



Quarterly Investment Performance Analysis

Montana Board of Investments

Period Ended: December 31, 2017



Montana Board of Investments
Comparative Performance
Retirement Plans

As of December 31, 2017

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Public Employees' Retirement - Net	3.51	7.01	14.80	7.86	9.74	9.11	5.89	6.47	7.32	1.86	8.07	17.38	13.24	7.03	04/01/1997
Public Employees' Benchmark	3.89	7.77	15.35	8.46	10.42	9.74	6.26	N/A	9.09	1.40	9.08	17.94	14.88	N/A	
Difference	-0.38	-0.76	-0.55	-0.60	-0.68	-0.63	-0.37	N/A	-1.77	0.46	-1.01	-0.56	-1.64	N/A	
Public Employees' Retirement - Gross	3.65	7.27	15.34	8.35	10.26	9.64	6.44	6.79	7.78	2.31	8.61	17.96	13.83	N/A	01/01/1991
All Public Plans > \$3B Total Fund Median	3.72	7.67	16.08	7.97	8.84	8.16	5.87	7.01	7.94	0.54	6.76	14.47	13.32	8.62	
Rank	64	66	63	27	4	1	5	73	55	8	7	5	33	N/A	
Teachers' Retirement - Net	3.50	6.99	14.76	7.86	9.74	9.11	5.90	6.48	7.33	1.86	8.09	17.38	13.24	7.04	04/01/1997
Teachers' Benchmark	3.89	7.76	15.32	8.45	10.42	9.74	6.26	N/A	9.08	1.40	9.11	17.94	14.89	N/A	
Difference	-0.39	-0.77	-0.56	-0.59	-0.68	-0.63	-0.36	N/A	-1.75	0.46	-1.02	-0.56	-1.65	N/A	
Teachers' Retirement - Gross	3.65	7.25	15.31	8.35	10.26	9.64	6.44	6.80	7.80	2.32	8.63	17.96	13.84	N/A	01/01/1991
All Public Plans > \$3B Total Fund Median	3.72	7.67	16.08	7.97	8.84	8.16	5.87	7.01	7.94	0.54	6.76	14.47	13.32	8.62	
Rank	64	67	63	27	4	1	5	72	55	8	7	5	32	N/A	
Police Retirement - Net	3.51	7.01	14.79	7.86	9.75	9.11	5.87	6.37	7.32	1.86	8.07	17.41	13.23	6.94	04/01/1997
Police Benchmark	3.89	7.76	15.33	8.46	10.42	9.73	6.23	N/A	9.08	1.41	9.10	17.92	14.80	N/A	
Difference	-0.38	-0.75	-0.54	-0.60	-0.67	-0.62	-0.36	N/A	-1.76	0.45	-1.03	-0.51	-1.57	N/A	
Police Retirement - Gross	3.65	7.26	15.33	8.35	10.27	9.63	6.41	6.69	7.78	2.31	8.61	18.00	13.78	N/A	12/01/1993
All Public Plans > \$3B Total Fund Median	3.72	7.67	16.08	7.97	8.84	8.16	5.87	7.01	7.94	0.54	6.76	14.47	13.32	8.16	
Rank	64	67	63	27	4	1	6	81	55	8	7	5	36	N/A	

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 December 31, 2017

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Firefighters' Retirement - Net	3.51	7.01	14.79	7.86	9.75	9.11	5.89	6.38	7.32	1.87	8.07	17.41	13.22	6.96	04/01/1997
Firefighters' Benchmark	3.89	7.76	15.33	8.46	10.42	9.73	6.25	N/A	9.09	1.41	9.10	17.92	14.80	N/A	
Difference	-0.38	-0.75	-0.54	-0.60	-0.67	-0.62	-0.36	N/A	-1.77	0.46	-1.03	-0.51	-1.58	N/A	
Firefighters' Retirement - Gross	3.65	7.26	15.34	8.35	10.26	9.64	6.43	6.71	7.78	2.32	8.61	17.99	13.81	N/A	12/01/1993
All Public Plans > \$3B Total Fund Median	3.72	7.67	16.08	7.97	8.84	8.16	5.87	7.01	7.94	0.54	6.76	14.47	13.32	8.16	
Rank	64	67	63	27	4	1	5	81	55	8	7	5	34	N/A	
Sheriffs' Retirement - Net	3.50	7.01	14.80	7.87	9.74	9.10	5.89	6.42	7.33	1.86	8.05	17.35	13.19	6.99	04/01/1997
Sheriffs' Benchmark	3.89	7.77	15.34	8.46	10.41	9.73	6.28	N/A	9.10	1.40	9.07	17.91	14.84	N/A	
Difference	-0.39	-0.76	-0.54	-0.59	-0.67	-0.63	-0.39	N/A	-1.77	0.46	-1.02	-0.56	-1.65	N/A	
Sheriffs' Retirement - Gross	3.65	7.26	15.34	8.35	10.25	9.63	6.43	6.74	7.79	2.32	8.59	17.93	13.79	N/A	12/01/1993
All Public Plans > \$3B Total Fund Median	3.72	7.67	16.08	7.97	8.84	8.16	5.87	7.01	7.94	0.54	6.76	14.47	13.32	8.16	
Rank	64	67	63	26	4	1	5	80	55	8	7	5	36	N/A	
Highway Patrol Retirement - Net	3.51	7.02	14.79	7.86	9.74	9.11	5.89	6.41	7.30	1.87	8.08	17.38	13.24	6.97	04/01/1997
Highway Patrol Benchmark	3.89	7.77	15.34	8.46	10.42	9.74	6.27	N/A	9.09	1.41	9.10	17.94	14.88	N/A	
Difference	-0.38	-0.75	-0.55	-0.60	-0.68	-0.63	-0.38	N/A	-1.79	0.46	-1.02	-0.56	-1.64	N/A	
Highway Patrol Retirement - Gross	3.65	7.27	15.33	8.34	10.26	9.64	6.43	6.73	7.77	2.32	8.62	17.96	13.84	N/A	12/01/1993
All Public Plans > \$3B Total Fund Median	3.72	7.67	16.08	7.97	8.84	8.16	5.87	7.01	7.94	0.54	6.76	14.47	13.32	8.16	
Rank	64	66	63	27	4	1	5	80	56	8	7	5	32	N/A	

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 December 31, 2017

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Game Wardens' Retirement - Net	3.51	7.02	14.81	7.87	9.73	9.09	5.89	6.40	7.31	1.88	8.03	17.34	13.20	6.98	04/01/1997
Game Wardens' Benchmark	3.89	7.78	15.36	8.47	10.42	9.73	6.28	N/A	9.11	1.41	9.06	17.90	14.85	N/A	
Difference	-0.38	-0.76	-0.55	-0.60	-0.69	-0.64	-0.39	N/A	-1.80	0.47	-1.03	-0.56	-1.65	N/A	
Game Wardens' Retirement - Gross	3.65	7.27	15.35	8.36	10.25	9.62	6.43	6.73	7.78	2.33	8.57	17.92	13.79	N/A	12/01/1993
All Public Plans > \$3B Total Fund Median	3.72	7.67	16.08	7.97	8.84	8.16	5.87	7.01	7.94	0.54	6.76	14.47	13.32	8.16	
Rank	64	66	63	26	4	1	5	80	55	8	7	5	35	N/A	
Judges' Retirement - Net	3.51	7.02	14.82	7.87	9.74	9.10	5.90	6.42	7.32	1.86	8.06	17.36	13.20	6.98	04/01/1997
Judges' Benchmark	3.89	7.78	15.37	8.47	10.42	9.74	6.28	N/A	9.10	1.40	9.08	17.92	14.84	N/A	
Difference	-0.38	-0.76	-0.55	-0.60	-0.68	-0.64	-0.38	N/A	-1.78	0.46	-1.02	-0.56	-1.64	N/A	
Judges' Retirement - Gross	3.65	7.28	15.36	8.36	10.26	9.63	6.44	6.74	7.79	2.32	8.60	17.94	13.79	N/A	12/01/1993
All Public Plans > \$3B Total Fund Median	3.72	7.67	16.08	7.97	8.84	8.16	5.87	7.01	7.94	0.54	6.76	14.47	13.32	8.16	
Rank	64	66	63	26	4	1	5	80	55	8	7	5	35	N/A	
Volunteer Firefighters' Retirement - Net	3.51	7.02	14.79	7.83	9.73	9.09	5.87	6.67	7.16	1.91	8.09	17.42	13.18	7.09	04/01/1997
Volunteer Firefighters' Benchmark	3.90	7.79	15.33	8.46	10.43	9.74	6.26	N/A	9.08	1.42	9.11	17.97	14.79	N/A	
Difference	-0.39	-0.77	-0.54	-0.63	-0.70	-0.65	-0.39	N/A	-1.92	0.49	-1.02	-0.55	-1.61	N/A	
Volunteer Firefighters' Retirement - Gross	3.66	7.28	15.34	8.31	10.25	9.62	6.41	7.00	7.63	2.36	8.63	18.00	13.77	N/A	12/01/1993
All Public Plans > \$3B Total Fund Median	3.72	7.67	16.08	7.97	8.84	8.16	5.87	7.01	7.94	0.54	6.76	14.47	13.32	8.16	
Rank	64	66	63	29	4	1	6	52	63	7	7	5	36	N/A	

