



Montana Board of Investments

Investment Performance Analysis

Period Ended: September 30, 2017



Montana Board of Investments
Comparative Performance
Retirement Plans

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2016	2015	2014	2013	2012
Public Employees' Retirement - Net	3.39	10.91	12.10	7.39	9.41	9.53	5.42	6.37	7.32	1.86	8.07	17.38	13.24
Public Employees' Benchmark	3.74	11.03	12.49	7.86	10.04	10.19	5.76	N/A	9.09	1.40	9.08	17.94	14.88
Difference	-0.35	-0.12	-0.39	-0.47	-0.63	-0.66	-0.34	N/A	-1.77	0.46	-1.01	-0.56	-1.64
Public Employees' Retirement - Gross	3.49	11.28	12.60	7.86	9.92	10.06	5.95	6.69	7.78	2.31	8.61	17.96	13.83
All Public Plans > \$3B Total Fund Median	3.63	11.88	12.41	7.12	8.57	8.50	5.40	6.77	7.95	0.53	6.69	14.60	13.32
Rank	63	68	48	10	4	1	11	62	56	8	7	7	33
Teachers' Retirement - Net	3.37	10.88	12.06	7.39	9.41	9.53	5.42	6.38	7.33	1.86	8.09	17.38	13.24
Teachers' Benchmark	3.73	11.00	12.46	7.85	10.04	10.19	5.76	N/A	9.08	1.40	9.11	17.94	14.89
Difference	-0.36	-0.12	-0.40	-0.46	-0.63	-0.66	-0.34	N/A	-1.75	0.46	-1.02	-0.56	-1.65
Teachers' Retirement - Gross	3.47	11.25	12.56	7.86	9.92	10.07	5.96	6.70	7.80	2.32	8.63	17.96	13.84
All Public Plans > \$3B Total Fund Median	3.63	11.88	12.41	7.12	8.57	8.50	5.40	6.77	7.95	0.53	6.69	14.60	13.32
Rank	67	68	48	10	4	1	11	60	56	8	7	7	32
Police Retirement - Net	3.38	10.90	12.09	7.39	9.41	9.52	5.39	6.28	7.32	1.86	8.07	17.41	13.23
Police Benchmark	3.73	11.01	12.47	7.85	10.04	10.17	5.73	N/A	9.08	1.41	9.10	17.92	14.80
Difference	-0.35	-0.11	-0.38	-0.46	-0.63	-0.65	-0.34	N/A	-1.76	0.45	-1.03	-0.51	-1.57
Police Retirement - Gross	3.48	11.27	12.58	7.86	9.92	10.06	5.92	6.60	7.78	2.31	8.61	18.00	13.78
All Public Plans > \$3B Total Fund Median	3.63	11.88	12.41	7.12	8.57	8.50	5.40	6.77	7.95	0.53	6.69	14.60	13.32
Rank	63	68	48	11	4	1	13	72	56	8	7	7	36

Net performance shown is net of all manager fees and expenses (Net-All). All Public Plans > \$3B Total Fund Median is reported gross of fees. Benchmark returns reflect unmanaged indices which are not impacted by management fees. Fiscal year ends on 06/30.

Montana Board of Investments
Comparative Performance
Retirement Plans

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2016	2015	2014	2013	2012
Firefighters' Retirement - Net	3.38	10.90	12.10	7.39	9.41	9.52	5.41	6.30	7.32	1.87	8.07	17.41	13.22
Firefighters' Benchmark	3.73	11.01	12.48	7.86	10.04	10.17	5.75	N/A	9.09	1.41	9.10	17.92	14.80
Difference	-0.35	-0.11	-0.38	-0.47	-0.63	-0.65	-0.34	N/A	-1.77	0.46	-1.03	-0.51	-1.58
Firefighters' Retirement - Gross	3.48	11.27	12.59	7.86	9.92	10.06	5.95	6.62	7.78	2.32	8.61	17.99	13.81
All Public Plans > \$3B Total Fund Median	3.63	11.88	12.41	7.12	8.57	8.50	5.40	6.77	7.95	0.53	6.69	14.60	13.32
Rank	63	68	48	10	4	1	12	70	56	8	7	7	34
Sheriffs' Retirement - Net	3.39	10.91	12.11	7.39	9.40	9.51	5.42	6.34	7.33	1.86	8.05	17.35	13.19
Sheriffs' Benchmark	3.74	11.03	12.50	7.86	10.03	10.16	5.78	N/A	9.10	1.40	9.07	17.91	14.84
Difference	-0.35	-0.12	-0.39	-0.47	-0.63	-0.65	-0.36	N/A	-1.77	0.46	-1.02	-0.56	-1.65
Sheriffs' Retirement - Gross	3.49	11.28	12.60	7.86	9.91	10.04	5.95	6.66	7.79	2.32	8.59	17.93	13.79
All Public Plans > \$3B Total Fund Median	3.63	11.88	12.41	7.12	8.57	8.50	5.40	6.77	7.95	0.53	6.69	14.60	13.32
Rank	63	68	48	10	4	1	12	67	56	8	7	8	36
Highway Patrol Retirement - Net	3.39	10.90	12.08	7.39	9.41	9.52	5.42	6.32	7.30	1.87	8.08	17.38	13.24
Highway Patrol Benchmark	3.74	11.02	12.47	7.86	10.04	10.18	5.77	N/A	9.09	1.41	9.10	17.94	14.88
Difference	-0.35	-0.12	-0.39	-0.47	-0.63	-0.66	-0.35	N/A	-1.79	0.46	-1.02	-0.56	-1.64
Highway Patrol Retirement - Gross	3.49	11.27	12.58	7.86	9.92	10.06	5.95	6.64	7.77	2.32	8.62	17.96	13.84
All Public Plans > \$3B Total Fund Median	3.63	11.88	12.41	7.12	8.57	8.50	5.40	6.77	7.95	0.53	6.69	14.60	13.32
Rank	63	68	48	10	4	1	12	68	56	8	7	7	32

Net performance shown is net of all manager fees and expenses (Net-All). All Public Plans > \$3B Total Fund Median is reported gross of fees. Benchmark returns reflect unmanaged indices which are not impacted by management fees. Fiscal year ends on 06/30.

Montana Board of Investments
Comparative Performance
Retirement Plans

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2016	2015	2014	2013	2012
Game Wardens' Retirement - Net	3.39	10.92	12.11	7.39	9.40	9.50	5.41	6.32	7.31	1.88	8.03	17.34	13.20
Game Wardens' Benchmark	3.74	11.04	12.50	7.87	10.04	10.17	5.78	N/A	9.11	1.41	9.06	17.90	14.85
Difference	-0.35	-0.12	-0.39	-0.48	-0.64	-0.67	-0.37	N/A	-1.80	0.47	-1.03	-0.56	-1.65
Game Wardens' Retirement - Gross	3.49	11.29	12.61	7.86	9.90	10.04	5.95	6.64	7.78	2.33	8.57	17.92	13.79
All Public Plans > \$3B Total Fund Median	3.63	11.88	12.41	7.12	8.57	8.50	5.40	6.77	7.95	0.53	6.69	14.60	13.32
Rank	63	67	47	10	4	1	12	68	56	8	7	8	35
Judges' Retirement - Net	3.39	10.92	12.12	7.40	9.41	9.52	5.43	6.33	7.32	1.86	8.06	17.36	13.20
Judges' Benchmark	3.74	11.04	12.51	7.87	10.04	10.17	5.78	N/A	9.10	1.40	9.08	17.92	14.84
Difference	-0.35	-0.12	-0.39	-0.47	-0.63	-0.65	-0.35	N/A	-1.78	0.46	-1.02	-0.56	-1.64
Judges' Retirement - Gross	3.49	11.30	12.61	7.87	9.91	10.05	5.96	6.65	7.79	2.32	8.60	17.94	13.79
All Public Plans > \$3B Total Fund Median	3.63	11.88	12.41	7.12	8.57	8.50	5.40	6.77	7.95	0.53	6.69	14.60	13.32
Rank	63	67	47	10	4	1	11	67	56	8	7	8	35
Volunteer Firefighters' Retirement - Net	3.39	10.90	12.09	7.36	9.40	9.51	5.40	6.60	7.16	1.91	8.09	17.42	13.18
Volunteer Firefighters' Benchmark	3.74	11.00	12.47	7.85	10.05	10.18	5.75	N/A	9.08	1.42	9.11	17.97	14.79
Difference	-0.35	-0.10	-0.38	-0.49	-0.65	-0.67	-0.35	N/A	-1.92	0.49	-1.02	-0.55	-1.61
Volunteer Firefighters' Retirement - Gross	3.49	11.27	12.58	7.83	9.90	10.04	5.93	6.92	7.63	2.36	8.63	18.00	13.77
All Public Plans > \$3B Total Fund Median	3.63	11.88	12.41	7.12	8.57	8.50	5.40	6.77	7.95	0.53	6.69	14.60	13.32
Rank	63	68	48	11	4	1	12	35	64	7	7	7	36

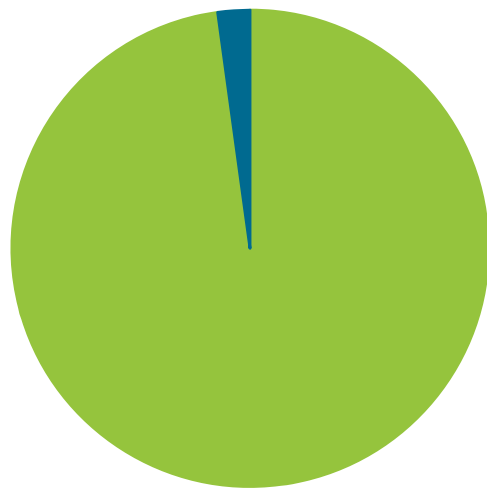
Net performance shown is net of all manager fees and expenses (Net-All). All Public Plans > \$3B Total Fund Median is reported gross of fees. Benchmark returns reflect unmanaged indices which are not impacted by management fees. Fiscal year ends on 06/30.

