# ALASKA RETIREMENT MANAGEMENT BOARD FINANCIAL REPORT 

As of July 31, 2017

## ALASKA RETIREMENT MANAGEMENT BOARD <br> Schedule of Investment Income and Changes in Invested Assets by Fund <br> Fiscal Year-to-Date through July 31, 2017

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 Trust
Other Participant Directed Plans
Supplemental Annuity Plan
Deferred Compensation Plan

## Total All Funds

Total Non-Participant Directed
Total Participant Directed
Total All Funds


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.aspy

## ALASKA RETIREMENT MANAGEMENT BOARD

Schedule of Investment Income and Changes in Invested Assets by Fund
For the Month Ended July 31, 2017

| Public Employees' Retirement System (PERS) | Assets |  | nt Income |  |  | thdrawals) | Assets | Invested Assets | Income |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Public Employees' Retirement System (PERS) |  |  |  |  |  |  |  |  |
| Defined Benefit Plans: |  |  |  |  |  |  |  |  |  |
| Retirement Trust | \$ | 8,922,461,847 | \$ | 138,879,947 | \$ | $(40,812,952)$ \$ | 9,020,528,842 | 1.10\% | 1.56\% |
| Retirement Health Care Trust |  | 7,371,307,996 |  | 112,648,156 |  | $(22,865,616)$ | 7,461,090,536 | 1.22\% | 1.53\% |
| Total Defined Benefit Plans |  | 16,293,769,843 |  | 251,528,103 |  | $(63,678,568)$ | 16,481,619,378 | 1.15\% | 1.55\% |
| Defined Contribution Plans: |  |  |  |  |  |  |  |  |  |
| Participant Directed Retirement |  | 860,873,883 |  | 16,290,128 |  | 6,377,929 | 883,541,940 | 2.63\% | 1.89\% |
| Health Reimbursement Arrangement |  | 292,327,555 |  | 4,490,212 |  | 2,665,254 | 299,483,021 | 2.45\% | 1.53\% |
| Retiree Medical Plan |  | 80,644,156 |  | 1,240,351 |  | 944,303 | 82,828,810 | 2.71\% | 1.53\% |
| Defined Benefit Occupational Death and Disability: |  |  |  |  |  |  |  |  |  |
| Public Employees |  | 17,976,260 |  | 275,793 |  | 109,990 | 18,362,043 | 2.15\% | 1.53\% |
| Police and Firefighters |  | 8,626,606 |  | 132,331 |  | 34,205 | 8,793,142 | 1.93\% | 1.53\% |
| Total Defined Contribution Plans |  | 1,260,448,460 |  | 22,428,815 |  | 10,131,681 | 1,293,008,956 | 2.58\% | 1.77\% |
| Total PERS |  | 17,554,218,303 |  | 273,956,918 |  | $(53,546,887)$ | 17,774,628,334 | 1.26\% | 1.56\% |
| Teachers' Retirement System (TRS) |  |  |  |  |  |  |  |  |  |
| Defined Benefit Plans: |  |  |  |  |  |  |  |  |  |
| Retirement Trust |  | 5,308,501,928 |  | 82,577,863 |  | $(33,505,259)$ | 5,357,574,532 | 0.92\% | 1.56\% |
| Retirement Health Care Trust |  | 2,768,186,277 |  | 42,303,658 |  | (8,488,980) | 2,802,000,955 | 1.22\% | 1.53\% |
| Total Defined Benefit Plans |  | 8,076,688,205 |  | 124,881,521 |  | $(41,994,239)$ | 8,159,575,487 | 1.03\% | 1.55\% |
| Defined Contribution Plans: |  |  |  |  |  |  |  |  |  |
| Participant Directed Retirement |  | 367,437,623 |  | 7,055,815 |  | 1,143,520 | 375,636,958 | 2.23\% | 1.92\% |
| Health Reimbursement Arrangement |  | 87,760,833 |  | 1,349,342 |  | 611,808 | 89,721,983 | 2.23\% | 1.53\% |
| Retiree Medical Plan |  | 30,598,161 |  | 470,512 |  | 253,054 | 31,321,727 | 2.36\% | 1.53\% |
| Defined Benefit Occupational Death and Disability |  | 3,532,341 |  | 54,024 |  | (22) | 3,586,343 | 1.53\% | 1.53\% |
| Total Defined Contribution Plans |  | 489,328,958 |  | 8,929,693 |  | 2,008,360 | 500,267,011 | 2.24\% | 1.82\% |
| Total TRS |  | 8,566,017,163 |  | 133,811,214 |  | (39,985,879) | 8,659,842,498 | 1.10\% | 1.57\% |
| Judicial Retirement System (JRS) |  |  |  |  |  |  |  |  |  |
| Defined Benefit Plan Retirement Trust |  | 162,899,812 |  | 2,536,696 |  | $(526,168)$ | 164,910,340 | 1.23\% | 1.56\% |
| Defined Benefit Retirement Health Care Trust |  | 30,014,394 |  | 459,143 |  | $(45,303)$ | 30,428,234 | 1.38\% | 1.53\% |
| Total JRS |  | 192,914,206 |  | 2,995,839 |  | $(571,471)$ | 195,338,574 | 1.26\% | 1.56\% |
| National Guard/Naval Militia Retirement System (MRS) |  |  |  |  |  |  |  |  |  |
| Defined Benefit Plan Retirement Trust |  | 38,151,192 |  | 491,346 |  | 820,801 | 39,463,339 | 3.44\% | 1.27\% |
| Other Participant Directed Plans |  |  |  |  |  |  |  |  |  |
| Supplemental Annuity Plan |  | 3,691,373,402 |  | 49,638,272 |  | 2,504,047 | 3,743,515,721 | 1.41\% | 1.34\% |
| Deferred Compensation Plan |  | 877,970,832 |  | 11,572,702 |  | 88,205 | 889,631,739 | 1.33\% | 1.32\% |
| Total All Funds |  | 30,920,645,098 |  | 472,466,291 |  | $(90,691,184)$ | 31,302,420,205 |  |  |
| Total Non-Participant Directed |  | 25,122,989,358 |  | 387,909,374 |  | (100,804,885) | 25,410,093,847 | 1.14\% | 1.55\% |
| Total Participant Directed |  | 5,797,655,740 |  | 84,556,917 |  | 10,113,701 | 5,892,326,358 | 1.63\% | 1.46\% |
| Total All Funds | \$ | 30,920,645,098 | \$ | 472,466,291 | \$ | (90,691,184) \$ | 31,302,420,205 | 1.23\% | 1.53\% |

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

## As of July 31, 2017




5-year Annualized Returns as of Fiscal Year End


Public Employees' Retirement Pension Trust Fund
Fiscal Year-to-Date through July 31, 2017


Total Assets History



Actual Asset Allocation vs Target Allocation - Actual *Policy


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## Public Employees' Retirement Health Care Trust Fund

## Fiscal Year-to-Date through July 31, 2017



Total Assets History



Actual Asset Allocation vs Target Allocation

- Actual Policy


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Teachers' Retirement Pension Trust Fund
Fiscal Year-to-Date through July 31, 2017




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Teachers' Retirement Health Care Trust Fund
Fiscal Year-to-Date through July 31, 2017