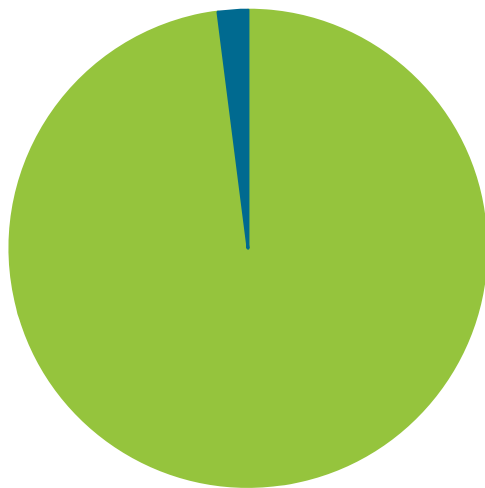
Net performance shown is net of all manager fees and expenses (Net-All). All Public Plans > \$3B Total Fund Median is reported gross of fees. Benchmark returns reflect unmanaged indices which are not impacted by management fees. Fiscal year ends on 06/30.

Montana Board of Investments
 Asset Allocation by Segment
 Retirement Plans

As of December 31, 2017

	Consolidated Asset Pension Pool (CAPP)		Short Term Investment Pool (STIP)		Total Fund	
	(\$)	%	(\$)	%	(\$)	%
Public Employees' Retirement	5,646,102,536	49.96	114,041,390	49.10	5,760,143,926	49.94
Teachers' Retirement	4,041,028,195	35.76	85,407,328	36.77	4,126,435,523	35.78
Police Retirement	395,113,295	3.50	8,089,459	3.48	403,202,754	3.50
Firefighters' Retirement	407,846,045	3.61	8,356,132	3.60	416,202,177	3.61
Sheriffs' Retirement	345,393,608	3.06	7,080,414	3.05	352,474,021	3.06
Highway Patrol Retirement	144,556,666	1.28	2,862,040	1.23	147,418,705	1.28
Game Wardens' Retirement	184,861,881	1.64	3,693,919	1.59	188,555,800	1.63
Judges' Retirement	100,087,100	0.89	2,003,947	0.86	102,091,047	0.89
Volunteer Firefighters' Retirement	36,448,310	0.32	740,621	0.32	37,188,931	0.32
Retirement Plans Total Fund Composite	11,301,437,636	97.99	232,275,248	2.01	11,533,712,883	100.00

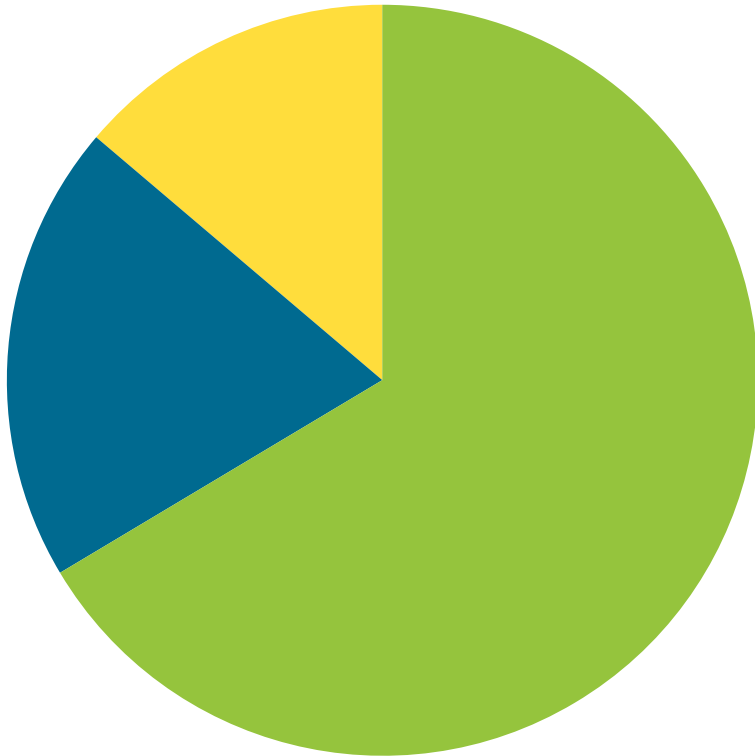
December 31, 2017 : \$11,533,712,883



Segments	Market Value (\$)	Allocation (%)
Consolidated Asset Pension Pool (CAPP)	11,301,437,636	97.99
Short Term Investment Pool (STIP)	232,275,248	2.01

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.

December 31, 2017 : \$17,011,792,609



	Market Value (\$)	Allocation (%)
Consolidated Asset Pension Pool (CAPP)	11,301,437,636	66.43
Short Term Investment Pool	3,364,388,826	19.78
Trust Funds Investment Pool	2,345,966,147	13.79

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

Montana Board of Investments
Comparative Performance
Investment Pools

As of December 31, 2017

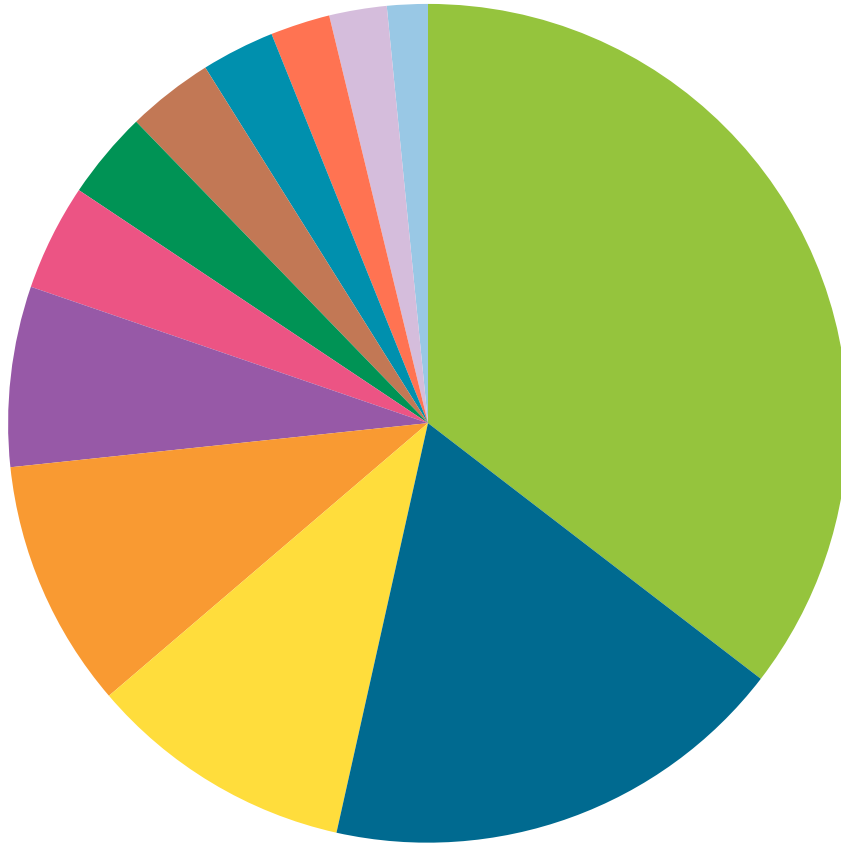
	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Consolidated Asset Pension Pool (CAPP)	3.58	7.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.51	04/01/2017
CAPP Custom Benchmark	3.97	7.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.77	
Difference	-0.39	-0.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.26	
Trust Funds Investment Pool	0.45	1.40	4.01	3.28	3.29	4.50	5.19	4.02	1.83	6.96	-0.25	6.99	6.30	04/01/1997
Bloomberg US Agg Bond Index	0.39	1.24	3.54	2.24	2.10	3.20	4.01	2.65	0.55	5.97	-2.02	4.21	5.30	
Difference	0.06	0.16	0.47	1.04	1.19	1.30	1.18	1.37	1.28	0.99	1.77	2.78	1.00	
Short Term Investment Pool	0.32	0.62	1.11	0.64	0.44	0.40	0.65	0.61	0.22	0.10	0.19	0.30	2.49	04/01/1997
ICE 1 Mo LIBOR Index (USD)	0.35	0.66	1.15	0.63	0.44	0.38	0.58	0.52	0.21	0.16	0.19	0.23	N/A	
Difference	-0.03	-0.04	-0.04	0.01	0.00	0.02	0.07	0.09	0.01	-0.06	0.00	0.07	N/A	
iMoney.net Money Fund (Gross) Median	0.34	0.67	1.21	0.69	0.49	0.43	0.70	0.61	0.25	0.17	0.22	0.30	2.46	
Difference	-0.02	-0.05	-0.10	-0.05	-0.05	-0.03	-0.05	0.00	-0.03	-0.07	-0.03	0.00	0.03	

