# ALASKA RETIREMENT MANAGEMENT BOARD FINANCIAL REPORT 

As of October 31, 2019

# ALASKA RETIREMENT MANAGEMENT BOARD <br> Schedule of Investment Income and Changes in Invested Assets by Fund 

Fiscal Year-to-Date through October 31, 2019

|  | Beginning Invested Assets |  | Investment Income ${ }^{(1)}$ |  | Net Contributions (Withdrawals) |  | Ending Invested Assets | \% Change in Invested Assets | \% Change due to Investment Income ${ }^{(2)}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Public Employees' Retirement System (PERS) |  |  |  |  |  |  |  |  |  |
| Defined Benefit Plans: |  |  |  |  |  |  |  |  |  |
| Retirement Trust | \$ | 9,465,719,458 | \$ | 222,814,515 | \$ | $(26,112,909)$ \$ | 9,662,421,064 | 2.08\% | 2.36\% |
| Retirement Health Care Trust |  | 7,807,287,545 |  | 181,229,554 |  | (101,932,290) | 7,886,584,809 | 1.02\% | 2.34\% |
| Total Defined Benefit Plans |  | 17,273,007,003 |  | 404,044,069 |  | $(128,045,199)$ | 17,549,005,873 | 1.60\% | 2.35\% |
| Defined Contribution Plans: |  |  |  |  |  |  |  |  |  |
| Participant Directed Retirement |  | 1,218,753,974 |  | 32,280,663 |  | 32,367,197 | 1,283,401,834 | 5.30\% | 2.61\% |
| Health Reimbursement Arrangement |  | 419,023,779 |  | 9,949,035 |  | 13,433,567 | 442,406,381 | 5.58\% | 2.34\% |
| Retiree Medical Plan |  | 117,399,406 |  | 2,806,232 |  | 5,308,137 | 125,513,775 | 6.91\% | 2.34\% |
| Defined Benefit Occupational Death and Disability: |  |  |  |  |  |  |  |  |  |
| Public Employees |  | 24,859,446 |  | 592,210 |  | 923,241 | 26,374,897 | 6.10\% | 2.34\% |
| Police and Firefighters |  | 11,367,334 |  | 269,927 |  | 325,745 | 11,963,006 | 5.24\% | 2.34\% |
| Total Defined Contribution Plans |  | 1,791,403,939 |  | 45,898,067 |  | 52,357,887 | 1,889,659,893 | 5.48\% | 2.53\% |
| Total PERS |  | 19,064,410,942 |  | 449,942,136 |  | (75,687,312) | 19,438,665,766 | 1.96\% | 2.36\% |
| Teachers' Retirement System (TRS) |  |  |  |  |  |  |  |  |  |
| Defined Benefit Plans: |  |  |  |  |  |  |  |  |  |
| Retirement Trust |  | 5,505,314,103 |  | 130,162,987 |  | (7,492,354) | 5,627,984,736 | 2.23\% | 2.37\% |
| Retirement Health Care Trust |  | 2,940,744,859 |  | 68,270,813 |  | $(38,594,137)$ | 2,970,421,535 | 1.01\% | 2.34\% |
| Total Defined Benefit Plans |  | 8,446,058,962 |  | 198,433,800 |  | $(46,086,491)$ | 8,598,406,271 | 1.80\% | 2.36\% |
| Defined Contribution Plans: |  |  |  |  |  |  |  |  |  |
| Participant Directed Retirement |  | 516,072,656 |  | 13,402,430 |  | 6,139,126 | 535,614,212 | 3.79\% | 2.58\% |
| Health Reimbursement Arrangement |  | 124,841,136 |  | 2,958,611 |  | 3,023,006 | 130,822,753 | 4.79\% | 2.34\% |
| Retiree Medical Plan |  | 41,730,124 |  | 986,129 |  | 922,804 | 43,639,057 | 4.57\% | 2.34\% |
| Defined Benefit Occupational Death and Disability |  | 4,293,954 |  | 101,259 |  | 70,428 | 4,465,641 | 4.00\% | 2.34\% |
| Total Defined Contribution Plans |  | 686,937,870 |  | 17,448,429 |  | 10,155,364 | 714,541,663 | 4.02\% | 2.52\% |
| Total TRS |  | 9,132,996,832 |  | 215,882,229 |  | $(35,931,127)$ | 9,312,947,934 | 1.97\% | 2.37\% |
| Judicial Retirement System (JRS) |  |  |  |  |  |  |  |  |  |
| Defined Benefit Plan Retirement Trust |  | 183,941,036 |  | 4,386,397 |  | 2,903,919 | 191,231,352 | 3.96\% | 2.37\% |
| Defined Benefit Retirement Health Care Trust |  | 33,156,612 |  | 772,526 |  | $(213,615)$ | 33,715,523 | 1.69\% | 2.34\% |
| Total JRS |  | 217,097,648 |  | 5,158,923 |  | 2,690,304 | 224,946,875 | 3.62\% | 2.36\% |
| National Guard/Naval Militia Retirement System (MRS) |  |  |  |  |  |  |  |  |  |
| Defined Benefit Plan Retirement Trust |  | 40,994,203 |  | 993,502 |  | 220,379 | 42,208,084 | 2.96\% | 2.42\% |
| Other Participant Directed Plans |  |  |  |  |  |  |  |  |  |
| Supplemental Annuity Plan |  | 4,111,631,106 |  | 97,995,286 |  | $(28,079,084)$ | 4,181,547,308 | 1.70\% | 2.39\% |
| Deferred Compensation Plan |  | 983,593,517 |  | 24,714,500 |  | (7,524,547) | 1,000,783,470 | 1.75\% | 2.52\% |
| Total All Funds |  | 33,550,724,248 |  | 794,686,576 |  | $(144,311,387)$ | 34,201,099,437 |  |  |
| Total Non-Participant Directed |  | 26,720,672,995 |  | 626,293,697 |  | (147,214,079) | 27,199,752,613 | 1.79\% | 2.35\% |
| Total Participant Directed |  | 6,830,051,253 |  | 168,392,879 |  | 2,902,692 | 7,001,346,824 | 2.51\% | 2.46\% |
| Total All Funds | \$ | 33,550,724,248 | \$ | 794,686,576 | \$ | $(144,311,387)$ \$ | 34,201,099,437 | 1.94\% | 2.37\% |

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/iinvestmentresults.aspx

## ALASKA RETIREMENT MANAGEMENT BOARD

Schedule of Investment Income and Changes in Invested Assets by Fund
For the Month Ended October 31, 2019

Public Employees' Retirement System (PERS)
Defined Benefit Plans:
Retirement Trust
Retirement Health Care Trust
Total Defined Benefit Plans
Defined Contribution Plans:
Participant Directed Retirement
Health Reimbursement Arrangement
Retiree Medical Plan
Defined Benefit Occupational Death and Disability:
Public Employees
Police and Firefighters
Total Defined Contribution Plans

## Total PERS

Teachers' Retirement System (TRS)
Defined Benefit Plans:
Retirement Trust
Retirement Health Care Trust
Total Defined Benefit Plans
Defined Contribution Plans:
Participant Directed Retirement
Health Reimbursement Arrangement
Retiree Medical Plan
Defined Benefit Occupational Death and Disability
Total Defined Contribution Plans

## Total TRS

Judicial Retirement System (JRS)
Defined Benefit Plan Retirement Trust
Defined Benefit Retirement Health Care Trust

## Total JRS

National Guard/Naval Militia Retirement System (MRS
Defined Benefit Plan Retirement Trus
Other Participant Directed Plans
Supplemental Annuity Plan
Deferred Compensation Plan