Total Assets History




Judicial Retirement Pension Trust Fund
Fiscal Year-to-Date through July 31, 2017




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Judicial Retirement Health Care Trust Fund
Fiscal Year-to-Date through July 31, 2017



Total Assets History


Military Retirement Trust Fund
Fiscal Year-to-Date through July 31, 2017


Total Assets History


Year-to-date Income by Month
—Prior Year - Current Year


Actual Asset Allocation vs Target Allocation Actual •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 July 31, 2017

## Cash

Short-Term Fixed Income Pool
Securities Lending Income

## Total Cash

## Fixed Income

US Treasury Fixed Income

## Domestic Equities

Small Cap Pool
Passively Managed
S\&P 600 Internally Managed
SSgA Russell 2000 Growth
SSgA Russell 2000 Value
Total Passive
Actively Managed
Barrow, Haney, Mewhinney \& Strauss
BMO Global Asset Management
DePrince, Race \& Zollo Inc.- Micro Cap
Fidelity (FIAM) Small Company
Frontier Capital Mgmt. Co
Jennison Associates, LLC
Lord Abbett \& Co.- Micro Cap
Lord Abbett Small Cap Growth Fund
SSgA Futures Small Cap
SSgA Volatility-Russell 2000
Transition Account
Victory Capital Management
Zebra Capital Management
Total Active

## Total Small Cap

|  | Beginning Invested Assets | Investment Income |  | Net Contributions and (Withdrawals) |  | Ending Invested Assets |  | \% increase <br> (decrease) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 486,097,293 | \$ | 448,172 | \$ | $(123,994,599)$ | \$ | 362,550,866 | -25.42\% |
|  | 315,429 |  | 251,702 |  | (321,180) |  | 245,951 | -22.03\% |
|  | 486,412,722 |  | 699,874 |  | (124,315,779) |  | 362,796,817 | -25.41\% |
|  | 1,927,238,711 |  | 9,077,026 |  | 625,000,000 |  | 2,561,315,737 | 32.90\% |


| 83,682,889 | 808,797 | 174,866 | 84,666,552 | 1.18\% |
| :---: | :---: | :---: | :---: | :---: |
| 10,742 | 6,744 | $(10,407)$ | 7,079 | -34.10\% |
| 227,945 | 6,693 | $(131,533)$ | 103,105 | -54.77\% |
| 83,921,576 | 822,234 | 32,926 | 84,776,736 | 1.02\% |
| 29,535,649 | 734,284 | - | 30,269,933 | 2.49\% |
| 75,619,592 | 1,326,469 | - | 76,946,061 | 1.75\% |
| 100,917,456 | 1,929,985 | - | 102,847,441 | 1.91\% |
| 138,131,538 | 1,291,841 | - | 139,423,379 | 0.94\% |
| 75,926,117 | 1,065,588 | - | 76,991,705 | 1.40\% |
| 101,267,320 | 739,200 | - | 102,006,520 | 0.73\% |
| 100,805,209 | 4,176,764 | - | 104,981,973 | 4.14\% |
| 54,105,679 | 979,012 | - | 55,084,691 | 1.81\% |
| 2,443,057 | 151,523 | - | 2,594,580 | 6.20\% |
| 93,192,660 | 231,035 | - | 93,423,695 | 0.25\% |
| 38,196 | 36 | $(32,926)$ | 5,306 | -86.11\% |
| 141,722,976 | 2,743,476 | - | 144,466,452 | 1.94\% |
| 94,664,492 | $(2,295,076)$ | - | 92,369,416 | -2.42\% |
| 1,008,369,941 | 13,074,137 | $(32,926)$ | 1,021,411,152 | 1.29\% |
| 1,092,291,517 | 13,896,371 | - | 1,106,187,888 | 1.27\% |

## Alaska Retirement Management Board

## All Non-Participant Directed Plans by Manager

## Schedule of Investment Income and Changes in Invested Assets

For the Month Ended July 31, 2017

## Large Cap Pool

Passively Managed
SSgA Russell 1000 Growth
SSgA Russell 1000 Value
SSgA Russell 200
Total Passive
Actively Managed
Allianz Global Investors
ARMB Equity Yield Strategy
Barrow, Haney, Mewhinney \& Strauss
Lazard Freres
McKinley Capital Mgmt.
Portable Alpha
Quantitative Management Assoc.
S\&P 500 Equal Weight
Scientific Beta, Internally Managed
SSgA Futures large cap
Transition Account
Total Active
Total Large Cap

## Total Domestic Equity

Global Equities Ex US

## Small Cap Pool

Mondrian Investment Partners Schroder Investment Management

## Total Small Cap

## Large Cap Pool

Allianz Global Investors
Arrow Street Capital
Baillie Gifford Overseas Limited
Blackrock ACWI Ex-US IMI
Brandes Investment Partners
Cap Guardian Trust Co
Lazard Freres
McKinley Capital Management
SSgA Futures International
State Street Global Advisors

## Total Large Cap

| 1,170,512,682 | 31,142,308 | - | 1,201,654,990 | 2.66\% |
| :---: | :---: | :---: | :---: | :---: |
| 1,052,180,136 | 14,022,415 | - | 1,066,202,551 | 1.33\% |
| 632,684,278 | 8,548,585 | $(300,542,706)$ | 340,690,157 | -46.15\% |
| 2,855,377,096 | 53,713,308 | (300,542,706) | 2,608,547,698 | -8.64\% |
| 229,091,542 | 5,756,933 | - | 234,848,475 | 2.51\% |
| 316,297,714 | 5,234,225 | - | 321,531,939 | 1.65\% |
| 219,220,809 | 2,086,093 | - | 221,306,902 | 0.95\% |
| 418,758,590 | 4,967,364 | $(104,252,400)$ | 319,473,554 | -23.71\% |
| 219,831,523 | 5,215,989 | - | 225,047,512 | 2.37\% |
| 480,342,214 | 12,600,297 | $(3,000,000)$ | 489,942,511 | 2.00\% |
| 246,628,965 | 3,772,212 | - - | 250,401,177 | 1.53\% |
| - | 793,037 | 202,683,636 | 203,476,673 | 100.00\% |
| 206,310,015 | 3,049,865 | - | 209,359,880 | 1.48\% |
| 2,245,304 | 333,128 | 3,000,000 | 5,578,432 | 148.45\% |
| 19 | 2,179,319 | (2,140,930) | 38,408 | 202047.37\% |
| 2,338,726,695 | 45,988,462 | 96,290,306 | 2,481,005,463 | 6.08\% |
| 5,194,103,791 | 99,701,770 | (204,252,400) | 5,089,553,161 | -2.01\% |
| 6,286,395,308 | 113,598,141 | (204,252,400) | 6,195,741,049 | -1.44\% |


| 170,445,398 | 5,434,977 | - | 175,880,375 | 3.19\% |
| :---: | :---: | :---: | :---: | :---: |
| 189,357,455 | 5,439,423 | - | 194,796,878 | 2.87\% |
| 359,802,853 | 10,874,400 | - | 370,677,253 | 3.02\% |


| 285,052,822 | 10,903,469 | - | 295,956,291 | 3.83\% |
| :---: | :---: | :---: | :---: | :---: |
| 350,374,336 | 13,317,972 | - | 363,692,308 | 3.80\% |
| 439,197,100 | 12,923,195 | - | 452,120,295 | 2.94\% |
| 572,396,609 | 20,973,249 | - | 593,369,858 | 3.66\% |
| 681,234,546 | 15,592,183 | $(50,000,000)$ | 646,826,729 | -5.05\% |
| 576,863,911 | 18,659,023 | $(75,000,000)$ | 520,522,934 | -9.77\% |
| 385,317,169 | 11,695,194 | (95,747,600) | 301,264,763 | -21.81\% |
| 584,679,333 | 16,643,390 | $(75,000,000)$ | 526,322,723 | -9.98\% |
| - - | - | - | - | - |
| 923,691,688 | 33,681,427 | - | 957,373,115 | 3.65\% |
| 4,798,807,514 | 154,389,102 | (295,747,600) | 4,657,449,016 | -2.95\% |