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. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

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

As of December 31, 2017

December 31, 2017 : \$11,301,437,632



	Market Value (\$)	Allocation (%)
Domestic Equity	4,003,924,105	35.43
International Equity	2,041,108,144	18.06
Private Equity	1,158,087,061	10.25
US Treasury & Agency	1,083,499,322	9.59
Real Estate	785,720,959	6.95
Mortgage - Backed	463,393,122	4.10
TIPS	384,132,519	3.40
Investment Grade Credit	376,018,356	3.33
High Yield	319,051,408	2.82
Natural Resources	259,993,913	2.30
Broad Fixed Income	249,766,400	2.21
Cash Pension	176,742,323	1.56

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 December 31, 2017

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Domestic Equity	6.02	10.95	20.80	10.74	15.40	13.27	8.27	11.46	0.86	12.28	34.19	16.44	9.35	05/01/2003
Domestic Equity Custom Index	6.33	11.22	21.05	11.39	15.72	13.68	8.68	13.03	1.01	13.08	32.80	16.17	10.09	
Difference	-0.31	-0.27	-0.25	-0.65	-0.32	-0.41	-0.41	-1.57	-0.15	-0.80	1.39	0.27	-0.74	
International Equity	5.24	11.78	28.67	8.82	7.56	5.34	1.41	3.87	-3.57	-4.00	16.39	17.11	5.19	04/01/1997
International Equity Custom Index	5.23	11.82	27.81	8.38	7.15	5.13	2.11	4.41	-4.60	-4.03	15.62	16.96	5.55	
Difference	0.01	-0.04	0.86	0.44	0.41	0.21	-0.70	-0.54	1.03	0.03	0.77	0.15	-0.36	
Broad Fixed Income	0.29	1.11	2.41	2.28	2.39	3.83	4.73	3.98	0.48	6.19	-0.95	7.31	6.00	04/01/1997
Bloomberg US Agg Bond Index	0.39	1.24	3.54	2.24	2.10	3.20	4.01	2.65	0.55	5.97	-2.02	4.21	5.30	
Difference	-0.10	-0.13	-1.13	0.04	0.29	0.63	0.72	1.33	-0.07	0.22	1.07	3.10	0.70	
Investment Grade Credit	0.26	1.29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.88	04/01/2017
Bloomberg US Corp Int Bond Index	0.17	1.22	3.92	3.01	2.68	3.94	4.82	4.04	1.08	4.35	0.08	8.84	2.73	
Difference	0.09	0.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.15	
US Treasury & Agency	-0.38	-0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.78	04/01/2017
Bloomberg US Trsy Int Trm Index	-0.41	-0.07	1.14	1.13	0.91	1.82	2.75	1.06	1.18	2.57	-1.34	1.71	0.59	
Difference	0.03	0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.19	
High Yield	0.05	1.72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.67	04/01/2017
Bloomberg US Hi Yld 2% Issuer Cap Index	0.47	2.46	7.50	6.36	5.78	7.04	8.09	17.13	-4.43	2.46	7.44	15.78	4.68	
Difference	-0.42	-0.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.01	
Mortgage - Backed	0.14	1.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.15	04/01/2017
Bloomberg US MBS Index	0.15	1.11	2.47	1.88	2.04	2.71	3.84	1.67	1.51	6.08	-1.41	2.59	1.99	
Difference	-0.01	-0.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.16	
TIPS	0.46	1.24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.83	04/01/2017
Bloomberg US Trsy Infl Notes: 1-10 Yr Index	0.53	1.24	1.90	1.78	0.09	2.01	2.83	4.01	-0.52	0.91	-5.58	5.04	0.83	
Difference	-0.07	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	
Natural Resources	1.32	1.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.09	04/01/2017
MSCI ACW Cmtty Producers Index (USD) (Net)	8.38	20.12	13.70	3.75	-0.32	-1.75	-2.11	32.44	-25.83	-14.69	3.31	1.96	15.50	
Difference	-7.06	-19.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-9.41	
Real Estate	1.30	3.06	9.17	10.73	10.89	11.22	3.24	8.82	14.27	12.13	10.16	9.90	3.47	06/01/2006
Real Estate Custom Index	1.04	1.67	4.98	9.25	10.21	11.22	3.91	9.08	13.86	11.36	11.97	10.47	5.73	
Difference	0.26	1.39	4.19	1.48	0.68	0.00	-0.67	-0.26	0.41	0.77	-1.81	-0.57	-2.26	

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

As of December 31, 2017

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Cash Pension	0.32	0.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.68	05/01/2017
ICE 1 Mo LIBOR Index (USD)	0.35	0.66	1.15	0.63	0.44	0.38	0.58	0.52	0.21	0.16	0.19	0.23	0.85	
Difference	-0.03	-0.21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.17	

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. Since inception performance may vary from State Street reported performance due to calculation methodology differences.



Montana Board of Investments
 Comparative Performance
 Investment Pools

As of December 31, 2017

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Private Equity Pool*	3.75	7.90	15.20	9.86	11.89	12.82	8.53	7.37	7.20	15.47	14.52	14.28	12.27	05/01/2002
Private Equity Custom Index	4.85	10.67	19.15	14.06	18.04	18.37	11.55	20.11	3.68	23.31	25.24	35.39	11.78	
<i>Difference</i>	<i>-1.10</i>	<i>-2.77</i>	<i>-3.95</i>	<i>-4.20</i>	<i>-6.15</i>	<i>-5.55</i>	<i>-3.02</i>	<i>-12.74</i>	3.52	<i>-7.84</i>	<i>-10.72</i>	<i>-21.11</i>	0.49	

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.

Since Inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments
Comparative Performance
Investment Pools

As of December 31, 2017

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Domestic Equity	6.18	11.21	21.31	11.09	15.75	13.64	8.65	11.76	1.14	12.59	34.61	16.77	9.64	05/01/2003
All Public Plans-US Equity Segment Median	5.95	10.83	20.43	10.76	15.14	13.10	8.27	12.85	0.14	11.41	33.73	16.60	9.58	
Rank	33	32	37	38	22	21	28	73	25	21	41	40	49	
Population	62	62	61	60	51	45	27	99	83	49	47	43	11	
International Equity	5.31	11.92	29.01	9.10	7.86	5.65	1.76	4.15	-3.35	-3.77	16.80	17.45	5.59	04/01/1997
All Public Plans-Intl. Equity Segment Median	4.98	11.25	28.49	8.99	8.38	6.66	3.17	3.97	-2.54	-2.99	18.71	18.95	N/A	
Rank	27	32	42	48	68	82	96	46	66	77	77	81	N/A	
Population	67	65	65	61	50	41	28	92	77	46	43	38	N/A	
Broad Fixed Income	0.40	1.31	2.91	2.52	2.58	4.00	4.88	4.09	0.59	6.30	-0.83	7.44	6.21	04/01/1997
All Public Plans-US Fixed Income Segment Median	0.64	1.68	4.66	3.01	2.67	4.06	4.71	4.53	0.30	6.01	-1.39	7.57	N/A	
Rank	74	77	88	74	54	53	47	60	36	39	38	54	N/A	
Population	68	65	65	65	58	50	33	93	78	49	49	48	N/A	
Trust Funds Investment Pool	0.48	1.44	4.10	3.37	3.38	4.60	5.27	4.12	1.89	7.08	-0.14	7.11	6.29	10/01/1995
All Public Plans-US Fixed Income Segment Median	0.64	1.68	4.66	3.01	2.67	4.06	4.71	4.53	0.30	6.01	-1.39	7.57	N/A	
Rank	65	71	67	44	33	37	31	59	5	26	27	59	N/A	
Population	68	65	65	65	58	50	33	93	78	49	49	48	N/A	
Real Estate	1.73	3.65	10.91	12.26	12.40	12.76	4.61	10.26	15.68	13.51	11.73	11.44	4.87	06/01/2006
All Public Plans-Real Estate Segment Median	2.42	4.34	9.31	11.36	12.31	12.89	5.10	9.98	13.42	14.67	13.69	12.58	N/A	
Rank	80	80	29	32	49	52	56	47	13	68	67	84	N/A	
Population	43	38	32	23	19	16	10	32	26	16	15	12	N/A	

Performance shown is gross of fees. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments
Comparative Performance
Equity Composites

