

# Mendocino County Employees' Retirement Association Public Fund Universe Analysis

Period Ending June 30, 2016

Fund Number: 49



## OVERVIEW

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RVK, Inc. (“RVK”) was founded in 1985 and is one of the largest independent and employee-owned investment consulting firms in the US, providing world-class investment advice to institutional investors. We serve over 400 plans, including pension plans, defined contribution plans, endowments & foundations, insurance pools, and special purpose funds.

## MISSION STATEMENT

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To provide best-in-class investment consulting services to a wide array of sophisticated investors.

## STRATEGIC INVESTMENT ADVICE WITH NO CONFLICTS OF INTEREST

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RVK built its investment consulting practice on the principles of integrity, investment knowledge, client service, and our no conflicts of interest policy. We are exclusively focused on strategic investment consulting services and solely owned by active employees, enabling us to offer advice that is not influenced by other business activities. As a privately-held firm, with no affiliates or parent company, we provide informed and unbiased investment advice to our clients. We offer an extensive slate of consulting services and produce deliverables fully customized to meet each client’s needs.

## KEY TENETS OF OUR CULTURE

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### **RVK BY THE NUMBERS**

- **30+** years of business
- **3** offices - Portland, Chicago, New York
- **\$650+** billion Full-Retainer AUA
- **90+** Investment Professionals
- **50+** Advanced Degrees and Certifications
- **100%** Employee Ownership
- **100%** Revenue Derived from Client Fees
- **100%** Non-Discretionary Services

### **GENERAL CONSULTING SERVICES**

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- Plan Evaluation
- Strategic Asset Allocation
- Investment Policy Development & Review
- Investment Manager Search & Selection
- Performance Analysis & Reporting
- Manager Structure Analysis
- Risk Monitoring and Management
- Client Education
- Special Projects

### **SPECIALTY CONSULTING SERVICES**

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- Real Estate Consulting Services
- Custody, Record keeper, Third-Party Administrator Searches
- Asset/Liability Studies
- Endowment Spending Policy Studies
- Securities Lending Reviews
- Pacing Studies
- Strategic Planning Reviews
- Outsourced CIO (“OCIO”) Searches, Evaluation, and Ongoing Monitoring
- Directed Consulting Services
- Fee Reviews
- Defined Contribution Solutions Services
- Investment Operations Solutions
- Board and Investment Program Operational Reviews

**FOR MORE INFORMATION ABOUT OUR SERVICES, PLEASE CONTACT:**

**[Business.Development@RVKInc.com](mailto:Business.Development@RVKInc.com)**  
**503-221-4200**

Alameda County Employees' Retirement Association  
California State Teachers' Retirement System  
City of Milwaukee Employees' Retirement System

Colorado Public Employees' Retirement Association  
Contra Costa County Employees' Retirement Association  
District of Columbia Retirement Board  
Employees Retirement System of Texas  
Fire and Police Pension Association of Colorado  
Fort Worth Employees' Retirement Fund  
Georgia Division of Investment Services  
Illinois Municipal Retirement Fund  
Iowa Public Employees' Retirement System  
Kentucky Retirement Systems  
Kern County Employees' Retirement Association  
Los Angeles County Employees Retirement Association  
Los Angeles Water & Power Employees Retirement Plan

**Mendocino County Employees' Retirement Association (49)**

Montana Public Employees' Retirement System  
Municipality of Anchorage Pre-Funding Program  
Nevada Public Employees' Retirement System  
Newport News Employees' Retirement Fund  
Ohio Public Employees' Retirement System  
Pennsylvania Public School Employees' Retirement System  
Police Retirement System of Kansas City, Missouri  
Sacramento County Employees' Retirement System  
San Diego County Employees Retirement Association  
San Joaquin County Employees' Retirement Association  
San Jose Police and Fire Department Retirement Plan  
Santa Barbara County Employees' Retirement System

