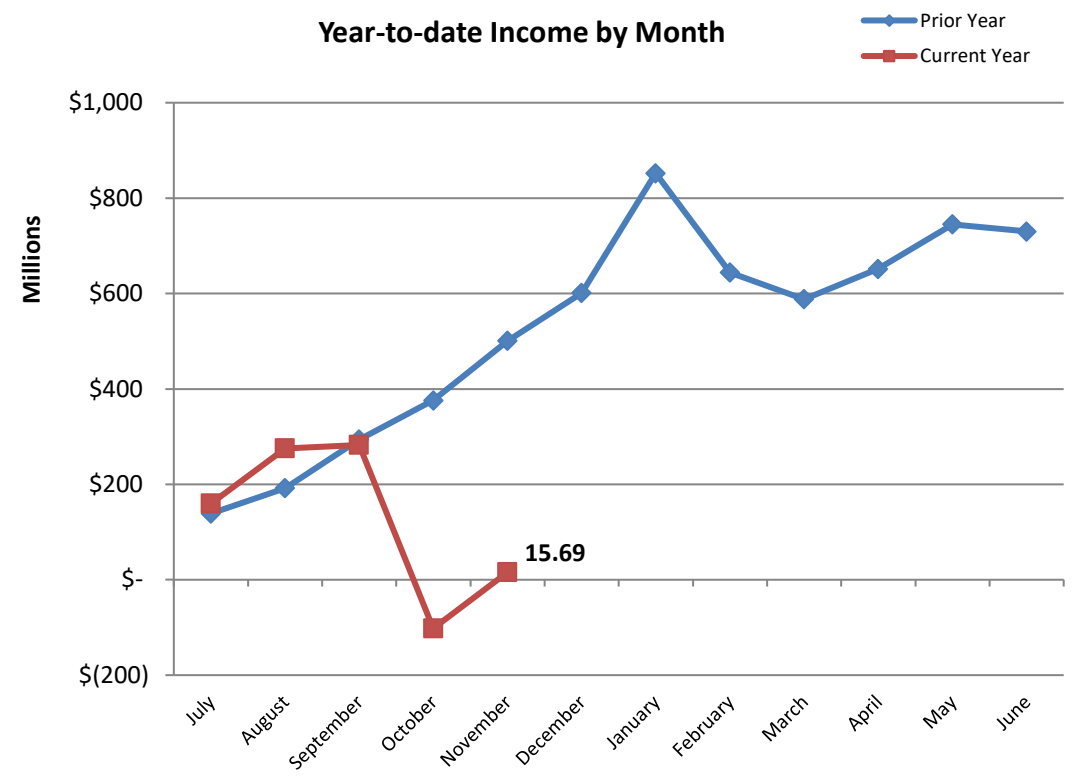
# Public Employees' Retirement Pension Trust Fund

## Fiscal Year-to-Date through November 30, 2018

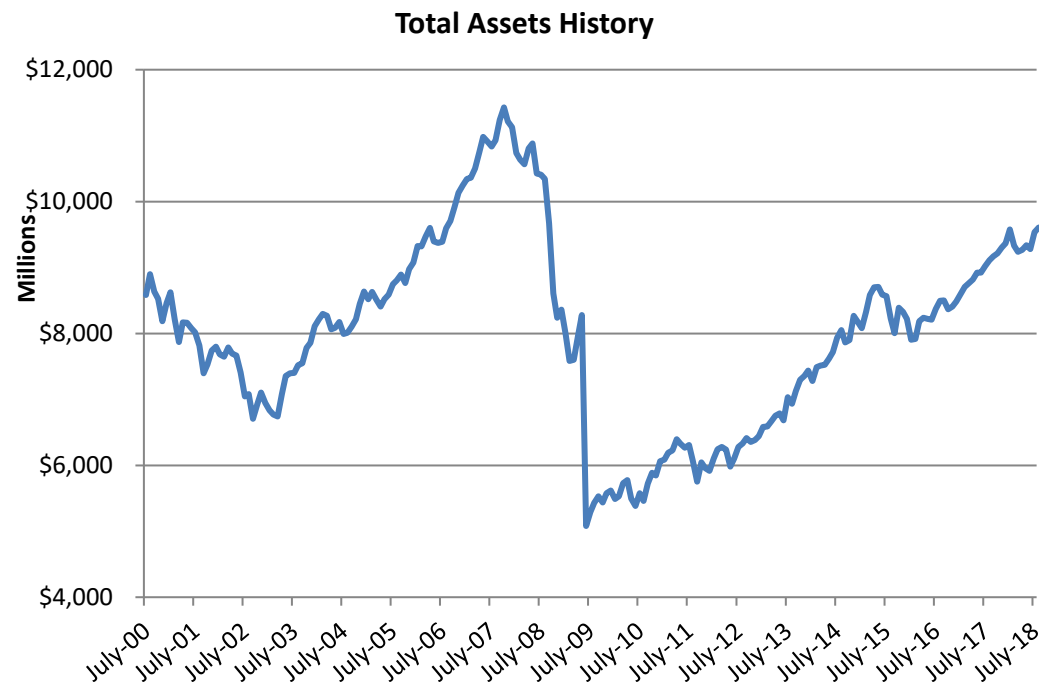
### Total Assets by Month



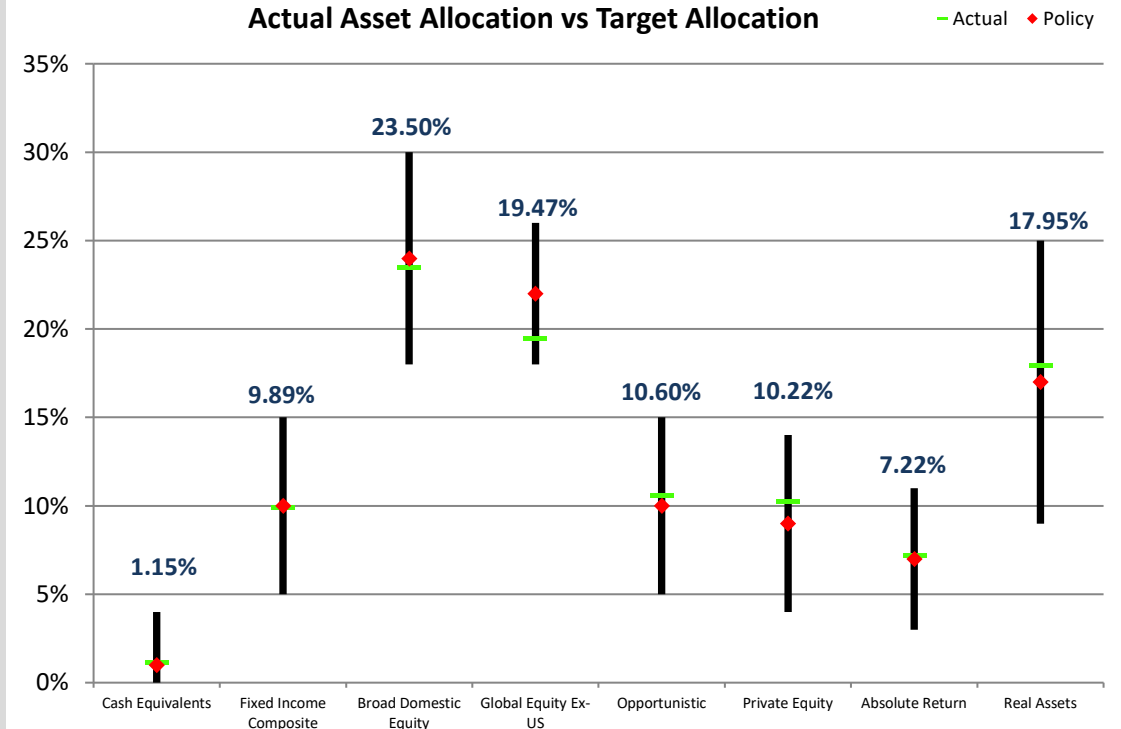
### Year-to-date Income by Month



### Total Assets History



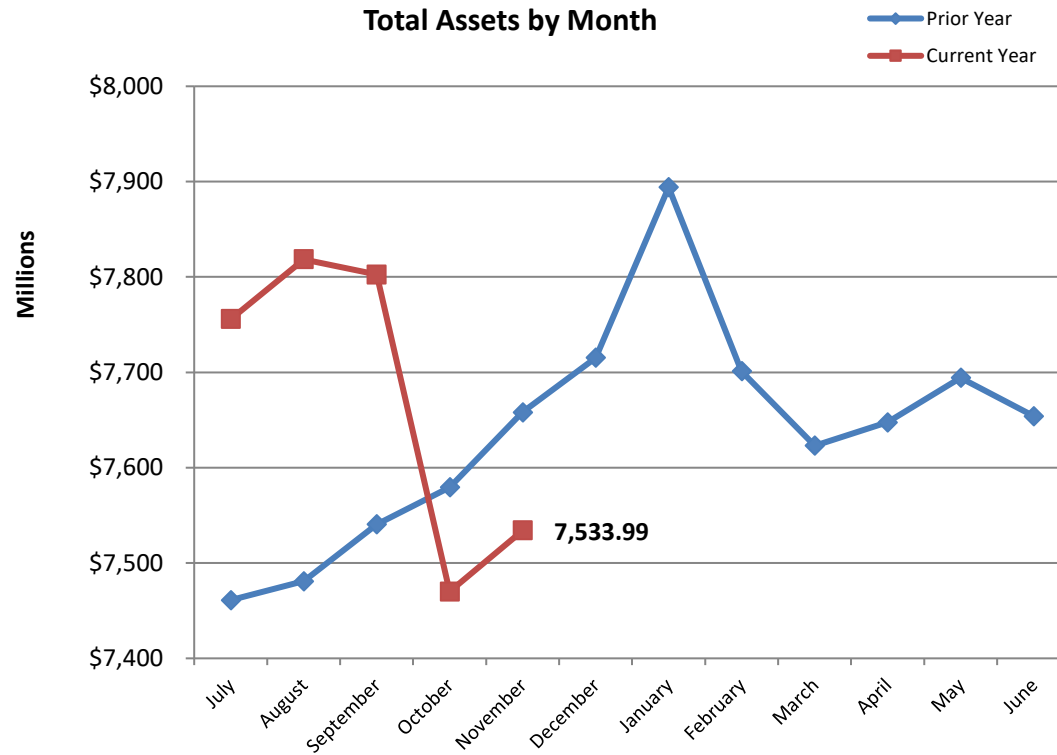
### Actual Asset Allocation vs Target Allocation



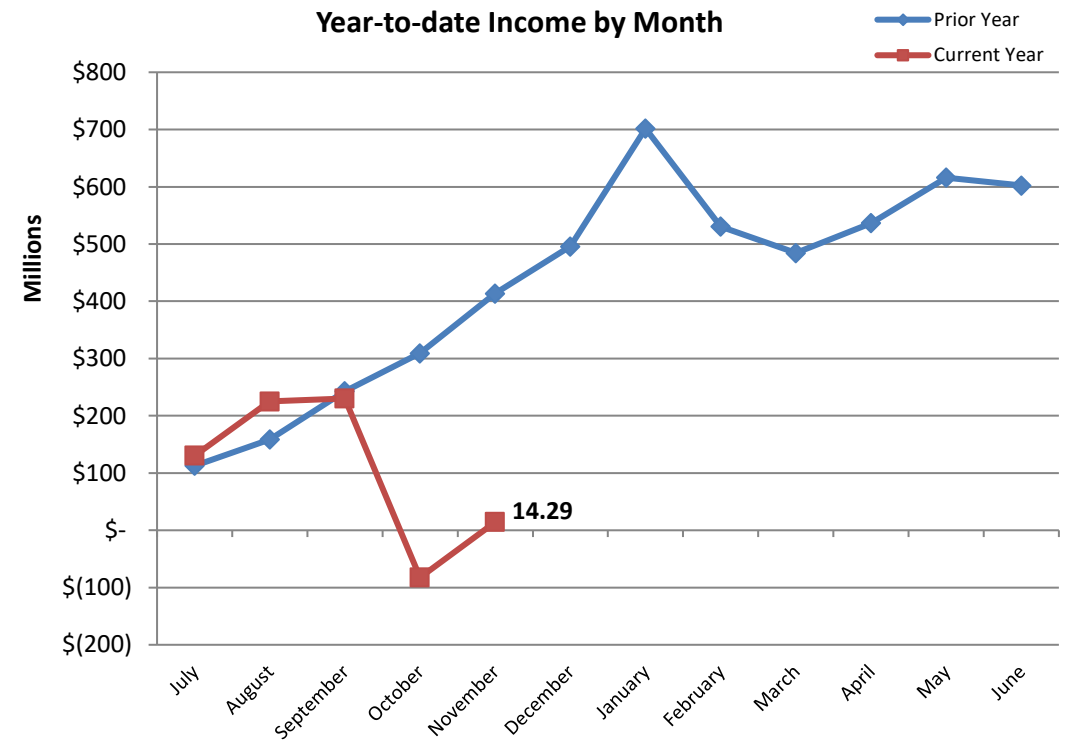
# Public Employees' Retirement Health Care Trust Fund