As of December 31, 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 - Net	6.61	11.37	21.66	11.28	15.86	13.58	8.25	11.30	1.76	13.82	33.14	16.14	7.75	07/01/2007
S&P 500 Index (Cap Wtd)	6.64	11.42	21.83	11.41	15.79	13.76	8.50	11.96	1.38	13.69	32.39	16.00	7.93	
Difference	-0.03	-0.05	-0.17	-0.13	0.07	-0.18	-0.25	-0.66	0.38	0.13	0.75	0.14	-0.18	
Domestic Large Cap Equity - Gross	6.64	11.44	21.82	11.43	16.03	13.78	8.49	11.45	1.91	13.99	33.34	16.39	7.99	07/01/2007
IM U.S. Large Cap Equity (SA+CF) Median	6.64	11.53	21.77	11.06	15.70	13.63	8.79	10.98	0.94	12.91	33.51	15.80	8.29	
Rank	50	52	50	39	41	45	61	46	40	32	53	42	61	
Domestic Large Cap Active - Net	6.74	11.41	21.85	11.00	16.04	13.58	8.15	9.63	2.40	14.01	34.90	16.03	7.58	07/01/2007
S&P 500 Index (Cap Wtd)	6.64	11.42	21.83	11.41	15.79	13.76	8.50	11.96	1.38	13.69	32.39	16.00	7.93	
Difference	0.10	-0.01	0.02	-0.41	0.25	-0.18	-0.35	-2.33	1.02	0.32	2.51	0.03	-0.35	
Domestic Large Cap Active - Gross	6.88	11.68	22.40	11.52	16.58	14.11	8.64	10.12	2.88	14.56	35.55	16.56	8.07	07/01/2007
IM U.S. Large Cap Equity (SA+CF) Median	6.64	11.53	21.77	11.06	15.70	13.63	8.79	10.98	0.94	12.91	33.51	15.80	8.29	
Rank	42	49	44	37	29	36	56	56	32	25	33	38	58	
Domestic Mid Cap Equity - Net	5.18	9.80	19.29	9.00	13.76	12.23	8.93	12.29	-3.31	6.45	38.18	16.27	8.92	01/01/2005
Russell Mid Cap Index	6.07	9.75	18.52	9.58	14.96	12.76	9.11	13.80	-2.44	13.22	34.76	17.28	9.57	
Difference	-0.89	0.05	0.77	-0.58	-1.20	-0.53	-0.18	-1.51	-0.87	-6.77	3.42	-1.01	-0.65	
Domestic Mid Cap Equity - Gross	5.34	10.12	20.01	9.65	14.43	12.86	9.56	12.96	-2.74	7.07	38.95	16.83	9.44	01/01/2005
IM U.S. Mid Cap Equity (SA+CF) Median	6.01	10.15	20.00	10.44	15.13	12.95	9.79	12.46	-1.19	9.78	36.40	16.52	10.19	
Rank	70	52	50	62	67	55	59	48	68	74	34	48	77	
Domestic Small Cap Equity - Net	4.43	10.44	15.65	10.73	15.02	12.44	8.90	19.31	-1.61	5.44	40.65	15.76	12.52	03/01/2003
Russell 2000 Index	3.34	9.20	14.65	9.96	14.12	11.62	8.71	21.31	-4.41	4.89	38.82	16.35	11.74	
Difference	1.09	1.24	1.00	0.77	0.90	0.82	0.19	-2.00	2.80	0.55	1.83	-0.59	0.78	
Domestic Small Cap Equity - Gross	4.59	10.71	16.27	11.39	15.73	13.17	9.60	19.97	-0.93	6.16	41.54	16.40	13.08	03/01/2003
IM U.S. Small Cap Equity (SA+CF) Median	4.05	9.94	15.14	10.83	15.18	12.79	9.91	20.83	-2.39	5.36	41.31	16.47	13.02	
Rank	39	37	44	43	41	41	58	56	35	43	49	51	48	

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. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments
Comparative Performance
Equity Composites

As of December 31, 2017

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
International Large Cap Passive - Net	5.06	11.63	27.79	8.49	7.17	5.23	N/A	4.87	-4.71	-3.70	14.95	16.92	8.10	06/01/2009
MSCI ACW Ex US Index (USD) (Net)	5.00	11.48	27.19	7.83	6.80	4.93	1.84	4.50	-5.66	-3.87	15.29	16.83	7.84	
Difference	0.06	0.15	0.60	0.66	0.37	0.30	N/A	0.37	0.95	0.17	-0.34	0.09	0.26	
International Large Cap Passive - Gross	5.08	11.67	27.88	8.58	7.26	5.32	N/A	4.96	-4.63	-3.62	15.05	17.02	8.18	06/01/2009
International Equity Active - Net	5.32	11.92	30.82	10.47	8.97	6.29	2.05	2.63	0.41	-4.39	19.23	17.87	3.96	04/01/1997
MSCI ACW Ex US Index (USD) (Net)	5.00	11.48	27.19	7.83	6.80	4.93	1.84	4.50	-5.66	-3.87	15.29	16.83	N/A	
Difference	0.32	0.44	3.63	2.64	2.17	1.36	0.21	-1.87	6.07	-0.52	3.94	1.04	N/A	
International Equity Active - Gross	5.45	12.20	31.50	11.04	9.51	6.80	2.55	3.17	0.90	-3.94	19.75	18.36	4.48	04/01/1997
IM International Large Cap Core Equity (SA+CF) Median	4.25	10.45	26.60	8.83	9.10	7.20	3.21	1.19	0.33	-3.83	23.08	19.44	7.23	
Rank	13	20	13	12	31	64	79	26	43	51	73	66	100	
International Value - Net	6.02	13.05	30.72	9.09	8.42	5.64	0.95	5.59	-5.94	-1.49	17.15	15.88	2.68	11/01/2006
MSCI ACW Ex US Val Index (USD) (Net)	4.23	10.48	22.66	6.31	5.58	4.18	1.23	8.92	-10.06	-5.10	15.04	16.97	2.79	
Difference	1.79	2.57	8.06	2.78	2.84	1.46	-0.28	-3.33	4.12	3.61	2.11	-1.09	-0.11	
International Value - Gross	6.15	13.34	31.39	9.66	9.01	6.22	1.53	6.17	-5.46	-0.94	17.82	16.55	3.27	11/01/2006
IM International Large Cap Value Equity (SA+CF) Median	4.22	10.25	26.30	8.92	8.96	6.85	3.65	3.85	-1.92	-4.28	23.25	18.00	4.60	
Rank	12	12	13	38	50	66	94	28	83	15	77	66	94	
International Growth - Net	4.34	9.45	28.01	9.37	7.80	5.60	1.54	0.51	1.69	-6.15	18.55	18.37	3.52	11/01/2006
MSCI ACW Ex US Grth Index (USD) (Net)	5.77	12.47	32.01	9.29	7.97	5.65	2.40	0.12	-1.25	-2.65	15.49	16.67	4.50	
Difference	-1.43	-3.02	-4.00	0.08	-0.17	-0.05	-0.86	0.39	2.94	-3.50	3.06	1.70	-0.98	
International Growth - Gross	4.48	9.75	28.74	9.99	8.36	6.14	2.08	1.12	2.21	-5.72	19.09	18.89	4.06	11/01/2006
IM International Large Cap Growth Equity (SA+CF) Median	4.99	11.45	31.26	9.76	9.18	7.66	4.28	-0.07	2.08	-3.31	20.63	19.60	5.80	
Rank	63	84	68	48	79	91	88	33	49	80	69	58	83	
International Small Cap - Net	6.17	13.68	33.61	12.69	11.27	7.99	4.72	1.84	5.16	-4.87	25.30	18.64	5.66	09/01/2006
MSCI ACWI Ex US Sm Cap Index IMI (USD) (Net)	6.56	13.92	31.65	11.96	10.03	6.54	4.69	3.91	2.60	-4.03	19.73	18.52	6.33	
Difference	-0.39	-0.24	1.96	0.73	1.24	1.45	0.03	-2.07	2.56	-0.84	5.57	0.12	-0.67	
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	N/A	09/01/2006
IM International Small Cap Equity (SA+CF) Median	6.22	15.07	35.04	14.29	13.22	10.43	7.13	1.13	10.32	-3.40	31.17	23.58	8.33	
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	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. Since inception performance may vary from State Street reported performance due to calculation methodology differences.