Montana Board of Investments
 Asset Allocation by Segment
 Retirement Plans

As of September 30, 2017

	Consolidated Asset Pension Pool (CAPP)		Short Term Investment Pool (STIP)		Total Fund	
	(\$)	%	(\$)	%	(\$)	%
Public Employees' Retirement	5,493,020,314	49.88	105,818,852	43.19	5,598,839,166	49.73
Teachers' Retirement	3,950,942,904	35.87	108,559,172	44.31	4,059,502,076	36.06
Police Retirement	385,284,532	3.50	7,612,011	3.11	392,896,543	3.49
Firefighters' Retirement	397,022,696	3.61	7,773,144	3.17	404,795,840	3.60
Sheriffs' Retirement	334,065,113	3.03	6,771,548	2.76	340,836,661	3.03
Highway Patrol Retirement	141,043,352	1.28	2,536,957	1.04	143,580,309	1.28
Game Wardens' Retirement	178,450,208	1.62	3,346,088	1.37	181,796,296	1.61
Judges' Retirement	97,270,724	0.88	1,841,114	0.75	99,111,838	0.88
Volunteer Firefighters' Retirement	36,011,250	0.33	725,435	0.30	36,736,685	0.33
Retirement Plans Total Fund Composite	11,013,111,092	97.82	244,984,322	2.18	11,258,095,413	100.00

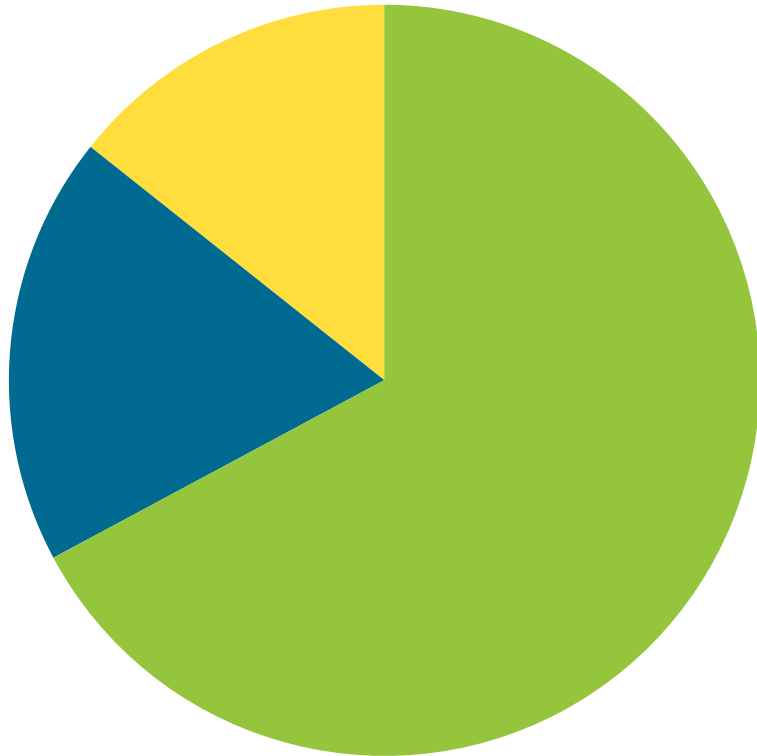
September 30, 2017 : \$11,258,095,413



Segments	Market Value (\$)	Allocation (%)
Consolidated Asset Pension Pool (CAPP)	11,013,111,092	97.82
Short Term Investment Pool (STIP)	244,984,322	2.18

Allocations shown may not sum up to 100% exactly due to rounding. Retirement Plan market values may differ from State Street due to uninvested amounts not included in segment totals.

September 30, 2017 : \$16,396,101,353



	Market Value (\$)	Allocation (%)
Consolidated Asset Pension Pool (CAPP)	11,013,111,105	67.17
Short Term Investment Pool	3,035,996,457	18.52
Trust Funds Investment Pool	2,346,993,791	14.31

Allocations shown may not sum up to 100% exactly due to rounding.

Montana Board of Investments
Comparative Performance
Investment Pools

As of September 30, 2017

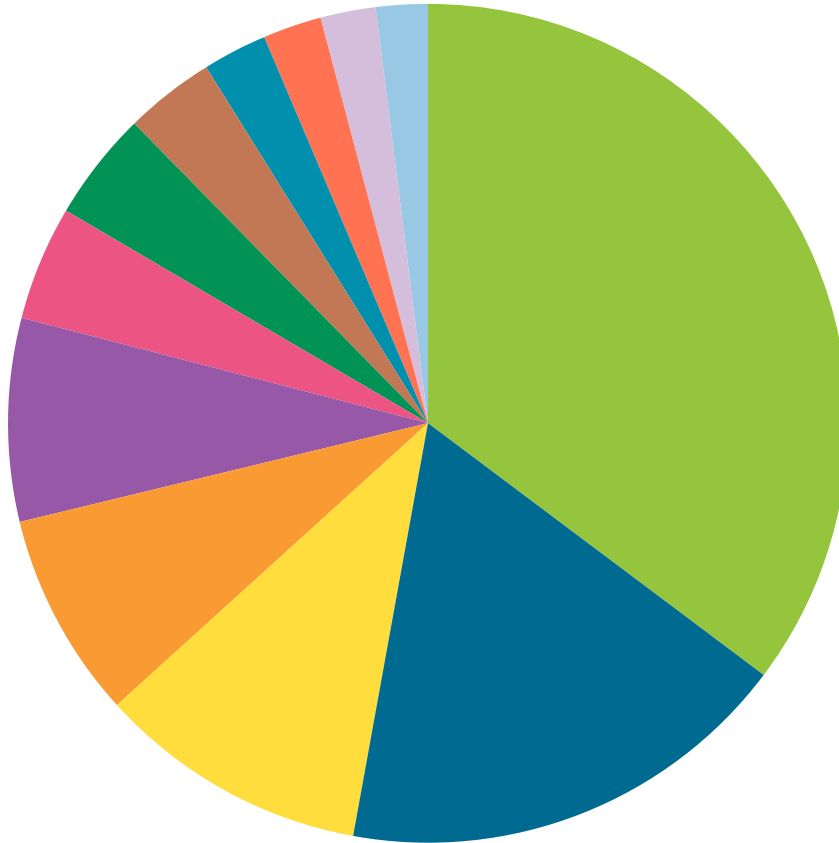
	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Consolidated Asset Pension Pool (CAPP)	3.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CAPP Custom Benchmark	3.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Difference	-0.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trust Funds Investment Pool	0.94	3.54	1.14	3.79	3.37	4.39	5.43	4.02	1.83	6.96	-0.25	6.99
Bloomberg US Agg Bond Index	0.85	3.14	0.07	2.71	2.06	2.95	4.27	2.65	0.55	5.97	-2.02	4.21
Difference	0.09	0.40	1.07	1.08	1.31	1.44	1.16	1.37	1.28	0.99	1.77	2.78
Short Term Investment Pool	0.30	0.78	0.97	0.54	0.39	0.37	0.74	0.61	0.22	0.10	0.19	0.30
ICE 1 Mo LIBOR Index (USD)	0.31	0.80	0.96	0.52	0.38	0.34	0.68	0.52	0.21	0.16	0.19	0.23
Difference	-0.01	-0.02	0.01	0.02	0.01	0.03	0.06	0.09	0.01	-0.06	0.00	0.07
iMoney.net Money Fund (Gross) Median	0.33	0.87	1.08	0.59	0.44	0.40	0.80	0.61	0.25	0.17	0.22	0.30
Difference	-0.03	-0.09	-0.11	-0.05	-0.05	-0.03	-0.06	0.00	-0.03	-0.07	-0.03	0.00

Performance shown is net of all manager fees and expenses (Net-All). Benchmark returns reflect unmanaged indices which are not impacted by management fees. Fiscal year ends on 06/30. Please see Addendum for custom index specification.

Montana Board of Investments
 Asset Allocation
 Consolidated Asset Pension Pool (CAPP)

As of September 30, 2017

September 30, 2017 : \$11,013,111,094



	Market Value (\$)	Allocation (%)
Domestic Equity	3,881,420,411	35.24
International Equity	1,939,539,294	17.61
Private Equity	1,147,335,806	10.42
US Treasury & Agency	875,010,952	7.95
Real Estate	862,309,155	7.83
Mortgage - Backed	486,699,546	4.42
Investment Grade Credit	462,940,857	4.20
TIPS	382,387,665	3.47
Cash Pension	272,966,818	2.48
Broad Fixed Income	249,032,006	2.26
Natural Resources	234,629,271	2.13
High Yield	218,839,315	1.99

Allocations shown may not sum up to 100% exactly due to rounding.