Fiscal Year-to-Date through November 30, 2018

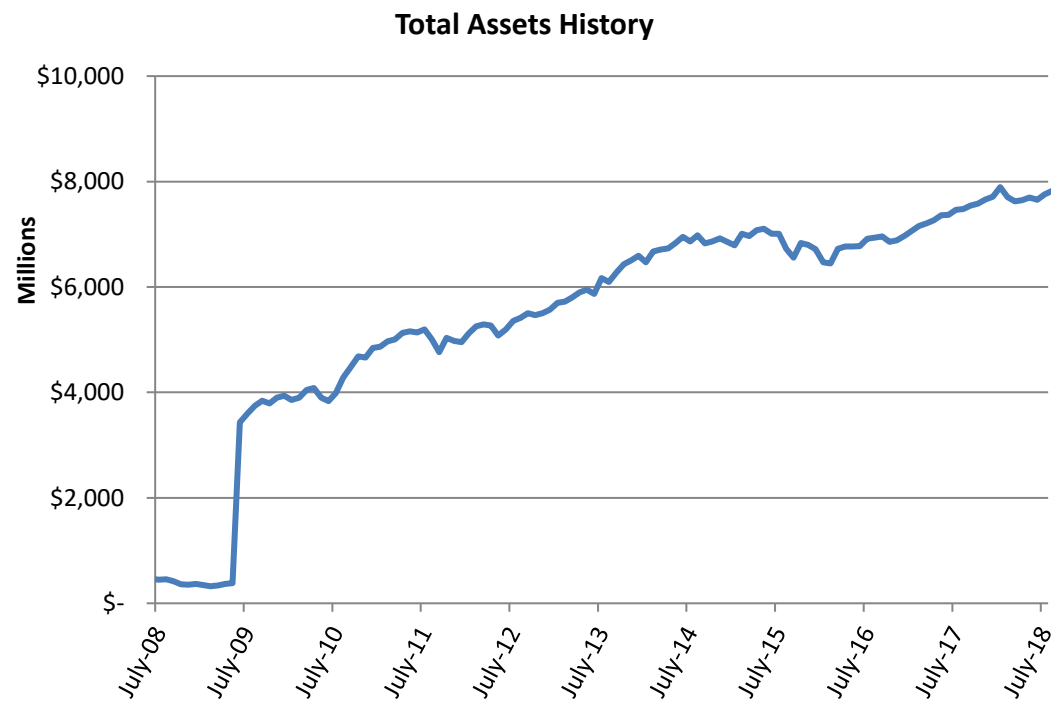
## Total Assets by Month



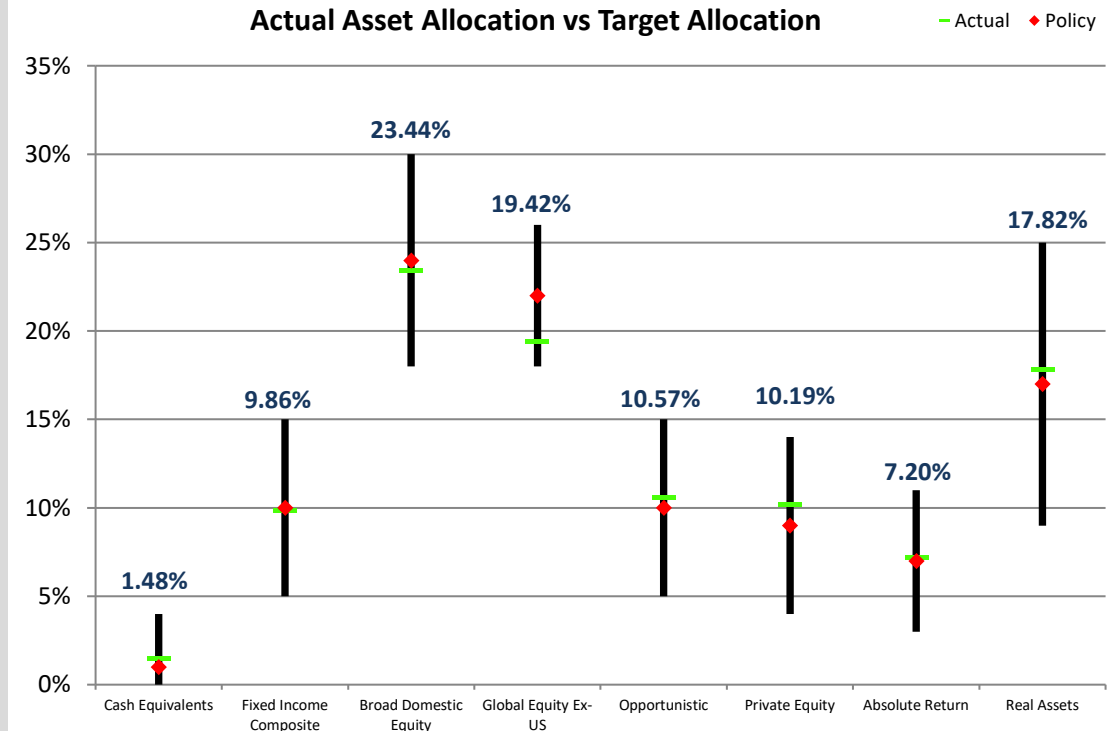
## Year-to-date Income by Month



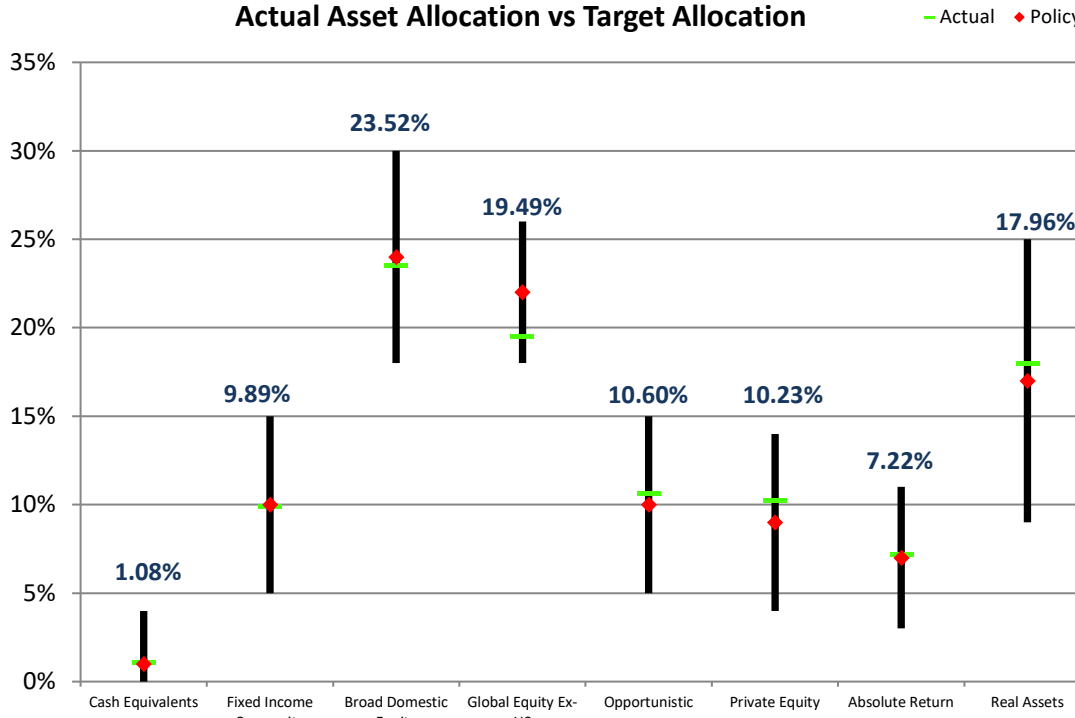
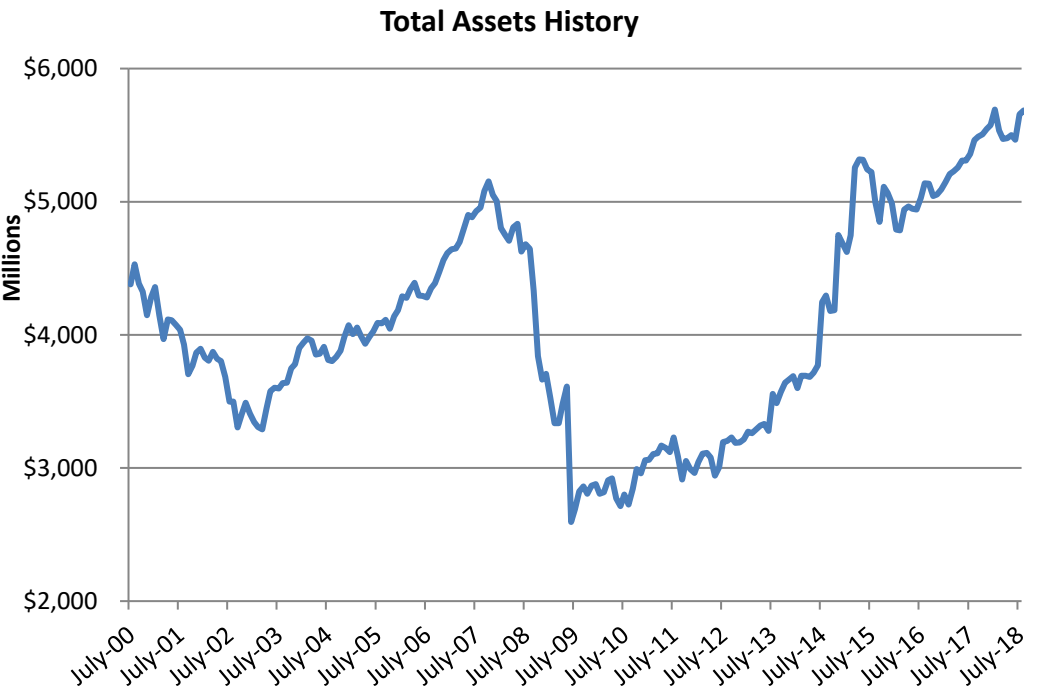
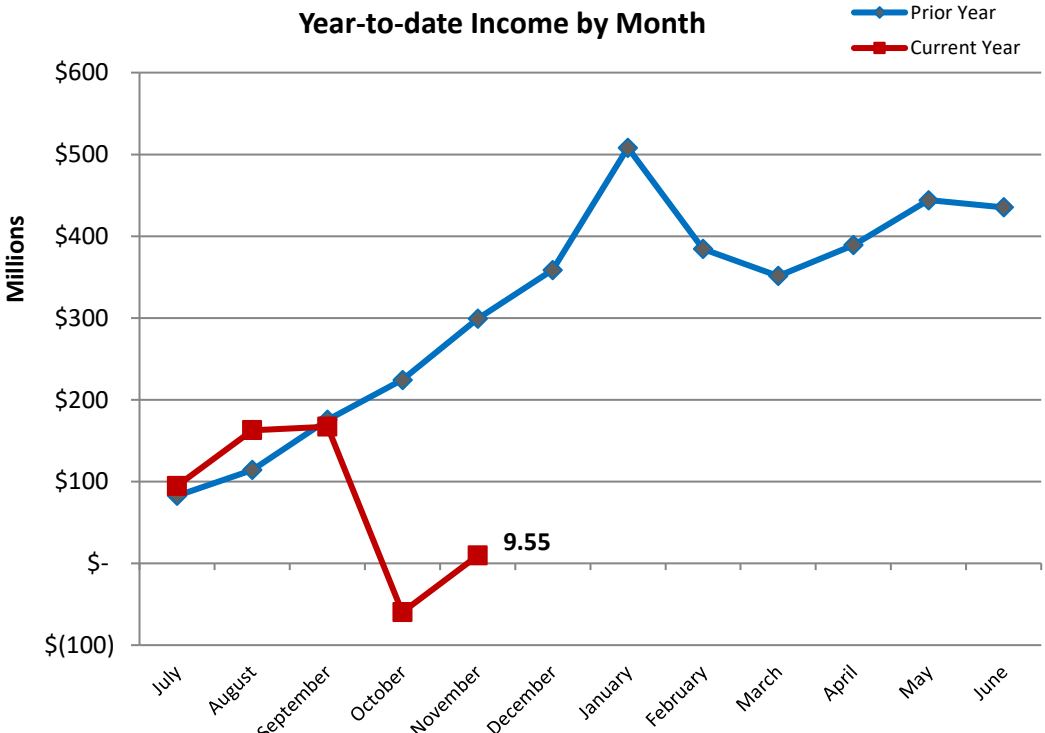
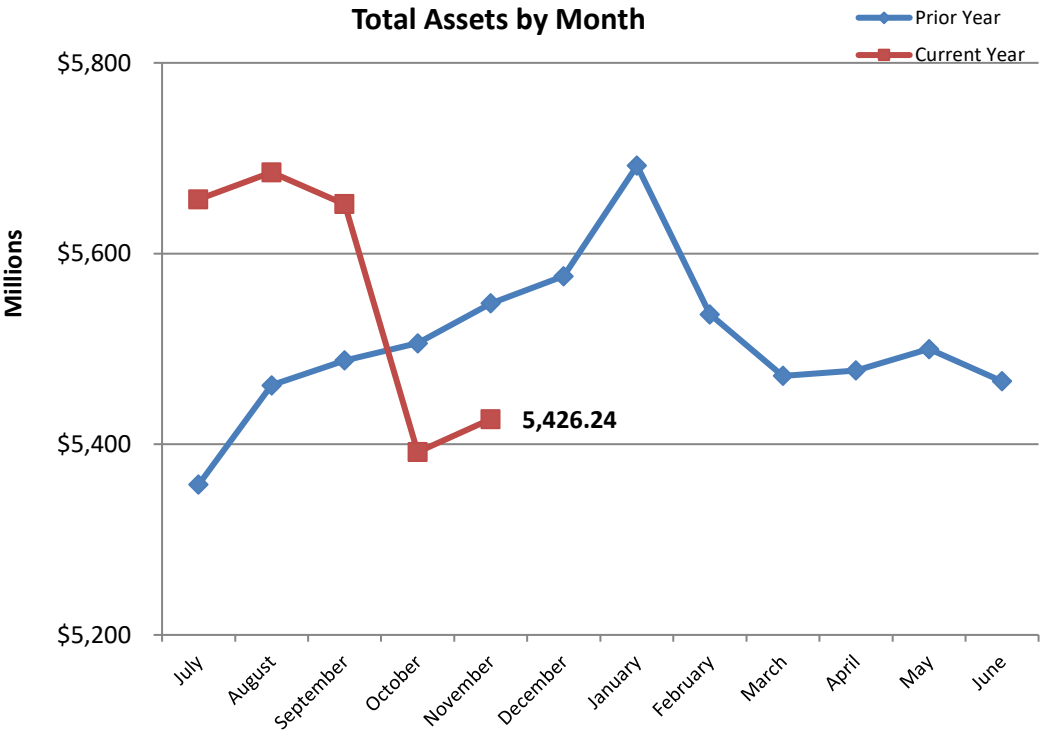
## Total Assets History