Montana Board of Investments
Comparative Performance
Equity Sub Composites

As of December 31, 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 Passive - Net	6.56	11.31	21.34	11.08	15.59	13.64	8.41	12.01	0.83	13.73	32.41	16.06	5.53	05/01/2000
S&P 500 Index (Cap Wtd)	6.64	11.42	21.83	11.41	15.79	13.76	8.50	11.96	1.38	13.69	32.39	16.00	5.56	
Difference	-0.08	-0.11	-0.49	-0.33	-0.20	-0.12	-0.09	0.05	-0.55	0.04	0.02	0.06	-0.03	
Domestic Large Cap Passive - Gross	6.56	11.31	21.35	11.09	15.60	13.65	8.48	12.03	0.84	13.74	32.42	16.07	5.57	05/01/2000
IM U.S. Large Cap Index Equity (SA+CF) Median	6.59	11.37	21.70	11.26	15.72	13.68	8.61	12.03	0.94	13.28	32.58	16.20	5.80	
Rank	56	59	59	75	65	55	72	52	56	18	64	56	78	
Domestic Large Cap Enhanced - Net	6.55	11.46	24.21	12.04	16.17	14.12	8.33	9.73	3.18	13.19	32.89	16.87	8.53	06/01/2006
S&P 500 Index (Cap Wtd)	6.64	11.42	21.83	11.41	15.79	13.76	8.50	11.96	1.38	13.69	32.39	16.00	8.93	
Difference	-0.09	0.04	2.38	0.63	0.38	0.36	-0.17	-2.23	1.80	-0.50	0.50	0.87	-0.40	
Domestic Large Cap Enhanced - Gross	6.61	11.59	24.53	12.36	16.51	14.46	8.65	10.05	3.50	13.54	33.31	17.21	8.85	06/01/2006
IM U.S. Large Cap Core Equity (SA+CF) Median	6.69	11.73	21.85	11.13	15.76	13.73	8.76	10.48	1.39	13.42	32.98	15.68	9.23	
Rank	54	51	20	20	31	27	54	57	23	48	47	31	67	
Domestic Large Cap 130/30 - Net	6.97	12.13	20.28	10.22	16.06	13.66	N/A	9.54	1.61	14.84	36.94	18.42	9.82	03/01/2008
S&P 500 Index (Cap Wtd)	6.64	11.42	21.83	11.41	15.79	13.76	8.50	11.96	1.38	13.69	32.39	16.00	9.70	
Difference	0.33	0.71	-1.55	-1.19	0.27	-0.10	N/A	-2.42	0.23	1.15	4.55	2.42	0.12	
Domestic Large Cap 130/30 - Gross	7.19	12.55	21.10	10.93	16.81	14.40	N/A	10.22	2.26	15.59	37.83	19.18	10.55	03/01/2008
IM U.S. Large Cap Core Equity (SA+CF) Median	6.69	11.73	21.85	11.13	15.76	13.73	8.76	10.48	1.39	13.42	32.98	15.68	9.90	
Rank	33	33	62	55	26	27	N/A	54	37	21	13	15	24	

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. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments
Comparative Performance
Domestic Equity Managers

As of December 31, 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	6.55	11.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11.31	07/01/2017
S&P 500 Index (Cap Wtd)	6.64	11.42	21.83	11.41	15.79	13.76	8.50	11.96	1.38	13.69	32.39	16.00	11.42	
Difference	-0.09	-0.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.11	
BlackRock MSCI US Equity Index (CF) - Gross	6.55	11.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11.31	07/01/2017
SPDR S&P 500 ETF (SPY) - Net	6.76	11.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11.45	07/01/2017
S&P 500 Index (Cap Wtd)	6.64	11.42	21.83	11.41	15.79	13.76	8.50	11.96	1.38	13.69	32.39	16.00	11.42	
Difference	0.12	0.03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.03	
Domestic Equity Pool STIF - Net	0.33	0.60	1.00	N/A	N/A	N/A	N/A	0.50	N/A	N/A	N/A	N/A	0.58	04/01/2015
ICE 1 Mo LIBOR Index (USD)	0.35	0.66	1.15	0.63	0.44	0.38	0.58	0.52	0.21	0.16	0.19	0.23	0.67	
Difference	-0.02	-0.06	-0.15	N/A	N/A	N/A	N/A	-0.02	N/A	N/A	N/A	N/A	-0.09	
T. Rowe U.S. Structured Research (SA) - Net	6.54	11.45	23.94	12.32	16.28	14.09	9.03	10.68	3.30	12.58	33.23	16.42	9.44	06/01/2006
S&P 500 Index (Cap Wtd)	6.64	11.42	21.83	11.41	15.79	13.76	8.50	11.96	1.38	13.69	32.39	16.00	8.93	
Difference	-0.10	0.03	2.11	0.91	0.49	0.33	0.53	-1.28	1.92	-1.11	0.84	0.42	0.51	
T. Rowe U.S. Structured Research (SA) - Gross	6.61	11.59	24.24	12.63	16.61	14.42	9.36	10.98	3.61	12.92	33.63	16.77	9.77	06/01/2006
IM U.S. Large Cap Core Equity (SA+CF) Median	6.69	11.73	21.85	11.13	15.76	13.73	8.76	10.48	1.39	13.42	32.98	15.68	9.23	
Rank	54	51	24	17	29	27	26	45	23	59	44	36	27	
J.P. Morgan 130/30 (SA) - Net	6.96	12.27	22.86	10.67	16.56	13.76	N/A	10.30	0.01	15.38	37.55	18.64	10.94	03/01/2008
S&P 500 Index (Cap Wtd)	6.64	11.42	21.83	11.41	15.79	13.76	8.50	11.96	1.38	13.69	32.39	16.00	9.70	
Difference	0.32	0.85	1.03	-0.74	0.77	0.00	N/A	-1.66	-1.37	1.69	5.16	2.64	1.24	
J.P. Morgan 130/30 (SA) - Gross	7.19	12.72	23.79	11.47	17.39	14.58	N/A	11.09	0.72	16.21	38.53	19.48	11.74	03/01/2008
IM U.S. Large Cap Core Equity (SA+CF) Median	6.69	11.73	21.85	11.13	15.76	13.73	8.76	10.48	1.39	13.42	32.98	15.68	9.90	
Rank	33	28	27	38	17	24	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. Since inception performance may vary from State Street reported performance due to calculation methodology differences.



Montana Board of Investments
Comparative Performance
Domestic Equity Managers

As of December 31, 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	5.02	8.72	13.81	8.31	12.23	11.43	9.57	23.60	-9.68	2.12	37.20	12.02	8.54	03/01/2007
Russell Mid Cap Val Index	5.50	7.76	13.34	9.00	14.68	12.76	9.10	20.00	-4.78	14.75	33.46	18.51	7.86	
Difference	-0.48	0.96	0.47	-0.69	-2.45	-1.33	0.47	3.60	-4.90	-12.63	3.74	-6.49	0.68	
Artisan Partners (SA) - Gross	5.18	9.05	14.51	9.00	12.95	12.16	10.32	24.41	-9.09	2.79	38.11	12.79	9.29	03/01/2007
IM U.S. Mid Cap Value Equity (SA+CF) Median	5.51	9.24	15.65	9.96	15.18	13.07	9.93	18.22	-3.21	11.86	36.06	17.38	9.18	
Rank	62	54	60	72	87	77	41	14	89	97	39	86	42	
Iridian Asset Management (SA) - Net	3.04	9.78	24.06	8.03	N/A	N/A	N/A	3.29	-1.62	12.84	N/A	N/A	13.49	05/01/2013
Russell Mid Cap Val Index	5.50	7.76	13.34	9.00	14.68	12.76	9.10	20.00	-4.78	14.75	33.46	18.51	12.29	
Difference	-2.46	2.02	10.72	-0.97	N/A	N/A	N/A	-16.71	3.16	-1.91	N/A	N/A	1.20	
Iridian Asset Management (SA) - Gross	3.23	10.18	24.96	8.84	N/A	N/A	N/A	4.07	-0.87	13.73	N/A	N/A	14.35	05/01/2013
IM U.S. Mid Cap Value Equity (SA+CF) Median	5.51	9.24	15.65	9.96	15.18	13.07	9.93	18.22	-3.21	11.86	36.06	17.38	13.03	
Rank	96	38	4	73	N/A	N/A	N/A	100	22	25	N/A	N/A	29	
iShares:Core S&P Md-Cp (IJH) - Net	6.35	9.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9.77	07/01/2017
S&P Mid Cap 400 Index (Cap Wtd)	6.25	9.68	16.24	11.14	15.01	12.85	9.97	20.74	-2.18	9.77	33.50	17.88	9.68	
Difference	0.10	0.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.09	
TimesSquare Capital Management (SA) - Net	6.05	10.78	23.02	10.26	14.31	12.60	9.51	7.91	0.96	5.69	37.79	19.19	9.51	03/01/2007
Russell Mid Cap Grth Index	6.81	12.45	25.27	10.30	15.30	12.78	9.10	7.33	-0.20	11.90	35.74	15.81	9.12	
Difference	-0.76	-1.67	-2.25	-0.04	-0.99	-0.18	0.41	0.58	1.16	-6.21	2.05	3.38	0.39	
TimesSquare Capital Management (SA) - Gross	6.22	11.15	23.84	11.00	15.09	13.38	10.29	8.65	1.65	6.42	38.75	20.03	10.29	03/01/2007
IM U.S. Mid Cap Growth Equity (SA+CF) Median	6.17	11.13	25.43	10.44	14.99	12.82	9.35	5.42	0.79	8.63	36.40	15.13	10.10	
Rank	45	49	60	35	43	27	22	22	42	71	36	15	41	

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. Since inception performance may vary from State Street reported performance due to calculation methodology differences.