## Total All Funds

Total Non-Participant Directed
Total Participant Directed
Total All Funds

| Beginning InvestedAssets |  | Investment Income <br> (1) |  | Net Contributions (Withdrawals) |  | Ending Invested Assets | \% Change in Invested Assets | \% Change due to Investment Income ${ }^{(2)}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 9,593,914,186 | \$ | 114,680,757 | \$ | $(46,173,879)$ \$ | 9,662,421,064 | 0.71\% | 1.20\% |
|  | 7,827,626,633 |  | 94,459,154 |  | $(35,500,978)$ | 7,886,584,809 | 0.75\% | 1.21\% |
|  | 17,421,540,819 |  | 209,139,911 |  | $(81,674,857)$ | 17,549,005,873 | 0.73\% | 1.20\% |
|  | 1,249,666,351 |  | 24,419,670 |  | 9,315,813 | 1,283,401,834 | 2.70\% | 1.95\% |
|  | 433,273,191 |  | 5,229,431 |  | 3,903,759 | 442,406,381 | 2.11\% | 1.20\% |
|  | 122,523,140 |  | 1,477,241 |  | 1,513,394 | 125,513,775 | 2.44\% | 1.20\% |
|  | 25,811,850 |  | 311,450 |  | 251,597 | 26,374,897 | 2.18\% | 1.20\% |
|  | 11,749,027 |  | 141,735 |  | 72,244 | 11,963,006 | 1.82\% | 1.20\% |
|  | 1,843,023,559 |  | 31,579,527 |  | 15,056,807 | 1,889,659,893 | 2.53\% | 1.71\% |
|  | 19,264,564,378 |  | 240,719,438 |  | $(66,618,050)$ | 19,438,665,766 | 0.90\% | 1.25\% |
|  | 5,596,973,228 |  | 66,629,792 |  | $(35,618,284)$ | 5,627,984,736 | 0.55\% | 1.19\% |
|  | 2,947,825,589 |  | 35,580,416 |  | $(12,984,470)$ | 2,970,421,535 | 0.77\% | 1.21\% |
|  | 8,544,798,817 |  | 102,210,208 |  | (48,602,754) | 8,598,406,271 | 0.63\% | 1.20\% |
|  | 521,964,999 |  | 10,364,251 |  | 3,284,962 | 535,614,212 | 2.61\% | 1.98\% |
|  | 128,218,155 |  | 1,551,698 |  | 1,052,900 | 130,822,753 | 2.03\% | 1.21\% |
|  | 42,735,573 |  | 517,602 |  | 385,882 | 43,639,057 | 2.11\% | 1.21\% |
|  | 4,386,344 |  | 53,087 |  | 26,210 | 4,465,641 | 1.81\% | 1.21\% |
|  | 697,305,071 |  | 12,486,638 |  | 4,749,954 | 714,541,663 | 2.47\% | 1.78\% |
|  | 9,242,103,888 |  | 114,696,846 |  | $(43,852,800)$ | 9,312,947,934 | 0.77\% | 1.24\% |
|  | 189,914,819 |  | 2,250,493 |  | $(933,960)$ | 191,231,352 | 0.69\% | 1.19\% |
|  | 33,428,852 |  | 403,059 |  | $(116,388)$ | 33,715,523 | 0.86\% | 1.21\% |
|  | 223,343,671 |  | 2,653,552 |  | $(1,050,348)$ | 224,946,875 | 0.72\% | 1.19\% |
|  | 41,842,002 |  | 553,225 |  | $(187,143)$ | 42,208,084 | 0.87\% | 1.33\% |
|  | 4,128,232,244 |  | 59,168,286 |  | (5,853,222) | 4,181,547,308 | 1.29\% | 1.43\% |
|  | 988,200,934 |  | 14,636,494 |  | $(2,053,958)$ | 1,000,783,470 | 1.27\% | 1.48\% |
|  | 33,888,287,117 |  | 432,427,841 |  | (119,615,521) | 34,201,099,437 |  |  |
|  | 27,000,222,589 |  | 323,839,140 |  | $(124,309,116)$ | 27,199,752,613 | 0.74\% | 1.20\% |
|  | 6,888,064,528 |  | 108,588,701 |  | 4,693,595 | 7,001,346,824 | 1.64\% | 1.58\% |
| \$ | 33,888,287,117 | \$ | 432,427,841 | \$ | (119,615,521) \$ | 34,201,099,437 | 0.92\% | 1.28\% |

(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.aspy


5-year Annualized Returns as of Fiscal Year End


Income by Fiscal Year


Public Employees' Retirement Pension Trust Fund
Fiscal Year-to-Date through October 31, 2019


Total Assets History


Year-to-date Income by Month
$\_$Prior Year - Current Year


Actual Asset Allocation vs Target Allocation
-Actual P Policy


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## Public Employees' Retirement Health Care Trust Fund

Fiscal Year-to-Date through October 31, 2019


Total Assets History




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Teachers' Retirement Pension Trust Fund
Fiscal Year-to-Date through October 31, 2019




Teachers' Retirement Health Care Trust Fund
Fiscal Year-to-Date through October 31, 2019




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Judicial Retirement Pension Trust Fund


Total Assets History


Judicial Retirement Health Care Trust Fund
Fiscal Year-to-Date through October 31, 2019


Total Assets History



Actual Asset Allocation vs Target Allocation

- Actual P Policy


Military Retirement Trust Fund
Fiscal Year-to-Date through October 31, 2019


Total Assets History



Actual Asset Allocation vs Target Allocation -Actual $\bullet$ Policy


# 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, 2019

## Cash

Short-Term Fixed Income Pool
Securities Lending Income Pool

## Total Cash

## Fixed Income

Alternative Fixed Income
Crestline Investors, Inc.
Prisma Capital Partners
Crestline Specialty Fund
Crestline Specialty Lending Fund II
Total Alternative Fixed Income
Opportunistic Fixed Income
Fidelity Inst. Asset Mgmt. High Yield CMBS
Fidelity Institutional Asset Management
MacKay Shields, LLC
Mondrian Investment Partners
Total Opportunistic Fixed Income
US Aggregate Bond Index
Blackrock US Debt Index Non-Lending Fund
ARMB US Treasury Pool
ARMB US Treasury Fixed Income
ARMB Barclays Agg Bond Fund
ARMB Barclays Agg Bond Fund

## Total Fixed Income

## Domestic Equities

## Small Cap

Passively Managed
ARMB Futures Small Cap
ARMB S\&P 600
SSgA Russell 2000 Growth
SSgA Russell 2000 Value
Total Passive

| (6) | - | - | (6) | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 568,837,621 | 11,029,074 | 95,582 | 579,962,277 | 1.96\% | 1.94\% |
| 6,482 | - | - | 6,482 | - | - |
| 7,115 | (1) | - | 7,114 | -0.01\% | -0.01\% |
| 568,851,212 | 11,029,073 | 95,582 | 579,975,867 | 1.96\% | 1.94\% |

# 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, 2019

Actively Managed
DePrince, Race \& Zollo Inc.- Micro Cap
Lord Abbett \& Co.- Micro Cap
Transition Account
Total Active
Total Small Cap

## Large Cap

Passively Managed
ARMB Futures Large Cap
ARMB S\&P 900
ARMB Russell 1000 Value
ARMB Russell Top 200
Total Passive
Actively Managed
Allianz Global Investors
ARMB Equity Yield
ARMB Large Cap Multi-Factor
ARMB S\&P 500 Equal Weight
ARMB Scientific Beta
Lazard Freres
Portable Alpha
Transition Account
Total Active
Total Large Cap
Total Domestic Equity

## Global Equities Ex US

Small Cap
Mondrian Investment Partners
Schroder Investment Management

## Total Small Cap

| - | - | - | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 95,821 | (95) | $(95,582)$ | 144 | -99.85\% | -0.20\% |
| 186,216 | $(2,771)$ | - | 183,445 | -1.49\% | -1.49\% |
| 282,037 | $(2,866)$ | $(95,582)$ | 183,589 | -34.91\% | -1.22\% |
| 569,133,249 | 11,026,207 | - | 580,159,456 | 1.94\% | 1.94\% |


| 10 | - | - | 10 | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4,706,668,190 | 93,245,758 | $(161,193,391)$ | 4,638,720,557 | -1.44\% | 2.02\% |
| 4 | 745 | - | 749 | 18625.00\% | 18625.00\% |
| 102 | - | - | 102 | - | - |
| 4,706,668,306 | 93,246,503 | (161,193,391) | 4,638,721,418 | -1.44\% | 2.02\% |
| - | 191 | - | 191 | 100.00\% | 100.00\% |
| 5,318 | (260) | - | 5,058 | -4.89\% | -4.89\% |
| 106,015,148 | 2,526,869 | - | 108,542,017 | 2.38\% | 2.38\% |
| $(4,881)$ | - | - | $(4,881)$ | - | - |
| 1,927,862,166 | 4,918,302 | (90,817,784) | 1,841,962,684 | -4.46\% | 0.26\% |
| $(2,983)$ | 225 | - | $(2,758)$ | 7.54\% | 7.54\% |
| $(143,326)$ | $(6,435)$ | - | $(149,761)$ | -4.49\% | -4.49\% |
| 23 | $(7,033,683)$ | 7,136,847 | 103,187 | 448539.13\% | -197.11\% |
| 2,033,731,465 | 405,209 | $(83,680,937)$ | 1,950,455,737 | -4.09\% | 0.02\% |
| 6,740,399,771 | 93,651,712 | (244,874,328) | 6,589,177,155 | -2.24\% | 1.42\% |
| 7,309,533,020 | 104,677,919 | (244,874,328) | 7,169,336,611 | -1.92\% | 1.46\% |
| 136,500,873 | 4,115,698 | 281,318 | 140,897,889 | 3.22\% | 3.01\% |
| 132,142,212 | 6,286,133 | - | 138,428,345 | 4.76\% | 4.76\% |
| 268,643,085 | 10,401,831 | 281,318 | 279,326,234 | 3.98\% | 3.87\% |