## Actual Asset Allocation vs Target Allocation



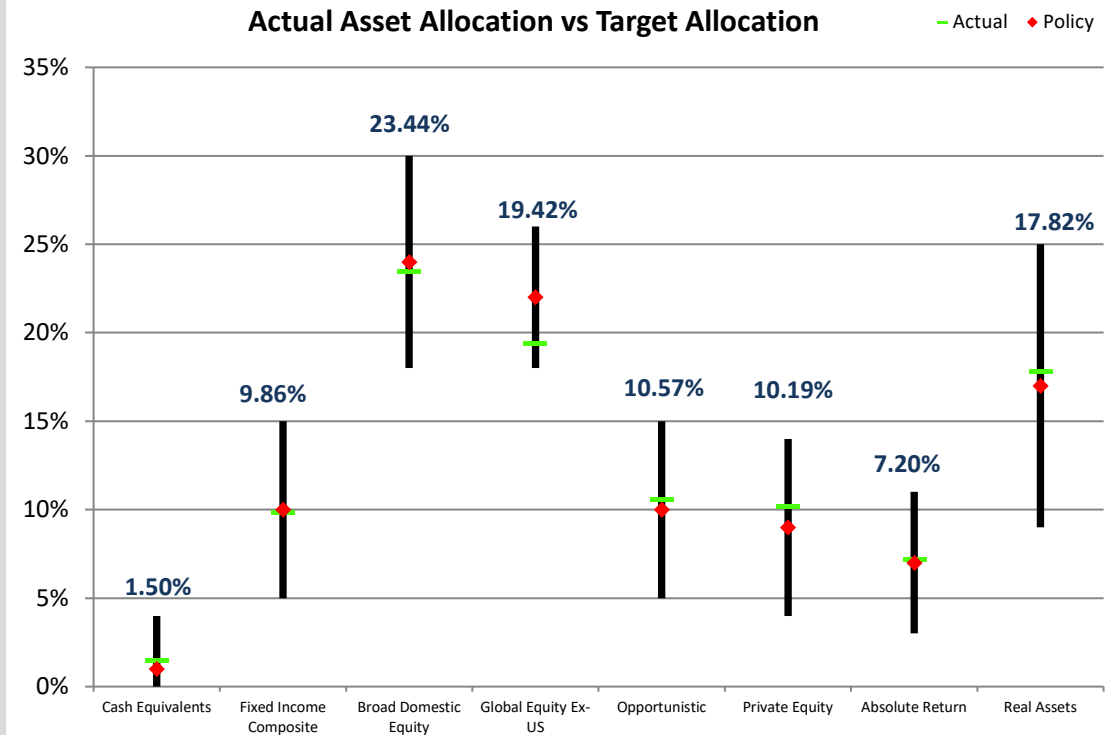
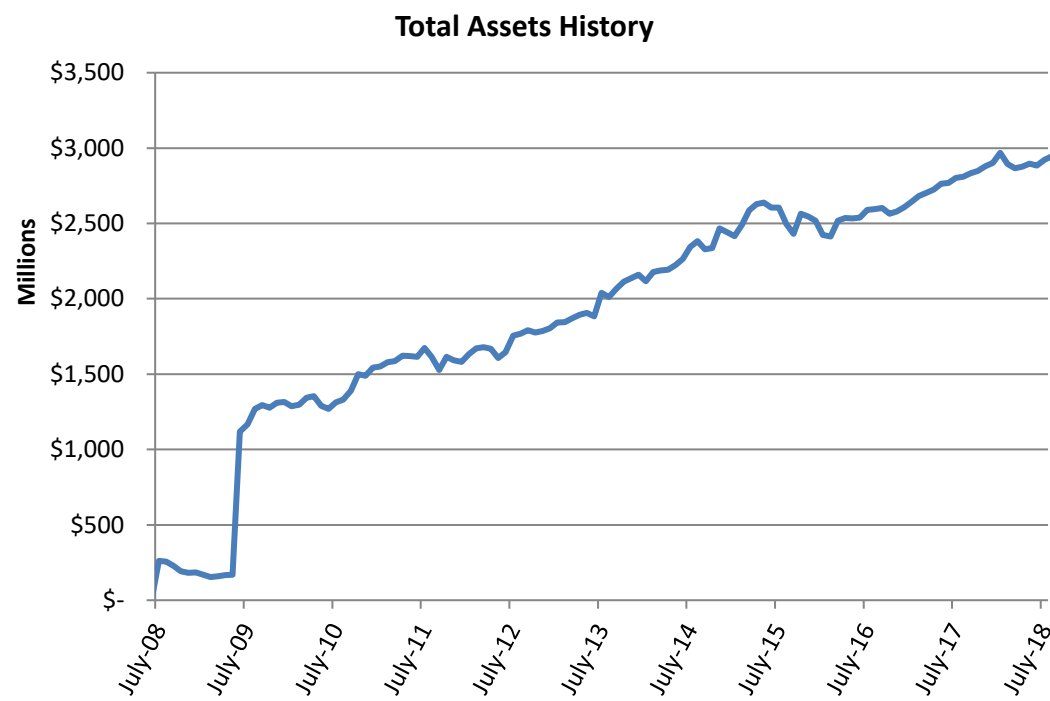
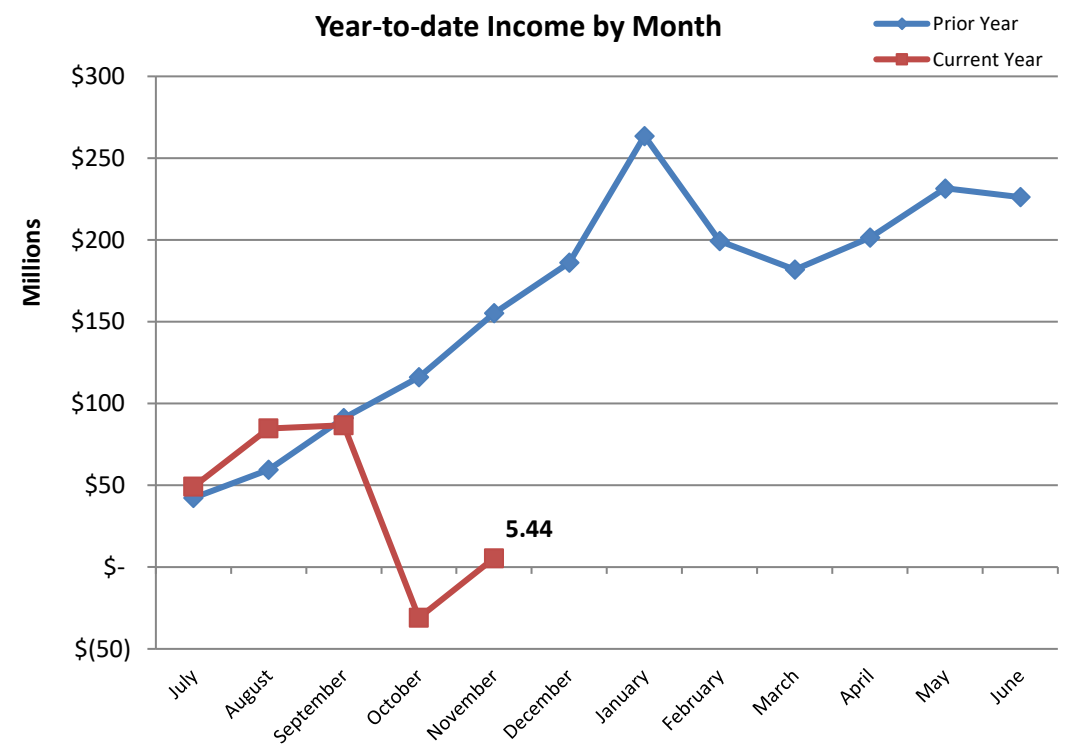
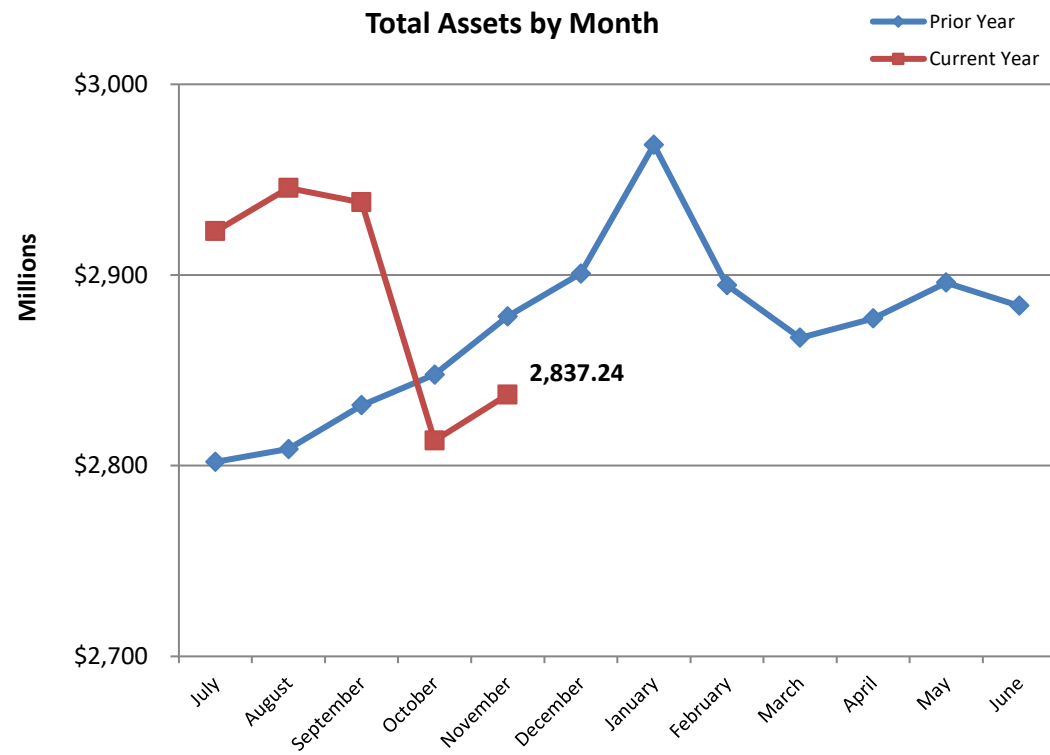
# Teachers' Retirement Pension Trust Fund Fiscal Year-to-Date through November 30, 2018