Montana Board of Investments
Comparative Performance
Consolidated Asset Pension Pool (CAPP)

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Domestic Equity	4.65	13.94	18.57	10.41	14.12	14.07	7.28	11.46	0.86	12.28	34.19	16.44
Domestic Equity Custom Index	4.60	13.84	18.76	10.99	14.32	14.41	7.64	13.03	1.01	13.08	32.80	16.17
Difference	0.05	0.10	-0.19	-0.58	-0.20	-0.34	-0.36	-1.57	-0.15	-0.80	1.39	0.27
International Equity	6.22	22.27	19.84	5.75	7.68	5.68	0.67	3.87	-3.57	-4.00	16.39	17.11
International Equity Custom Index	6.27	21.47	19.55	5.16	7.26	5.46	1.50	4.41	-4.60	-4.03	15.62	16.96
Difference	-0.05	0.80	0.29	0.59	0.42	0.22	-0.83	-0.54	1.03	0.03	0.77	0.15
Broad Fixed Income	0.81	2.11	-0.56	2.78	2.51	3.75	4.96	3.98	0.48	6.19	-0.95	7.31
Bloomberg US Agg Bond Index	0.85	3.14	0.07	2.71	2.06	2.95	4.27	2.65	0.55	5.97	-2.02	4.21
Difference	-0.04	-1.03	-0.63	0.07	0.45	0.80	0.69	1.33	-0.07	0.22	1.07	3.10
Investment Grade Credit	1.03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bloomberg US Corp Int Bond Index	1.05	3.75	1.84	3.24	2.86	3.75	5.01	4.04	1.08	4.35	0.08	8.84
Difference	-0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
US Treasury & Agency	0.37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bloomberg US Trsy Int Trm Index	0.34	1.56	-0.73	1.59	1.00	1.62	3.15	1.06	1.18	2.57	-1.34	1.71
Difference	0.03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
High Yield	1.67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bloomberg US Hi Yld 2% Issuer Cap Index	1.98	7.00	8.87	5.84	6.37	7.45	7.92	17.13	-4.43	2.46	7.44	15.78
Difference	-0.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mortgage - Backed	0.87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bloomberg US MBS Index	0.96	2.32	0.30	2.44	1.96	2.72	4.13	1.67	1.51	6.08	-1.41	2.59
Difference	-0.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TIPS	0.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bloomberg US Trsy Infl Notes 1-10 Yr Index	0.70	1.36	-0.14	1.26	0.08	1.94	3.27	4.01	-0.52	0.91	-5.58	5.04
Difference	0.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Natural Resources	-0.26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MSCI ACW Cmtdy Producers Index (USD) (Net)	10.83	4.90	12.24	-3.96	-1.93	-0.87	-2.45	32.44	-25.83	-14.69	3.31	1.96
Difference	-11.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Real Estate	1.74	7.77	9.57	11.25	10.92	11.46	3.20	8.82	14.27	12.13	10.16	9.90
Real Estate Custom Index	0.63	3.90	5.80	9.95	10.53	11.86	4.18	9.08	13.86	11.36	11.97	10.47
Difference	1.11	3.87	3.77	1.30	0.39	-0.40	-0.98	-0.26	0.41	0.77	-1.81	-0.57

Performance shown is net of all manager fees and expenses (Net-All). Benchmark returns reflect unmanaged indices which are not impacted by management fees. Fiscal year ends on 06/30. Please see Addendum for custom index specification.

Montana Board of Investments
 Comparative Performance
 Consolidated Asset Pension Pool (CAPP)

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Cash Pension	0.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICE 1 Mo LIBOR Index (USD)	0.31	0.80	0.96	0.52	0.38	0.34	0.68	0.52	0.21	0.16	0.19	0.23
Difference	-0.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Performance shown is net of all manager fees and expenses (Net-All). Benchmark returns reflect unmanaged indices which are not impacted by management fees. Fiscal year ends on 06/30. Please see Addendum for custom index specification.



Montana Board of Investments
 Comparative Performance
 Investment Pools

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Private Equity Pool*	4.00	11.04	14.78	8.98	12.00	13.25	8.21	7.37	7.20	15.47	14.52	14.28
Private Equity Custom Index	5.43	13.38	19.05	12.72	18.53	19.53	11.29	20.11	3.68	23.31	25.24	35.39
<i>Difference</i>	<i>-1.42</i>	<i>-2.34</i>	<i>-4.27</i>	<i>-3.74</i>	<i>-6.53</i>	<i>-6.28</i>	<i>-3.07</i>	<i>-12.74</i>	<i>3.51</i>	<i>-7.84</i>	<i>-10.72</i>	<i>-21.11</i>

Performance shown is net of all manager fees and expenses (Net-All). For additional information on the Private Equity Custom Index, please see the Addendum.

*Performance is based on prior quarter's fair market value adjusted for cash flows during the most recent quarterly period.

Benchmark returns reflect unmanaged indices that are not impacted by management fees. Fiscal year ends on 06/30.

Montana Board of Investments
Comparative Performance
Investment Pools

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Domestic Equity	4.74	14.25	18.96	10.73	14.45	14.42	7.65	11.76	1.14	12.59	34.61	16.77
All Public Plans-US Equity Segment Median	4.53	13.69	18.54	10.57	13.89	13.98	7.47	12.85	0.14	11.41	33.73	16.60
Rank	38	28	34	43	22	18	33	73	25	21	41	40
Population	113	106	99	88	76	66	41	99	83	49	47	43
International Equity	6.27	22.50	20.15	6.01	7.97	5.99	1.03	4.15	-3.35	-3.77	16.80	17.45
All Public Plans-Intl. Equity Segment Median	6.11	22.47	19.74	6.37	8.69	7.07	2.52	3.94	-2.60	-2.99	18.71	18.95
Rank	41	50	42	60	72	85	96	45	66	77	77	81
Population	104	99	95	82	71	58	39	94	79	46	43	38
Broad Fixed Income	0.91	2.51	-0.15	2.99	2.68	3.91	5.09	4.09	0.59	6.30	-0.83	7.44
All Public Plans-US Fixed Income Segment Median	1.04	3.77	1.31	3.19	2.65	3.74	4.82	4.56	0.30	6.01	-1.39	7.57
Rank	68	88	89	64	50	49	33	60	36	39	38	54
Population	101	96	94	84	76	66	45	95	78	49	49	48
Trust Funds Investment Pool	0.95	3.60	1.22	3.87	3.46	4.49	5.51	4.12	1.89	7.08	-0.14	7.11
All Public Plans-US Fixed Income Segment Median	1.04	3.77	1.31	3.19	2.65	3.74	4.82	4.56	0.30	6.01	-1.39	7.57
Rank	62	58	56	35	29	31	22	60	5	26	27	59
Population	101	96	94	84	76	66	45	95	78	49	49	48
Real Estate	1.89	9.02	11.06	12.70	12.38	13.03	4.58	10.26	15.68	13.51	11.73	11.44
All Public Plans-Real Estate Segment Median	2.04	6.36	8.69	11.38	12.27	13.22	4.99	10.06	13.42	14.67	13.69	12.58
Rank	58	17	22	21	49	56	59	49	13	68	67	84
Population	54	44	38	26	22	17	11	33	26	16	15	12

Performance shown is gross of fees. Fiscal year ends on 06/30.

Montana Board of Investments
Comparative Performance
Equity Composites

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Domestic Large Cap Equity - Net	4.46	14.12	18.59	10.76	14.33	14.25	7.23	11.30	1.76	13.82	33.14	16.14
S&P 500 Index (Cap Wtd)	4.48	14.24	18.61	10.81	14.22	14.38	7.44	11.96	1.38	13.69	32.39	16.00
Difference	-0.02	-0.12	-0.02	-0.05	0.11	-0.13	-0.21	-0.66	0.38	0.13	0.75	0.14
Domestic Large Cap Equity - Gross	4.50	14.23	18.74	10.92	14.49	14.47	7.47	11.45	1.91	13.99	33.34	16.39
IM U.S. Large Cap Equity (SA+CF) Median	4.58	14.08	18.87	10.49	14.27	14.32	7.77	10.99	0.94	12.91	33.51	15.81
Rank	55	48	53	37	44	43	63	47	39	32	53	42
Domestic Large Cap Active - Net	4.37	14.15	18.79	10.58	14.53	14.26	7.14	9.63	2.40	14.01	34.90	16.03
S&P 500 Index (Cap Wtd)	4.48	14.24	18.61	10.81	14.22	14.38	7.44	11.96	1.38	13.69	32.39	16.00
Difference	-0.11	-0.09	0.18	-0.23	0.31	-0.12	-0.30	-2.33	1.02	0.32	2.51	0.03
Domestic Large Cap Active - Gross	4.49	14.53	19.30	11.09	15.07	14.78	7.62	10.12	2.88	14.56	35.55	16.56
IM U.S. Large Cap Equity (SA+CF) Median	4.58	14.08	18.87	10.49	14.27	14.32	7.77	10.99	0.94	12.91	33.51	15.81
Rank	56	43	45	34	29	34	56	57	32	25	33	38
Domestic Mid Cap Equity - Net	4.39	13.41	17.48	8.34	13.40	13.06	7.95	12.29	-3.31	6.45	38.18	16.27
Russell Mid Cap Index	3.47	11.74	15.32	9.54	14.26	13.80	8.08	13.80	-2.44	13.22	34.76	17.28
Difference	0.92	1.67	2.16	-1.20	-0.86	-0.74	-0.13	-1.51	-0.87	-6.77	3.42	-1.01
Domestic Mid Cap Equity - Gross	4.54	13.93	18.19	8.99	14.06	13.69	8.57	12.96	-2.74	7.07	38.95	16.83
IM U.S. Mid Cap Equity (SA+CF) Median	3.77	12.49	17.67	10.18	14.41	14.03	8.95	12.46	-1.19	9.76	36.37	16.47
Rank	37	43	46	72	62	68	61	48	68	74	34	48
Domestic Small Cap Equity - Net	5.76	10.75	20.14	11.79	14.56	14.10	7.87	19.31	-1.61	5.44	40.65	15.76
Russell 2000 Index	5.67	10.94	20.74	12.18	13.79	13.51	7.85	21.31	-4.41	4.89	38.82	16.35
Difference	0.09	-0.19	-0.60	-0.39	0.77	0.59	0.02	-2.00	2.80	0.55	1.83	-0.59
Domestic Small Cap Equity - Gross	5.86	11.17	20.80	12.46	15.27	14.84	8.56	19.97	-0.93	6.16	41.54	16.40
IM U.S. Small Cap Equity (SA+CF) Median	5.60	10.75	21.00	12.47	14.84	14.66	8.87	20.88	-2.39	5.38	41.30	16.48
Rank	43	47	53	51	43	48	58	57	35	43	49	52

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all composites. Fiscal year ends on 06/30.