## Alaska Retirement Management Board

## All Non-Participant Directed Plans by Manager

## Schedule of Investment Income and Changes in Invested Assets

For the Month Ended July 31, 2017

| Emerging Markets Equity Pool |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Eaton Vance | 273,209,556 | 12,706,913 | - | 285,916,469 | 4.65\% |
| Lazard Asset Management | 508,719,648 | 24,768,905 | $(50,000,000)$ | 483,488,553 | -4.96\% |
| Total Emerging Markets Pool | 781,929,204 | 37,475,818 | $(50,000,000)$ | 769,405,022 | -1.60\% |
| Total Global Equities | 5,940,539,571 | 202,739,320 | (345,747,600) | 5,797,531,291 | -2.41\% |
| Opportunistic |  |  |  |  |  |
| Alternative Equity Strategy Pool |  |  |  |  |  |
| Alternative Equity Strategies Transition Account | - | - | - | - | - |
| Analytic Buy Write Account | 288,066,215 | 3,661,647 | - | 291,727,862 | 1.27\% |
| Internally Managed Large Cap. | 356,765,183 | 762,542 | - | 357,527,725 | 0.21\% |
| Quantitative Management Associates MPS | 166,684,144 | 1,883,385 | - | 168,567,529 | 1.13\% |
| Relational Investors, LLC | 1,080,903 | - | - | 1,080,903 | - |
| SSgA Volatility-Russell 1000 | 95,680,101 | 1,022,981 | - | 96,703,082 | 1.07\% |
|  | 908,276,546 | 7,330,555 | - | 915,607,101 | 0.81\% |
| Taxable Municipal Bond Pool |  |  |  |  |  |
| Guggenheim Partners | 102,302,988 | 812,728 | - | 103,115,716 | 0.79\% |
| Western Asset Management | 107,463,958 | 1,363,407 | - | 108,827,365 | 1.27\% |
|  | 209,766,946 | 2,176,135 | - | 211,943,081 | 1.04\% |
| Alternative Fixed Income Pool |  |  |  |  |  |
| Fidelity Institutional Asset Management. | 135,439,061 | 1,193,064 | - | 136,632,125 | 0.88\% |
| Schroders Innsurance Linked Securities | 87,656,466 | 178,659 | - | 87,835,125 | 0.20\% |
|  | 223,095,527 | 1,371,723 | - | 224,467,250 | 0.61\% |
| International Fixed Income Pool |  |  |  |  |  |
| Mondrian Investment Partners | 184,957,183 | 4,508,713 | - | 189,465,896 | 2.44\% |
| High Yield Pool |  |  |  |  |  |
| Columbia Threadneedle | 155,259,571 | 1,989,004 | - | 157,248,575 | 1.28\% |
| Eaton Vance High Yield | 127,162,969 | 1,435,774 | - | 128,598,743 | 1.13\% |
| Fidelity Instit. Asset Mgmt. High Yield CMBS | 211,540,464 | 1,466,283 | - | 213,006,747 | 0.69\% |
| MacKay Shields, LLC | 150,373,933 | 819,059 | - | 151,192,992 | 0.54\% |
|  | 644,336,937 | 5,710,120 | - | 650,047,057 | 0.89\% |
| Emerging Debt Pool |  |  |  |  |  |
| Lazard Emerging Income | 165,758,016 | 779,205 | - | 166,537,221 | 0.47\% |
|  | 165,758,016 | 779,205 | - | 166,537,221 | 0.47\% |

## Alaska Retirement Management Board

## All Non-Participant Directed Plans by Manager

## Schedule of Investment Income and Changes in Invested Assets

For the Month Ended July 31, 2017

## Convertible Bond Pool

Advent Capital

## Total Opportunistic

## Private Equity Pool

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

## Absolute Return Pool

Allianz Global Investors
Crestline Investors, Inc.
Crestline Specialty Fund
Global Asset Management (USA) Inc.
KKR Apex Equity Fund
Prisma Capital Partners
Zebra Global Equity Advantage Fund
Zebra Global Equity Fund

## Total Absolute Return Investments

| 190,210,495 | 2,191,534 | - | 192,402,029 | 1.15\% |
| :---: | :---: | :---: | :---: | :---: |
| 2,526,401,650 | 24,067,985 | - | 2,550,469,635 | 0.95\% |
| 831,702,993 | 2,407,453 | 1,400,599 | 835,511,045 | 0.46\% |
| 5,743,617 | - | - | 5,743,617 | - |
| 878,368 | - | - | 878,368 | - |
| 19,818,683 | 119,172 | - | 19,937,855 | 0.60\% |
| 30,594,572 | - | - | 30,594,572 | - |
| 84,920,768 | - | - | 84,920,768 | - |
| 12,212,395 | - | 2,745,560 | 14,957,955 | 22.48\% |
| 29,226,068 | - | $(781,508)$ | 28,444,560 | -2.67\% |
| 17,859,767 | - | $(2,449,487)$ | 15,410,280 | -13.72\% |
| 29,110,756 | - | 828,755 | 29,939,511 | 2.85\% |
| 1,000,000 | - | - | 1,000,000 | - |
| 21,260,621 | - | - | 21,260,621 | - |
| 29,676,943 | - | - | 29,676,943 | - |
| 15,245,752 | - | - | 15,245,752 | - |
| 908,101,057 | 2,851,818 | $(1,137,422)$ | 909,815,453 | 0.19\% |
| 8,226,805 | - | - | 8,226,805 | - |
| 2,400,000 | - | - | 2,400,000 | - |
| 15,457,190 | - | $(828,257)$ | 14,628,933 | -5.36\% |
| 30,634,009 | - | - | 30,634,009 | - |
| 19,878,148 | - | 6,662,500 | 26,540,648 | 33.52\% |
| 2,113,948,512 | 5,378,443 | 6,440,740 | 2,125,767,695 | 0.56\% |
| 361,323,703 | - | - | 361,323,703 | - |
| 416,661,916 | - | - | 416,661,916 | - |
| 32,368,827 | - | $(1,179,534)$ | 31,189,293 | -3.64\% |
| 92,023,922 | - | (76,000,000) | 16,023,922 | -82.59\% |
| 94,471,861 | $(117,596)$ | - | 94,354,265 | -0.12\% |
| 389,718,179 | - | - | 389,718,179 | - |
| 70,966,393 | $(26,404)$ | - | 70,939,989 | -0.04\% |
| 132,212,400 | 46,846 | - | 132,259,246 | 0.04\% |
| 1,589,747,201 | $(97,154)$ | (77,179,534) | 1,512,470,513 | -4.86\% |