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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
Domestic Small Cap Equity														
Vaughan Nelson Management (SA) - Net	3.56	8.05	6.83	8.84	14.40	11.77	10.30	20.50	0.16	9.09	39.30	15.36	10.09	03/01/2007
Russell 2000 Val Index	2.05	7.26	7.84	9.55	13.01	10.84	8.17	31.74	-7.47	4.22	34.52	18.05	6.48	
Difference	1.51	0.79	-1.01	-0.71	1.39	0.93	2.13	-11.24	7.63	4.87	4.78	-2.69	3.61	
Vaughan Nelson Management (SA) - Gross	3.77	8.46	7.66	9.72	15.33	12.69	11.23	21.49	0.98	10.00	40.47	16.32	11.03	03/01/2007
IM U.S. Small Cap Value Equity (SA+CF) Median	3.71	9.20	11.64	10.50	14.56	12.58	10.12	25.91	-4.31	5.71	38.09	17.48	8.88	
Rank	48	64	77	67	34	45	27	76	8	10	35	60	10	
BlackRock MSCI US Sm Cap Equity Index (CF) - Net	4.82	10.65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.65	07/01/2017
MSCI US Sm Cap Index (USD) (Net)	4.73	10.41	16.75	10.08	14.47	12.15	9.70	19.15	-4.11	7.07	37.64	17.52	10.41	
Difference	0.09	0.24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.24	
BlackRock MSCI US Sm Cap Equity Index (CF) - Gross	4.84	10.68	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.68	07/01/2017
DFA US Small Cap Trust (CF) - Net	3.68	9.55	11.86	10.66	15.12	12.91	9.96	24.42	-2.64	4.75	42.42	18.20	12.91	03/01/2003
Russell 2000 Index	3.34	9.20	14.65	9.96	14.12	11.62	8.71	21.31	-4.41	4.89	38.82	16.35	11.74	
Difference	0.34	0.35	-2.79	0.70	1.00	1.29	1.25	3.11	1.77	-0.14	3.60	1.85	1.17	
DFA US Small Cap Trust (CF) - Gross	3.76	9.73	12.25	11.05	15.52	13.31	10.33	24.85	-2.29	5.12	42.90	18.59	13.23	03/01/2003
IM U.S. Small Cap Core Equity (SA+CF) Median	3.84	9.80	15.24	11.22	15.77	13.05	9.72	20.61	-1.35	6.56	41.26	16.84	13.04	
Rank	52	52	74	54	55	48	36	21	63	63	41	33	42	
Alliance Bernstein (SA) - Net	7.59	15.70	34.73	12.59	15.32	N/A	N/A	6.82	-0.84	-1.61	45.22	N/A	12.71	04/01/2012
Russell 2000 Grth Index	4.59	11.09	22.17	10.28	15.21	12.34	9.19	11.32	-1.38	5.60	43.30	14.59	13.33	
Difference	3.00	4.61	12.56	2.31	0.11	N/A	N/A	-4.50	0.54	-7.21	1.92	N/A	-0.62	
Alliance Bernstein (SA) - Gross	7.83	16.20	35.88	13.59	16.35	N/A	N/A	7.80	0.05	-0.71	46.52	N/A	13.72	04/01/2012
IM U.S. Small Cap Growth Equity (SA+CF) Median	4.80	10.97	23.47	11.46	15.79	13.17	9.53	11.40	-0.74	4.08	45.45	14.72	13.88	
Rank	7	6	6	22	39	N/A	N/A	70	42	81	46	N/A	56	
Voya Investment Management (SA) - Net	3.41	8.03	18.69	9.95	N/A	N/A	N/A	13.14	-1.01	5.41	N/A	N/A	12.68	05/01/2013
Russell 2000 Grth Index	4.59	11.09	22.17	10.28	15.21	12.34	9.19	11.32	-1.38	5.60	43.30	14.59	13.48	
Difference	-1.18	-3.06	-3.48	-0.33	N/A	N/A	N/A	1.82	0.37	-0.19	N/A	N/A	-0.80	
Voya Investment Management (SA) - Gross	3.66	8.48	19.71	10.91	N/A	N/A	N/A	14.14	-0.15	6.35	N/A	N/A	13.67	05/01/2013
IM U.S. Small Cap Growth Equity (SA+CF) Median	4.80	10.97	23.47	11.46	15.79	13.17	9.53	11.40	-0.74	4.08	45.45	14.72	14.24	
Rank	76	80	70	56	N/A	N/A	N/A	36	44	30	N/A	N/A	60	

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 0.09%, 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. Since inception performance may vary from State Street reported performance due to calculation methodology differences.



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International Developed Large Cap Equity														
Acadian Asset Non-US Equity (SA) - Net	6.06	13.89	34.76	11.80	10.44	8.26	2.19	12.40	-7.75	0.00	17.60	18.66	3.87	11/01/2006
MSCI ACW Ex US Val Index (USD) (Net)	4.23	10.48	22.66	6.31	5.58	4.18	1.23	8.92	-10.06	-5.10	15.04	16.97	2.79	
Difference	1.83	3.41	12.10	5.49	4.86	4.08	0.96	3.48	2.31	5.10	2.56	1.69	1.08	
Acadian Asset Non-US Equity (SA) - Gross	6.19	14.18	35.45	12.38	11.02	8.85	2.76	13.01	-7.26	0.52	18.22	19.37	4.46	11/01/2006
IM International Large Cap Value Equity (SA+CF) Median	4.22	10.25	26.30	8.92	8.96	6.85	3.65	3.85	-1.92	-4.28	23.25	18.00	4.60	
Rank	11	4	5	9	13	16	71	6	90	11	77	35	55	
Lazard Asset Management (SA) - Net	5.93	12.20	27.00	N/A	N/A	N/A	N/A	0.22	N/A	N/A	N/A	N/A	5.88	06/01/2015
MSCI ACW Ex US Val Index (USD) (Net)	4.23	10.48	22.66	6.31	5.58	4.18	1.23	8.92	-10.06	-5.10	15.04	16.97	5.06	
Difference	1.70	1.72	4.34	N/A	N/A	N/A	N/A	-8.70	N/A	N/A	N/A	N/A	0.82	
Lazard Asset Management (SA) - Gross	6.06	12.48	27.65	N/A	N/A	N/A	N/A	0.77	N/A	N/A	N/A	N/A	6.45	06/01/2015
IM International Large Cap Value Equity (SA+CF) Median	4.22	10.25	26.30	8.92	8.96	6.85	3.65	3.85	-1.92	-4.28	23.25	18.00	6.55	
Rank	13	20	36	N/A	N/A	N/A	N/A	84	N/A	N/A	N/A	N/A	54	
BlackRock ACWI Ex-US SuperFund A (CF) - Net	5.01	11.52	27.49	8.07	7.02	5.15	N/A	4.77	-5.49	-3.73	15.51	17.07	8.05	06/01/2009
MSCI ACW Ex US Index (USD) (Net)	5.00	11.48	27.19	7.83	6.80	4.93	1.84	4.50	-5.66	-3.87	15.29	16.83	7.84	
Difference	0.01	0.04	0.30	0.24	0.22	0.22	N/A	0.27	0.17	0.14	0.22	0.24	0.21	
BlackRock ACWI Ex-US SuperFund A (CF) - Gross	5.03	11.55	27.58	8.16	7.10	5.23	N/A	4.86	-5.42	-3.65	15.61	17.17	8.14	06/01/2009
IM All ACWI Ex US (SA+CF) Median	4.95	11.32	28.89	9.23	9.13	7.28	3.67	2.04	-0.53	-3.38	20.39	18.70	10.08	
Rank	47	45	62	73	86	89	N/A	25	85	54	84	62	89	
iShares:MSCI EAFE ETF (EFA) - Net	3.79	9.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9.02	07/01/2017
MSCI EAFE Index (USD) (Net)	4.23	9.86	25.03	7.80	7.90	6.04	1.94	1.00	-0.81	-4.90	22.78	17.32	9.86	
Difference	-0.44	-0.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.84	
Baillie Gifford (SA) - Net	5.11	10.34	31.99	N/A	N/A	N/A	N/A	0.73	N/A	N/A	N/A	N/A	8.50	06/01/2015
MSCI ACW Ex US Grth Index (USD) (Net)	5.77	12.47	32.01	9.29	7.97	5.65	2.40	0.12	-1.25	-2.65	15.49	16.67	7.52	
Difference	-0.66	-2.13	-0.02	N/A	N/A	N/A	N/A	0.61	N/A	N/A	N/A	N/A	0.98	
Baillie Gifford (SA) - Gross	5.24	10.62	32.66	N/A	N/A	N/A	N/A	1.28	N/A	N/A	N/A	N/A	9.07	06/01/2015
IM International Large Cap Growth Equity (SA+CF) Median	4.99	11.45	31.26	9.76	9.18	7.66	4.28	-0.07	2.08	-3.31	20.63	19.60	7.51	
Rank	43	64	35	N/A	N/A	N/A	N/A	32	N/A	N/A	N/A	N/A	35	