Montana Board of Investments
Comparative Performance
Equity Composites

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
International Large Cap Passive - Net	6.26	21.64	20.01	5.32	7.34	5.54	N/A	4.87	-4.71	-3.70	14.95	16.92
MSCI ACW Ex US Index (USD) (Net)	6.16	21.13	19.61	4.70	6.97	5.25	1.28	4.50	-5.66	-3.87	15.29	16.83
Difference	0.10	0.51	0.40	0.62	0.37	0.29	N/A	0.37	0.95	0.17	-0.34	0.09
International Large Cap Passive - Gross	6.28	21.70	20.10	5.41	7.42	5.62	N/A	4.96	-4.63	-3.62	15.05	17.02
International Equity Active - Net	6.26	24.21	20.20	7.62	9.20	6.66	1.28	2.63	0.41	-4.39	19.23	17.87
MSCI ACW Ex US Index (USD) (Net)	6.16	21.13	19.61	4.70	6.97	5.25	1.28	4.50	-5.66	-3.87	15.29	16.83
Difference	0.10	3.08	0.59	2.92	2.23	1.41	0.00	-1.87	6.07	-0.52	3.94	1.04
International Equity Active - Gross	6.40	24.70	20.84	8.17	9.73	7.17	1.78	3.17	0.90	-3.94	19.75	18.36
IM International Large Cap Core Equity (SA+CF) Median	5.94	21.55	20.20	6.39	9.56	7.79	2.60	1.10	0.33	-3.83	23.11	19.45
Rank	38	19	44	13	46	66	83	26	44	51	73	67
International Value - Net	6.63	23.30	22.05	5.79	8.47	5.82	-0.07	5.59	-5.94	-1.49	17.15	15.88
MSCI ACW Ex US Val Index (USD) (Net)	5.99	17.68	21.55	2.92	6.02	4.46	0.61	8.92	-10.06	-5.10	15.04	16.97
Difference	0.64	5.62	0.50	2.87	2.45	1.36	-0.68	-3.33	4.12	3.61	2.11	-1.09
International Value - Gross	6.77	23.78	22.69	6.35	9.06	6.41	0.51	6.17	-5.46	-0.94	17.82	16.55
IM International Large Cap Value Equity (SA+CF) Median	5.68	20.66	20.82	5.96	9.24	7.52	2.90	3.96	-1.92	-4.28	23.25	18.00
Rank	29	22	35	46	54	72	95	28	83	15	77	66
International Growth - Net	4.89	22.68	16.30	7.30	8.01	6.13	1.02	0.51	1.69	-6.15	18.55	18.37
MSCI ACW Ex US Grth Index (USD) (Net)	6.33	24.82	17.68	6.43	7.87	5.98	1.89	0.12	-1.25	-2.65	15.49	16.67
Difference	-1.44	-2.14	-1.38	0.87	0.14	0.15	-0.87	0.39	2.94	-3.50	3.06	1.70
International Growth - Gross	5.05	23.22	17.00	7.89	8.57	6.67	1.55	1.12	2.21	-5.72	19.09	18.89
IM International Large Cap Growth Equity (SA+CF) Median	6.33	24.61	19.41	7.36	9.42	8.11	3.32	-0.07	2.08	-3.31	20.63	19.60
Rank	84	66	81	46	75	86	87	33	49	80	69	58
International Small Cap - Net	7.08	25.85	21.16	9.20	11.25	8.83	3.36	1.84	5.16	-4.87	25.30	18.64
MSCI ACWI Ex US Sm Cap Index IMI (USD) (Net)	6.90	23.54	19.19	8.14	9.68	7.25	3.58	3.91	2.60	-4.03	19.73	18.52
Difference	0.18	2.31	1.97	1.06	1.57	1.58	-0.22	-2.07	2.56	-0.84	5.57	0.12
International Small Cap - Gross	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM International Small Cap Equity (SA+CF) Median	8.55	27.33	22.92	11.43	13.54	11.32	5.79	1.19	10.39	-3.38	31.13	23.53
Rank	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Gross of fees performance is not available (N/A) for the International Small Cap composite which currently consists of DFA Intl Sm Co;l (DFISX), DFA Emg Mkts Sm Cap;l (DEMSX), BlackRock ACWI Ex-US Small Cap (CF), Templeton Investment Counsel (SA), and American Century Investment Mgmt (SA).

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all composites. Fiscal year ends on 06/30.

Montana Board of Investments
Comparative Performance
Equity Sub Composites

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Domestic Large Cap Passive - Net	4.46	13.87	18.26	10.52	14.05	14.27	7.37	12.01	0.83	13.73	32.41	16.06
S&P 500 Index (Cap Wtd)	4.48	14.24	18.61	10.81	14.22	14.38	7.44	11.96	1.38	13.69	32.39	16.00
Difference	-0.02	-0.37	-0.35	-0.29	-0.17	-0.11	-0.07	0.05	-0.55	0.04	0.02	0.06
Domestic Large Cap Passive - Gross	4.46	13.87	18.26	10.53	14.06	14.28	7.43	12.03	0.84	13.74	32.42	16.07
IM U.S. Large Cap Index Equity (SA+CF) Median	4.53	14.13	18.63	10.79	14.24	14.35	7.59	12.03	0.94	13.28	32.58	16.20
Rank	78	70	75	76	75	68	73	52	56	18	64	56
Domestic Large Cap Enhanced - Net	4.61	16.58	19.88	11.58	14.59	14.80	7.19	9.73	3.18	13.19	32.89	16.87
S&P 500 Index (Cap Wtd)	4.48	14.24	18.61	10.81	14.22	14.38	7.44	11.96	1.38	13.69	32.39	16.00
Difference	0.13	2.34	1.27	0.77	0.37	0.42	-0.25	-2.23	1.80	-0.50	0.50	0.87
Domestic Large Cap Enhanced - Gross	4.67	16.80	20.18	11.90	14.94	15.14	7.51	10.05	3.50	13.54	33.31	17.21
IM U.S. Large Cap Core Equity (SA+CF) Median	4.61	14.11	18.63	10.59	14.20	14.42	7.83	10.51	1.32	13.42	32.96	15.70
Rank	47	20	32	22	33	26	65	58	23	48	47	31
Domestic Large Cap 130/30 - Net	4.82	12.45	18.45	9.82	14.61	14.35	N/A	9.54	1.61	14.84	36.94	18.42
S&P 500 Index (Cap Wtd)	4.48	14.24	18.61	10.81	14.22	14.38	7.44	11.96	1.38	13.69	32.39	16.00
Difference	0.34	-1.79	-0.16	-0.99	0.39	-0.03	N/A	-2.42	0.23	1.15	4.55	2.42
Domestic Large Cap 130/30 - Gross	5.00	12.97	19.17	10.51	15.34	15.09	N/A	10.22	2.26	15.59	37.83	19.18
IM U.S. Large Cap Core Equity (SA+CF) Median	4.61	14.11	18.63	10.59	14.20	14.42	7.83	10.51	1.32	13.42	32.96	15.70
Rank	38	72	42	53	24	27	N/A	55	37	21	13	15

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all composites. Fiscal year ends on 06/30.