## Alaska Retirement Management Board

## All Non-Participant Directed Plans by Manager

## Schedule of Investment Income and Changes in Invested Assets

For the Month Ended July 31, 2017

## Real Assets

## Farmland Pool

Hancock Agricultural Investment Group UBS Agrivest, LLC
Total Farmland Pool

## Timber Pool

Hancock Natural Resource Group
Timberland Invt Resource LLC
Total Timber Pool

Energy Pool
EIG Energy Fund XD
EIG Energy Fund XIV-A
EIG Energy Fund XV
EIG Energy Fund XVI
Total Energy Pool

## REIT Pool

REIT Trans Account
REIT Holdings
Total REIT Pool

TIPS Pool
TIPS Internally Managed Account
Master Limited Partnerships
Advisory Research MLP
Tortoise Capital Advisors
Total Master Limited Partnerships

## Infrastructure Private Pool

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

## Infrastructure Public Pool

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

| 265,623,648 | - | - | 265,623,648 | - |
| :---: | :---: | :---: | :---: | :---: |
| 566,549,096 | - | - | 566,549,096 | - |
| 832,172,744 | - | - | 832,172,744 | - |
| 93,380,538 | - | - | 93,380,538 | - |
| 255,921,262 | - | - | 255,921,262 | - |
| 349,301,800 | - | - | 349,301,800 | - |
| 223,693 | $(32,610)$ | - | 191,083 | -14.58\% |
| 13,978,305 | $(423,798)$ | - | 13,554,507 | -3.03\% |
| 30,632,298 | $(413,301)$ | - | 30,218,997 | -1.35\% |
| 47,127,261 | 800,181 | - | 47,927,442 | 1.70\% |
| 91,961,557 | $(69,528)$ | - | 91,892,029 | -0.08\% |
| - | - | - | - | - |
| 351,325,090 | 4,177,322 | - | 355,502,412 | 1.19\% |
| 351,325,090 | 4,177,322 | - | 355,502,412 | 1.19\% |
| 55,206,296 | 266,932 | - | 55,473,228 | 0.48\% |
| 229,369,062 | 3,595,746 | - | 232,964,808 | 1.57\% |
| 270,580,631 | 4,375,367 | - | 274,955,998 | 1.62\% |
| 499,949,693 | 7,971,113 | - | 507,920,806 | 1.59\% |
| 292,353,491 | 6,427,756 | - | 298,781,247 | 2.20\% |
| 101,470,229 | - | - | 101,470,229 | - |
| 393,823,720 | 6,427,756 | - | 400,251,476 | 1.63\% |
| 104,164,724 | 2,998,500 | - | 107,163,224 | 2.88\% |
| 141,123,851 | 5,301,633 | - | 146,425,484 | 3.76\% |
| 245,288,575 | 8,300,133 | - | 253,588,708 | 3.38\% |

## Alaska Retirement Management Board

## All Non-Participant Directed Plans by Manager

## Schedule of Investment Income and Changes in Invested Assets

For the Month Ended July 31, 2017

## Real Estate

Core Commingled Accounts
JP Morgan
UBS Trumbull Property Fund
Total Core Commingled
Core Separate Accounts
LaSalle Investment Management Sentinel Separate Account
UBS Realty
Total Core Separate
Non-Core Commingled Accounts
Almanac Realty Securities IV
Almanac Realty Securities V
Almanac Realty Securities VII
BlackRock Diamond Property Fund
Clarion Ventures 4
Colony Investors VIII, L.P.
Cornerstone Apartment Venture III
Coventry
ING Clarion Development Ventures III
KKR Real Estate Partners Americas LP.
LaSalle Medical Office Fund II

| 246,591,274 | 3,934,093 | (1,924,584) | 248,600,783 | 0.81\% |
| :---: | :---: | :---: | :---: | :---: |
| 148,826,700 | 1,441,609 | 23,745,376 | 174,013,685 | 16.92\% |
| 395,417,974 | 5,375,702 | 21,820,792 | 422,614,468 | 6.88\% |
| 188,145,998 | - | $(646,829)$ | 187,499,169 | -0.34\% |
| 189,555,675 | - | $(1,210,767)$ | 188,344,908 | -0.64\% |
| 512,319,449 | - | $(941,329)$ | 511,378,120 | -0.18\% |
| 890,021,122 | - | (2,798,925) | 887,222,197 | -0.31\% |

Lowe Hospitality Partners
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

| - |  | - |  | - |  | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4,259,056 |  | - |  | - |  | 4,259,056 | - |
| 18,112,595 |  | - |  | 227,821 |  | 18,340,416 | 1.26\% |
| 286,665 |  | $(3,691)$ |  | - |  | 282,974 | -1.29\% |
| 18,861,966 |  | - |  | - |  | 18,861,966 | - |
| 5,721,742 |  | - |  | - |  | 5,721,742 | - |
| 41,600 |  | - |  | - |  | 41,600 | - |
| 846,028 |  | - |  | - |  | 846,028 | - |
| 6,512,091 |  | - |  | - |  | 6,512,091 | - |
| 37,175,943 |  | - |  | - |  | 37,175,943 | - |
| 476 |  | - |  | - |  | 476 | - |
| 175,598 |  | - |  | - |  | 175,598 | - |
| 11,099,992 |  | - |  | - |  | 11,099,992 | - |
| 5,611,311 |  | - |  | - |  | 5,611,311 | - |
| 33,602,927 |  | - |  | - |  | 33,602,927 | - |
| 5,529,122 |  | - |  | - |  | 5,529,122 | - |
| 147,837,112 |  | $(3,691)$ |  | 227,821 |  | 148,061,242 | 0.15\% |
| 1,433,276,208 |  | 5,372,011 |  | 19,249,688 |  | 1,457,897,907 | 1.72\% |
| 4,252,305,683 |  | 32,445,739 |  | 19,249,688 |  | 4,304,001,110 | 1.22\% |
| \$ 25,122,989,358 | \$ | 387,909,374 | \$ | (100,804,885) | \$ | 25,410,093,847 | 1.14\% |

# ALASKA RETIREMENT MANAGEMENT BOARD 

Reporting of Funds by Manager

Participant Directed Plans

Supplemental Annuity Plan
Schedule of Investment Income and Changes in Invested Assets
July 31, 2017

## 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 Trust
AK Target Date 2060 Trust
Total Investments with T. Rowe Price
State Street Global Advisors
State Street Treasury Money Market Fund - Inst.
S\&P 500 Stock Index Fund Series A
Russell 3000 Index
US Real Estate Investment Trust Index
World Equity Ex-US Index
Long US Treasury Bond Index
US Treasury Inflation Protected Securities Index
World Government Bond Ex-US Index
Global Balanced Fund
Total Investments with SSGA
BlackRock
Government/Credit Bond Fund
Intermediate Bond Fund
Total Investments with Barclays Global Investors
Brandes/Allianz (2)
AK International Equity Fund RCM