## Teachers' Retirement Health Care Trust Fund

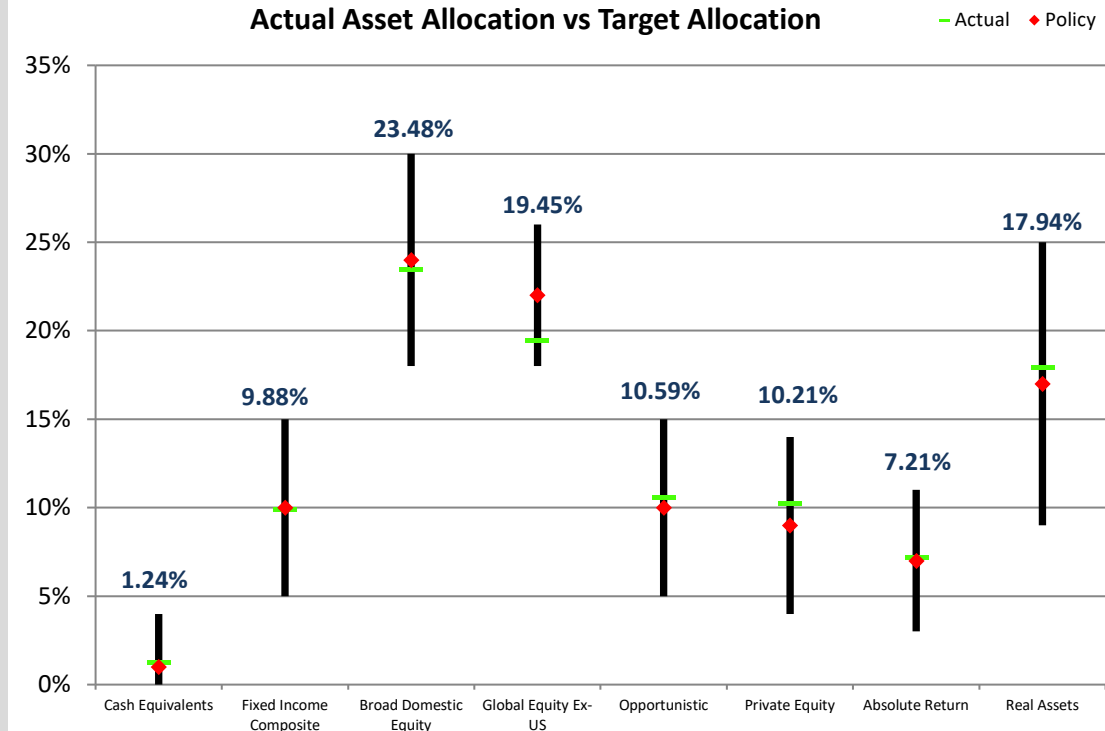
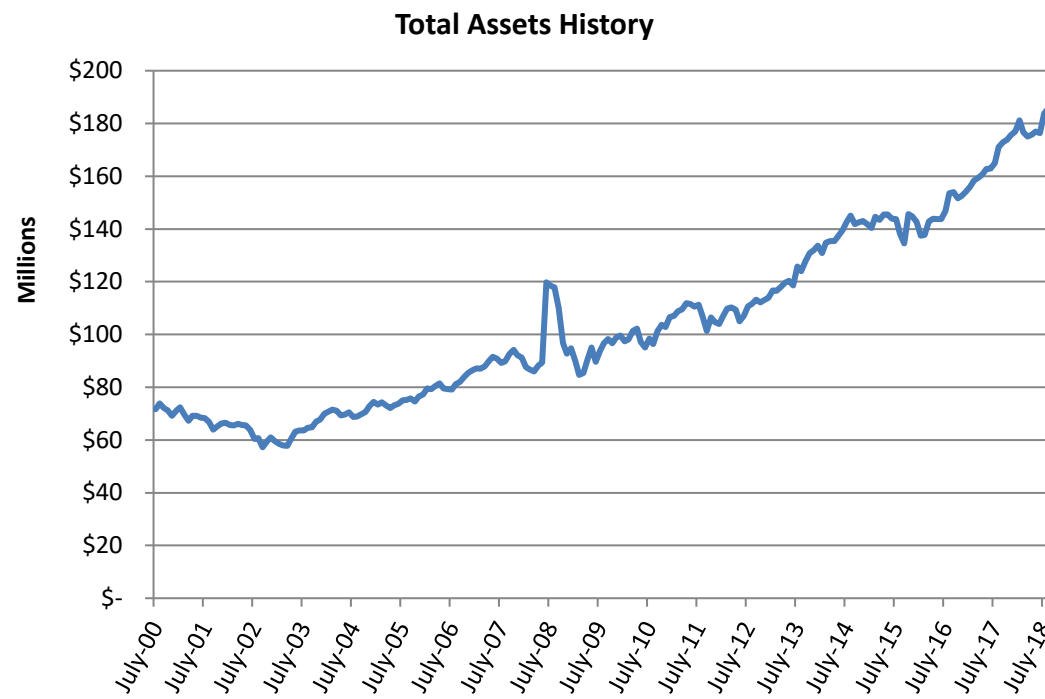
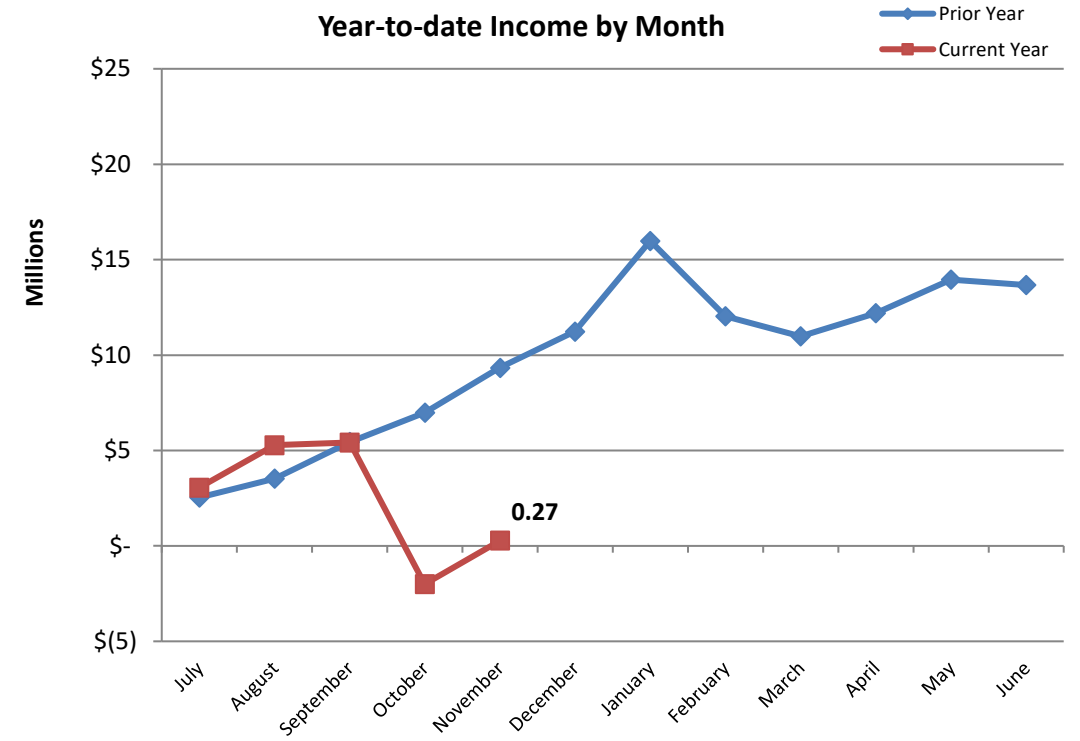
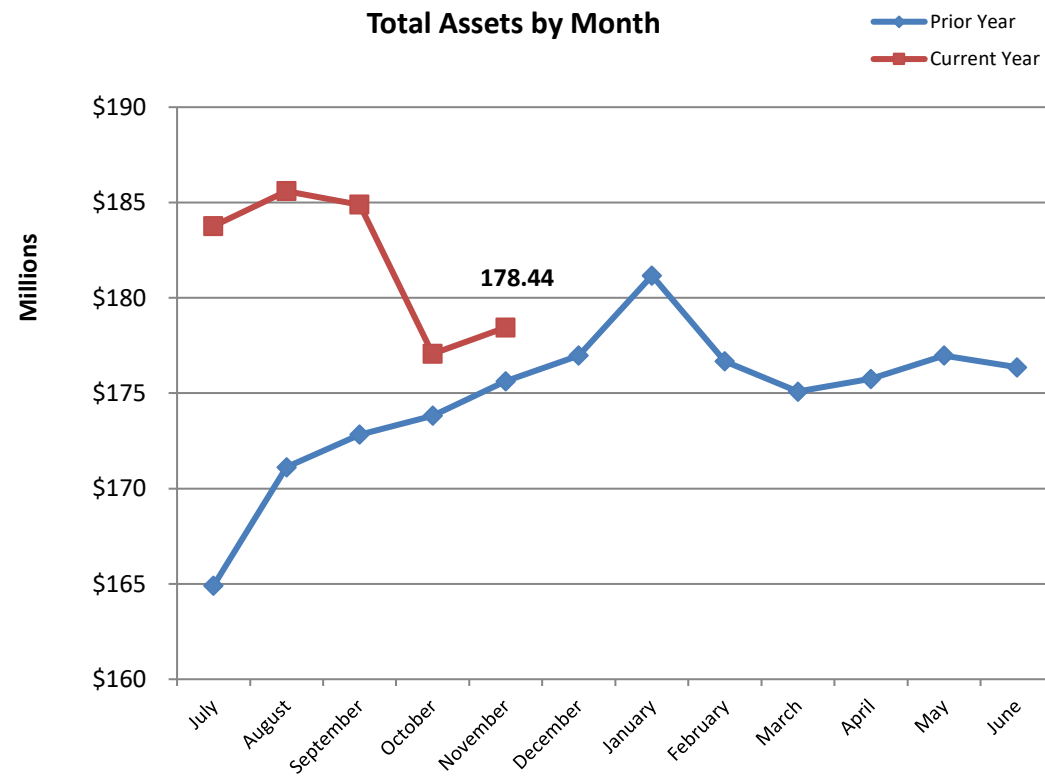
Fiscal Year-to-Date through November 30, 2018





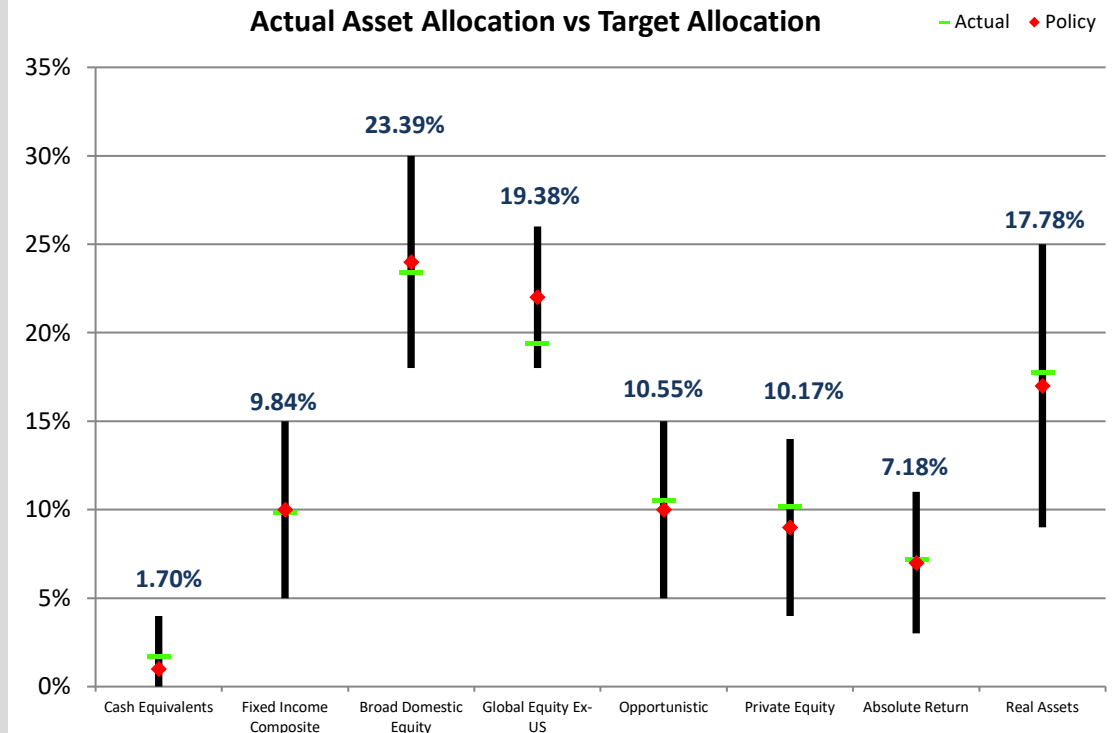
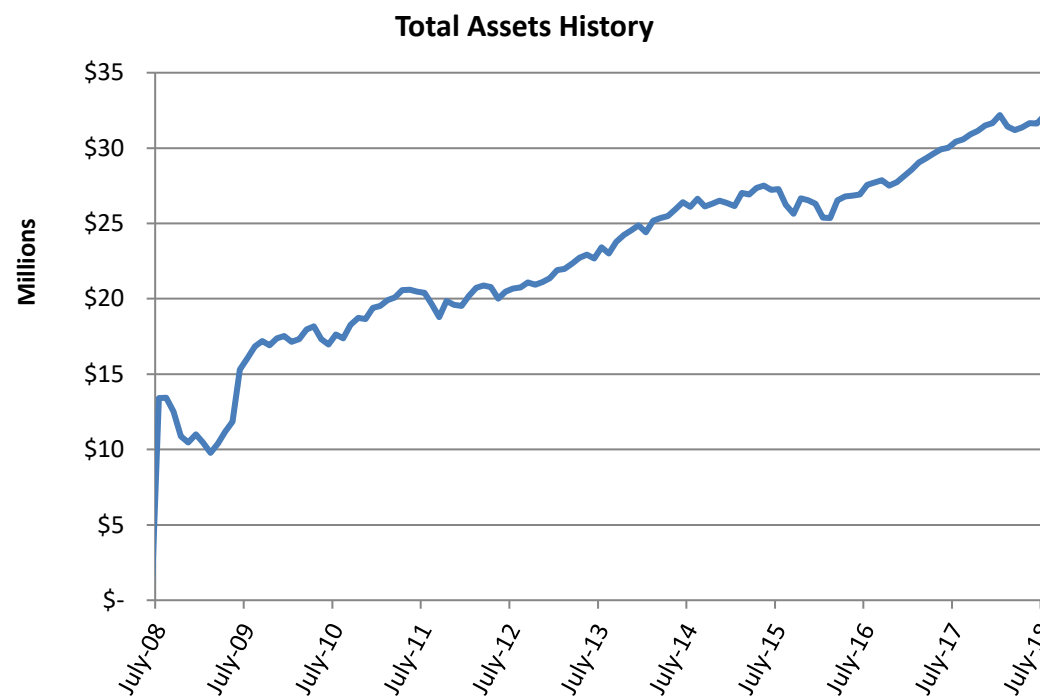
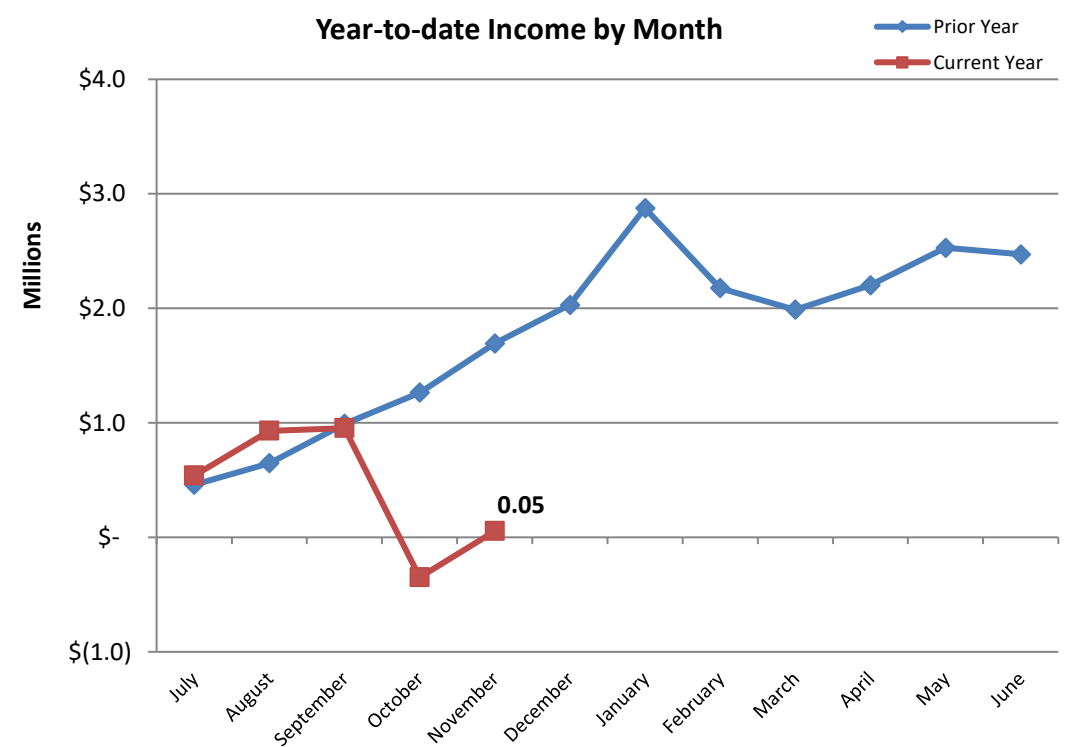
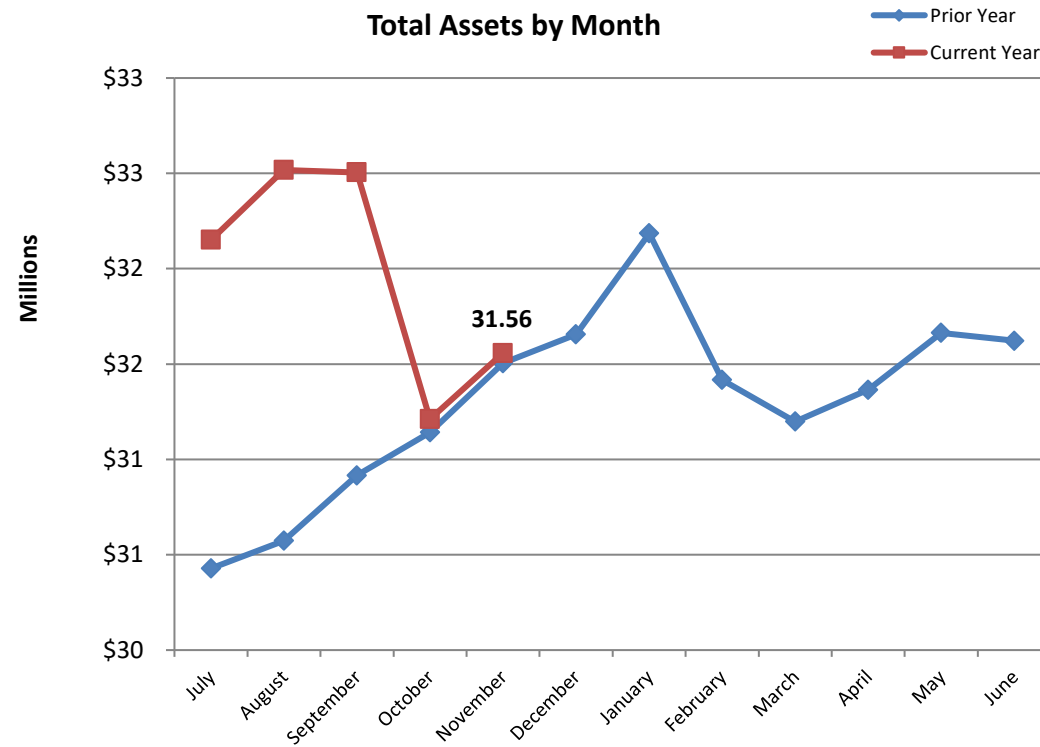
# Judicial Retirement Pension Trust Fund