Montana Board of Investments
Comparative Performance
Domestic Equity Managers

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Domestic Large Cap Equity														
BlackRock MSCI US Equity Index (CF) - Net	4.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.47	07/01/2017
S&P 500 Index (Cap Wtd)	4.48	14.24	18.61	10.81	14.22	14.38	7.44	11.96	1.38	13.69	32.39	16.00	4.48	
Difference	-0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.01	
BlackRock MSCI US Equity Index (CF) - Gross	4.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.47	07/01/2017
SPDR S&P 500 ETF (SPY) - Net	4.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.40	07/01/2017
S&P 500 Index (Cap Wtd)	4.48	14.24	18.61	10.81	14.22	14.38	7.44	11.96	1.38	13.69	32.39	16.00	4.48	
Difference	-0.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.08	
Domestic Equity Pool STIF - Net	0.27	0.66	0.80	N/A	N/A	N/A	N/A	0.50	N/A	N/A	N/A	N/A	0.51	04/01/2015
ICE 1 Mo LIBOR Index (USD)	0.31	0.80	0.96	0.52	0.38	0.34	0.68	0.52	0.21	0.16	0.19	0.23	0.59	
Difference	-0.04	-0.14	-0.16	N/A	N/A	N/A	N/A	-0.02	N/A	N/A	N/A	N/A	-0.08	
T. Rowe U.S. Structured Research (SA) - Net	4.61	16.33	20.01	11.73	14.73	14.75	7.94	10.68	3.30	12.58	33.23	16.42	9.05	06/01/2006
S&P 500 Index (Cap Wtd)	4.48	14.24	18.61	10.81	14.22	14.38	7.44	11.96	1.38	13.69	32.39	16.00	8.51	
Difference	0.13	2.09	1.40	0.92	0.51	0.37	0.50	-1.28	1.92	-1.11	0.84	0.42	0.54	
T. Rowe U.S. Structured Research (SA) - Gross	4.67	16.54	20.28	12.04	15.05	15.09	8.26	10.98	3.61	12.92	33.63	16.77	9.38	06/01/2006
IM U.S. Large Cap Core Equity (SA+CF) Median	4.61	14.11	18.63	10.59	14.20	14.42	7.83	10.51	1.32	13.42	32.96	15.70	8.78	
Rank	47	21	31	20	31	27	31	45	23	59	44	36	27	
J.P. Morgan 130/30 (SA) - Net	4.96	14.86	21.08	10.28	15.23	14.49	N/A	10.30	0.01	15.38	37.55	18.64	10.46	03/01/2008
S&P 500 Index (Cap Wtd)	4.48	14.24	18.61	10.81	14.22	14.38	7.44	11.96	1.38	13.69	32.39	16.00	9.23	
Difference	0.48	0.62	2.47	-0.53	1.01	0.11	N/A	-1.66	-1.37	1.69	5.16	2.64	1.23	
J.P. Morgan 130/30 (SA) - Gross	5.16	15.48	21.94	11.07	16.05	15.31	N/A	11.09	0.72	16.21	38.53	19.48	11.25	03/01/2008
IM U.S. Large Cap Core Equity (SA+CF) Median	4.61	14.11	18.63	10.59	14.20	14.42	7.83	10.51	1.32	13.42	32.96	15.70	9.46	
Rank	33	30	17	34	15	23	N/A	44	58	15	11	13	8	

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all funds. Fiscal year ends on 06/30.



Montana Board of Investments
Comparative Performance
Domestic Equity Managers

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Domestic Mid Cap Equity														
Artisan Partners (SA) - Net	3.52	8.37	16.77	7.14	12.02	12.06	8.41	23.60	-9.68	2.12	37.20	12.02	8.25	03/01/2007
Russell Mid Cap Val Index	2.14	7.43	13.37	9.19	14.33	13.76	7.85	20.00	-4.78	14.75	33.46	18.51	7.51	
Difference	1.38	0.94	3.40	-2.05	-2.31	-1.70	0.56	3.60	-4.90	-12.63	3.74	-6.49	0.74	
Artisan Partners (SA) - Gross	3.68	8.87	17.50	7.83	12.75	12.81	9.16	24.41	-9.09	2.79	38.11	12.79	9.00	03/01/2007
IM U.S. Mid Cap Value Equity (SA+CF) Median	3.55	8.93	17.08	9.96	14.56	14.04	8.89	18.21	-3.23	11.73	35.97	17.26	8.78	
Rank	44	51	46	79	85	81	43	14	89	97	40	86	41	
Iridian Asset Management (SA) - Net	6.54	20.40	18.65	8.40	N/A	N/A	N/A	3.29	-1.62	12.84	N/A	N/A	13.53	05/01/2013
Russell Mid Cap Val Index	2.14	7.43	13.37	9.19	14.33	13.76	7.85	20.00	-4.78	14.75	33.46	18.51	11.66	
Difference	4.40	12.97	5.28	-0.79	N/A	N/A	N/A	-16.71	3.16	-1.91	N/A	N/A	1.87	
Iridian Asset Management (SA) - Gross	6.73	21.05	19.52	9.21	N/A	N/A	N/A	4.07	-0.87	13.73	N/A	N/A	14.40	05/01/2013
IM U.S. Mid Cap Value Equity (SA+CF) Median	3.55	8.93	17.08	9.96	14.56	14.04	8.89	18.21	-3.23	11.73	35.97	17.26	12.46	
Rank	1	4	25	58	N/A	N/A	N/A	100	22	24	N/A	N/A	13	
iShares:Core S&P Md-Cp (IJH) - Net	3.21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.21	07/01/2017
S&P Mid Cap 400 Index (Cap Wtd)	3.22	9.40	17.52	11.18	14.43	13.92	9.00	20.74	-2.18	9.77	33.50	17.88	3.22	
Difference	-0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.01	
TimesSquare Capital Management (SA) - Net	4.47	16.01	16.74	9.40	13.64	13.13	8.70	7.91	0.96	5.69	37.79	19.19	9.14	03/01/2007
Russell Mid Cap Grth Index	5.28	17.29	17.82	9.96	14.18	13.84	8.20	7.33	-0.20	11.90	35.74	15.81	8.67	
Difference	-0.81	-1.28	-1.08	-0.56	-0.54	-0.71	0.50	0.58	1.16	-6.21	2.05	3.38	0.47	
TimesSquare Capital Management (SA) - Gross	4.64	16.59	17.53	10.15	14.42	13.92	9.47	8.65	1.65	6.42	38.75	20.03	9.91	03/01/2007
IM U.S. Mid Cap Growth Equity (SA+CF) Median	4.56	17.77	19.06	10.43	13.60	13.95	8.62	5.42	0.79	8.63	36.40	15.13	9.64	
Rank	45	58	64	53	33	55	25	22	42	71	36	15	39	

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all funds. Fiscal year ends on 06/30.

Montana Board of Investments
Comparative Performance
Domestic Equity Managers

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Domestic Small Cap Equity														
Vaughan Nelson Management (SA) - Net	4.34	3.16	12.76	10.03	14.28	13.43	9.69	20.50	0.16	9.09	39.30	15.36	9.98	03/01/2007
Russell 2000 Val Index	5.11	5.68	20.55	12.12	13.27	12.80	7.14	31.74	-7.47	4.22	34.52	18.05	6.43	
Difference	-0.77	-2.52	-7.79	-2.09	1.01	0.63	2.55	-11.24	7.63	4.87	4.78	-2.69	3.55	
Vaughan Nelson Management (SA) - Gross	4.52	3.75	13.63	10.92	15.22	14.37	10.62	21.49	0.98	10.00	40.47	16.32	10.91	03/01/2007
IM U.S. Small Cap Value Equity (SA+CF) Median	5.28	7.22	20.48	12.08	14.82	14.27	9.00	26.10	-4.31	5.71	38.09	17.48	8.77	
Rank	67	83	92	69	42	47	17	76	8	10	35	60	9	
BlackRock MSCI US Sm Cap Equity Index (CF) - Net	5.56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.56	07/01/2017
MSCI US Sm Cap Index (USD) (Net)	5.43	11.49	19.08	10.86	14.00	13.72	8.61	19.15	-4.11	7.07	37.64	17.52	5.43	
Difference	0.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.13	
BlackRock MSCI US Sm Cap Equity Index (CF) - Gross	5.57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.57	07/01/2017
DFA US Small Cap Trust (CF) - Net	5.66	7.89	20.71	12.67	14.99	14.81	8.91	24.42	-2.64	4.75	42.42	18.20	12.87	03/01/2003
Russell 2000 Index	5.67	10.94	20.74	12.18	13.79	13.51	7.85	21.31	-4.41	4.89	38.82	16.35	11.70	
Difference	-0.01	-3.05	-0.03	0.49	1.20	1.30	1.06	3.11	1.77	-0.14	3.60	1.85	1.17	
DFA US Small Cap Trust (CF) - Gross	5.75	8.18	21.14	13.06	15.39	15.21	9.29	24.85	-2.29	5.12	42.90	18.59	13.19	03/01/2003
IM U.S. Small Cap Core Equity (SA+CF) Median	5.58	10.88	20.94	13.06	15.55	15.13	8.95	20.64	-1.36	6.56	41.26	16.84	12.94	
Rank	45	78	48	50	56	48	41	21	63	63	41	33	40	
Alliance Bernstein (SA) - Net	7.54	25.23	28.32	10.96	13.24	N/A	N/A	6.82	-0.84	-1.61	45.22	N/A	11.82	04/01/2012
Russell 2000 Grth Index	6.22	16.81	20.98	12.17	14.28	14.17	8.47	11.32	-1.38	5.60	43.30	14.59	13.05	
Difference	1.32	8.42	7.34	-1.21	-1.04	N/A	N/A	-4.50	0.54	-7.21	1.92	N/A	-1.23	
Alliance Bernstein (SA) - Gross	7.76	26.02	29.41	11.95	14.25	N/A	N/A	7.80	0.05	-0.71	46.52	N/A	12.83	04/01/2012
IM U.S. Small Cap Growth Equity (SA+CF) Median	5.87	18.13	21.68	12.58	14.61	15.05	8.61	11.38	-0.73	3.99	45.47	14.76	13.55	
Rank	18	9	9	59	58	N/A	N/A	70	42	81	46	N/A	62	
Voya Investment Management (SA) - Net	4.46	14.77	17.89	11.63	N/A	N/A	N/A	13.14	-1.01	5.41	N/A	N/A	12.59	05/01/2013
Russell 2000 Grth Index	6.22	16.81	20.98	12.17	14.28	14.17	8.47	11.32	-1.38	5.60	43.30	14.59	13.15	
Difference	-1.76	-2.04	-3.09	-0.54	N/A	N/A	N/A	1.82	0.37	-0.19	N/A	N/A	-0.56	
Voya Investment Management (SA) - Gross	4.65	15.48	18.87	12.59	N/A	N/A	N/A	14.14	-0.15	6.35	N/A	N/A	13.57	05/01/2013
IM U.S. Small Cap Growth Equity (SA+CF) Median	5.87	18.13	21.68	12.58	14.61	15.05	8.61	11.38	-0.73	3.99	45.47	14.76	13.85	
Rank	73	66	77	50	N/A	N/A	N/A	36	44	31	N/A	N/A	54	

Gross of fees performance is not available (N/A) for the following funds: SPDR S&P 500 ETF (SPY), Domestic Equity Pool STIF, and iShares:Core S&P Md-Cp (IJH).