Sustainable Core Opportunities 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 Allianz NFJ International Fund
effective March 30, 2015

|  | ning Invested <br> Assets | Investment Income |  | Net Contributions (Withdrawals) |  | Transfers In (Out) |  | Ending InvestedAssets |  | $\begin{gathered} \text { \% Change in } \\ \text { Invested } \\ \text { Assets } \\ \hline \end{gathered}$ | \% Change due to Investment Income (1) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 364,821,723 | \$ | 687,152 | \$ | $(1,147,473)$ | \$ | $(155,966)$ | \$ | 364,205,436 | -0.17\% | 0.19\% |
|  | 152,349,464 |  | 899,661 |  | 103,558 |  | $(1,693,326)$ |  | 151,659,357 | -0.45\% | 0.59\% |
|  | 1,157,931,052 |  | 12,301,550 |  | $(2,620,965)$ |  | $(876,114)$ |  | 1,166,735,523 | 0.76\% | 1.06\% |
|  | 591,594,749 |  | 9,477,086 |  | 1,218,802 |  | 1,065,143 |  | 603,355,780 | 1.99\% | 1.60\% |
|  | 10,074,342 |  | 123,085 |  | 194 |  | 47,211 |  | 10,244,832 | 1.69\% | 1.22\% |
|  | 89,018,719 |  | 1,234,092 |  | $(13,523)$ |  | $(976,671)$ |  | 89,262,617 | 0.27\% | 1.39\% |
|  | 86,815,499 |  | 1,433,688 |  | 254,165 |  | 1,463,587 |  | 89,966,939 | 3.63\% | 1.64\% |
|  | 63,773,860 |  | 1,155,005 |  | 416,187 |  | 319,114 |  | 65,664,166 | 2.96\% | 1.80\% |
|  | 48,435,669 |  | 958,383 |  | 413,251 |  | 181,871 |  | 49,989,174 | 3.21\% | 1.97\% |
|  | 45,556,784 |  | 958,502 |  | 357,294 |  | 18,949 |  | 46,891,529 | 2.93\% | 2.10\% |
|  | 45,011,096 |  | 995,341 |  | 460,611 |  | $(236,892)$ |  | 46,230,156 | 2.71\% | 2.21\% |
|  | 49,143,143 |  | 1,107,171 |  | 547,763 |  | $(265,530)$ |  | 50,532,547 | 2.83\% | 2.25\% |
|  | 55,553,600 |  | 1,252,711 |  | 708,677 |  | 394,873 |  | 57,909,861 | 4.24\% | 2.23\% |
|  | 43,730,440 |  | 987,978 |  | 1,085,277 |  | $(194,864)$ |  | 45,608,831 | 4.30\% | 2.24\% |
|  | 1,081,128 |  | 25,614 |  | 4,616 |  | 233,493 |  | 1,344,851 | 24.39\% | 2.13\% |
|  | 2,804,891,268 |  | 33,597,019 |  | 1,788,434 |  | $(675,122)$ |  | 2,839,601,599 |  |  |
|  | 39,552,275 |  | 29,104 |  | $(215,296)$ |  | $(130,844)$ |  | 39,235,239 | -0.80\% | 0.07\% |
|  | 407,253,815 |  | 8,351,554 |  | 364,945 |  | $(597,001)$ |  | 415,373,313 | 1.99\% | 2.05\% |
|  | 70,708,068 |  | 1,329,510 |  | 157,860 |  | $(2,067,475)$ |  | 70,127,963 | -0.82\% | 1.91\% |
|  | 36,754,071 |  | 332,501 |  | 104,403 |  | $(726,869)$ |  | 36,464,106 | -0.79\% | 0.91\% |
|  | 39,976,453 |  | 1,564,895 |  | 125,028 |  | 3,870,592 |  | 45,536,968 | 13.91\% | 3.73\% |
|  | 15,862,545 |  | $(99,407)$ |  | $(122,680)$ |  | 241,800 |  | 15,882,258 | 0.12\% | -0.62\% |
|  | 23,765,033 |  | 107,300 |  | 10,033 |  | 311,974 |  | 24,194,340 | 1.81\% | 0.45\% |
|  | 6,021,933 |  | 164,070 |  | 17,771 |  | 198,506 |  | 6,402,280 | 6.32\% | 2.68\% |
|  | 55,148,383 |  | 1,159,543 |  | $(3,425)$ |  | 389,766 |  | 56,694,267 | 2.80\% | 2.10\% |
|  | 695,042,576 |  | 12,939,070 |  | 438,639 |  | 1,490,449 |  | 709,910,734 |  |  |
|  | 41,852,277 |  | 168,463 |  | 30,235 |  | (1,094,513) |  | 40,956,462 | -2.14\% | 0.41\% |
|  | 41,542,980 |  | 132,676 |  | 8,959 |  | 169,387 |  | 41,854,002 | 0.75\% | 0.32\% |
|  | 83,395,257 |  | 301,139 |  | 39,194 |  | $(925,126)$ |  | 82,810,464 |  |  |
|  | 64,495,096 |  | 2,027,517 |  | 219,259 |  | 90,731 |  | 66,832,603 | 3.62\% | 3.14\% |
|  | 43,549,205 |  | 773,527 |  | 18,521 |  | 19,068 |  | 44,360,321 | 1.86\% | 1.78\% |
| \$ | 3,691,373,402 | \$ | 49,638,272 | \$ | 2,504,047 | \$ | - | \$ | 3,743,515,721 | 1.41\% | 1.34\% |


| Supplemental Annuity 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> July 31, 2017 <br> \$ (Thousands) |  |  |
| :---: | :---: | :---: |
| Invested Assets (at fair value) $\qquad$ <br> Investments with T. Rowe Price |  |  |
|  |  |  |
| Stable Value Fund | \$ | 364,205 |
| Small Cap Stock Fund |  | 151,659 |
| Alaska Balanced Trust |  | 1,166,736 |
| Long Term Balanced Fund |  | 603,356 |
| AK Target Date 2010 Trust |  | 10,245 |
| AK Target Date 2015 Trust |  | 89,263 |
| AK Target Date 2020 Trust |  | 89,967 |
| AK Target Date 2025 Trust |  | 65,664 |
| AK Target Date 2030 Trust |  | 49,989 |
| AK Target Date 2035 Trust |  | 46,892 |
| AK Target Date 2040 Trust |  | 46,230 |
| AK Target Date 2045 Trust |  | 50,533 |
| AK Target Date 2050 Trust |  | 57,910 |
| AK Target Date 2055 Trust |  | 45,609 |
| AK Target Date 2060 Trust |  | 1,345 |
| State Street Global Advisors |  |  |
| State Street Treasury Money Market Fund - Inst. |  | 39,235 |
| S\&P 500 Stock Index Fund Series A |  | 415,373 |
| Russell 3000 Index |  | 70,128 |
| US Real Estate Investment Trust Index |  | 36,464 |
| World Equity Ex-US Index |  | 45,537 |
| Long US Treasury Bond Index |  | 15,882 |
| US Treasury Inflation Protected Securities Index |  | 24,194 |
| World Government Bond Ex-US Index |  | 6,402 |
| Global Balanced Fund |  | 56,694 |
| Investments with BlackRock |  |  |
| Government/Credit Bond Fund |  | 40,956 |
| Intermediate Bond Fund |  | 41,854 |
| Investments with Brandes/Allianz Institutional |  |  |
| AK International Equity Fund |  | 66,833 |
| Investments with RCM |  |  |
| Sustainable Core Opportunities Fund |  | 44,360 |
| Total Invested Assets | \$ | 3,743,516 |
| Change in Invested Assets |  |  |
| Beginning Assets | \$ | 3,691,373 |
| Investment Earnings |  | 49,638 |
| Net Contributions (Withdrawals) |  | 2,504 |
| Ending Invested Assets | \$ | 3,743,516 |