## Fiscal Year-to-Date through November 30, 2018



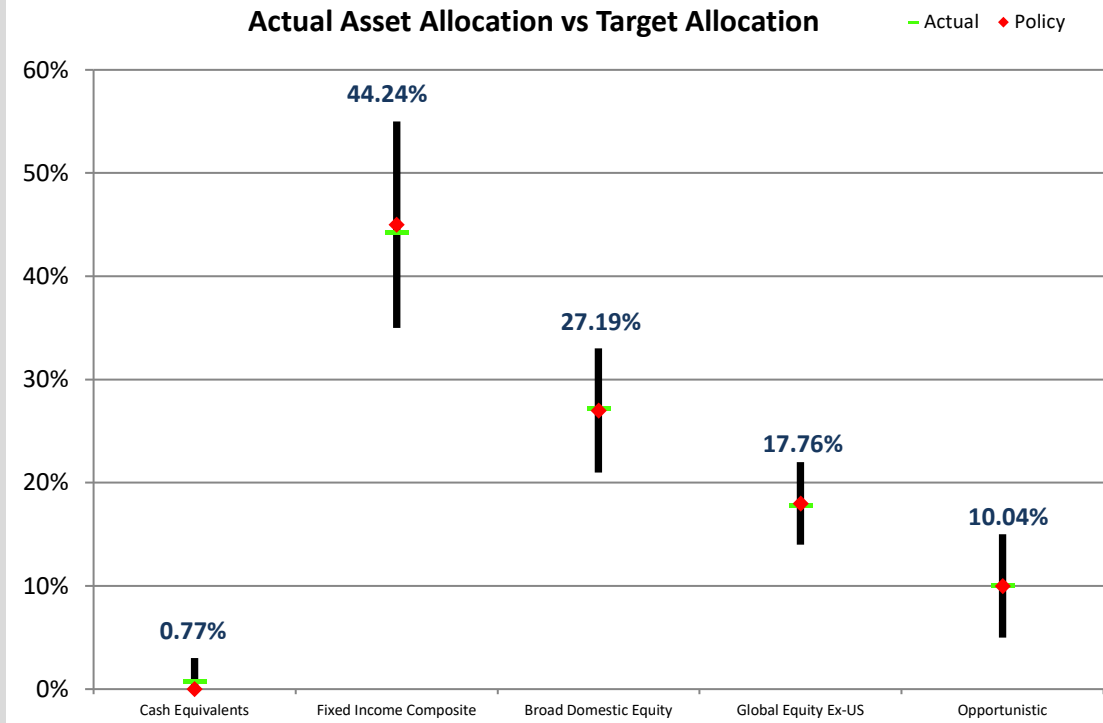
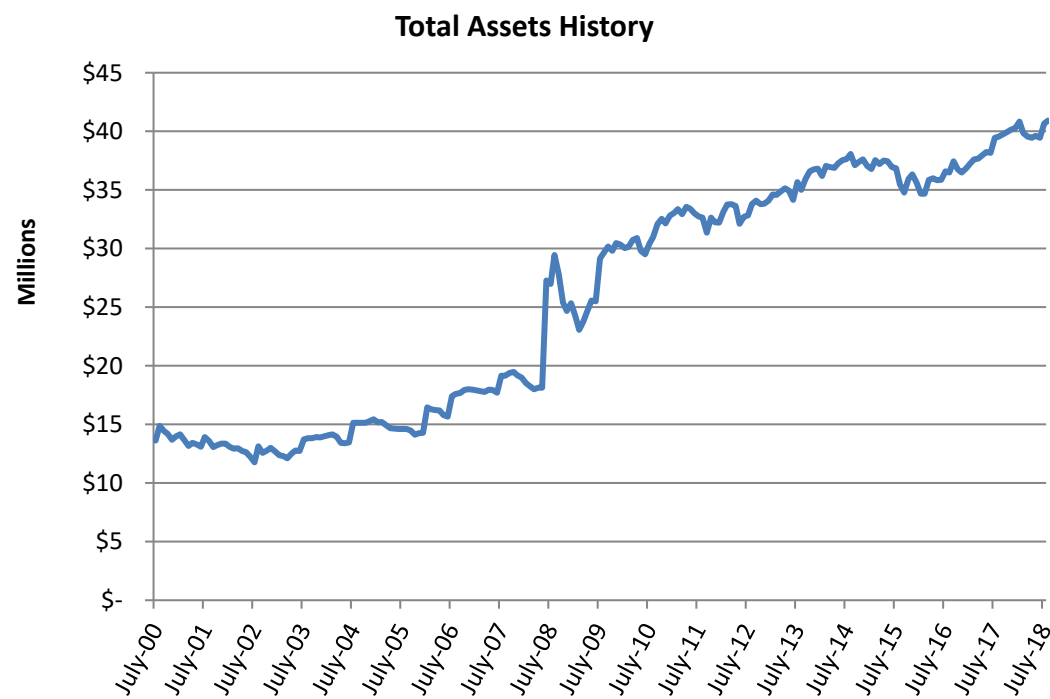
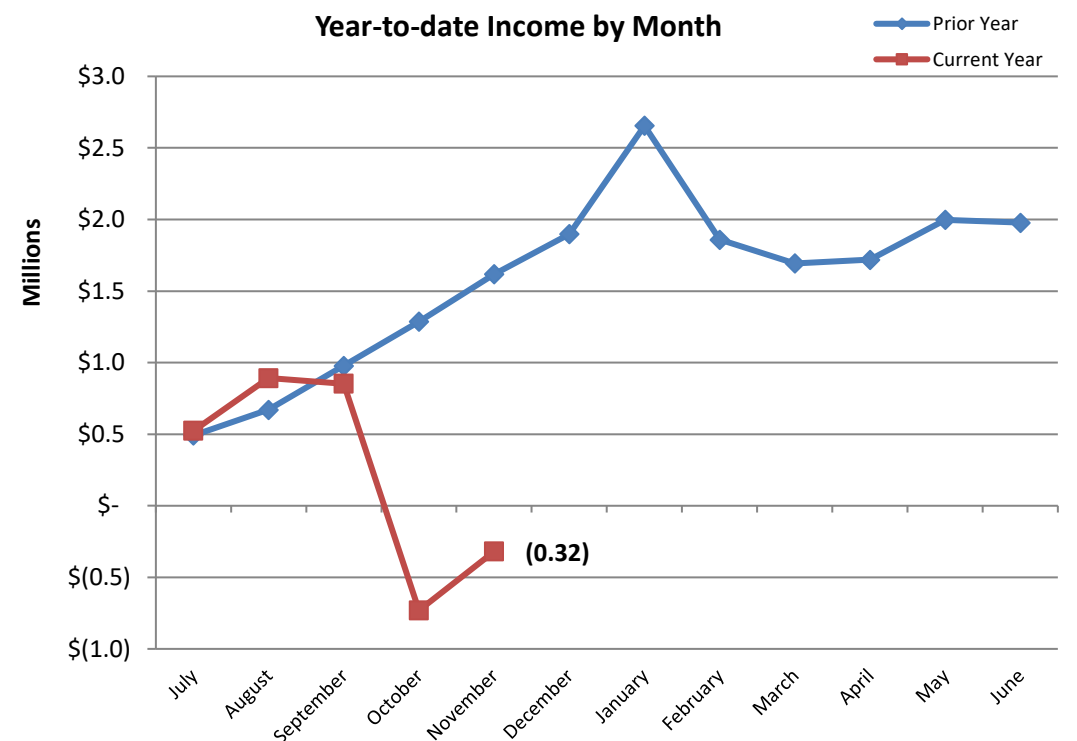
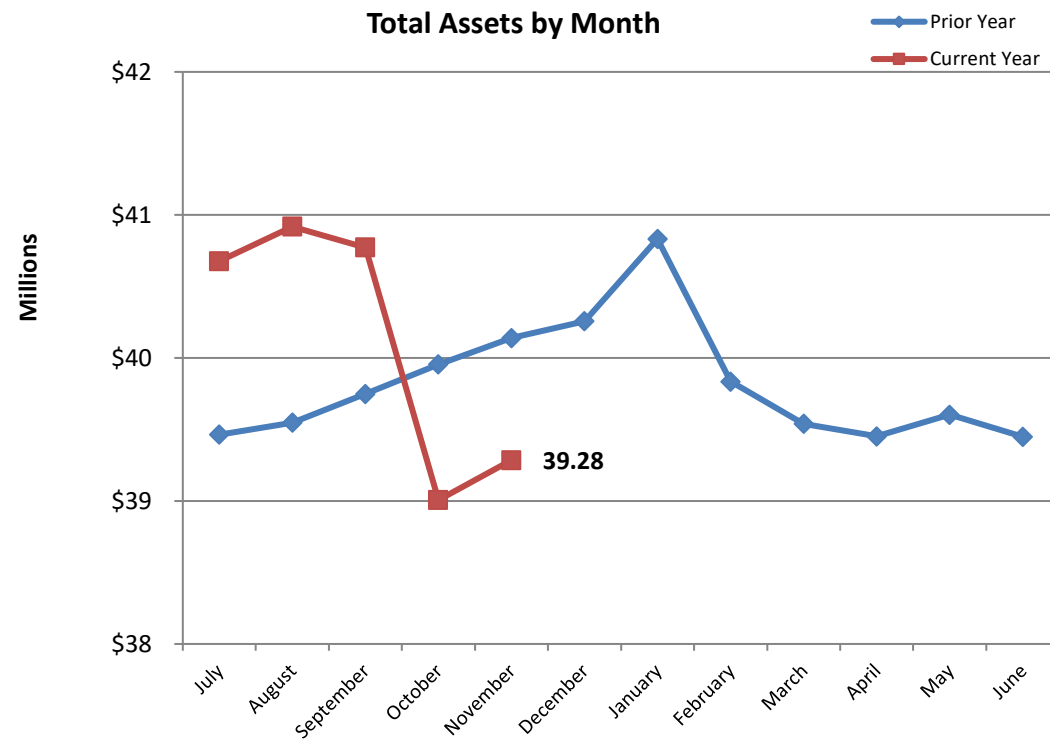
# Judicial Retirement Health Care Trust Fund