# 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, 2019

Large Cap
Allianz Global Investors
Arrow Street Capital
Baillie Gifford Overseas Limited
Blackrock ACWI Ex-US IMI
Brandes Investment Partners
Cap Guardian Trust Co
Lazard Freres
Legal \& General
McKinley Capital Management
SSgA MSCI World Ex-US IMI Index Fund State Street Global Advisors

## Total Large Cap

Emerging Markets Equity
MSCI Emerging Markets Index Fund
DePrince, Race, and Zollo Emerging Markets
Lazard Asset Management
Total Emerging Markets

## Total Global Equities

## Opportunistic

## Alternative Equity Strategy

Alternative Equity Strategies Transition Account Analytic Buy Write Account
ARMB STOXX Minimum Variance
McKinley Global Health Care
Total Alternative Equity Strategy

## Alternative Beta

JPM Systemic Alpha
Man Group Alternative Risk Premia
Zebra Global Equity Advantage Fund
Zebra Global Equity Fund

## Total Alternative Beta

## Other Opportunities

Project Pearl
Schroders Insurance Linked Securities

## Total Other Opportunities

| 128,720 | 2,595 | - | 131,315 | 2.02\% | 2.02\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 385,553,686 | 13,807,131 | 442,794 | 399,803,611 | 3.70\% | 3.58\% |
| 332,719,664 | 16,044,939 | - | 348,764,603 | 4.82\% | 4.82\% |
| 329,586,340 | 11,742,188 | - | 341,328,528 | 3.56\% | 3.56\% |
| 735,838,494 | 19,318,081 | 623,252 | 755,779,827 | 2.71\% | 2.62\% |
| 395,822,418 | 14,196,859 | - | 410,019,277 | 3.59\% | 3.59\% |
| 333,676,147 | 8,295,606 | - | 341,971,753 | 2.49\% | 2.49\% |
| 198,779,006 | 6,877,133 | 8,707 | 205,664,846 | 3.46\% | 3.46\% |
| 285,297,759 | 6,259,486 | 397,784 | 291,955,029 | 2.33\% | 2.19\% |
| 995,508,291 | 33,336,498 | - | 1,028,844,789 | 3.35\% | 3.35\% |
| 2,277,456 | 41,156 | - | 2,318,612 | 1.81\% | 1.81\% |
| 3,995,187,981 | 129,921,672 | 1,472,537 | 4,126,582,190 | 3.29\% | 3.25\% |
| 311,490,430 | 13,069,348 | - | 324,559,778 | 4.20\% | 4.20\% |
| 278,808,530 | 14,204,988 | - | 293,013,518 | 5.09\% | 5.09\% |
| 169,738,757 | $(735,339)$ | $(118,000,000)$ | 51,003,418 | -69.95\% | -0.66\% |
| 760,037,717 | 26,538,997 | $(118,000,000)$ | 668,576,714 | -12.03\% | 3.79\% |
| 5,023,868,783 | 166,862,500 | $(116,246,145)$ | 5,074,485,138 | 1.01\% | 3.36\% |


| $(34,204)$ | (2) | - | $(34,206)$ | -0.01\% | -0.01\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $(10,377)$ | - | - | $(10,377)$ | - | - |
| 244,457,122 | 4,265,482 | 306,533 | 249,029,137 | 1.87\% | 1.74\% |
| 244,412,541 | 4,265,480 | 306,533 | 248,984,554 | 1.87\% | 1.74\% |
| 172,319,796 | 3,910,803 | - | 176,230,599 | 2.27\% | 2.27\% |
| 336,808,385 | 2,862,087 | - | 339,670,472 | 0.85\% | 0.85\% |
| 1,990,959 | - | - | 1,990,959 | - | - |
| 3,903,353 | - | - | 3,903,353 | - | - |
| 515,022,493 | 6,772,890 | - | 521,795,383 | 1.32\% | 1.32\% |
| 10,006,309 | - | - | 10,006,309 | - | - |
| 85,412,127 | 1,269,627 | - | 86,681,754 | 1.49\% | 1.49\% |
| 95,418,436 | 1,269,627 | - | 96,688,063 | 1.33\% | 1.33\% |

# 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, 2019

Tactical Allocation Strategies
Fidelity Signals
PineBridge
Total Tactical Allocation Strategies

## Total Opportunistic

Private Equity
Abbott Capital
Advent International GPE Fund VIII-B
Advent International GPE Fund IX
Angelo, Gordon \& Co.
Dyal Capital Partners III
Dyal Capital Partners IV
Glendon Opportunities
Glendon Opportunities II
KKR Lending Partners II
Lexington Capital Partners VIII
Lexington Partners VII
Merit Capital Partners
NB SOF III
NB SOF IV
New Mountain Partners IV
New Mountain Partners V
NGP XI
NGP XII
Onex Partnership III
Pathway Capital Management LLC
Resolute Fund III
Resolute Fund IV
Summit Partners GE IX
Warburg Pincus Global Growth Fund
Warburg Pincus X
Warburg Pincus XI
Warburg Pincus XII
Total Private Equity

## Real Assets

## Farmland

Hancock Agricultural Investment Group
UBS Agrivest, LLC
Total Farmland

| $411,346,554$ |
| ---: |
| $403,304,188$ |
| $814,650,742$ |
| $1,669,504,212$ |


| $7,863,619$ |
| ---: |
| $9,229,915$ |
| $17,093,534$ |
| $29,401,531$ |


| - |  |
| :---: | :---: |
| - |  |
| $\frac{-}{406,533}$ | $419,210,173$ <br> $412,534,103$ |


| $1.91 \%$ | $1.91 \%$ |
| :---: | :---: |
| $2.29 \%$ | $2.29 \%$ |
| $2.10 \%$ | $2.10 \%$ |
| $1.78 \%$ | $1.76 \%$ |
|  |  |
| $-0.74 \%$ | $-0.41 \%$ |
| $1.98 \%$ | - |
| - | - |
| - | - |
| $-0.90 \%$ | - |
| $-0.33 \%$ | - |
| - | - |
| - | - |
| $0.46 \%$ | $0.46 \%$ |
| $-3.61 \%$ | - |
| $-1.85 \%$ | - |
| $-0.17 \%$ | - |
| - | - |
| - | - |
| - | - |
| $8.94 \%$ | - |
| $1.10 \%$ | - |
| $29.30 \%$ | - |
| $-1.58 \%$ | - |
| $-0.68 \%$ | $-0.68 \%$ |
| $-13.44 \%$ | - |
| $-0.05 \%$ | - |
| $0.49 \%$ | - |
| $94.35 \%$ | - |
| - | - |
| - | - |
| - | - |
| $-0.20 \%$ | $-0.45 \%$ |
|  |  |


| 269,766,808 | - | $(7,003,835)$ | 262,762,973 | -2.60\% |
| :---: | :---: | :---: | :---: | :---: |
| 589,832,164 | - | - | 589,832,164 | - |
| 859,598,972 | - | (7,003,835) | 852,595,137 | -0.81\% |