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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
Invesco (SA) - Net	3.73	8.73	24.92	N/A	N/A	N/A	N/A	0.32	N/A	N/A	N/A	N/A	5.48	06/01/2015
MSCI ACW Ex US Grth Index (USD) (Net)	5.77	12.47	32.01	9.29	7.97	5.65	2.40	0.12	-1.25	-2.65	15.49	16.67	7.52	
Difference	-2.04	-3.74	-7.09	N/A	N/A	N/A	N/A	0.20	N/A	N/A	N/A	N/A	-2.04	
Invesco (SA) - Gross	3.88	9.06	25.70	N/A	N/A	N/A	N/A	1.01	N/A	N/A	N/A	N/A	6.17	06/01/2015
IM International Large Cap Growth Equity (SA+CF) Median	4.99	11.45	31.26	9.76	9.18	7.66	4.28	-0.07	2.08	-3.31	20.63	19.60	7.51	
Rank	82	90	88	N/A	N/A	N/A	N/A	35	N/A	N/A	N/A	N/A	79	
International Equity Pool STIF - Net	0.27	0.55	0.92	N/A	N/A	N/A	N/A	0.47	N/A	N/A	N/A	N/A	0.54	04/01/2015
ICE 1 Mo LIBOR Index (USD)	0.35	0.66	1.15	0.63	0.44	0.38	0.58	0.52	0.21	0.16	0.19	0.23	0.67	
Difference	-0.08	-0.11	-0.23	N/A	N/A	N/A	N/A	-0.05	N/A	N/A	N/A	N/A	-0.13	
International Developed Small Cap Equity														
American Century Investment Mgmt (SA) - Net	7.88	19.19	43.80	14.87	N/A	N/A	N/A	-5.31	11.32	N/A	N/A	N/A	8.41	03/01/2014
MSCI ACW Ex US Sm Cap Grth Index (USD) (Net)	7.19	14.63	33.64	12.38	10.15	6.53	4.24	-0.28	6.50	-3.59	18.52	16.87	7.54	
Difference	0.69	4.56	10.16	2.49	N/A	N/A	N/A	-5.03	4.82	N/A	N/A	N/A	0.87	
American Century Investment Mgmt (SA) - Gross	8.11	19.69	44.99	15.84	N/A	N/A	N/A	-4.49	12.25	N/A	N/A	N/A	9.33	03/01/2014
IM International Small Cap Growth Equity (SA+CF) Median	6.59	16.63	39.70	14.98	13.32	10.11	7.47	-1.60	12.85	-3.62	31.15	23.67	8.93	
Rank	18	23	14	45	N/A	N/A	N/A	82	52	N/A	N/A	N/A	44	
BlackRock ACWI Ex-US Small Cap (CF) - Net	6.65	14.05	31.96	12.27	10.28	N/A	N/A	4.26	2.87	-3.84	19.87	N/A	10.22	02/01/2012
MSCI ACWI Ex US Sm Cap Index IMI (USD) (Net)	6.56	13.92	31.65	11.96	10.03	6.54	4.69	3.91	2.60	-4.03	19.73	18.52	9.99	
Difference	0.09	0.13	0.31	0.31	0.25	N/A	N/A	0.35	0.27	0.19	0.14	N/A	0.23	
BlackRock ACWI Ex-US Small Cap (CF) - Gross	6.68	14.11	32.15	12.46	10.47	N/A	N/A	4.44	3.04	-3.67	20.08	N/A	10.40	02/01/2012
DFA Intl Sm Co;l (DFISX) - Net	4.61	11.90	30.24	13.40	11.74	8.33	5.63	5.74	5.89	-6.29	27.49	18.75	9.04	11/01/2004
MSCI Wrld Ex US Sm Cap Index (USD) (Net)	5.83	13.50	31.04	12.96	11.37	7.82	5.16	4.32	5.46	-5.35	25.55	17.48	8.38	
Difference	-1.22	-1.60	-0.80	0.44	0.37	0.51	0.47	1.42	0.43	-0.94	1.94	1.27	0.66	
Templeton Investment Counsel (SA) - Net	5.68	11.67	33.07	10.24	N/A	N/A	N/A	-1.13	1.81	N/A	N/A	N/A	6.75	03/01/2014
MSCI ACW Ex US Sm Cap Val Index (USD) (Net)	5.93	13.19	29.72	11.51	9.87	6.52	5.11	8.24	-1.25	-4.49	20.92	20.15	6.74	
Difference	-0.25	-1.52	3.35	-1.27	N/A	N/A	N/A	-9.37	3.06	N/A	N/A	N/A	0.01	
Templeton Investment Counsel (SA) - Gross	5.91	12.14	34.21	11.22	N/A	N/A	N/A	-0.23	2.73	N/A	N/A	N/A	7.71	03/01/2014
IM International Small Cap Value Equity (SA+CF) Median	5.95	13.29	32.88	12.66	12.22	9.58	7.16	6.41	5.52	-4.37	30.63	23.58	7.69	
Rank	51	72	34	81	N/A	N/A	N/A	90	77	N/A	N/A	N/A	48	

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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 Emerging Equity														
BlackRock Emerging Mkts (CF) - Net	7.39	15.81	37.05	8.83	4.09	N/A	N/A	10.85	-15.15	-2.49	-2.79	N/A	4.46	02/01/2012
MSCI Emg Mkts Index (USD) (Net)	7.44	15.92	37.28	9.10	4.35	2.56	1.68	11.19	-14.92	-2.19	-2.60	18.23	4.72	
Difference	-0.05	-0.11	-0.23	-0.27	-0.26	N/A	N/A	-0.34	-0.23	-0.30	-0.19	N/A	-0.26	
BlackRock Emerging Mkts (CF) - Gross	7.42	15.86	37.16	9.00	4.28	N/A	N/A	11.08	-14.99	-2.30	-2.57	N/A	4.65	02/01/2012
iShares:MSCI Em Mkts (EEM) - Net	6.73	15.50	36.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	36.86	01/01/2017
MSCI Emg Mkts Index (USD) (Net)	7.44	15.92	37.28	9.10	4.35	2.56	1.68	11.19	-14.92	-2.19	-2.60	18.23	37.28	
Difference	-0.71	-0.42	-0.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.42	
DFA Emg Mkts Sm Cap;I (DEMSX) - Net	8.58	15.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	27.80	02/01/2017
MSCI Emg Mkts Sm Cap Index (USD) (Net)	9.23	15.39	33.84	8.44	5.41	2.12	2.78	2.28	-6.85	1.01	1.04	22.22	27.86	
Difference	-0.65	-0.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.06	

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%, 0.69%, and 0.73%, 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. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments
Comparative Performance
Fixed Income Managers

As of December 31, 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	0.45	1.29	3.78	2.73	2.68	3.94	4.72	3.41	1.03	6.79	-1.43	6.15	6.02	10/01/1995
Bloomberg US Agg Bond Index	0.39	1.24	3.54	2.24	2.10	3.20	4.01	2.65	0.55	5.97	-2.02	4.21	5.27	
Difference	0.06	0.05	0.24	0.49	0.58	0.74	0.71	0.76	0.48	0.82	0.59	1.94	0.75	
Trust Funds Bond Portfolio	0.45	1.29	3.78	2.73	2.68	3.94	4.72	3.41	1.03	6.79	-1.43	6.15	6.02	10/01/1995
IM U.S. Broad Market Core FI (SA+CF) Median	0.52	1.45	4.04	2.62	2.50	3.68	4.61	3.10	0.82	6.16	-1.56	5.88	5.67	
Rank	68	74	66	42	32	32	40	41	29	25	41	43	11	
Reams Asset Core Plus (SA) - Net	0.27	1.09	3.21	2.47	2.19	3.84	N/A	4.18	0.07	4.47	-0.85	8.64	5.70	10/01/2008
Reams Custom Index	0.39	1.24	3.83	2.71	2.44	3.58	4.30	3.91	0.43	5.56	-1.35	5.53	4.70	
Difference	-0.12	-0.15	-0.62	-0.24	-0.25	0.26	N/A	0.27	-0.36	-1.09	0.50	3.11	1.00	
Reams Asset Core Plus (SA) - Gross	0.31	1.18	3.38	2.64	2.36	4.02	N/A	4.35	0.24	4.65	-0.68	8.83	5.89	10/01/2008
IM U.S. Broad Market Core+ FI (SA+CF) Median	0.61	1.78	4.85	3.24	3.02	4.41	5.32	4.74	0.27	6.19	-0.49	8.16	6.05	
Rank	94	95	95	84	94	78	N/A	59	51	91	57	43	60	
Post High Yield Plus (SA) - Net	0.33	1.88	6.52	5.58	6.37	7.27	N/A	9.58	0.82	4.99	10.19	16.97	9.51	06/01/2009
Bloomberg US Hi Yld 2% Issuer Cap Index	0.47	2.46	7.50	6.36	5.78	7.04	8.09	17.13	-4.43	2.46	7.44	15.78	10.24	
Difference	-0.14	-0.58	-0.98	-0.78	0.59	0.23	N/A	-7.55	5.25	2.53	2.75	1.19	-0.73	
Post High Yield Plus (SA) - Gross	0.47	2.18	7.15	6.21	7.00	7.91	N/A	10.23	1.43	5.62	10.85	17.67	10.17	06/01/2009
IM U.S. High Yield Bonds (SA+CF) Median	0.68	2.64	7.61	6.07	5.72	6.93	7.82	14.12	-2.16	2.61	7.58	15.33	10.02	
Rank	71	75	61	44	10	9	N/A	85	7	2	10	13	42	
Post Trad'l High Yield LP (CF) - Gross	0.47	2.17	7.09	6.31	6.97	7.99	N/A	10.62	1.42	6.01	9.98	18.62	9.53	09/01/2009
IM U.S. High Yield Bonds (SA+CF) Median	0.68	2.64	7.61	6.07	5.72	6.93	7.82	14.12	-2.16	2.61	7.58	15.33	9.01	
Rank	72	76	62	41	10	8	N/A	82	8	2	13	10	25	
Neuberger Berman High Yield (SA) - Net	0.04	1.86	5.80	5.19	5.04	6.38	N/A	14.98	-4.32	1.93	7.78	15.90	7.57	01/01/2010
Bloomberg US Hi Yld 2% Issuer Cap Index	0.47	2.46	7.50	6.36	5.78	7.04	8.09	17.13	-4.43	2.46	7.44	15.78	7.99	
Difference	-0.43	-0.60	-1.70	-1.17	-0.74	-0.66	N/A	-2.15	0.11	-0.53	0.34	0.12	-0.42	
Neuberger Berman High Yield (SA) - Gross	0.15	2.09	6.27	5.66	5.51	6.86	N/A	15.50	-3.89	2.38	8.26	16.42	8.06	01/01/2010
IM U.S. High Yield Bonds (SA+CF) Median	0.68	2.64	7.61	6.07	5.72	6.93	7.82	14.12	-2.16	2.61	7.58	15.33	8.00	
Rank	92	81	79	67	65	57	N/A	32	75	56	31	29	47	