Fiscal Year-to-Date through November 30, 2018



## Military Retirement Trust Fund

### Fiscal Year-to-Date through November 30, 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 November 30, 2018**

	<b>Beginning Invested Assets</b>	<b>Investment Income</b>	<b>Net Contributions and (Withdrawals)</b>	<b>Ending Invested Assets</b>	<b>% increase (decrease)</b>	<b>% Change due to Investment Income</b>
<b>Cash</b>						
Short-Term Fixed Income Pool	\$ 314,448,554	\$ 589,334	\$ 22,625,523	\$ 337,663,411	7.38%	0.18%
Securities Lending Income Pool	175,478	141,818	-	317,296	80.82%	80.82%
<b>Total Cash</b>	<u>314,624,032</u>	<u>731,152</u>	<u>22,625,523</u>	<u>337,980,707</u>	7.42%	0.22%
<b>Fixed Income</b>						
ARMB US Treasury Fixed Income	<u>2,607,453,338</u>	<u>16,584,977</u>	<u>(50,300,000)</u>	<u>2,573,738,315</u>	-1.29%	0.64%
<b>Domestic Equities</b>						
<b>Small Cap</b>						
Passively Managed						
ARMB S&P 600	152,279,706	2,376,972	-	154,656,678	1.56%	1.56%
SSgA Russell 2000 Growth	18,236	647	(13,315)	5,568	-69.47%	5.59%
SSgA Russell 2000 Value	30,394	7,062	(24,508)	12,948	-57.40%	38.93%
Total Passive	<u>152,328,336</u>	<u>2,384,681</u>	<u>(37,823)</u>	<u>154,675,194</u>	1.54%	1.57%
Actively Managed						
ARMB Futures Small Cap	956,174	177,625	-	1,133,799	18.58%	18.58%
Arrowmark	52,204,390	691,897	-	52,896,287	1.33%	1.33%
BMO Global Asset Management	48,836,381	299,526	81,705	49,217,612	0.78%	0.61%
DePrince, Race & Zollo Inc.- Micro Cap	84,204,897	700,892	-	84,905,789	0.83%	0.83%
Fidelity (FIAM) Small Company	(9,019)	9,019	-	-	-100.00%	-100.00%
Frontier Capital Mgmt. Co.	94,287,151	(300,383)	-	93,986,768	-0.32%	-0.32%
Jennison Associates, LLC	67,544,268	756,813	146,068	68,447,149	1.34%	1.12%
Lord Abbett & Co.- Micro Cap	78,112,618	1,445,636	241,669	79,799,923	2.16%	1.85%
T. Rowe Small Cap Growth	45,275,166	866,773	-	46,141,939	1.91%	1.91%
Transition Account	(1,520)	-	-	(1,520)	-	-
Lord Abbett Small Cap Growth Fund	-	5,373	(5,373)	-	-	-200.00%
Victory Capital Management	117,402,152	3,558,511	193,624	121,154,287	3.20%	3.03%
Zebra Capital Management	85,961,766	(1,074,766)	-	84,887,000	-1.25%	-1.25%
Total Active	<u>674,774,424</u>	<u>7,136,916</u>	<u>657,693</u>	<u>682,569,033</u>	1.16%	1.06%
<b>Total Small Cap</b>	<u>827,102,760</u>	<u>9,521,597</u>	<u>619,870</u>	<u>837,244,227</u>	1.23%	1.15%

**Alaska Retirement Management Board**  
**All Non-Participant Directed Plans by Manager**  
**Schedule of Investment Income and Changes in Invested Assets**  
**For the Month Ended November 30, 2018**

<b>Large Cap</b>							
Passively Managed							
ARMB Russell 1000 Growth	1,549,136,747	16,501,632	4,167	1,565,642,546	1.07%	1.07%	
ARMB Russell 1000 Value	1,350,753,023	40,560,805	4,167	1,391,317,995	3.00%	3.00%	
ARMB Russell Top 200	389,475,542	7,308,155	4,167	396,787,864	1.88%	1.88%	
Total Passive	3,289,365,312	64,370,592	12,501	3,353,748,405	1.96%	1.96%	
Actively Managed							
Allianz Global Investors	5,640	(7)	(5,633)	-	-100.00%	-0.25%	
ARMB Equity Yield	365,613,819	12,533,210	-	378,147,029	3.43%	3.43%	
ARMB Futures Large Cap	3,317,484	248,991	-	3,566,475	7.51%	7.51%	
ARMB Portable Alpha	429,546,236	7,655,100	(835,040)	436,366,296	1.59%	1.78%	
ARMB S&P 500 Equal Weight	357,951,238	9,914,002	-	367,865,240	2.77%	2.77%	
ARMB Scientific Beta	366,762,446	8,348,438	-	375,110,884	2.28%	2.28%	
Barrow, Hanley, Mewhinney & Strauss	18,019	(59)	(17,594)	366	-97.97%	-0.64%	
Lazard Freres	328,789,983	7,503,125	-	336,293,108	2.28%	2.28%	
McKinley Capital Mgmt	45	-	(45)	-	-100.00%	-	
Transition Account	2	-	(2)	-	-100.00%	-	
Total Active	1,852,004,912	46,202,800	(858,314)	1,897,349,398	2.45%	2.50%	
<b>Total Large Cap</b>	<b>5,141,370,224</b>	<b>110,573,392</b>	<b>(845,813)</b>	<b>5,251,097,803</b>	<b>2.13%</b>	<b>2.15%</b>	
<b>Total Domestic Equity</b>	<b>5,968,472,984</b>	<b>120,094,989</b>	<b>(225,943)</b>	<b>6,088,342,030</b>	<b>2.01%</b>	<b>2.01%</b>	
<b>Global Equities Ex US</b>							
<b>Small Cap</b>							
Mondrian Investment Partners	173,553,655	2,696,997	-	176,250,652	1.55%	1.55%	
Schroder Investment Management	183,153,143	378,191	-	183,531,334	0.21%	0.21%	
<b>Total Small Cap</b>	<b>356,706,798</b>	<b>3,075,188</b>	<b>-</b>	<b>359,781,986</b>	<b>0.86%</b>	<b>0.86%</b>	
<b>Large Cap</b>							
Allianz Global Investors	1,040,044	1,167	-	1,041,211	0.11%	0.11%	
Arrow Street Capital	358,809,041	(676,589)	443,910	358,576,362	-0.06%	-0.19%	
Baillie Gifford Overseas Limited	335,259,665	3,565,483	-	338,825,148	1.06%	1.06%	
Blackrock ACWI Ex-US IMI	488,293,047	3,938,442	-	492,231,489	0.81%	0.81%	
Brandes Investment Partners	767,153,042	(10,544,376)	-	756,608,666	-1.37%	-1.37%	
Cap Guardian Trust Co	521,569,649	1,068,812	568,537	523,206,998	0.31%	0.20%	
Lazard Freres	307,380,732	2,310,561	-	309,691,293	0.75%	0.75%	
McKinley Capital Management	327,062,410	(4,790,257)	-	322,272,153	-1.46%	-1.46%	
State Street Global Advisors	918,823,827	8,176,729	-	927,000,556	0.89%	0.89%	
<b>Total Large Cap</b>	<b>4,025,391,457</b>	<b>3,049,972</b>	<b>1,012,447</b>	<b>4,029,453,876</b>	<b>0.10%</b>	<b>0.08%</b>	

**Alaska Retirement Management Board**  
**All Non-Participant Directed Plans by Manager**  
**Schedule of Investment Income and Changes in Invested Assets**  
**For the Month Ended November 30, 2018**

<b>Emerging Markets Equity</b>						
DePrince, Race, and Zollo Emerging Markets	256,888,885	12,145,306	-	269,034,191	4.73%	4.73%
Lazard Asset Management	371,649,219	12,237,230	-	383,886,449	3.29%	3.29%
<b>Total Emerging Markets</b>	<u>628,538,104</u>	<u>24,382,536</u>	<u>-</u>	<u>652,920,640</u>	3.88%	3.88%
<b>Total Global Equities</b>	<u>5,010,636,359</u>	<u>30,507,696</u>	<u>1,012,447</u>	<u>5,042,156,502</u>	0.63%	0.61%
<b>Opportunistic</b>						
<b>Alternative Equity Strategy</b>						
Analytic Buy Write Account	719,310,464	16,944,166	-	736,254,630	2.36%	2.36%
ARMB STOXX Minimum Variance	617,592,060	13,442,952	-	631,035,012	2.18%	2.18%
Quantitative Management Associates MPS	(1,836,690)	443,107	-	(1,393,583)	24.13%	24.13%
<b>Total Alternative Equity Strategy</b>	<u>1,335,065,834</u>	<u>30,830,225</u>	<u>-</u>	<u>1,365,896,059</u>	2.31%	2.31%
<b>Opportunistic Fixed Income</b>						
Fidelity Inst. Asset Mgmt. High Yield CMBS	103,837,261	99,414	-	103,936,675	0.10%	0.10%
Fidelity Institutional Asset Management	202,424,336	(385,746)	-	202,038,590	-0.19%	-0.19%
Lazard Emerging Income	66,140,403	826,411	-	66,966,814	1.25%	1.25%
MacKay Shields, LLC	105,726,457	(125,725)	(6,800,000)	98,800,732	-6.55%	-0.12%
Mondrian Investment Partners	95,315,528	784,938	-	96,100,466	0.82%	0.82%
Western Asset Management	55,713,652	411,020	-	56,124,672	0.74%	0.74%
<b>Total Opportunistic Fixed Income</b>	<u>629,157,637</u>	<u>1,610,312</u>	<u>(6,800,000)</u>	<u>623,967,949</u>	-0.82%	0.26%
<b>Other Opportunities</b>						
Project Pearl	10,049,468	-	(500)	10,048,968	0.00%	-
Schroders Insurance Linked Securities	343,339,388	(2,618,655)	642,350	341,363,083	-0.58%	-0.76%
<b>Total Other Opportunities</b>	<u>353,388,856</u>	<u>(2,618,655)</u>	<u>641,850</u>	<u>351,412,051</u>	-0.56%	-0.74%
<b>Tactical Allocation Strategies</b>						
Columbia Threadneedle	585	-	-	585	-	-
Eaton Vance High Yield	23,404	-	-	23,404	-	-
Fidelity Signals	200,000,000	2,354,659	-	202,354,659	1.18%	1.18%
PineBridge	200,000,000	613,202	-	200,613,202	0.31%	0.31%
<b>Total Tactical Allocation Strategies</b>	<u>400,023,989</u>	<u>2,967,861</u>	<u>-</u>	<u>402,991,850</u>	0.74%	0.74%
<b>Total Opportunistic</b>	<u>2,717,636,316</u>	<u>32,789,743</u>	<u>(6,158,150)</u>	<u>2,744,267,909</u>	0.98%	1.21%



**Alaska Retirement Management Board**  
**All Non-Participant Directed Plans by Manager**  
**Schedule of Investment Income and Changes in Invested Assets**  
**For the Month Ended November 30, 2018**

**Private Equity**

Abbott Capital	971,155,925	45,950,443	(1,045,286)	1,016,061,082	4.62%	4.73%
Advent International GPE Fund VIII-B	17,473,014	1,347,889	-	18,820,903	7.71%	7.71%
Angelo, Gordon & Co.	64,699	228	-	64,927	0.35%	0.35%
Dyal Capital Partners III	23,881,207	-	-	23,881,207	-	-
Glendon Opportunities	37,800,497	740,676	-	38,541,173	1.96%	1.96%
Glendon Opportunities II	-	-	-	-	-	-
KKR Lending Partners II	55,693,996	-	-	55,693,996	-	-
Lexington Capital Partners VIII	30,294,015	1,010,856	-	31,304,871	3.34%	3.34%
Lexington Partners VII	22,382,595	1,141,625	(332,014)	23,192,206	3.62%	5.14%
Merit Capital Partners	13,676,672	-	-	13,676,672	-	-
NB SOF III	30,035,517	-	-	30,035,517	-	-
NB SOF IV	7,001,339	-	-	7,001,339	-	-
New Mountain Partners IV	23,528,357	1,159,675	(339,027)	24,349,005	3.49%	4.96%
New Mountain Partners V	12,514,884	(178,385)	1,372,135	13,708,634	9.54%	-1.35%
NGP XI	52,051,628	940,576	-	52,992,204	1.81%	1.81%
Onex Partnership III	13,812,348	(868,722)	-	12,943,626	-6.29%	-6.29%
Pathway Capital Management LLC	1,100,386,076	50,176,339	(1,602,422)	1,148,959,993	4.41%	4.56%
Resolute Fund III	19,639,835	1,045,349	-	20,685,184	5.32%	5.32%
Summit Partners GE IX	18,093,544	355,590	2,464,000	20,913,134	15.58%	1.84%
Warburg Pincus X	14,220,090	(339,724)	(432,750)	13,447,616	-5.43%	-2.43%
Warburg Pincus XI	28,394,311	275,823	-	28,670,134	0.97%	0.97%
Warburg Pincus XII	46,417,040	1,448,353	-	47,865,393	3.12%	3.12%
<b>Total Private Equity</b>	<b>2,538,517,589</b>	<b>104,206,591</b>	<b>84,636</b>	<b>2,642,808,816</b>	<b>4.11%</b>	<b>4.10%</b>