# 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, 2019

## Timber

Hancock Natural Resource Group
Timberland Invt Resource LLC Total Timber

## Energy

EIG Energy Fund XIV-A
EIG Energy Fund XV
EIG Energy Fund XV

## Total Energy

## REIT

REIT Transition Account
ARMB REIT
Total REIT

## Master Limited Partnerships

Advisory Research MLP

## Total Master Limited Partnerships

## Infrastructure Private

IFM Global Infrastructure Fund-Private
JP Morgan Infrastructure Fund-Private Total Infrastructure Private

## Infrastructure Public

Brookfield Investment Mgmt.-Public
Lazard Asset Mgmt.-Public
Total Infrastructure Public

## Real Estate

Core Commingled Accounts BlackRock US Core Property Fund JP Morgan
UBS Trumbull Property Fund Total Core Commingled
Core Separate Accounts
LaSalle Investment Management
Sentinel Separate Account
UBS Realty
Total Core Separate

| 99,890,025 | - | - | 99,890,025 | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 270,489,323 | - | $(1,200,000)$ | 269,289,323 | -0.44\% | - |
| 370,379,348 | - | (1,200,000) | 369,179,348 | -0.32\% | - |
| 10,056,608 | $(759,145)$ | - | 9,297,463 | -7.55\% | -7.55\% |
| 19,873,439 | $(1,700,356)$ | $(541,177)$ | 17,631,906 | -11.28\% | -8.67\% |
| 54,397,609 | 1,512,674 | $(925,134)$ | 54,985,149 | 1.08\% | 2.80\% |
| 84,327,656 | $(946,827)$ | (1,466,311) | 81,914,518 | -2.86\% | -1.13\% |
| 302 | - | - | 302 | - | - |
| 100,729,851 | 4,645,945 | 244,935,569 | 350,311,365 | 247.77\% | 2.08\% |
| 100,730,153 | 4,645,945 | 244,935,569 | 350,311,667 | 247.77\% | 2.08\% |
| 36 | (36) | - | - | -100.00\% | -100.00\% |
| 36 | (36) | - | - | -100.00\% | -100.00\% |
| 478,219,962 | 13,050,284 | 39,591,959 | 530,862,205 | 11.01\% | 2.62\% |
| 123,137,328 | - | - | 123,137,328 | - | - |
| 601,357,290 | 13,050,284 | 39,591,959 | 653,999,533 | 8.75\% | 2.10\% |
| 11,387 | 578 | - | 11,965 | 5.08\% | 5.08\% |
| 60,860 | 1,683 | - | 62,543 | 2.77\% | 2.77\% |
| 72,247 | 2,261 | - | 74,508 | 3.13\% | 3.13\% |
| 216,262,342 | 2,231,346 | - | 218,493,688 | 1.03\% | 1.03\% |
| 259,780,791 | 185,604 | $(1,689,805)$ | 258,276,590 | -0.58\% | 0.07\% |
| 58,450,042 | 406,288 | $(4,984,297)$ | 53,872,033 | -7.83\% | 0.73\% |
| 534,493,175 | 2,823,238 | (6,674,102) | 530,642,311 | -0.72\% | 0.53\% |
| 121,780,312 | - | $(57,349,607)$ | 64,430,705 | -47.09\% | - |
| 172,203,227 | - | $(687,593)$ | 171,515,634 | -0.40\% | - |
| 530,711,051 | - | $(789,365)$ | 529,921,686 | -0.15\% | - |
| 824,694,590 | - | (58,826,565) | 765,868,025 | -7.13\% | - |

# 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, 2019

Non-Core Commingled Accounts
Almanac Realty Securities V
Almanac Realty Securities VII
Almanac Realty Securities VIII
Clarion Ventures 4
Colony Investors VIII, L.P.
Coventry
ING Clarion Development Ventures III
KKR Real Estate Partners Americas II
KKR Real Estate Partners Americas L.P.
Silverpeak Legacy Pension Partners II, L.P.
Silverpeak Legacy Pension Partners III, L.P.
Tishman Speyer Real Estate Venture VI
Tishman Speyer Real Estate Venture VII
Total Non-Core Commingled

## Total Real Estate

Total Real Assets
Total Assets

| 490,210 |  | - |  | - |  | 490,210 | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21,681,651 |  | - |  | - |  | 21,681,651 | - | - |
| 2,328,840 |  | - |  | 250,820 |  | 2,579,660 | 10.77\% | - |
| 32,178,142 |  | - |  | - |  | 32,178,142 | - | - |
| 1,373,562 |  | - |  | - |  | 1,373,562 | - | - |
| 241,737 |  | $(7,787)$ |  | - |  | 233,950 | -3.22\% | -3.22\% |
| 2,627,104 |  | - |  | - |  | 2,627,104 | - | - |
| 11,214,981 |  | 1,042,108 |  | - |  | 12,257,089 | 9.29\% | 9.29\% |
| 15,137,681 |  | 37,402 |  | - |  | 15,175,083 | 0.25\% | 0.25\% |
| 2,864,884 |  | - |  | $(852,506)$ |  | 2,012,378 | -29.76\% | - |
| 3,903,889 |  | - |  | - |  | 3,903,889 | - | - |
| 2,010,266 |  | - |  | - |  | 2,010,266 | - | - |
| 572,926 |  | - |  | - |  | 572,926 | - | - |
| 96,625,873 |  | 1,071,723 |  | $(601,686)$ |  | 97,095,910 | 0.49\% | 1.11\% |
| 1,455,813,638 |  | 3,894,961 |  | $(66,102,353)$ |  | 1,393,606,246 | -4.27\% | 0.27\% |
| 3,472,279,340 |  | 20,646,588 |  | 208,755,029 |  | 3,701,680,957 | 6.61\% | 0.58\% |
| \$ 27,000,222,589 | \$ | 323,839,140 | \$ | (124,309,116) | \$ | 27,199,752,613 | 0.74\% | 1.20\% |

# 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, 2019

## Participant Options

T. Rowe Price

Stable Value Fund
Small Cap Stock Fund
Alaska Balanced Trust
Long Term Balanced Fund AK Target Date 2010 Trust AK Target Date 2015 Trust AK Target Date 2020 Trust AK Target Date 2025 Trust AK Target Date 2030 Trust AK Target Date 2035 Trust AK Target Date 2040 Trust AK Target Date 2045 Trust AK Target Date 2050 Trust AK Target Date 2055 Trus
AK Target Date 2060 Trus
Total Investments with T. Rowe Price
State Street Global Advisors Money Market
S\&P 500 Stock Index Fund Series A
Russell 3000 Index
World Equity Ex-US Index
Total Investments with SSgA
BlackRock
Passive U.S. Bond Index Fund Strategic Completion Fund

Total Investments with BlackRock
Brandes/Baillie Gifford (2)
AK International Equity Fund
Northern Trust
Environmental, Social, and Governance Fund
Total All Funds

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 <br> Schedule of Invested Assets with 

Schedule of Investment Income and Changes in Invested Assets
By Month Through the Month Ended