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. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments
Comparative Performance
Trust Accounts

As of December 31, 2017

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Abandoned Mine Trust	0.16	0.53	1.04	1.01	1.03	1.35	2.11	1.10	0.90	1.49	0.63	2.82	4.15	12/01/1993
Big Sky Economic Development Fund	0.45	1.39	3.97	3.25	3.24	4.42	5.08	3.98	1.82	6.77	-0.22	6.72	5.04	07/01/2005
Butte Area One Restoration	0.37	1.08	2.92	2.23	2.03	2.63	N/A	2.60	1.20	3.57	-0.08	3.68	3.26	11/01/2008
Clark Fork River Restoration	0.38	1.07	2.85	2.31	2.21	2.95	N/A	2.72	1.37	4.26	-0.12	4.36	3.68	11/01/2008
Coal Tax Cultural Trust Fund	0.45	1.38	3.96	3.23	3.23	4.41	5.07	3.95	1.79	6.79	-0.23	6.76	6.19	12/01/1993
Coal Tax Park Acquisition	0.45	1.39	3.96	3.21	3.18	4.38	5.05	3.90	1.78	6.66	-0.25	6.78	6.16	12/01/1993
East Helena Compensation Fund	0.39	1.01	2.56	1.86	1.69	N/A	N/A	2.12	0.91	3.01	-0.13	N/A	1.69	01/01/2013
Endowment for Children	0.46	1.39	3.89	3.08	3.10	4.30	4.95	3.66	1.70	6.66	-0.28	6.69	5.13	08/01/2007
FWP License Account	0.21	0.51	1.11	0.85	0.71	0.90	1.55	0.84	0.61	0.59	0.42	1.64	3.04	11/01/1997
FWP Mitigation Trust Fund	0.03	0.47	1.15	0.90	0.93	1.28	1.95	0.67	0.87	1.37	0.61	2.85	3.98	12/01/1993
FWP Real Property Trust	0.45	1.34	3.80	3.11	3.09	4.23	4.88	3.82	1.73	6.47	-0.24	6.51	5.49	12/01/1993
Group Benefits	0.17	0.64	1.30	1.17	1.00	1.24	2.10	1.16	1.06	1.17	0.32	2.22	4.02	12/01/1993
Harold Hamm Endowment	0.32	0.62	1.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.97	07/01/2016
Montana Pole	0.43	1.24	3.38	2.72	2.67	3.63	4.28	3.23	1.56	5.44	-0.17	5.50	5.26	09/01/1996
Montana State University	0.33	0.72	1.39	0.91	0.74	0.86	1.20	0.95	0.39	0.85	0.12	1.07	2.02	08/01/2004
Montana Tech-UM Agency Funds	0.33	0.65	1.22	0.74	0.54	0.57	0.87	0.72	0.27	0.35	0.17	0.57	1.79	03/01/2003
MT BOI - Clark Fork Site	0.43	1.28	3.64	2.94	2.80	3.63	N/A	3.63	1.56	5.37	-0.09	5.23	4.39	11/01/2008
MT BOI UOFM Other	0.29	0.97	2.15	1.87	1.61	1.83	2.20	2.34	1.13	2.57	-0.12	2.54	3.01	08/01/2002
MUS Group Insurance	0.23	0.54	1.09	1.22	1.03	N/A	N/A	1.33	1.26	1.30	0.17	1.56	1.10	10/01/2011
MUS Workers Compensation	0.35	0.81	1.80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.92	04/01/2016
Older Montanans Trust	0.45	1.37	3.87	3.15	3.13	3.93	4.74	3.86	1.72	6.57	-0.23	6.01	4.90	08/01/2007
Permanent Coal Trust Excl Crp	0.52	1.29	3.49	3.17	3.31	4.28	4.78	3.79	2.23	6.14	0.99	6.29	5.90	12/01/1993
PERS Defined Cont Disability	3.82	7.23	14.57	N/A	N/A	N/A	N/A	3.42	N/A	N/A	N/A	N/A	7.59	09/01/2015
Potter Trust Fund	0.45	1.36	3.87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.51	06/01/2016
Resource Indemnity Trust	0.46	1.40	4.01	3.28	3.28	4.47	5.10	4.02	1.82	6.94	-0.27	6.86	6.26	12/01/1993
Smelter Hill Up Restorative	0.28	0.76	1.85	1.52	1.41	1.76	N/A	1.79	0.92	2.49	0.01	2.47	2.05	11/01/2008
State Fund Insurance	0.85	2.11	5.05	3.58	3.77	4.47	4.79	3.50	2.21	5.00	3.11	7.25	5.67	12/01/1993
Streamside Tailings Operable Unit	0.44	1.32	3.69	2.98	2.97	4.01	4.60	3.58	1.69	6.22	-0.21	6.14	5.49	02/01/1999
Subsequent Injury Fund	0.32	0.62	1.11	0.64	0.43	0.45	-0.22	0.61	0.22	0.11	0.13	0.31	3.16	12/01/1993
Tobacco Trust Fund	0.46	1.38	3.96	3.25	3.25	4.43	5.10	3.99	1.82	6.89	-0.27	6.77	5.79	01/01/2001
Treasurers	0.31	0.61	1.07	0.67	0.49	0.44	0.71	0.68	0.27	0.19	0.23	0.31	2.98	12/01/1993
Treasure State Endowment	0.46	1.40	4.00	3.26	3.26	4.44	5.11	3.98	1.82	6.84	-0.21	6.76	6.12	12/01/1993
Treasure State Reg. Water System	0.46	1.40	4.00	3.26	3.24	4.42	5.08	3.96	1.82	6.80	-0.22	6.73	5.95	06/01/2000
Trust and Legacy Account	0.46	1.39	4.00	3.27	3.27	4.44	5.09	4.01	1.82	6.92	-0.26	6.78	6.88	07/01/1991
UCFRB Assess/Litig Cost Rec	0.45	1.33	3.77	3.08	3.06	4.07	4.86	3.84	1.65	6.40	-0.24	6.45	5.87	07/01/1999
UCFRB Restoration Fund	0.45	1.32	3.73	2.98	2.98	4.13	4.79	3.52	1.70	6.28	-0.20	6.43	5.75	06/01/1999
Upper Blackfoot Response	0.30	0.79	1.90	1.49	1.24	1.44	N/A	1.74	0.84	1.59	0.13	1.60	1.37	09/01/2010
Weed Control Trust	0.46	1.40	4.01	3.28	3.28	4.35	4.84	4.02	1.82	6.94	-0.23	6.69	5.33	12/01/1993
Wildlife Habitat Trust	0.45	1.35	3.78	3.10	3.09	4.22	4.87	3.79	1.73	6.49	-0.24	6.46	5.50	12/01/1993
Zortman/Landusky LT H2O	0.32	0.62	1.01	1.07	0.89	2.95	4.52	1.36	0.84	1.78	-0.51	5.47	7.06	09/01/1999
Z/L Long Term H2O Trust Fund	0.33	0.63	1.08	1.21	0.88	2.79	3.99	1.39	1.15	1.76	-0.96	3.91	4.77	09/01/2005

Performance shown is gross of fees. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences.



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

- Analytic Investors 130/30 (SA) was liquidated in 09/2017.
- 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):	0.69%
• DFA Emg Mkts Sm Cap;I (DEMSX):	0.73%
• iShares:Core S&P Md-Cp (IJH):	0.09%

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