39,235
415,373
70,128
45,537
15,882
24,194
6,402

40,956
41,854

66,833
tments with RCM
stainable Core Opportunities Fund
\$ 3,691,373
49,638
$\qquad$

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# Deferred Compensation Plan 

Schedule of Invested Assets and Changes in Invested Assets
for the Month Ended
July 31, 2017

|  | BeginningInvested 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 |  |  |  |  |  |  |  |  |  |  |  |
| Interest Income Fund | \$ | 182,473,417 | \$ | 362,750 | \$ | $(628,957)$ \$ | \$ | $(360,663)$ \$ | 181,846,547 | -0.34\% | 0.20\% |
| Small Cap Stock Fund |  | 100,184,437 |  | 594,045 |  | 71,099 |  | $(351,969)$ | 100,497,612 | 0.31\% | 0.59\% |
| Alaska Balanced Trust |  | 24,498,151 |  | 262,959 |  | $(95,393)$ |  | 150,865 | 24,816,582 | 1.30\% | 1.07\% |
| Long Term Balanced Fund |  | 50,386,707 |  | 818,697 |  | 2,692 |  | 917,030 | 52,125,126 | 3.45\% | 1.61\% |
| AK Target Date 2010 Trust |  | 4,061,817 |  | 49,797 |  | $(13,374)$ |  | $(80,843)$ | 4,017,397 | -1.09\% | 1.24\% |
| AK Target Date 2015 Trust |  | 9,513,029 |  | 131,114 |  | $(155,779)$ |  | 12,389 | 9,500,753 | -0.13\% | 1.39\% |
| AK Target Date 2020 Trust |  | 23,168,633 |  | 379,487 |  | 92,440 |  | 122,612 | 23,763,172 | 2.57\% | 1.63\% |
| AK Target Date 2025 Trust |  | 13,723,908 |  | 251,743 |  | 138,819 |  | 560,548 | 14,675,018 | 6.93\% | 1.79\% |
| AK Target Date 2030 Trust |  | 9,314,218 |  | 184,163 |  | 101,368 |  | $(48,607)$ | 9,551,142 | 2.54\% | 1.97\% |
| AK Target Date 2035 Trust |  | 5,816,850 |  | 122,849 |  | 59,480 |  | $(37,418)$ | 5,961,761 | 2.49\% | 2.11\% |
| AK Target Date 2040 Trust |  | 5,947,236 |  | 134,178 |  | 72,296 |  | 632,345 | 6,786,055 | 14.10\% | 2.13\% |
| AK Target Date 2045 Trust |  | 4,171,660 |  | 93,950 |  | 64,304 |  | 18,538 | 4,348,452 | 4.24\% | 2.23\% |
| AK Target Date 2050 Trust |  | 3,034,527 |  | 68,766 |  | 51,102 |  | 17,453 | 3,171,848 | 4.53\% | 2.24\% |
| AK Target Date 2055 Trust |  | 3,410,363 |  | 76,778 |  | 57,520 |  | 14,816 | 3,559,477 | 4.37\% | 2.23\% |
| AK Target Date 2060 Trust |  | 108,537 |  | 2,462 |  | 1,782 |  | 207,496 | 320,277 | 195.09\% | 1.15\% |
| Total Investments with T. Rowe Price |  | 439,813,490 |  | 3,533,738 |  | $(180,601)$ |  | 1,774,592 | 444,941,219 |  |  |
| State Street Global Advisors |  |  |  |  |  |  |  |  |  |  |  |
| State Street Treasury Money Market Fund - Inst. |  | 12,838,004 |  | 9,255 |  | $(160,265)$ |  | $(173,623)$ | 12,513,371 | -2.53\% | 0.07\% |
| Russell 3000 Index |  | 36,731,959 |  | 689,022 |  | 106,422 |  | $(769,598)$ | 36,757,805 | 0.07\% | 1.89\% |
| US Real Estate Investment Trust Index |  | 13,500,860 |  | 126,370 |  | 95,213 |  | $(666,117)$ | 13,056,326 | -3.29\% | 0.96\% |
| World Equity Ex-US Index |  | 15,008,944 |  | 578,288 |  | $(2,244)$ |  | 643,747 | 16,228,735 | 8.13\% | 3.77\% |
| Long US Treasury Bond Index |  | 5,251,393 |  | $(33,801)$ |  | 2,964 |  | $(4,154)$ | 5,216,402 | -0.67\% | -0.64\% |
| US Treasury Inflation Protected Securities Index |  | 10,081,251 |  | 46,221 |  | 5,288 |  | 68,403 | 10,201,163 | 1.19\% | 0.46\% |
| World Government Bond Ex-US Index |  | 2,597,520 |  | 71,554 |  | 6,487 |  | 7,369 | 2,682,930 | 3.29\% | 2.75\% |
| Global Balanced Fund |  | 38,757,307 |  | 807,743 |  | $(8,964)$ |  | $(59,364)$ | 39,496,722 | 1.91\% | 2.09\% |
| Total Investments with SSGA |  | 134,767,238 |  | 2,294,652 |  | 44,901 |  | $(953,337)$ | 136,153,454 |  |  |
| BlackRock |  |  |  |  |  |  |  |  |  |  |  |
| S\&P 500 Index Fund |  | 200,698,947 |  | 4,115,106 |  | 69,224 |  | $(1,345,062)$ | 203,538,215 | 1.41\% | 2.06\% |
| Government/Credit Bond Fund |  | 26,081,108 |  | 108,000 |  | 6,694 |  | 183,056 | 26,378,858 | 1.14\% | 0.41\% |
| Intermediate Bond Fund |  | 22,357,528 |  | 72,109 |  | $(2,091)$ |  | 411,505 | 22,839,051 | 2.15\% | 0.32\% |
| Total Investments with Barclays Global Investors |  | 249,137,583 |  | 4,295,215 |  | 73,827 |  | $(750,501)$ | 252,756,124 |  |  |
| Brandes/Allianz (2) |  |  |  |  |  |  |  |  |  |  |  |
| AK International Equity Fund |  | 35,765,056 |  | 1,120,149 |  | 120,601 |  | $(20,677)$ | 36,985,129 | 3.41\% | 3.13\% |
| RCM |  |  |  |  |  |  |  |  |  |  |  |
| Sustainable Core Opportunities Fund |  | 18,487,465 |  | 328,948 |  | 29,477 |  | $(50,077)$ | 18,795,813 | 1.67\% | 1.78\% |
| Total All Funds | \$ | 877,970,832 | \$ | 11,572,702 | \$ | 88,205 \$ |  | - \$ | 889,631,739 | 1.33\% | 1.32\% |