**Alaska Retirement Management Board**  
**All Non-Participant Directed Plans by Manager**  
**Schedule of Investment Income and Changes in Invested Assets**  
**For the Month Ended November 30, 2018**

**Absolute Return**

Allianz Global Investors	354,429,261	-	-	354,429,261	-	-
Crestline Investors, Inc.	460,905,103	-	-	460,905,103	-	-
Crestline Specialty Fund	36,487,787	-	(6,124,044)	30,363,743	-16.78%	-
Crestline Specialty Lending Fund II	14,387,413	-	(2,570,743)	11,816,670	-17.87%	-
JPM Systemic Alpha	176,118,248	(1,229,017)	-	174,889,231	-0.70%	-0.70%
KKR Apex Equity Fund	80,993,842	-	-	80,993,842	-	-
Man Group Alternative Risk Premia	213,814,781	(6,070,536)	-	207,744,245	-2.84%	-2.84%
Prisma Capital Partners	428,129,338	4,701,555	-	432,830,893	1.10%	1.10%
Zebra Global Equity Advantage Fund	36,565,374	820,948	-	37,386,322	2.25%	2.25%
Zebra Global Equity Fund	74,858,818	427,055	-	75,285,873	0.57%	0.57%
<b>Total Absolute Return Investments</b>	<u>1,876,689,965</u>	<u>(1,349,995)</u>	<u>(8,694,787)</u>	<u>1,866,645,183</u>	-0.54%	-0.07%

**Real Assets**

**Farmland**

Hancock Agricultural Investment Group	267,540,263	2,117,930	-	269,658,193	0.79%	0.79%
UBS Agrivest, LLC	<u>580,502,027</u>	<u>2,610,823</u>	<u>-</u>	<u>583,112,850</u>	0.45%	0.45%
<b>Total Farmland</b>	<u>848,042,290</u>	<u>4,728,753</u>	<u>-</u>	<u>852,771,043</u>	0.56%	0.56%

**Timber**

Hancock Natural Resource Group	96,533,654	61,247	-	96,594,901	0.06%	0.06%
Timberland Invst Resource LLC	<u>262,618,531</u>	<u>1,585,291</u>	<u>500</u>	<u>264,204,322</u>	0.60%	0.60%
<b>Total Timber</b>	<u>359,152,185</u>	<u>1,646,538</u>	<u>500</u>	<u>360,799,223</u>	0.46%	0.46%

**Energy**

EIG Energy Fund XIV-A	14,353,496	(21,376)	-	14,332,120	-0.15%	-0.15%
EIG Energy Fund XV	26,739,753	108,434	-	26,848,187	0.41%	0.41%
EIG Energy Fund XVI	<u>57,723,029</u>	<u>2,157,733</u>	<u>-</u>	<u>59,880,762</u>	3.74%	3.74%
<b>Total Energy</b>	<u>98,816,278</u>	<u>2,244,791</u>	<u>-</u>	<u>101,061,069</u>	2.27%	2.27%

**REIT**

REIT Transition Account	-	-	-	-	-	-
ARMB REIT	<u>198,262,789</u>	<u>9,412,607</u>	<u>-</u>	<u>207,675,396</u>	4.75%	4.75%
<b>Total REIT</b>	<u>198,262,789</u>	<u>9,412,607</u>	<u>-</u>	<u>207,675,396</u>	4.75%	4.75%

**TIPS**

ARMB Treasury Inflation Protected Securities	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	-	-
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**Master Limited Partnerships**

Advisory Research MLP	292,442,444	(4,631,500)	-	287,810,944	-1.58%	-1.58%
Tortoise Capital Advisors	<u>464,728,843</u>	<u>(3,880,784)</u>	<u>-</u>	<u>460,848,059</u>	-0.84%	-0.84%
<b>Total Master Limited Partnerships</b>	<u>757,171,287</u>	<u>(8,512,284)</u>	<u>-</u>	<u>748,659,003</u>	-1.12%	-1.12%

**Alaska Retirement Management Board**  
**All Non-Participant Directed Plans by Manager**  
**Schedule of Investment Income and Changes in Invested Assets**  
**For the Month Ended November 30, 2018**

**Infrastructure Private**

IFM Global Infrastructure Fund-Private	425,858,977	(1,824,954)	-	424,034,023	-0.43%	-0.43%
JP Morgan Infrastructure Fund-Private	115,395,118	2,361,637	-	117,756,755	2.05%	2.05%
<b>Total Infrastructure Private</b>	<u>541,254,095</u>	<u>536,683</u>	<u>-</u>	<u>541,790,778</u>	<u>0.10%</u>	<u>0.10%</u>

**Infrastructure Public**

Brookfield Investment Mgmt.-Public	103,202,528	1,275,221	-	104,477,749	1.24%	1.24%
Lazard Asset Mgmt.-Public	146,365,495	(986,103)	247,563	145,626,955	-0.50%	-0.67%
<b>Total Infrastructure Public</b>	<u>249,568,023</u>	<u>289,118</u>	<u>247,563</u>	<u>250,104,704</u>	<u>0.22%</u>	<u>0.12%</u>

**Real Estate**

Core Commingled Accounts						
JP Morgan	257,918,569	1,106,072	-	259,024,641	0.43%	0.43%
UBS Trumbull Property Fund	91,167,249	-	-	91,167,249	-	-
Total Core Commingled	<u>349,085,818</u>	<u>1,106,072</u>	<u>-</u>	<u>350,191,890</u>	<u>0.32%</u>	<u>0.32%</u>
Core Separate Accounts						
LaSalle Investment Management	199,558,832	2,562,951	(978,840)	201,142,943	0.79%	1.29%
Sentinel Separate Account	241,171,550	3,532,657	(73,403,540)	171,300,667	-28.97%	1.73%
UBS Realty	508,450,957	9,231,422	(1,438,305)	516,244,074	1.53%	1.82%
Total Core Separate	<u>949,181,339</u>	<u>15,327,030</u>	<u>(75,820,685)</u>	<u>888,687,684</u>	<u>-6.37%</u>	<u>1.68%</u>
Non-Core Commingled Accounts						
Almanac Realty Securities V	2,020,878	(5,266)	(559,358)	1,456,254	-27.94%	-0.30%
Almanac Realty Securities VII	33,753,045	683,198	501,192	34,937,435	3.51%	2.01%
BlackRock Diamond Property Fund	68,967	-	-	68,967	-	-
BlackRock US Core Property Fund	205,044,855	-	-	205,044,855	-	-
Clarion Ventures 4	23,108,222	87,662	-	23,195,884	0.38%	0.38%
Colony Investors VIII, L.P.	1,637,059	(3,435)	-	1,633,624	-0.21%	-0.21%
Coventry	265,083	(9,280)	-	255,803	-3.50%	-3.50%
ING Clarion Development Ventures III	2,482,226	37,654	-	2,519,880	1.52%	1.52%
KKR Real Estate Partners Americas II	5,630,883	-	1,061,751	6,692,634	18.86%	-
KKR Real Estate Partners Americas LP.	23,847,599	-	(2,773,369)	21,074,230	-11.63%	-
Silverpeak Legacy Pension Partners II, L.P.	6,091,339	(13,729)	-	6,077,610	-0.23%	-0.23%
Silverpeak Legacy Pension Partners III, L.P.	4,487,072	(14,128)	-	4,472,944	-0.31%	-0.31%
Tishman Speyer Real Estate Venture VI	22,157,920	563,985	-	22,721,905	2.55%	2.55%
Tishman Speyer Real Estate Venture VII	999,584	(86,440)	-	913,144	-8.65%	-8.65%
Total Non-Core Commingled	<u>331,594,732</u>	<u>1,240,221</u>	<u>(1,769,784)</u>	<u>331,065,169</u>	<u>-0.16%</u>	<u>0.38%</u>
<b>Total Real Estate</b>	<u>1,629,861,889</u>	<u>17,673,323</u>	<u>(77,590,469)</u>	<u>1,569,944,743</u>	<u>-3.68%</u>	<u>1.11%</u>
<b>Total Real Assets</b>	<u>4,682,128,836</u>	<u>28,019,529</u>	<u>(77,342,406)</u>	<u>4,632,805,959</u>	<u>-1.05%</u>	<u>0.60%</u>
<b>Total Assets</b>	<u>\$ 25,716,159,419</u>	<u>\$ 331,584,682</u>	<u>\$ (118,998,680)</u>	<u>\$ 25,928,745,421</u>	<u>0.83%</u>	<u>1.29%</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**  
**November 30, 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>
<b>Participant Options</b>							
T. Rowe Price							
Stable Value Fund	\$ 373,440,541	\$ 765,926	\$ (1,039,971)	\$ 1,328,884	\$ 374,495,380	0.28%	0.21%
Small Cap Stock Fund	172,923,499	3,714,848	(15,375)	385,921	177,008,893	2.36%	2.15%
Alaska Balanced Trust	1,104,105,584	9,874,671	(3,466,095)	(1,596,109)	1,108,918,051	0.44%	0.90%
Long Term Balanced Fund	654,860,809	7,704,055	(576,026)	(1,438,043)	660,550,795	0.87%	1.18%
AK Target Date 2010 Trust	10,539,645	99,687	(249)	(102,457)	10,536,626	-0.03%	0.95%
AK Target Date 2015 Trust	81,245,973	848,548	161,228	(211,883)	82,043,866	0.98%	1.04%
AK Target Date 2020 Trust	93,194,415	1,097,567	(7,974)	(452,991)	93,831,017	0.68%	1.18%
AK Target Date 2025 Trust	75,436,996	980,976	215,495	(77,930)	76,555,537	1.48%	1.30%
AK Target Date 2030 Trust	57,511,549	810,566	143,698	233,605	58,699,418	2.07%	1.40%
AK Target Date 2035 Trust	53,521,408	795,206	243,600	(382,975)	54,177,239	1.23%	1.49%
AK Target Date 2040 Trust	53,607,601	836,100	119,908	(215,309)	54,348,300	1.38%	1.56%
AK Target Date 2045 Trust	60,953,525	977,060	116,285	136,797	62,183,667	2.02%	1.60%
AK Target Date 2050 Trust	69,233,559	1,115,830	389,351	(172,623)	70,566,117	1.92%	1.61%
AK Target Date 2055 Trust	58,773,569	939,473	353,474	(153,729)	59,912,787	1.94%	1.60%
AK Target Date 2060 Trust	4,344,722	84,671	8,485	519,200	4,957,078	14.09%	1.84%
Total Investments with T. Rowe Price	<u>2,923,693,395</u>	<u>30,645,184</u>	<u>(3,354,166)</u>	<u>(2,199,642)</u>	<u>2,948,784,771</u>		
State Street Global Advisors							
Money Market	46,117,609	81,075	3,534	65,424	46,267,642	0.33%	0.18%
S&P 500 Stock Index Fund Series A	461,004,768	9,369,270	(741,328)	1,151,474	470,784,184	2.12%	2.03%
Russell 3000 Index	72,899,984	1,450,207	90,590	(419,910)	74,020,871	1.54%	1.99%
US Real Estate Investment Trust Index	34,077,800	1,666,746	38,041	749,236	36,531,823	7.20%	4.84%
World Equity Ex-US Index	54,599,752	520,412	61,503	265,002	55,446,669	1.55%	0.95%
US Treasury Inflation Protected Securities Index	39,322,196	187,689	(131,973)	718,584	40,096,496	1.97%	0.47%
Total Investments with SSgA	<u>708,022,109</u>	<u>13,275,399</u>	<u>(679,633)</u>	<u>2,529,810</u>	<u>723,147,685</u>		
BlackRock							
Passive U.S. Bond Index Fund	100,001,111	593,259	(79,826)	(306,723)	100,207,821	0.21%	0.59%
Brandes/Baillie Gifford							
AK International Equity Fund	61,818,698	(137,508)	71,808	(182,063)	61,570,935	-0.40%	-0.22%
Northern Trust							
Environmental, Social, and Governance Fund	49,257,101	1,825,288	10,757	158,618	51,251,764	4.05%	3.70%
<b>Total All Funds</b>	<u>\$ 3,842,792,414</u>	<u>\$ 46,201,622</u>	<u>\$ (4,031,060)</u>	<u>\$ -</u>	<u>\$ 3,884,962,976</u>	1.10%	1.20%

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**  
**November 30, 2018**  
**\$ (Thousands)**