## October 31, 2019

## \$ (Thousands)

| Invested Assets (at fair value) | July |  | August |  | September |  | October |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investments with T. Rowe Price |  |  |  |  |  |  |  |  |
| Stable Value Fund | \$ | 390,930 | \$ | 399,454 | \$ | 412,664 | \$ | 420,316 |
| Small Cap Stock Fund |  | 200,646 |  | 196,187 |  | 200,339 |  | 206,502 |
| Alaska Balanced Trust |  | 1,136,113 |  | 1,129,963 |  | 1,121,844 |  | 1,121,617 |
| Long Term Balanced Fund |  | 684,783 |  | 675,729 |  | 679,423 |  | 687,126 |
| AK Target Date 2010 Trust |  | 10,189 |  | 9,988 |  | 10,032 |  | 9,996 |
| AK Target Date 2015 Trust |  | 83,190 |  | 81,950 |  | 81,406 |  | 81,818 |
| AK Target Date 2020 Trust |  | 97,905 |  | 95,383 |  | 95,622 |  | 95,881 |
| AK Target Date 2025 Trust |  | 84,647 |  | 84,454 |  | 86,846 |  | 88,608 |
| AK Target Date 2030 Trust |  | 66,366 |  | 66,147 |  | 67,775 |  | 68,959 |
| AK Target Date 2035 Trust |  | 61,813 |  | 60,851 |  | 62,152 |  | 64,106 |
| AK Target Date 2040 Trust |  | 62,429 |  | 62,054 |  | 63,078 |  | 65,003 |
| AK Target Date 2045 Trust |  | 70,965 |  | 70,008 |  | 71,559 |  | 73,397 |
| AK Target Date 2050 Trust |  | 80,073 |  | 79,250 |  | 80,851 |  | 83,135 |
| AK Target Date 2055 Trust |  | 72,253 |  | 72,118 |  | 74,105 |  | 76,947 |
| AK Target Date 2060 Trust |  | 4,171 |  | 4,189 |  | 4,182 |  | 3,977 |
| State Street Global Advisors |  |  |  |  |  |  |  |  |
| Money Market |  | 48,583 |  | 51,584 |  | 51,228 |  | 52,402 |
| S\&P 500 Stock Index Fund Series A |  | 485,856 |  | 458,600 |  | 437,251 |  | 423,128 |
| Russell 3000 Index |  | 77,118 |  | 90,072 |  | 112,374 |  | 134,994 |
| US Real Estate Investment Trust Index |  | 39,340 |  | - |  | - |  | - |
| World Equity Ex-US Index |  | 70,168 |  | 70,243 |  | 74,123 |  | 79,423 |
| US Treasury Inflation Protected Securities Index |  | 48,876 |  | - |  | - |  | - |
| Investments with BlackRock |  |  |  |  |  |  |  |  |
| Passive U.S. Bond Index Fund |  | 126,578 |  | 141,390 |  | 150,818 |  | 162,717 |
| Strategic Completion Fund |  | - |  | 78,755 |  | 63,183 |  | 49,098 |
| Investments with Brandes/Baillie Gifford |  |  |  |  |  |  |  |  |
| AK International Equity Fund |  | 62,924 |  | 58,085 |  | 55,885 |  | 54,044 |
| Investments with Northern Trust |  |  |  |  |  |  |  |  |
| Environmental, Social, and Governance Fund |  | 60,303 |  | 63,627 |  | 71,495 |  | 78,355 |
| Total Invested Assets | \$ | 4,126,219 | \$ | 4,100,080 | \$ | 4,128,232 | \$ | 4,181,547 |
| Change in Invested Assets |  |  |  |  |  |  |  |  |
| Beginning Assets | \$ | 4,111,631 | \$ | 4,126,219 | \$ | 4,100,080 | \$ | 4,128,232 |
| Investment Earnings |  | 20,000 |  | $(21,625)$ |  | 40,452 |  | 59,168 |
| Net Contributions (Withdrawals) |  | $(5,413)$ |  | $(4,514)$ |  | $(12,300)$ |  | $(5,853)$ |
| Ending Invested Assets | \$ | 4,126,219 | \$ | 4,100,080 | \$ | 4,128,232 | \$ | 4,181,547 |
|  |  |  |  |  |  |  |  |  |

## Deferred Compensation Plan

Schedule of Invested Assets and Changes in Invested Assets
for the Month Ended
October 31, 2019

|  | Beginning Invested Assets |  | Investment Income |  | Net Contributions (Withdrawals) |  | Transfers In (Out) |  | Ending InvestedAssets |  | \% Change in <br> Invested <br> Assets | \% Change due to Investment Income (1) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Participant Options |  |  |  |  |  |  |  |  |  |  |  |  |
| T. Rowe Price |  |  |  |  |  |  |  |  |  |  |  |  |
| Stable Value Fund | \$ | 188,291,845 | \$ | 401,141 | \$ | $(948,450)$ | \$ | 3,583,236 | \$ | 191,327,772 | 1.61\% | 0.21\% |
| Small Cap Stock Fund |  | 117,756,500 |  | 2,028,874 |  | $(45,927)$ |  | $(53,764)$ |  | 119,685,683 | 1.64\% | 1.72\% |
| Alaska Balanced Trust |  | 30,848,972 |  | 308,939 |  | $(284,140)$ |  | $(1,355,615)$ |  | 29,518,156 | -4.31\% | 1.03\% |
| Long Term Balanced Fund |  | 85,056,306 |  | 1,355,604 |  | $(88,610)$ |  | $(267,779)$ |  | 86,055,521 | 1.17\% | 1.60\% |
| AK Target Date 2010 Trust |  | 3,870,228 |  | 43,596 |  | $(119,570)$ |  | $(131,751)$ |  | 3,662,503 | -5.37\% | 1.16\% |
| AK Target Date 2015 Trust |  | 9,416,053 |  | 123,217 |  | $(185,349)$ |  | 50,475 |  | 9,404,396 | -0.12\% | 1.32\% |
| AK Target Date 2020 Trust |  | 24,738,464 |  | 370,340 |  | $(21,854)$ |  | $(146,000)$ |  | 24,940,950 | 0.82\% | 1.50\% |
| AK Target Date 2025 Trust |  | 21,087,197 |  | 366,065 |  | 133,457 |  | $(94,667)$ |  | 21,492,052 | 1.92\% | 1.73\% |
| AK Target Date 2030 Trust |  | 13,205,534 |  | 249,598 |  | 119,175 |  | $(63,264)$ |  | 13,511,043 | 2.31\% | 1.89\% |
| AK Target Date 2035 Trust |  | 8,186,883 |  | 169,744 |  | 72,212 |  | 15,159 |  | 8,443,998 | 3.14\% | 2.06\% |
| AK Target Date 2040 Trust |  | 9,222,528 |  | 195,225 |  | 83,012 |  | $(350,607)$ |  | 9,150,158 | -0.78\% | 2.15\% |
| AK Target Date 2045 Trust |  | 6,652,114 |  | 150,755 |  | 88,786 |  | $(62,945)$ |  | 6,828,710 | 2.65\% | 2.26\% |
| AK Target Date 2050 Trust |  | 4,880,021 |  | 110,512 |  | 87,191 |  | $(77,635)$ |  | 5,000,089 | 2.46\% | 2.26\% |
| AK Target Date 2055 Trust |  | 4,411,589 |  | 99,218 |  | 75,393 |  | $(61,753)$ |  | 4,524,447 | 2.56\% | 2.25\% |
| AK Target Date 2060 Trust |  | 893,004 |  | 18,367 |  | 12,180 |  | $(67,657)$ |  | 855,894 | -4.16\% | 2.12\% |
| Total Investments with T. Rowe Price |  | 528,517,238 |  | 5,991,195 |  | $(1,022,494)$ |  | 915,433 |  | 534,401,372 |  |  |
| State Street Global Advisors |  |  |  |  |  |  |  |  |  |  |  |  |
| Money Market |  | 16,283,377 |  | 25,162 |  | $(717,672)$ |  | 1,226,822 |  | 16,817,689 | 3.28\% | 0.15\% |
| Russell 3000 Index |  | 48,709,371 |  | 1,054,123 |  | $(21,654)$ |  | $(138,632)$ |  | 49,603,208 | 1.84\% | 2.17\% |
| World Equity Ex-US Index |  | 23,281,369 |  | 832,913 |  | 66,446 |  | 339,575 |  | 24,520,303 | 5.32\% | 3.55\% |
| Total Investments with SSgA |  | 88,274,117 |  | 1,912,198 |  | $(672,880)$ |  | 1,427,765 |  | 90,941,200 |  |  |
| BlackRock |  |  |  |  |  |  |  |  |  |  |  |  |
| S\&P 500 Index Fund |  | 215,992,780 |  | 4,628,678 |  | 9,896 |  | $(1,624,822)$ |  | 219,006,532 | 1.40\% | 2.15\% |
| Strategic Completion Fund |  | 26,005,315 |  | 348,604 |  | $(158,287)$ |  | $(4,469,792)$ |  | 21,725,840 | -16.46\% | 1.47\% |
| Passive U.S. Bond Index Fund |  | 70,657,767 |  | 210,842 |  | $(329,696)$ |  | 3,600,421 |  | 74,139,334 | 4.93\% | 0.29\% |
| Total Investments with BlackRock |  | 312,655,862 |  | 5,188,124 |  | $(478,087)$ |  | $(2,494,193)$ |  | 314,871,706 |  |  |
| Brandes/Baillie Gifford (2) |  |  |  |  |  |  |  |  |  |  |  |  |
| AK International Equity Fund |  | 31,753,096 |  | 1,024,205 |  | 106,140 |  | $(1,253,089)$ |  | 31,630,352 | -0.39\% | 3.28\% |
| Northern Trust |  |  |  |  |  |  |  |  |  |  |  |  |
| Environmental, Social, and Governance Fund |  | 27,000,621 |  | 520,772 |  | 13,363 |  | 1,404,084 |  | 28,938,840 | 7.18\% | 1.88\% |
| Total All Funds | \$ | 988,200,934 | \$ | 14,636,494 | \$ | (2,053,958) | \$ | - | \$ | 1,000,783,470 | 1.27\% | 1.48\% |