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, $50 \%$ Brandes International equity Fund and $50 \%$ Allianz NFJ International Fund
effective March 30, 2015.

| Deferred Compensation Plan Schedule of Invested Assets with Schedule of Investment Income and Changes in By Month Through the Month End <br> July 31, 2017 <br> \$ (Thousands) | est | Assets |
| :---: | :---: | :---: |
| Invested Assets (at fair value) |  | July |
| Investments with T. Rowe Price |  |  |
| Interest Income Fund |  |  |
| Cash and cash equivalents | \$ | 8,401 |
| Synthetic Investment Contracts |  | 173,446 |
| Small Cap Stock Fund |  | 100,498 |
| Alaska Balanced Trust |  | 24,817 |
| Long Term Balanced Fund |  | 52,125 |
| AK Target Date 2010 Trust |  | 4,017 |
| AK Target Date 2015 Trust |  | 9,501 |
| AK Target Date 2020 Trust |  | 23,763 |
| AK Target Date 2025 Trust |  | 14,675 |
| AK Target Date 2030 Trust |  | 9,551 |
| AK Target Date 2035 Trust |  | 5,962 |
| AK Target Date 2040 Trust |  | 6,786 |
| AK Target Date 2045 Trust |  | 4,348 |
| AK Target Date 2050 Trust |  | 3,172 |
| AK Target Date 2055 Trust |  | 3,559 |
| AK Target Date 2060 Trust |  | 320 |
| State Street Global Advisors |  |  |
| State Street Treasury Money Market Fund - Inst. |  | 12,513 |
| Russell 3000 Index |  | 36,758 |
| US Real Estate Investment Trust Index |  | 13,056 |
| World Equity Ex-US Index |  | 16,229 |
| Long US Treasury Bond Index |  | 5,216 |
| US Treasury Inflation Protected Securities Index |  | 10,201 |
| World Government Bond Ex-US Index |  | 2,683 |
| Global Balanced Fund |  | 39,497 |
| Investments with BlackRock |  |  |
| S\&P 500 Index Fund |  | 203,538 |
| Government/Credit Bond Fund |  | 26,379 |
| Intermediate Bond Fund |  | 22,839 |
| Investments with Brandes/Allianz |  |  |
| AK International Equity Fund |  | 36,985 |
| Investments with RCM |  |  |
| Sustainable Core Opportunities Fund |  | 18,796 |
| Total Invested Assets | \$ | 889,632 |
| Change in Invested Assets |  |  |
| Beginning Assets | \$ | 877,971 |
| Investment Earnings |  | 11,573 |
| Net Contributions (Withdrawals) |  | 88 |
| Ending Invested Assets | \$ | 889,632 |

# Defined Contribution Retirement - Participant Directed PERS <br> Schedule of Investment Income and Changes in Invested Assets <br> for the Month Ended <br> July 31, 2017 



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, $50 \%$ Brandes International equity Fund and $50 \%$ Allianz NFJ International Fund
effective March 30, 2015.

# Defined Contribution Retirement - Participant Directed PERS Schedule of Invested Assets with <br> <br> Schedule of Investment Income and Changes in Invested Assets <br> <br> Schedule of Investment Income and Changes in Invested Assets <br> By Month Through the Month Ended <br> July 31, 2017 <br> <br> \$ (Thousands) 

 <br> <br> \$ (Thousands)}

| Invested Assets (at fair value) |  | July |
| :---: | :---: | :---: |
| Investments with T. Rowe Price |  |  |
| Alaska Money Market | \$ | 5,421 |
| Small Cap Stock Fund |  | 67,548 |
| Alaska Balanced Trust |  | 17,217 |
| Long Term Balanced Fund |  | 12,163 |
| AK Target Date 2010 Trust |  | 2,178 |
| AK Target Date 2015 Trust |  | 10,630 |
| AK Target Date 2020 Trust |  | 27,548 |
| AK Target Date 2025 Trust |  | 42,579 |
| AK Target Date 2030 Trust |  | 44,774 |
| AK Target Date 2035 Trust |  | 52,490 |
| AK Target Date 2040 Trust |  | 62,149 |
| AK Target Date 2045 Trust |  | 78,543 |
| AK Target Date 2050 Trust |  | 93,494 |
| AK Target Date 2055 Trust |  | 68,678 |
| AK Target Date 2060 Trust |  | 344 |
| State Street Global Advisors |  |  |
| Money Market |  | 4,137 |
| S\&P 500 Stock Index Fund Series A |  | 83,318 |
| Russell 3000 Index |  | 12,842 |
| US Real Estate Investment Trust Index |  | 15,007 |
| World Equity Ex-US Index |  | 40,608 |
| Long US Treasury Bond Index |  | 1,201 |
| US Treasury Inflation Protected Securities Index |  | 13,538 |
| World Government Bond Ex-US Index |  | 3,969 |
| Global Balanced Fund |  | 17,025 |
| Investments with BlackRock |  |  |
| Government/Credit Bond Fund |  | 35,968 |
| Intermediate Bond Fund |  | 23,575 |
| Investments with Brandes/Allianz |  |  |
| International Equity Fund |  | 42,711 |
| Investments with RCM |  |  |
| Sustainable Core Opportunities Fund |  | 3,887 |
| Total Invested Assets | \$ | 883,542 |
| Change in Invested Assets |  |  |
| Beginning Assets | \$ | 860,874 |
| Investment Earnings |  | 16,290 |
| Net Contributions (Withdrawals) |  | 6,378 |
| Ending Invested Assets | \$ | 883,542 |

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# Defined Contribution Retirement - Participant Directed TRS 

Schedule of Investment Income and Changes in Invested Assets
for the Month Ended
July 31, 2017