The current annual expense ratios for the SPDR S&P 500 ETF (SPY), Domestic Equity Pool STIF, and iShares:Core S&P Md-Cp (IJH) are 0.09%, 0.18%, and 0.07%, respectively.

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all funds. Fiscal year ends on 06/30.



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International Equity Managers

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	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
International Developed Large Cap Equity														
Acadian Asset Non-US Equity (SA) - Net	7.38	27.07	30.88	8.45	10.30	8.59	1.13	12.40	-7.75	0.00	17.60	18.66	3.41	11/01/2006
MSCI ACW Ex US Val Index (USD) (Net)	5.99	17.68	21.55	2.92	6.02	4.46	0.61	8.92	-10.06	-5.10	15.04	16.97	2.46	
Difference	1.39	9.39	9.33	5.53	4.28	4.13	0.52	3.48	2.31	5.10	2.56	1.69	0.95	
Acadian Asset Non-US Equity (SA) - Gross	7.52	27.55	31.55	9.02	10.88	9.18	1.70	13.01	-7.26	0.52	18.22	19.37	3.99	11/01/2006
IM International Large Cap Value Equity (SA+CF) Median	5.68	20.66	20.82	5.96	9.24	7.52	2.90	3.96	-1.92	-4.28	23.25	18.00	4.37	
Rank	9	7	1	14	21	16	89	6	90	11	77	35	63	
Lazard Asset Management (SA) - Net	5.92	19.89	14.60	N/A	N/A	N/A	N/A	0.22	N/A	N/A	N/A	N/A	3.93	06/01/2015
MSCI ACW Ex US Val Index (USD) (Net)	5.99	17.68	21.55	2.92	6.02	4.46	0.61	8.92	-10.06	-5.10	15.04	16.97	3.76	
Difference	-0.07	2.21	-6.95	N/A	N/A	N/A	N/A	-8.70	N/A	N/A	N/A	N/A	0.17	
Lazard Asset Management (SA) - Gross	6.06	20.36	15.22	N/A	N/A	N/A	N/A	0.77	N/A	N/A	N/A	N/A	4.50	06/01/2015
IM International Large Cap Value Equity (SA+CF) Median	5.68	20.66	20.82	5.96	9.24	7.52	2.90	3.96	-1.92	-4.28	23.25	18.00	5.27	
Rank	40	54	87	N/A	N/A	N/A	N/A	84	N/A	N/A	N/A	N/A	64	
BlackRock ACWI Ex-US SuperFund A (CF) - Net	6.19	21.40	19.91	4.94	7.19	5.46	N/A	4.77	-5.49	-3.73	15.51	17.07	7.67	06/01/2009
MSCI ACW Ex US Index (USD) (Net)	6.16	21.13	19.61	4.70	6.97	5.25	1.28	4.50	-5.66	-3.87	15.29	16.83	7.46	
Difference	0.03	0.27	0.30	0.24	0.22	0.21	N/A	0.27	0.17	0.14	0.22	0.24	0.21	
BlackRock ACWI Ex-US SuperFund A (CF) - Gross	6.21	21.47	20.00	5.02	7.27	5.54	N/A	4.86	-5.42	-3.65	15.61	17.17	7.76	06/01/2009
IM All ACWI ex US (SA+CF) Median	6.22	23.04	20.19	6.93	9.40	7.81	3.00	2.04	-0.53	-3.38	20.39	18.70	9.83	
Rank	51	63	51	79	88	88	N/A	25	85	54	84	62	88	
iShares:MSCI EAFE ETF (EFA) - Net	5.03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.03	07/01/2017
MSCI EAFE Index (USD) (Net)	5.40	19.96	19.10	5.04	8.38	6.38	1.34	1.00	-0.81	-4.90	22.78	17.32	5.40	
Difference	-0.37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.37	
Baillie Gifford (SA) - Net	4.97	25.57	16.34	N/A	N/A	N/A	N/A	0.73	N/A	N/A	N/A	N/A	7.14	06/01/2015
MSCI ACW Ex US Grth Index (USD) (Net)	6.33	24.82	17.68	6.43	7.87	5.98	1.89	0.12	-1.25	-2.65	15.49	16.67	5.79	
Difference	-1.36	0.75	-1.34	N/A	N/A	N/A	N/A	0.61	N/A	N/A	N/A	N/A	1.35	
Baillie Gifford (SA) - Gross	5.11	26.06	16.96	N/A	N/A	N/A	N/A	1.28	N/A	N/A	N/A	N/A	7.71	06/01/2015
IM International Large Cap Growth Equity (SA+CF) Median	6.33	24.61	19.41	7.36	9.42	8.11	3.32	-0.07	2.08	-3.31	20.63	19.60	6.29	
Rank	81	37	81	N/A	N/A	N/A	N/A	32	N/A	N/A	N/A	N/A	30	

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all funds. Fiscal year ends on 06/30.

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Comparative Performance
International Equity Managers

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Invesco (SA) - Net	4.82	20.43	16.29	N/A	N/A	N/A	N/A	0.32	N/A	N/A	N/A	N/A	4.43	06/01/2015
MSCI ACW Ex US Grth Index (USD) (Net)	6.33	24.82	17.68	6.43	7.87	5.98	1.89	0.12	-1.25	-2.65	15.49	16.67	5.79	
Difference	-1.51	-4.39	-1.39	N/A	N/A	N/A	N/A	0.20	N/A	N/A	N/A	N/A	-1.36	
Invesco (SA) - Gross	4.99	21.01	17.06	N/A	N/A	N/A	N/A	1.01	N/A	N/A	N/A	N/A	5.13	06/01/2015
IM International Large Cap Growth Equity (SA+CF) Median	6.33	24.61	19.41	7.36	9.42	8.11	3.32	-0.07	2.08	-3.31	20.63	19.60	6.29	
Rank	85	84	80	N/A	N/A	N/A	N/A	35	N/A	N/A	N/A	N/A	69	
International Equity Pool STIF - Net	0.28	0.64	0.79	N/A	N/A	N/A	N/A	0.47	N/A	N/A	N/A	N/A	0.49	04/01/2015
ICE 1 Mo LIBOR Index (USD)	0.31	0.80	0.96	0.52	0.38	0.34	0.68	0.52	0.21	0.16	0.19	0.23	0.59	
Difference	-0.03	-0.16	-0.17	N/A	N/A	N/A	N/A	-0.05	N/A	N/A	N/A	N/A	-0.10	
International Developed Small Cap Equity														
American Century Investment Mgmt (SA) - Net	10.48	33.30	22.70	10.90	N/A	N/A	N/A	-5.31	11.32	N/A	N/A	N/A	6.73	03/01/2014
MSCI ACW Ex US Sm Cap Grth Index (USD) (Net)	6.95	24.68	17.11	8.50	9.28	7.28	3.17	-0.28	6.50	-3.59	18.52	16.87	6.01	
Difference	3.53	8.62	5.59	2.40	N/A	N/A	N/A	-5.03	4.82	N/A	N/A	N/A	0.72	
American Century Investment Mgmt (SA) - Gross	10.71	34.11	23.73	11.84	N/A	N/A	N/A	-4.49	12.25	N/A	N/A	N/A	7.64	03/01/2014
IM International Small Cap Growth Equity (SA+CF) Median	8.91	30.74	23.60	12.05	12.99	10.95	5.96	-1.60	12.85	-3.62	31.15	23.67	7.94	
Rank	24	17	45	53	N/A	N/A	N/A	82	52	N/A	N/A	N/A	54	
BlackRock ACWI Ex-US Small Cap (CF) - Net	6.94	23.74	19.36	8.48	9.92	N/A	N/A	4.26	2.87	-3.84	19.87	N/A	9.44	02/01/2012
MSCI ACWI Ex US Sm Cap Index IMI (USD) (Net)	6.90	23.54	19.19	8.14	9.68	7.25	3.58	3.91	2.60	-4.03	19.73	18.52	9.22	
Difference	0.04	0.20	0.17	0.34	0.24	N/A	N/A	0.35	0.27	0.19	0.14	N/A	0.22	
BlackRock ACWI Ex-US Small Cap (CF) - Gross	6.97	23.87	19.54	8.66	10.11	N/A	N/A	4.44	3.04	-3.67	20.08	N/A	9.63	02/01/2012
DFA Intl Sm Co;l (DFISX) - Net	6.98	24.50	21.90	10.11	12.14	9.40	4.56	5.74	5.89	-6.29	27.49	18.75	8.84	11/01/2004
MSCI Wrld Ex US Sm Cap Index (USD) (Net)	7.26	23.82	20.42	9.59	11.16	8.82	4.04	4.32	5.46	-5.35	25.55	17.48	8.07	
Difference	-0.28	0.68	1.48	0.52	0.98	0.58	0.52	1.42	0.43	-0.94	1.94	1.27	0.77	
Templeton Investment Counsel (SA) - Net	5.67	25.92	21.19	7.61	N/A	N/A	N/A	-1.13	1.81	N/A	N/A	N/A	5.60	03/01/2014
MSCI ACW Ex US Sm Cap Val Index (USD) (Net)	6.86	22.46	21.31	7.75	10.05	7.20	3.95	8.24	-1.25	-4.49	20.92	20.15	5.52	
Difference	-1.19	3.46	-0.12	-0.14	N/A	N/A	N/A	-9.37	3.06	N/A	N/A	N/A	0.08	
Templeton Investment Counsel (SA) - Gross	5.89	26.73	22.25	8.58	N/A	N/A	N/A	-0.23	2.73	N/A	N/A	N/A	6.55	03/01/2014
IM International Small Cap Value Equity (SA+CF) Median	7.54	25.16	21.64	9.31	13.09	10.85	6.09	6.47	5.36	-4.24	30.48	23.53	6.97	
Rank	73	31	48	73	N/A	N/A	N/A	90	76	N/A	N/A	N/A	72	

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all funds. Fiscal year ends on 06/30.