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 <br> Schedule of Invested Assets with <br> Schedule of Investment Income and Changes in Invested Assets <br> By Month Through the Month Ended <br> October 31, 2019 <br> \$ (Thousands) 

| Invested Assets (at fair value) | July |  | August |  | September |  | October |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investments with T. Rowe Price |  |  |  |  |  |  |  |  |
| Stable Value Fund | \$ | 183,474 | \$ | 185,942 | \$ | 188,292 | \$ | 191,328 |
| Small Cap Stock Fund |  | 120,406 |  | 116,510 |  | 117,756 |  | 119,686 |
| Alaska Balanced Trust |  | 31,506 |  | 31,031 |  | 30,849 |  | 29,518 |
| Long Term Balanced Fund |  | 86,198 |  | 84,760 |  | 85,056 |  | 86,056 |
| AK Target Date 2010 Trust |  | 3,977 |  | 3,838 |  | 3,870 |  | 3,663 |
| AK Target Date 2015 Trust |  | 9,411 |  | 9,349 |  | 9,416 |  | 9,404 |
| AK Target Date 2020 Trust |  | 24,801 |  | 24,501 |  | 24,738 |  | 24,941 |
| AK Target Date 2025 Trust |  | 20,841 |  | 20,599 |  | 21,087 |  | 21,492 |
| AK Target Date 2030 Trust |  | 13,580 |  | 12,866 |  | 13,206 |  | 13,511 |
| AK Target Date 2035 Trust |  | 7,893 |  | 8,032 |  | 8,187 |  | 8,444 |
| AK Target Date 2040 Trust |  | 8,985 |  | 9,000 |  | 9,223 |  | 9,150 |
| AK Target Date 2045 Trust |  | 6,557 |  | 6,496 |  | 6,652 |  | 6,829 |
| AK Target Date 2050 Trust |  | 4,762 |  | 4,726 |  | 4,880 |  | 5,000 |
| AK Target Date 2055 Trust |  | 4,539 |  | 4,487 |  | 4,412 |  | 4,524 |
| AK Target Date 2060 Trust |  | 892 |  | 845 |  | 893 |  | 856 |
| State Street Global Advisors |  |  |  |  |  |  |  |  |
| Money Market |  | 15,439 |  | 16,190 |  | 16,283 |  | 16,818 |
| Russell 3000 Index |  | 49,810 |  | 48,284 |  | 48,709 |  | 49,603 |
| US Real Estate Investment Trust Index |  | 14,386 |  | - |  | - |  | - |
| World Equity Ex-US Index |  | 21,943 |  | 22,073 |  | 23,281 |  | 24,520 |
| US Treasury Inflation Protected Securities Index |  | 19,161 |  | - |  | - |  | - |
| Investments with BlackRock |  |  |  |  |  |  |  |  |
| S\&P 500 Index Fund |  | 221,137 |  | 215,581 |  | 215,993 |  | 219,007 |
| Strategic Completion Fund |  |  |  | 30,241 |  | 26,005 |  | 21,726 |
| Passive U.S. Bond Index Fund |  | 62,456 |  | 67,832 |  | 70,658 |  | 74,139 |
| Investments with Brandes/Baillie Gifford |  |  |  |  |  |  |  |  |
| AK International Equity Fund |  | 33,579 |  | 31,725 |  | 31,753 |  | 31,630 |
| Investments with Northern Trust |  |  |  |  |  |  |  |  |
| Environmental, Social, and Governance Fund |  | 24,052 |  | 24,595 |  | 27,001 |  | 28,939 |
| Total Invested Assets | \$ | 989,787 | \$ | 979,503 | \$ | 988,201 | \$ | 1,000,783 |
| Change in Invested Assets |  |  |  |  |  |  |  |  |
| Beginning Assets | \$ | 983,594 | \$ | 989,787 | \$ | 979,503 | \$ | 988,201 |
| Investment Earnings |  | 7,422 |  | $(7,979)$ |  | 10,636 |  | 14,636 |
| Net Contributions (Withdrawals) |  | $(1,228)$ |  | $(2,305)$ |  | $(1,937)$ |  | $(2,054)$ |
| Ending Invested Assets | \$ | 989,787 | \$ | 979,503 | \$ | 988,201 | \$ | 1,000,783 |


|  |  | Defined Contribution Retirement - Participant Directed PERS Schedule of Investment Income and Changes in Invested Assets for the Month Ended October 31, 2019 |  |  |  |  |  |  | Ending Invested Assets |  | \% Change in Invested Assets | \% Change due to Investment Income (1) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Beginning Invested Assets |  | Investment Income |  | Net Contributions (Withdrawals) |  | Transfers In (Out) |  |  |  |  |  |
| Participant Options |  |  |  |  |  |  |  |  |  |  |  |  |
| T. Rowe Price |  |  |  |  |  |  |  |  |  |  |  |  |
| Stable Value Fund | \$ | 60,033,956 | \$ | 132,282 | \$ | $(37,871)$ | \$ | 5,106,020 | \$ | 65,234,387 | 8.66\% | 0.21\% |
| Small Cap Stock Fund |  | 85,539,880 |  | 1,498,781 |  | 149,008 |  | 1,037,355 |  | 88,225,024 | 3.14\% | 1.74\% |
| Alaska Balanced Trust |  | 17,848,550 |  | 147,636 |  | 52,036 |  | $(4,571,134)$ |  | 13,477,088 | -24.49\% | 0.95\% |
| Long Term Balanced Fund |  | 16,022,130 |  | 258,577 |  | 38,744 |  | 248,599 |  | 16,568,050 | 3.41\% | 1.60\% |
| AK Target Date 2010 Trust |  | 2,421,679 |  | 28,141 |  | 12,248 |  |  |  | 2,462,068 | 1.67\% | 1.16\% |
| AK Target Date 2015 Trust |  | 12,347,070 |  | 159,566 |  | $(60,616)$ |  | $(54,152)$ |  | 12,391,868 | 0.36\% | 1.30\% |
| AK Target Date 2020 Trust |  | 36,333,444 |  | 551,335 |  | 118,396 |  | $(75,684)$ |  | 36,927,491 | 1.63\% | 1.52\% |
| AK Target Date 2025 Trust |  | 59,087,547 |  | 1,029,513 |  | 610,172 |  | $(110,869)$ |  | 60,616,363 | 2.59\% | 1.74\% |
| AK Target Date 2030 Trust |  | 62,609,662 |  | 1,198,712 |  | 567,552 |  | $(29,376)$ |  | 64,346,550 | 2.77\% | 1.91\% |
| AK Target Date 2035 Trust |  | 75,694,301 |  | 1,557,307 |  | 760,330 |  | $(278,068)$ |  | 77,733,870 | 2.69\% | 2.05\% |
| AK Target Date 2040 Trust |  | 89,344,857 |  | 1,955,061 |  | 1,108,032 |  | $(486,836)$ |  | 91,921,114 | 2.88\% | 2.18\% |
| AK Target Date 2045 Trust |  | 116,000,006 |  | 2,615,802 |  | 989,523 |  | $(756,251)$ |  | 118,849,080 | 2.46\% | 2.25\% |
| AK Target Date 2050 Trust |  | 137,373,979 |  | 3,127,999 |  | 1,454,515 |  | $(450,667)$ |  | 141,505,826 | 3.01\% | 2.27\% |
| AK Target Date 2055 Trust |  | 127,227,070 |  | 2,923,056 |  | 2,600,850 |  | $(358,004)$ |  | 132,392,972 | 4.06\% | 2.28\% |
| AK Target Date 2060 Trust |  | 1,502,448 |  | 34,414 |  | 27,643 |  | $(14,665)$ |  | 1,549,840 | 3.15\% | 2.28\% |
| Total Investments with T. Rowe Price |  | 899,386,579 |  | 17,218,182 |  | 8,390,562 |  | (793,732) |  | 924,201,591 |  |  |
| State Street Global Advisors |  |  |  |  |  |  |  |  |  |  |  |  |
| Money Market |  | 12,198,699 |  | 18,776 |  | 35,479 |  | 42,453 |  | 12,295,407 | 0.79\% | 0.15\% |
| S\&P 500 Stock Index Fund Series A |  | 69,993,752 |  | 1,020,732 |  | 405,102 |  | $(24,258,625)$ |  | 47,160,961 | -32.62\% | 1.76\% |
| Russell 3000 Index |  | 54,395,375 |  | 1,676,830 |  | 176,773 |  | 24,707,466 |  | 80,956,444 | 48.83\% | 2.51\% |
| World Equity Ex-US Index |  | 66,646,174 |  | 2,422,452 |  | 143,165 |  | 3,307,521 |  | 72,519,312 | 8.81\% | 3.54\% |
| Total Investments with SSgA |  | 203,234,000 |  | 5,138,790 |  | 760,519 |  | 3,798,815 |  | 212,932,124 |  |  |
| BlackRock |  |  |  |  |  |  |  |  |  |  |  |  |
| Passive U.S. Bond Index Fund |  | 65,047,007 |  | 207,875 |  | $(36,906)$ |  | 6,365,080 |  | 71,583,056 | 10.05\% | 0.30\% |
| Strategic Completion Fund |  | 19,184,218 |  | 196,883 |  | 66,447 |  | $(11,147,283)$ |  | 8,300,265 | -56.73\% | 1.44\% |
| Total Investments with BlackRock |  | 84,231,225 |  | 404,758 |  | 29,541 |  | $(4,782,203)$ |  | 79,883,321 |  |  |
| Brandes/Baillie Gifford (2) |  |  |  |  |  |  |  |  |  |  |  |  |
| AK International Equity Fund |  | 32,831,461 |  | 993,280 |  | 130,587 |  | (4,147,320) |  | 29,808,008 | -9.21\% | 3.22\% |
| Northern Trust |  |  |  |  |  |  |  |  |  |  |  |  |
| Environmental, Social, and Governance Fund |  | 29,983,086 |  | 664,660 |  | 4,604 |  | 5,924,440 |  | 36,576,790 | 21.99\% | 2.02\% |
| Total All Funds | \$ | 1,249,666,351 | \$ | 24,419,670 | \$ | 9,315,813 | \$ | - | \$ | 1,283,401,834 | 2.70\% | 1.95\% |