|  |  | 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 |  |  |  |  |  |  |  |  |  |  |  |
| Alaska Money Market | \$ | 1,994,286 | \$ | 1,696 | \$ | $(16,179)$ \$ |  | $(42,700)$ \$ | 1,937,103 | -2.87\% | 0.09\% |
| Small Cap Stock Fund |  | 28,996,876 |  | 171,971 |  | $(95,448)$ |  | $(366,805)$ | 28,706,594 | -1.00\% | 0.60\% |
| Alaska Balanced Trust |  | 6,920,793 |  | 79,739 |  | 1,322 |  | 910,446 | 7,912,300 | 14.33\% | 1.08\% |
| Long Term Balanced Fund |  | 4,840,809 |  | 79,973 |  | $(4,510)$ |  | 244,690 | 5,160,962 | 6.61\% | 1.61\% |
| AK Target Date 2010 Trust |  | 547,306 |  | 6,461 |  | $(24,621)$ |  | - | 529,146 | -3.32\% | 1.21\% |
| AK Target Date 2015 Trust |  | 3,105,465 |  | 43,757 |  | 8,497 |  | - | 3,157,719 | 1.68\% | 1.41\% |
| AK Target Date 2020 Trust |  | 8,019,174 |  | 131,642 |  | 128,806 |  | - | 8,279,622 | 3.25\% | 1.63\% |
| AK Target Date 2025 Trust |  | 13,377,971 |  | 243,111 |  | 39,218 |  | $(25,500)$ | 13,634,800 | 1.92\% | 1.82\% |
| AK Target Date 2030 Trust |  | 15,466,447 |  | 306,335 |  | 126,120 |  | - | 15,898,902 | 2.80\% | 1.97\% |
| AK Target Date 2035 Trust |  | 23,053,613 |  | 485,869 |  | 70,578 |  | $(120,371)$ | 23,489,689 | 1.89\% | 2.11\% |
| AK Target Date 2040 Trust |  | 24,265,494 |  | 538,329 |  | 38,156 |  | (114) | 24,841,865 | 2.38\% | 2.22\% |
| AK Target Date 2045 Trust |  | 38,429,091 |  | 867,365 |  | 223,595 |  | - | 39,520,051 | 2.84\% | 2.25\% |
| AK Target Date 2050 Trust |  | 53,674,663 |  | 1,211,300 |  | 528,807 |  | $(10,008)$ | 55,404,762 | 3.22\% | 2.25\% |
| AK Target Date 2055 Trust |  | 21,105,287 |  | 481,178 |  | 487,906 |  | $(7,901)$ | 22,066,470 | 4.55\% | 2.25\% |
| AK Target Date 2060 Trust |  | 65,389 |  | 1,292 |  | (28) |  | 71,331 | 137,984 | 111.02\% | 1.28\% |
| Total Investments with T. Rowe Price |  | 243,862,664 |  | 4,650,018 |  | 1,512,219 |  | 653,068 | 250,677,969 |  |  |
| State Street Global Advisors |  |  |  |  |  |  |  |  |  |  |  |
| Money Market |  | 485,835 |  | 343 |  | 4,418 |  | $(15,477)$ | 475,119 | -2.21\% | 0.07\% |
| S\&P 500 Stock Index Fund Series A |  | 33,520,684 |  | 687,404 |  | $(103,965)$ |  | 162,402 | 34,266,525 | 2.23\% | 2.05\% |
| Russell 3000 Index |  | 5,300,528 |  | 95,440 |  | 96 |  | $(706,258)$ | 4,689,806 | -11.52\% | 1.93\% |
| US Real Estate Investment Trust Index |  | 5,901,907 |  | 54,820 |  | $(16,047)$ |  | $(102,825)$ | 5,837,855 | -1.09\% | 0.94\% |
| World Equity Ex-US Index |  | 17,568,494 |  | 648,095 |  | $(62,308)$ |  | $(373,714)$ | 17,780,567 | 1.21\% | 3.74\% |
| Long US Treasury Bond Index |  | 259,500 |  | $(1,625)$ |  | 3,072 |  | 62 | 261,009 | 0.58\% | -0.62\% |
| US Treasury Inflation Protected Securities Index |  | 5,131,852 |  | 25,478 |  | $(29,495)$ |  | 401,272 | 5,529,107 | 7.74\% | 0.48\% |
| World Government Bond Ex-US Index |  | 1,535,533 |  | 45,220 |  | $(1,518)$ |  | 110,124 | 1,689,359 | 10.02\% | 2.84\% |
| Global Balanced Fund |  | 9,187,197 |  | 185,197 |  | $(11,384)$ |  | $(843,677)$ | 8,517,333 | -7.29\% | 2.11\% |
| Total Investments with SSGA |  | 78,891,530 |  | 1,740,372 |  | $(217,131)$ |  | $(1,368,091)$ | 79,046,680 |  |  |
| BlackRock |  |  |  |  |  |  |  |  |  |  |  |
| Government/Credit Bond Fund |  | 16,160,455 |  | 69,697 |  | $(98,729)$ |  | 652,557 | 16,783,980 | 3.86\% | 0.42\% |
| Intermediate Bond Fund |  | 9,535,606 |  | 31,664 |  | $(5,374)$ |  | 477,142 | 10,039,038 | 5.28\% | 0.32\% |
| Total Investments with Barclays Global Investors |  | 25,696,061 |  | 101,361 |  | $(104,103)$ |  | 1,129,699 | 26,823,018 |  |  |
| Brandes/Allianz Institutional (2) |  |  |  |  |  |  |  |  |  |  |  |
| AK International Equity Fund |  | 17,437,423 |  | 536,468 |  | $(55,661)$ |  | $(414,498)$ | 17,503,732 | 0.38\% | 3.12\% |
| RCM |  |  |  |  |  |  |  |  |  |  |  |
| Sustainable Core Opportunities Fund |  | 1,549,945 |  | 27,596 |  | 8,196 |  | (178) | 1,585,559 | 2.30\% | 1.78\% |
| Total All Funds | \$ | 367,437,623 | \$ | 7,055,815 | \$ | 1,143,520 \$ |  | -\$ | 375,636,958 | 2.23\% | 1.92\% |

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, $50 \%$ Brandes International equity Fund and $50 \%$ Allianz NFJ International Fund
effective March 30, 2015.

# 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
July 31, 2017
\$ (Thousands)

| $\underline{\text { Invested Assets (at fair value) }}$ | July |  |
| :---: | :---: | :---: |
| Investments with T. Rowe Price |  |  |
| Alaska Money Market | \$ | 1,937 |
| Small Cap Stock Fund |  | 28,707 |
| Alaska Balanced Trust |  | 7,912 |
| Long Term Balanced Fund |  | 5,161 |
| AK Target Date 2010 Trust |  | 529 |
| AK Target Date 2015 Trust |  | 3,158 |
| AK Target Date 2020 Trust |  | 8,280 |
| AK Target Date 2025 Trust |  | 13,635 |
| AK Target Date 2030 Trust |  | 15,899 |
| AK Target Date 2035 Trust |  | 23,490 |
| AK Target Date 2040 Trust |  | 24,842 |
| AK Target Date 2045 Trust |  | 39,520 |
| AK Target Date 2050 Trust |  | 55,405 |
| AK Target Date 2055 Trust |  | 22,066 |
| AK Target Date 2060 Trust |  | 138 |
| State Street Global Advisors |  |  |
| Money Market |  | 475 |
| S\&P 500 Stock Index Fund Series A |  | 34,267 |
| Russell 3000 Index |  | 4,690 |
| US Real Estate Investment Trust Index |  | 5,838 |
| World Equity Ex-US Index |  | 17,781 |
| Long US Treasury Bond Index |  | 261 |
| US Treasury Inflation Protected Securities Index |  | 5,529 |
| World Government Bond Ex-US Index |  | 1,689 |
| Global Balanced Fund |  | 8,517 |
| Investments with BlackRock |  |  |
| Government/Credit Bond Fund |  | 16,784 |
| Intermediate Bond Fund |  | 10,039 |
| Investments with Brandes/Allianz |  |  |
| AK International Equity Fund |  | 17,504 |
| Investments with RCM |  |  |
| Sustainable Core Opportunities Fund |  | 1,586 |
| Total Invested Assets | \$ | 375,637 |
| Change in Invested Assets |  |  |
| Beginning Assets | \$ | 367,438 |
| Investment Earnings |  | 7,056 |
| Net Contributions (Withdrawals) |  | 1,144 |
| Ending Invested Assets | \$ | 375,637 |

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