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

**Deferred Compensation Plan**  
**Schedule of Invested Assets and Changes in Invested Assets**  
**for the Month Ended**  
**November 30, 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>
<b>Participant Options</b>							
T. Rowe Price							
Stable Value Fund	\$ 181,148,231	\$ 371,281	\$ (635,394)	\$ 236,102	\$ 181,120,220	-0.02%	0.21%
Small Cap Stock Fund	108,520,436	2,335,639	(412,822)	(257,226)	110,186,027	1.53%	2.16%
Alaska Balanced Trust	29,783,329	261,134	770	(458,060)	29,587,173	-0.66%	0.88%
Long Term Balanced Fund	84,959,960	999,327	(336,947)	(87,060)	85,535,280	0.68%	1.18%
AK Target Date 2010 Trust	3,718,802	34,991	(3,551)	(35,954)	3,714,288	-0.12%	0.95%
AK Target Date 2015 Trust	8,904,185	92,219	(48,039)	(29,616)	8,918,749	0.16%	1.04%
AK Target Date 2020 Trust	24,788,032	292,085	(131,293)	8,437	24,957,261	0.68%	1.18%
AK Target Date 2025 Trust	17,894,890	233,131	42,869	(219,592)	17,951,298	0.32%	1.31%
AK Target Date 2030 Trust	11,761,136	164,989	31,009	20,049	11,977,183	1.84%	1.40%
AK Target Date 2035 Trust	7,003,456	104,884	30,749	106,399	7,245,488	3.46%	1.48%
AK Target Date 2040 Trust	7,660,652	119,792	23,203	(5,990)	7,797,657	1.79%	1.56%
AK Target Date 2045 Trust	5,585,231	89,643	23,494	21	5,698,389	2.03%	1.60%
AK Target Date 2050 Trust	3,927,031	66,838	38,128	136,804	4,168,801	6.16%	1.66%
AK Target Date 2055 Trust	3,992,933	63,979	8,365	(6,822)	4,058,455	1.64%	1.60%
AK Target Date 2060 Trust	870,593	13,931	5,035	1,812	891,371	2.39%	1.59%
Total Investments with T. Rowe Price	<u>500,518,897</u>	<u>5,243,863</u>	<u>(1,364,424)</u>	<u>(590,696)</u>	<u>503,807,640</u>		
State Street Global Advisors							
Money Market	13,870,731	24,131	(207,293)	30,995	13,718,564	-1.10%	0.18%
Russell 3000 Index	44,548,784	899,964	74,502	(200,857)	45,322,393	1.74%	2.02%
US Real Estate Investment Trust Index	12,567,590	613,165	26,123	204,875	13,411,753	6.72%	4.83%
World Equity Ex-US Index	17,577,597	165,976	58,125	(64,132)	17,737,566	0.91%	0.94%
US Treasury Inflation Protected Securities Index	15,686,134	74,305	26,787	122,564	15,909,790	1.43%	0.47%
Total Investments with SSgA	<u>104,250,836</u>	<u>1,777,541</u>	<u>(21,756)</u>	<u>93,445</u>	<u>106,100,066</u>		
BlackRock							
S&P 500 Index Fund	210,345,516	4,284,292	(546,404)	(69,646)	214,013,758	1.74%	2.04%
Passive U.S. Bond Index Fund	52,868,342	315,466	(212,247)	281,077	53,252,638	0.73%	0.60%
Total Investments with BlackRock	<u>263,213,858</u>	<u>4,599,758</u>	<u>(758,651)</u>	<u>211,431</u>	<u>267,266,396</u>		
Brandes/Baillie Gifford							
AK International Equity Fund	32,597,998	(70,313)	3,871	(64,635)	32,466,921	-0.40%	-0.22%
Northern Trust							
Environmental, Social, and Governance Fund	21,103,435	782,405	(8,946)	350,455	22,227,349	5.33%	3.68%
<b>Total All Funds</b>	<u>\$ 921,685,024</u>	<u>\$ 12,333,254</u>	<u>\$ (2,149,906)</u>	<u>\$ -</u>	<u>\$ 931,868,372</u>	1.10%	1.34%

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**  
**November 30, 2018**  
**\$ (Thousands)**

<b><u>Invested Assets (at fair value)</u></b>	<b><u>July</u></b>	<b><u>August</u></b>	<b><u>September</u></b>	<b><u>October</u></b>	<b><u>November</u></b>
Investments with T. Rowe Price					
Interest Income Fund	\$ 175,629	\$ -	\$ -	\$ -	\$ -
Stable Value Fund	-	179,111	178,901	181,148	181,120
Small Cap Stock Fund	114,946	121,797	119,170	108,520	110,186
Alaska Balanced Trust	29,501	30,253	30,453	29,783	29,587
Long Term Balanced Fund	91,224	91,105	90,275	84,960	85,535
AK Target Date 2010 Trust	4,051	4,078	4,033	3,719	3,714
AK Target Date 2015 Trust	9,541	9,477	9,462	8,904	8,919
AK Target Date 2020 Trust	26,229	26,594	26,248	24,788	24,957
AK Target Date 2025 Trust	17,470	18,025	18,796	17,895	17,951
AK Target Date 2030 Trust	11,744	12,182	12,394	11,761	11,977
AK Target Date 2035 Trust	6,910	7,082	7,175	7,003	7,245
AK Target Date 2040 Trust	7,998	8,245	8,258	7,661	7,798
AK Target Date 2045 Trust	5,688	5,882	6,020	5,585	5,698
AK Target Date 2050 Trust	3,958	4,104	4,123	3,927	4,169
AK Target Date 2055 Trust	4,248	4,300	4,309	3,993	4,058
AK Target Date 2060 Trust	399	873	885	871	891
State Street Global Advisors					
Money Market	13,653	13,538	13,947	13,871	13,719
Russell 3000 Index	43,890	45,212	46,616	44,549	45,322
US Real Estate Investment Trust Index	12,810	13,334	12,770	12,568	13,412
World Equity Ex-US Index	18,373	18,043	18,531	17,578	17,738
Long US Treasury Bond Index	5,169	-	-	-	-
US Treasury Inflation Protected Securities Index	13,533	14,313	15,603	15,686	15,910
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
Passive U.S. Bond Index Fund	-	57,464	55,702	52,868	53,253
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
Investments with Northern Trust					
Environmental, Social, and Governance Fund	23,391	23,420	23,413	21,103	22,227
<b>Total Invested Assets</b>	<b>\$ 953,592</b>	<b>\$ 971,688</b>	<b>\$ 969,841</b>	<b>\$ 921,685</b>	<b>\$ 931,868</b>
<b><u>Change in Invested Assets</u></b>					
Beginning Assets	\$ 938,807	\$ 953,592	\$ 971,688	\$ 969,841	\$ 921,685
Investment Earnings	17,321	18,962	(977)	(46,214)	12,333
Net Contributions (Withdrawals)	(2,536)	(866)	(869)	(1,943)	(2,150)
<b>Ending Invested Assets</b>	<b>\$ 953,592</b>	<b>\$ 971,688</b>	<b>\$ 969,841</b>	<b>\$ 921,685</b>	<b>\$ 931,868</b>

**Defined Contribution Retirement - Participant Directed PERS**  
**Schedule of Investment Income and Changes in Invested Assets**  
**for the Month Ended**  
**November 30, 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>
<b>Participant Options</b>							
T. Rowe Price							
Stable Value Fund	\$ 43,006,340	\$ 88,677	\$ (80,530)	\$ (91,070)	\$ 42,923,417	-0.19%	0.21%
Small Cap Stock Fund	70,927,827	1,532,758	304,170	230,158	72,994,913	2.91%	2.15%
Alaska Balanced Trust	26,475,766	234,985	73,473	(394,479)	26,389,745	-0.32%	0.89%
Long Term Balanced Fund	18,340,434	213,874	8,702	(228,449)	18,334,561	-0.03%	1.17%
AK Target Date 2010 Trust	2,475,092	23,496	28,039	(29,047)	2,497,580	0.91%	0.95%
AK Target Date 2015 Trust	11,559,762	120,996	(49,528)	(21,542)	11,609,688	0.43%	1.05%
AK Target Date 2020 Trust	31,732,960	376,986	367,273	(104,517)	32,372,702	2.02%	1.18%
AK Target Date 2025 Trust	50,610,154	660,797	642,566	(71,435)	51,842,082	2.43%	1.30%
AK Target Date 2030 Trust	52,673,919	741,716	545,915	(37,364)	53,924,186	2.37%	1.40%
AK Target Date 2035 Trust	62,955,313	946,347	805,278	(67,788)	64,639,150	2.67%	1.49%
AK Target Date 2040 Trust	74,522,101	1,171,960	927,905	(135,591)	76,486,375	2.64%	1.56%
AK Target Date 2045 Trust	95,950,188	1,540,711	1,149,463	(67,973)	98,572,389	2.73%	1.60%
AK Target Date 2050 Trust	113,789,655	1,829,553	1,488,314	(245,129)	116,862,393	2.70%	1.60%
AK Target Date 2055 Trust	95,643,268	1,535,378	1,539,546	(206,254)	98,511,938	3.00%	1.59%
AK Target Date 2060 Trust	910,051	14,970	20,887	(75,080)	870,828	-4.31%	1.70%
Total Investments with T. Rowe Price	<u>751,572,830</u>	<u>11,033,204</u>	<u>7,771,473</u>	<u>(1,545,560)</u>	<u>768,831,947</u>		
State Street Global Advisors							
Money Market	10,920,260	19,139	(29,481)	(78,874)	10,831,044	-0.82%	0.18%
S&P 500 Stock Index Fund Series A	98,753,295	2,032,055	499,639	903,244	102,188,233	3.48%	2.04%
Russell 3000 Index	10,947,880	220,491	121,007	(85,849)	11,203,529	2.34%	2.01%
US Real Estate Investment Trust Index	15,381,904	744,556	67,402	(13,751)	16,180,111	5.19%	4.83%
World Equity Ex-US Index	46,658,446	445,570	214,902	670,551	47,989,469	2.85%	0.95%
US Treasury Inflation Protected Securities Index	18,781,383	87,733	(3,107)	(39,369)	18,826,640	0.24%	0.47%
Total Investments with SSgA	<u>201,443,168</u>	<u>3,549,544</u>	<u>870,362</u>	<u>1,355,952</u>	<u>207,219,026</u>		
BlackRock							
Passive U.S. Bond Index Fund	40,665,415	241,231	66,276	(314,406)	40,658,516	-0.02%	0.60%
Brandes/Baillie Gifford							
AK International Equity Fund	41,822,961	(93,790)	240,646	342,830	42,312,647	1.17%	-0.22%
Northern Trust							
Environmental, Social, and Governance Fund	9,438,876	356,823	69,472	161,184	10,026,355	6.22%	3.73%
<b>Total All Funds</b>	<u>\$ 1,044,943,250</u>	<u>\$ 15,087,012</u>	<u>\$ 9,018,229</u>	<u>\$ -</u>	<u>\$ 1,069,048,491</u>	2.31%	1.44%

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**  
**November 30, 2018**  
**\$ (Thousands)**

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

**Defined Contribution Retirement - Participant Directed TRS**  
**Schedule of Investment Income and Changes in Invested Assets**  
**for the Month Ended**  
**November 30, 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>
<b>Participant Options</b>							
T. Rowe Price							
Stable Value Fund	\$ 17,254,122	\$ 35,805	\$ (33,984)	\$ 229,137	\$ 17,485,080	1.34%	0.21%
Small Cap Stock Fund	30,706,827	661,961	(29,716)	29,307	31,368,379	2.15%	2.16%
Alaska Balanced Trust	11,077,238	98,034	(8,763)	(209,175)	10,957,334	-1.08%	0.89%
Long Term Balanced Fund	7,620,521	89,392	3,473	(65,815)	7,647,571	0.35%	1.18%
AK Target Date 2010 Trust	725,098	6,931	(5,044)	-	726,985	0.26%	0.96%
AK Target Date 2015 Trust	3,220,953	34,777	27,198	77,185	3,360,113	4.32%	1.06%
AK Target Date 2020 Trust	9,600,314	114,290	75,159	(47,091)	9,742,672	1.48%	1.19%
AK Target Date 2025 Trust	16,473,744	215,118	200,563	(128,282)	16,761,143	1.74%	1.30%
AK Target Date 2030 Trust	19,384,069	275,403	99,536	(118,261)	19,640,747	1.32%	1.42%
AK Target Date 2035 Trust	28,527,631	430,711	380,186	(3,044)	29,335,484	2.83%	1.50%
AK Target Date 2040 Trust	30,213,766	477,706	399,011	1,540	31,092,023	2.91%	1.57%
AK Target Date 2045 Trust	46,683,254	750,860	314,633	(139,121)	47,609,626	1.98%	1.61%
AK Target Date 2050 Trust	65,045,822	1,049,395	330,939	58,747	66,484,903	2.21%	1.61%
AK Target Date 2055 Trust	31,326,680	512,385	657,787	(12,128)	32,484,724	3.70%	1.62%
AK Target Date 2060 Trust	237,687	3,823	2,026	-	243,536	2.46%	1.60%
Total Investments with T. Rowe Price	<u>318,097,726</u>	<u>4,756,591</u>	<u>2,413,004</u>	<u>(327,001)</u>	<u>324,940,320</u>		
State Street Global Advisors							
Money Market	2,893,926	4,902	(43,646)	(108,740)	2,746,442	-5.10%	0.17%
S&P 500 Stock Index Fund Series A	40,386,259	828,972	83,277	153,777	41,452,285	2.64%	2.05%
Russell 3000 Index	3,504,712	72,264	29,830	27,477	3,634,283	3.70%	2.05%
US Real Estate Investment Trust Index	6,212,207	301,142	2,150	61,002	6,576,501	5.86%	4.82%
World Equity Ex-US Index	21,073,971	201,147	35,168	212,473	21,522,759	2.13%	0.95%
US Treasury Inflation Protected Securities Index	6,938,854	32,255	(32,342)	(15,120)	6,923,647	-0.22%	0.47%
Total Investments with SSgA	<u>81,009,929</u>	<u>1,440,682</u>	<u>74,437</u>	<u>330,869</u>	<u>82,855,917</u>		
BlackRock							
Passive U.S. Bond Index Fund	15,809,406	93,592	(9,058)	(97,769)	15,796,171	-0.08%	0.59%
Brandes/Baillie Gifford							
AK International Equity Fund	18,707,496	(40,348)	51,438.00	63,101	18,781,687	0.40%	-0.22%
Northern Trust							
Environmental, Social, and Governance Fund	3,858,489	144,862	13,319.00	30,800	4,047,470	4.90%	3.73%
<b>Total All Funds</b>	<u>\$ 437,483,046</u>	<u>\$ 6,395,379</u>	<u>\$ 2,543,140</u>	<u>\$ -</u>	<u>\$ 446,421,565</u>	2.04%	1.46%

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**  
**November 30, 2018**  
**\$ (Thousands)**

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