Arlington County Employees' Retirement System  
City of Fresno Retirement Systems  
Civilian Employees' Retirement System of the Police Department of Kansas City, Missouri  
Confederated Tribes of the Warm Springs Tribal Council Pension Fund  
County Employees' Annuity & Benefit Fund of Cook County  
Educational Employees' Supplementary Retirement System of Fairfax County  
Fire & Police Employees' Retirement System of Baltimore  
Florida State Board of Administration  
Fresno County Employees' Retirement Association  
Gila River Indian Community Retirement Plan  
Imperial County Employees' Retirement System  
Kansas Public Employees' Retirement System  
Kentucky Teachers' Retirement System  
Los Angeles City Employees' Retirement System  
Los Angeles Fire and Police Pension System  
Marin County Employees' Retirement Association  
Merced County Employees' Retirement Association  
Montana Teachers' Retirement System  
Municipality of Anchorage Trust Fund  
New York State Common Retirement Fund  
North Carolina Retirement System  
Orange County Employees' Retirement System  
Pennsylvania State Employees' Retirement System  
Public School and Education ERS of Missouri  
San Bernardino County Employees' Retirement Association  
San Diego Transit Corporation Employees Retirement  
San Jose Federated City Employees' Retirement System  
San Mateo County Employees' Retirement Association



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South Dakota Retirement System  
State of Michigan Retirement Systems  
State Retirement and Pension System of Maryland  
State Universities Retirement System of Illinois  
Texas Municipal Retirement System  
Tulare County Employees' Retirement Association  
Virginia Retirement System  
Wyoming Retirement System

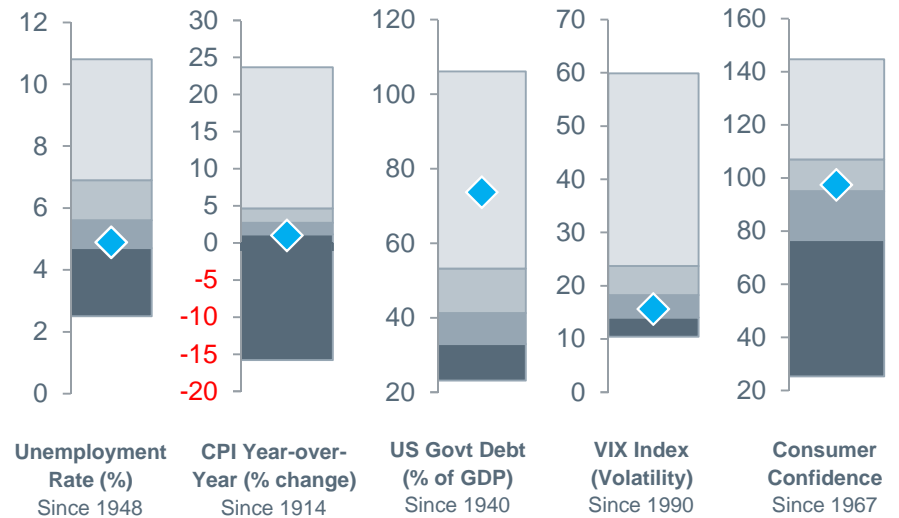
Sonoma County Employees' Retirement Association  
Stanislaus County Employees' Retirement Association  
State of New Jersey Pension Fund  
State Teachers Retirement System of Ohio  
Teachers' Retirement System of the State of Illinois  
The Navajo Nation Retirement Plan  
Ventura County Employees' Retirement Association  
West Virginia Investment Management Board