[^0](2) This investment is comprised of two funds, Brandes International Equity Fund and Baillie Gifford International Equity Fund.

# Defined Contribution Retirement - Participant Directed PERS <br> Schedule of Invested Assets with 

Schedule of Investment Income and Changes in Invested Assets

## By Month Through the Month Ended

October 31, 2019
\$ (Thousands)
Invested Assets (at fair value)
Investments with T. Rowe Price
Stable Value Fund
Small Cap Stock Fund
Alaska Balanced Trust
Long Term Balanced Fund
AK Target Date 2010 Trust
AK Target Date 2015 Trust
AK Target Date 2020 Trust
AK Target Date 2025 Trust
AK Target Date 2030 Trust
AK Target Date 2035 Trust
AK Target Date 2040 Trust
AK Target Date 2045 Trust
AK Target Date 2050 Trust
AK Target Date 2055 Trust
AK Target Date 2060 Trust

State Street Global Advisors
Money Market
S\&P 500 Stock Index Fund Series A
Russell 3000 Index
US Real Estate Investment Trust Index
World Equity Ex-US Index
US Treasury Inflation Protected Securities Index
nvestments with BlackRock
Passive U.S. Bond Index Fund
Strategic Completion Fund
nvestments with Brandes/Baillie Gifford
AK International Equity Fund
nvestments with Northern Trust
Environmental, Social, and Governance Fund
Total Invested Assets

## Change in Invested Assets

Beginning Assets
Investment Earnings
Net Contributions (Withdrawals)
Ending Invested Assets

| July |  | August |  | September |  | October |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 49,550 | \$ | 53,405 | \$ | 60,034 | \$ | 65,234 |
|  | 85,588 |  | 84,037 |  | 85,540 |  | 88,225 |
|  | 25,259 |  | 22,057 |  | 17,849 |  | 13,477 |
|  | 15,570 |  | 15,571 |  | 16,022 |  | 16,568 |
|  | 2,364 |  | 2,407 |  | 2,422 |  | 2,462 |
|  | 12,447 |  | 12,475 |  | 12,347 |  | 12,392 |
|  | 36,313 |  | 35,922 |  | 36,333 |  | 36,927 |
|  | 58,997 |  | 58,278 |  | 59,088 |  | 60,616 |
|  | 61,669 |  | 61,231 |  | 62,610 |  | 64,347 |
|  | 74,455 |  | 74,147 |  | 75,694 |  | 77,734 |
|  | 88,249 |  | 87,469 |  | 89,345 |  | 91,921 |
|  | 113,710 |  | 112,618 |  | 116,000 |  | 118,849 |
|  | 135,192 |  | 133,855 |  | 137,374 |  | 141,506 |
|  | 123,545 |  | 123,185 |  | 127,227 |  | 132,393 |
|  | 1,437 |  | 1,436 |  | 1,502 |  | 1,550 |
|  | 11,355 |  | 12,169 |  | 12,199 |  | 12,295 |
|  | 112,815 |  | 93,825 |  | 69,994 |  | 47,161 |
|  | 13,165 |  | 29,669 |  | 54,395 |  | 80,956 |
|  | 17,236 |  | - |  | - |  | - |
|  | 60,410 |  | 61,642 |  | 66,646 |  | 72,519 |
|  | 20,051 |  | - |  | - |  | - |
|  | 52,746 |  | 58,392 |  | 65,047 |  | 71,583 |
|  | - |  | 30,060 |  | 19,184 |  | 8,300 |
|  | 39,804 |  | 35,904 |  | 32,831 |  | 29,808 |
|  | 19,449 |  | 23,374 |  | 29,983 |  | 36,577 |
| \$ | 1,231,376 | \$ | 1,223,126 | \$ | 1,249,666 | \$ | 1,283,402 |
| \$ | 1,218,754 | \$ | 1,231,376 | \$ | 1,223,126 | \$ | 1,249,666 |
|  | 5,513 |  | $(15,573)$ |  | 17,922 |  | 24,420 |
|  | 7,110 |  | 7,323 |  | 8,618 |  | 9,316 |
| \$ | 1,231,376 | \$ | 1,223,126 | \$ | 1,249,666 | \$ | 1,283,402 |

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## Defined Contribution Retirement - Participant Directed TRS Schedule of Investment Income and Changes in Invested Assets <br> for the Month Ended <br> October 31, 2019