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Comparative Performance
International Equity Managers

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
International Emerging Equity														
BlackRock Emerging Mkts (CF) - Net	7.84	27.62	22.21	4.65	3.72	N/A	N/A	10.85	-15.15	-2.49	-2.79	N/A	3.36	02/01/2012
MSCI Emg Mkts Index (USD) (Net)	7.89	27.78	22.46	4.90	3.99	2.54	1.32	11.19	-14.92	-2.19	-2.60	18.23	3.61	
Difference	-0.05	-0.16	-0.25	-0.25	-0.27	N/A	N/A	-0.34	-0.23	-0.30	-0.19	N/A	-0.25	
BlackRock Emerging Mkts (CF) - Gross	7.85	27.69	22.34	4.82	3.91	N/A	N/A	11.08	-14.99	-2.30	-2.57	N/A	3.55	02/01/2012
iShares:MSCI Em Mkts (EEM) - Net	8.21	28.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	28.23	01/01/2017
MSCI Emg Mkts Index (USD) (Net)	7.89	27.78	22.46	4.90	3.99	2.54	1.32	11.19	-14.92	-2.19	-2.60	18.23	27.78	
Difference	0.32	0.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.45	
DFA Emg Mkts Sm Cap;I (DEMSX) - Net	6.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11.83	03/01/2017
MSCI Emg Mkts Sm Cap Index (USD) (Net)	5.64	22.53	14.89	3.14	4.60	1.95	1.74	2.28	-6.85	1.01	1.04	22.22	11.26	
Difference	0.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.57	

Gross of fees performance is not available (N/A) for the following funds: iShares:MSCI EAFE ETF (EFA), International Equity Pool STIF, DFA Intl Sm Co;I (DFISX), iShares:MSCI Em Mkts (EEM), and DFA Emg Mkts Sm Cap;I (DEMSX).

The current annual expense ratios for the iShares:MSCI EAFE ETF (EFA), International Equity Pool STIF, DFA Intl Sm Co;I (DFISX), iShares:MSCI Em Mkts (EEM), and DFA Emg Mkts Sm Cap;I (DEMSX) are 0.32%, 0.18%, 0.53%, 0.72%, and 0.72%, respectively.

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all funds. Fiscal year ends on 06/30.

Montana Board of Investments
Comparative Performance
Fixed Income Managers

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Trust Funds Bond Portfolio	0.83	3.31	0.41	3.22	2.71	3.76	4.95	3.41	1.03	6.79	-1.43	6.15	6.07	10/01/1995
Bloomberg US Agg Bond Index	0.85	3.14	0.07	2.71	2.06	2.95	4.27	2.65	0.55	5.97	-2.02	4.21	5.31	
Difference	-0.02	0.17	0.34	0.51	0.65	0.81	0.68	0.76	0.48	0.82	0.59	1.94	0.76	
Trust Funds Bond Portfolio	0.83	3.31	0.41	3.22	2.71	3.76	4.95	3.41	1.03	6.79	-1.43	6.15	6.07	10/01/1995
IM U.S. Broad Market Core FI (SA+CF) Median	0.92	3.46	0.60	3.01	2.46	3.47	4.78	3.10	0.82	6.15	-1.56	5.85	5.69	
Rank	79	63	64	34	31	27	39	42	29	25	42	44	10	
Reams Asset Core Plus (SA) - Net	0.82	2.93	0.02	2.85	2.30	3.71	N/A	4.18	0.07	4.47	-0.85	8.64	5.84	10/01/2008
Reams Custom Index	0.85	3.42	0.73	3.03	2.48	3.37	4.54	3.91	0.43	5.56	-1.35	5.53	4.79	
Difference	-0.03	-0.49	-0.71	-0.18	-0.18	0.34	N/A	0.27	-0.36	-1.09	0.50	3.11	1.05	
Reams Asset Core Plus (SA) - Gross	0.87	3.06	0.19	3.03	2.48	3.89	N/A	4.35	0.24	4.65	-0.68	8.83	6.02	10/01/2008
IM U.S. Broad Market Core+ FI (SA+CF) Median	1.17	4.20	1.99	3.43	3.10	4.28	5.50	4.74	0.27	6.19	-0.49	8.16	6.19	
Rank	94	96	100	82	89	70	N/A	59	51	91	57	43	58	
Post High Yield Plus (SA) - Net	1.55	6.18	7.16	5.44	6.97	7.85	N/A	9.58	0.82	4.99	10.19	16.97	9.77	06/01/2009
Bloomberg US Hi Yld 2% Issuer Cap Index	1.98	7.00	8.87	5.84	6.37	7.45	7.92	17.13	-4.43	2.46	7.44	15.78	10.50	
Difference	-0.43	-0.82	-1.71	-0.40	0.60	0.40	N/A	-7.55	5.25	2.53	2.75	1.19	-0.73	
Post High Yield Plus (SA) - Gross	1.70	6.64	7.81	6.07	7.61	8.50	N/A	10.23	1.43	5.62	10.85	17.67	10.43	06/01/2009
IM U.S. High Yield Bonds (SA+CF) Median	2.00	6.81	8.56	5.49	6.22	7.31	7.50	14.09	-2.16	2.59	7.57	15.33	10.25	
Rank	73	55	70	27	8	6	N/A	85	8	2	10	13	40	
Post Trad'l High Yield LP (CF) - Gross	1.69	6.59	7.90	6.41	7.58	8.51	N/A	10.62	1.42	6.01	9.98	18.62	9.78	09/01/2009
IM U.S. High Yield Bonds (SA+CF) Median	2.00	6.81	8.56	5.49	6.22	7.31	7.50	14.09	-2.16	2.59	7.57	15.33	9.22	
Rank	75	57	68	20	8	5	N/A	82	8	2	13	10	23	
Neuberger Berman High Yield (SA) - Net	1.82	5.76	6.81	4.93	5.70	6.83	N/A	14.98	-4.32	1.93	7.78	15.90	7.82	01/01/2010
Bloomberg US Hi Yld 2% Issuer Cap Index	1.98	7.00	8.87	5.84	6.37	7.45	7.92	17.13	-4.43	2.46	7.44	15.78	8.20	
Difference	-0.16	-1.24	-2.06	-0.91	-0.67	-0.62	N/A	-2.15	0.11	-0.53	0.34	0.12	-0.38	
Neuberger Berman High Yield (SA) - Gross	1.93	6.11	7.29	5.40	6.17	7.31	N/A	15.50	-3.89	2.38	8.26	16.42	8.31	01/01/2010
IM U.S. High Yield Bonds (SA+CF) Median	2.00	6.81	8.56	5.49	6.22	7.31	7.50	14.09	-2.16	2.59	7.57	15.33	8.16	
Rank	57	68	78	53	53	51	N/A	32	75	55	31	29	41	

Trust Funds Bond Portfolio and Post Trad'l High Yield LP (CF) are part of the Trust Fund Investment Pool.

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. Fiscal year ends on 06/30.

Montana Board of Investments
Comparative Performance
Trust Accounts

As of September 30, 2017

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Abandoned Mine Trust	0.37	0.88	0.92	1.12	1.04	1.33	2.32	1.10	0.90	1.49	0.63	2.82
Big Sky Economic Development Fund	0.93	3.50	1.16	3.74	3.32	4.31	5.30	3.98	1.82	6.77	-0.22	6.72
Butte Area One Restoration	0.70	2.53	1.05	2.46	2.05	2.55	N/A	2.60	1.20	3.57	-0.08	3.68
Clark Fork River Restoration	0.70	2.46	1.07	2.61	2.24	2.87	N/A	2.72	1.37	4.26	-0.12	4.36
Coal Tax Cultural Trust Fund	0.92	3.49	1.15	3.72	3.31	4.30	5.30	3.95	1.79	6.79	-0.23	6.76
Coal Tax Park Acquisition	0.93	3.49	1.12	3.69	3.26	4.28	5.28	3.90	1.78	6.66	-0.25	6.78
East Helena Compensation Fund	0.62	2.17	1.10	2.02	N/A	N/A	N/A	2.12	0.91	3.01	-0.13	N/A
Endowment for Children	0.93	3.42	1.17	3.56	3.18	4.19	5.15	3.66	1.70	6.66	-0.28	6.69
FWP License Account	0.31	0.90	0.76	0.84	0.70	0.87	1.67	0.84	0.61	0.59	0.42	1.64
FWP Mitigation Trust Fund	0.44	1.11	0.68	1.04	0.97	1.28	2.17	0.67	0.87	1.37	0.61	2.85
FWP Real Property Trust	0.89	3.34	1.10	3.58	3.17	4.13	5.10	3.82	1.73	6.47	-0.24	6.51
Group Benefits	0.46	1.12	0.84	1.25	1.00	1.21	2.23	1.16	1.06	1.17	0.32	2.22
Harold Hamm Endowment	0.30	0.78	0.97	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Montana Pole	0.80	2.93	1.11	3.10	2.73	3.53	4.49	3.23	1.56	5.44	-0.17	5.50
Montana State University	0.38	1.05	1.00	0.88	0.70	0.81	1.32	0.95	0.39	0.85	0.12	1.07
Montana Tech-UM Agency Funds	0.33	0.89	0.98	0.66	0.50	0.53	0.98	0.72	0.27	0.35	0.17	0.57
MT BOI - Clark Fork Site	0.85	3.20	1.11	3.32	2.85	3.53	N/A	3.63	1.56	5.37	-0.09	5.23
MT BOI UOFM Other	0.68	1.86	1.09	1.96	1.61	1.81	2.30	2.34	1.13	2.57	-0.12	2.54
MUS Group Insurance	0.31	0.85	0.78	1.32	1.00	N/A	N/A	1.33	1.26	1.30	0.17	1.56
MUS Workers Compensation	0.46	1.45	0.99	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Older Montanans Trust	0.91	3.40	1.13	3.62	3.21	3.82	4.92	3.86	1.72	6.57	-0.23	6.01
Permanent Coal Trust Excl Crp	0.76	2.95	1.59	3.55	3.40	4.24	4.94	3.79	2.23	6.14	0.99	6.29
PERS Defined Cont Disability	3.29	10.36	10.88	N/A	N/A	N/A	N/A	3.42	N/A	N/A	N/A	N/A
Potter Trust Fund	0.90	3.41	1.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Resource Indemnity Trust	0.94	3.54	1.15	3.78	3.36	4.36	5.33	4.02	1.82	6.94	-0.27	6.86
Smelter Hill Up Restorative	0.48	1.57	0.94	1.66	1.42	1.71	N/A	1.79	0.92	2.49	0.01	2.47
State Fund Insurance	1.25	4.16	2.96	3.79	3.72	4.37	4.89	3.50	2.21	5.00	3.11	7.25
Streamside Tailings Operable Unit	0.88	3.23	1.20	3.45	3.04	3.91	4.81	3.58	1.69	6.22	-0.21	6.14
Subsequent Injury Fund	0.30	0.78	0.97	0.54	0.38	0.43	-0.03	0.61	0.22	0.11	0.13	0.31
Tobacco Trust Fund	0.92	3.49	1.10	3.76	3.33	4.32	5.33	3.99	1.82	6.89	-0.27	6.77
Treasurers	0.30	0.76	0.92	0.59	0.44	0.40	0.81	0.68	0.27	0.19	0.23	0.31
Treasure State Endowment	0.94	3.53	1.16	3.76	3.34	4.33	5.33	3.98	1.82	6.84	-0.21	6.76
Treasure State Reg. Water System	0.94	3.52	1.16	3.75	3.32	4.32	5.31	3.96	1.82	6.80	-0.22	6.73
Trust and Legacy Account	0.93	3.53	1.14	3.77	3.35	4.33	5.32	4.01	1.82	6.92	-0.26	6.78
UCFRB Assess/Litig Cost Rec	0.87	3.30	1.09	3.53	3.14	3.97	5.09	3.84	1.65	6.40	-0.24	6.45
UCFRB Restoration Fund	0.87	3.27	1.22	3.43	3.05	4.02	5.01	3.52	1.70	6.28	-0.20	6.43
Upper Blackfoot Response	0.48	1.59	0.97	1.56	1.22	1.38	N/A	1.74	0.84	1.59	0.13	1.60
Weed Control Trust	0.94	3.54	1.15	3.78	3.36	4.25	5.05	4.02	1.82	6.94	-0.23	6.69
Wildlife Habitat Trust	0.90	3.32	1.07	3.54	3.16	4.11	5.09	3.79	1.73	6.49	-0.24	6.46
Zortman/Landusky LT H20	0.30	0.68	0.82	1.23	0.89	2.48	5.20	1.36	0.84	1.78	-0.51	5.47
Z/L Long Term H20 Trust Fund	0.30	0.75	0.87	1.32	0.84	2.18	4.57	1.39	1.15	1.76	-0.96	3.91

Performance shown is gross of fees. Fiscal year ends on 06/30.

Performance Notes

- All gross and net performance data is provided by State Street Analytics (SSA). Reported gross returns for the retirement plans prior to 07/01/2002 are net of all fees.
- Gross performance for the retirement plans is calculated with fee accruals provided by Montana's Accounting department.
- Retirement plan custom benchmarks are provided by State Street Bank and are calculated daily using actual allocations.
- Gross of fees performance is not available (N/A) for the following funds: SPDR S&P 500 ETF (SPY), Domestic Equity Pool STIF, iShares:Core S&P Md-Cp (IJH), DFA Intl Sm Co;I (DFISX), iShares:MSCI EAFE ETF (EFA), International Equity Pool STIF, iShares:MSCI Em Mkts (EEM), and DFA Emg Mkts Sm Cap;I (DEMSX). The current annual expense ratios are as listed below.

Index Notes

- The Domestic Equity Custom Index consists of 100% S&P 1500 Comp Index through 04/30/2017 and 100% MSCI USA IM Index (USD) (Net) thereafter.
- The International Equity Custom Index consists of 100% MSCI EAFE Index (USD) (Net) through 10/31/2006, 100% MSCI ACW Ex US Index (USD) (Net) through 6/30/2007, 92.5% MSCI ACW Ex US Index (USD) (Net) and 7.5% MSCI ACW Ex US SC IM Index (USD) (Net) through 02/28/2014, and 100% MSCI ACW Ex-US IM Index thereafter.
- The Reams Custom Index consists of 100% Bloomberg US Unv Bond Index through 03/31/2017 and 100% Bloomberg US Agg Bond Index thereafter.
- The Real Estate Custom Index consists of 100% NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag) through 03/31/2017 and 100% MSCI US REIT Index (USD) (Net) thereafter.
- The Private Equity Custom Index consists of 100% S&P 1500 Comp Index+4% (1 Qtr Lag) through 03/31/2017 and 100% MSCI US Small Cap Index (USD) (Gross) thereafter.

Trust Accounts Comments

- The Potter Trust Fund and the Harold Hamm Endowment were added in 06/2016.
- MUS Workers Compensation was added in 04/2016.

Manager Transition Comments

- BlackRock MSCI US Equity Index (CF), BlackRock MSCI US Sm Cap Equity Index (CF), and iShares:Core S&P Md-Cp (IJH) were funded in 06/2017.
- SPDR S&P 500 ETF (SPY) and iShares:MSCI EAFE ETF (EFA) were re-funded in 06/2017.
- INTECH Enhanced Plus was liquidated in 06/2017.
- Residual assets from the liquidation of AllianceBernstein Int'l Value (SA), Martin Currie (SA), Hansberger Global Investors (SA), and Aberdeen Total Return Bond Strategy (SA) were distributed in 06/2017.
- BlackRock Equity Index Fund A (CF) and BlackRock Mid Cap Equity Index A (CF) were liquidated in 05/2017.
- DFA Emg Mkts Sm Cap;I (DEMSX) was funded in 02/2017.
- SPDR S&P 500 ETF (SPY) was liquidated in 01/2017.
- iShares:MSCI Em Mkts (EEM) was funded in 12/2016.
- SPDR S&P 500 ETF (SPY) was initially funded in 09/2015, was then liquidated in 12/2015, and was re-funded in 10/2016.
- Wells Capital Management (SA), Domestic Equity Pool SPIF, and International Equity Pool SPIF were liquidated in 10/2016. Wells Capital Management (SA) residual assets from liquidation were distributed in 03/2017.
- Nicholas Investment Partners was liquidated in 07/2016. Residual assets from liquidation were distributed in 03/2017.
- Effective 07/2016, the Metropolitan West Capital Management legal entity merged into the Wells Capital Management Incorporated legal entity. The Metropolitan West Capital Mgmt (SA) has been updated to Wells Capital Management (SA) to reflect the change.
- iShares S&P SmallCap 600 Index ETF (IJR) was liquidated in 01/2016.
- Effective 05/2014, ING rebranded to Voya. The ING Investment Management (SA) has been updated to Voya Investment Management (SA) to reflect the change.

Miscellaneous Comments

- Fiscal year ends on 06/30.

Expense Ratios

• SPDR S&P 500 ETF (SPY):	0.09%
• Domestic Equity Pool STIF:	0.18%
• DFA Intl Sm Co;I (DFISX):	0.53%
• iShares:MSCI EAFE ETF (EFA):	0.32%
• International Equity Pool STIF:	0.18%
• iShares:MSCI Em Mkts (EEM):	0.72%
• DFA Emg Mkts Sm Cap;I (DEMSX):	0.72%
• iShares:Core S&P Md-Cp (IJH):	0.07%

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