|  | Beginning Invested Assets |  | Investment Income |  | Net Contributions (Withdrawals) |  | Transfers In (Out) |  | Ending Invested Assets |  | \% Change in Invested Assets | \% Change due to Investment Income (1) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Participant Options |  |  |  |  |  |  |  |  |  |  |  |  |
| T. Rowe Price |  |  |  |  |  |  |  |  |  |  |  |  |
| Stable Value Fund | \$ | 24,471,928 | \$ | 53,926 | \$ | $(13,289)$ | \$ | 2,283,602 | \$ | 26,796,167 | 9.50\% | 0.21\% |
| Small Cap Stock Fund |  | 36,076,494 |  | 628,732 |  | 29,774 |  | 314,192 |  | 37,049,192 | 2.70\% | 1.73\% |
| Alaska Balanced Trust |  | 7,146,672 |  | 56,740 |  | 9,185 |  | $(2,111,079)$ |  | 5,101,518 | -28.62\% | 0.93\% |
| Long Term Balanced Fund |  | 6,648,457 |  | 107,421 |  | 14,633 |  | 121,730 |  | 6,892,241 | 3.67\% | 1.60\% |
| AK Target Date 2010 Trust |  | 868,034 |  | 10,030 |  | 5,045 |  | - |  | 883,109 | 1.74\% | 1.15\% |
| AK Target Date 2015 Trust |  | 3,671,203 |  | 47,982 |  | 14,611 |  | - |  | 3,733,796 | 1.70\% | 1.30\% |
| AK Target Date 2020 Trust |  | 10,430,185 |  | 159,696 |  | 121,271 |  | $(2,487)$ |  | 10,708,665 | 2.67\% | 1.52\% |
| AK Target Date 2025 Trust |  | 19,430,461 |  | 334,807 |  | 172,368 |  | $(309,575)$ |  | 19,628,061 | 1.02\% | 1.73\% |
| AK Target Date 2030 Trust |  | 23,318,880 |  | 440,995 |  | 207,277 |  | $(12,968)$ |  | 23,954,184 | 2.72\% | 1.88\% |
| AK Target Date 2035 Trust |  | 34,263,935 |  | 702,036 |  | 74,850 |  | $(9,529)$ |  | 35,031,292 | 2.24\% | 2.05\% |
| AK Target Date 2040 Trust |  | 37,066,781 |  | 812,845 |  | 477,899 |  | - |  | 38,357,525 | 3.48\% | 2.18\% |
| AK Target Date 2045 Trust |  | 55,171,448 |  | 1,246,290 |  | 491,444 |  | $(136,409)$ |  | 56,772,773 | 2.90\% | 2.25\% |
| AK Target Date 2050 Trust |  | 77,821,664 |  | 1,769,932 |  | 730,731 |  | $(145,841)$ |  | 80,176,486 | 3.03\% | 2.27\% |
| AK Target Date 2055 Trust |  | 42,529,298 |  | 972,160 |  | 793,455 |  | $(28,688)$ |  | 44,266,225 | 4.08\% | 2.27\% |
| AK Target Date 2060 Trust |  | 531,511 |  | 12,012 |  | 3,235 |  | - |  | 546,758 | 2.87\% | 2.25\% |
| Total Investments with T. Rowe Price |  | 379,446,951 |  | 7,355,604 |  | 3,132,489 |  | $(37,052)$ |  | 389,897,992 |  |  |
| State Street Global Advisors |  |  |  |  |  |  |  |  |  |  |  |  |
| Money Market |  | 3,351,555 |  | 5,199 |  | 24,539 |  | 86,472 |  | 3,467,765 | 3.47\% | 0.15\% |
| S\&P 500 Stock Index Fund Series A |  | 26,061,096 |  | 337,986 |  | 2,337 |  | $(11,112,691)$ |  | 15,288,728 | -41.34\% | 1.65\% |
| Russell 3000 Index |  | 23,297,524 |  | 716,817 |  | $(10,967)$ |  | 10,815,575 |  | 34,818,949 | 49.45\% | 2.50\% |
| World Equity Ex-US Index |  | 29,945,665 |  | 1,088,870 |  | 62,143 |  | 1,532,930 |  | 32,629,608 | 8.96\% | 3.54\% |
| Total Investments with SSgA |  | 82,655,840 |  | 2,148,872 |  | 78,052 |  | 1,322,286 |  | 86,205,050 |  |  |
| BlackRock |  |  |  |  |  |  |  |  |  |  |  |  |
| Passive U.S. Bond Index Fund |  | 25,885,925 |  | 81,518 |  | 3,288 |  | 2,369,834 |  | 28,340,565 | 9.48\% | 0.30\% |
| Strategic Completion Fund |  | 7,261,972 |  | 74,152 |  | 28,925 |  | $(4,372,311)$ |  | 2,992,738 | -58.79\% | 1.46\% |
| Total Investments with BlackRock |  | 33,147,897 |  | 155,670 |  | 32,213 |  | $(2,002,477)$ |  | 31,333,303 |  |  |
| Brandes/Baillie Gifford (2) |  |  |  |  |  |  |  |  |  |  |  |  |
| AK International Equity Fund |  | 13,997,148 |  | 421,197 |  | 29,085.00 |  | $(1,870,010)$ |  | 12,577,420 | -10.14\% | 3.22\% |
| Northern Trust |  |  |  |  |  |  |  |  |  |  |  |  |
| Environmental, Social, and Governance Fund |  | 12,717,163 |  | 282,908 |  | 13,123.00 |  | 2,587,253 |  | 15,600,447 | 22.67\% | 2.02\% |
| Total All Funds | \$ | 521,964,999 | \$ | 10,364,251 | \$ | 3,284,962 | \$ | - | \$ | 535,614,212 | 2.61\% | 1.98\% |

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 <br> Schedule of Invested Assets with 

Schedule of Investment Income and Changes in Invested Assets

## By Month Through the Month Ended

October 31, 2019
\$ (Thousands)

| Invested Assets (at fair value) | July |  | August |  | September |  | October |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investments with T. Rowe Price |  |  |  |  |  |  |  |  |
| Stable Value Fund | \$ | 20,540 | \$ | 22,070 | \$ | 24,472 | \$ | 26,796 |
| Small Cap Stock Fund |  | 36,368 |  | 35,589 |  | 36,076 |  | 37,049 |
| Alaska Balanced Trust |  | 10,692 |  | 9,202 |  | 7,147 |  | 5,102 |
| Long Term Balanced Fund |  | 6,574 |  | 6,478 |  | 6,648 |  | 6,892 |
| AK Target Date 2010 Trust |  | 860 |  | 859 |  | 868 |  | 883 |
| AK Target Date 2015 Trust |  | 3,718 |  | 3,702 |  | 3,671 |  | 3,734 |
| AK Target Date 2020 Trust |  | 10,625 |  | 10,368 |  | 10,430 |  | 10,709 |
| AK Target Date 2025 Trust |  | 19,684 |  | 19,121 |  | 19,430 |  | 19,628 |
| AK Target Date 2030 Trust |  | 23,081 |  | 22,832 |  | 23,319 |  | 23,954 |
| AK Target Date 2035 Trust |  | 34,192 |  | 33,605 |  | 34,264 |  | 35,031 |
| AK Target Date 2040 Trust |  | 37,136 |  | 36,244 |  | 37,067 |  | 38,358 |
| AK Target Date 2045 Trust |  | 55,300 |  | 54,086 |  | 55,171 |  | 56,773 |
| AK Target Date 2050 Trust |  | 77,799 |  | 76,297 |  | 77,822 |  | 80,176 |
| AK Target Date 2055 Trust |  | 42,579 |  | 41,668 |  | 42,529 |  | 44,266 |
| AK Target Date 2060 Trust |  | 524 |  | 521 |  | 532 |  | 547 |
| State Street Global Advisors |  |  |  |  |  |  |  |  |
| Money Market |  | 3,144 |  | 3,340 |  | 3,352 |  | 3,468 |
| S\&P 500 Stock Index Fund Series A |  | 45,559 |  | 37,389 |  | 26,061 |  | 15,289 |
| Russell 3000 Index |  | 4,569 |  | 11,581 |  | 23,298 |  | 34,819 |
| US Real Estate Investment Trust Index |  | 7,072 |  | - |  | - |  | - |
| World Equity Ex-US Index |  | 27,203 |  | 27,650 |  | 29,946 |  | 32,630 |
| US Treasury Inflation Protected Securities Index |  | 7,449 |  | - |  | - |  | - |
| Investments with BlackRock |  |  |  |  |  |  |  |  |
| Passive U.S. Bond Index Fund |  | 21,451 |  | 23,517 |  | 25,886 |  | 28,341 |
| Strategic Completion Fund |  | - |  | 11,844 |  | 7,262 |  | 2,993 |
| Investments with Brandes/Baillie Gifford $\square$ |  |  |  |  |  |  |  |  |
| AK International Equity Fund |  | 17,368 |  | 15,544 |  | 13,997 |  | 12,577 |
| Investments with Northern Trust |  |  |  |  |  |  |  |  |
| Environmental, Social, and Governance Fund |  | 8,276 |  | 9,906 |  | 12,717 |  | 15,600 |
| Total Invested Assets | \$ | 521,761 | \$ | 513,410 | \$ | 521,965 | \$ | 535,614 |
| Change in Invested Assets |  |  |  |  |  |  |  |  |
| Beginning Assets | \$ | 516,073 | \$ | 521,761 | \$ | 513,410 | \$ | 521,965 |
| Investment Earnings |  | 2,269 |  | $(6,905)$ |  | 7,675 |  | 10,364 |
| Net Contributions (Withdrawals) |  | 3,420 |  | $(1,446)$ |  | 880 |  | 3,285 |
| Ending Invested Assets | \$ | 521,761 | \$ | 513,410 | \$ | 521,965 | \$ | 535,614 |

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[^0]:    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