Second Quarter Economic Environment

Key Economic Indicators

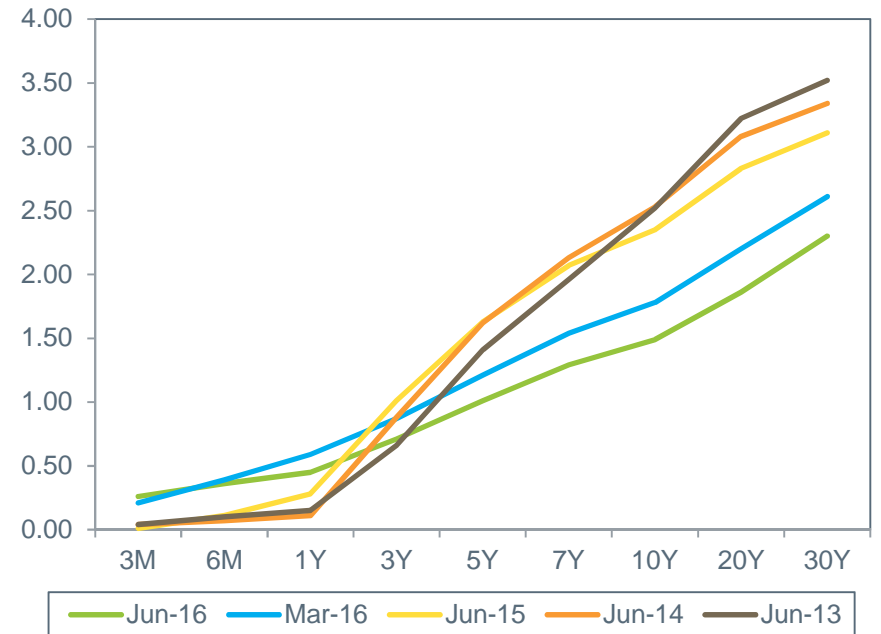
The second quarter of 2016 was characterized by a broad based rally across commodities, a range bound US dollar, and a flight to safety on the back of the UK's referendum vote to leave the European Union. Uncertainty around Brexit dominated the news flow in late June and catalyzed a flight to safety across risk assets. Recent data show that 36% of outstanding global developed market government debt is now yielding less than 0%. However, investors continue to have an appetite for risk where yields remain positive. In developed markets, the surprise Brexit vote led to sharp initial declines in equities, though markets recovered quickly following a series of dovish statements from central banks. Long duration assets outperformed short duration, and gold rallied amid the flight to safety. In the US, probabilities for a June interest rate hike swung from as high as 35% in late May, down to 0% after disappointing May payroll numbers were released.

Key Economic Indicators



Economic Indicators	Jun-16	Mar-16	Jun-15	Jun-13	20 Yr
Federal Funds Rate (%)	0.30 ▲	0.25	0.08	0.07	2.47
Breakeven Infl. - 1 Yr (%)	1.17 ▼	2.10	0.73	0.74	N/A
Breakeven Infl. - 10 Yr (%)	1.44 ▼	1.63	1.89	1.99	N/A
CPI YoY (Headline) (%)	1.0 ▲	0.9	0.1	1.8	2.2
Unemployment Rate (%)	4.9 ▼	5.0	5.3	7.5	6.0
Real GDP YoY (%)	1.2 ▼	1.6	3.0	1.0	2.4
PMI - Manufacturing	53.20 ▲	51.80	53.10	52.30	52.20
USD Total Wtd Idx	90.64 ▲	89.84	89.96	77.58	86.76
WTI Crude Oil per Barrel (\$)	48 ▲	38	59	97	55
Gold Spot per Oz (\$)	1,322 ▲	1,233	1,172	1,235	762

Treasury Yield Curve (%)



Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	2.46	3.84	3.99	12.10	7.42
Russell 2000	3.79	2.22	-6.73	8.35	6.20
MSCI EAFE (Net)	-1.46	-4.42	-10.16	1.68	1.58
MSCI EAFE SC (Net)	-2.60	-3.18	-3.67	4.84	3.57
MSCI Emg Mkts (Net)	0.66	6.41	-12.05	-3.78	3.54
Barclays US Agg Bond	2.21	5.31	6.00	3.76	5.13
BofA ML 3 Mo US T-Bill	0.07	0.15	0.19	0.09	1.04
NCREIF ODCE (Gross)	2.13	4.36	11.82	12.72	6.17
Wilshire US REIT	5.60	11.09	22.82	12.48	6.99
HFN FOF Multi-Strat	0.36	-2.83	-6.48	1.46	1.24
Bloomberg Cmddy (TR)	12.76	13.23	-13.34	-10.83	-5.59

Treasury data courtesy of the US Department of the Treasury. Economic data courtesy of Bloomberg Professional Service. Breakeven Inflation does not have 20 years of history; therefore, its 20-year average is shown as N/A.

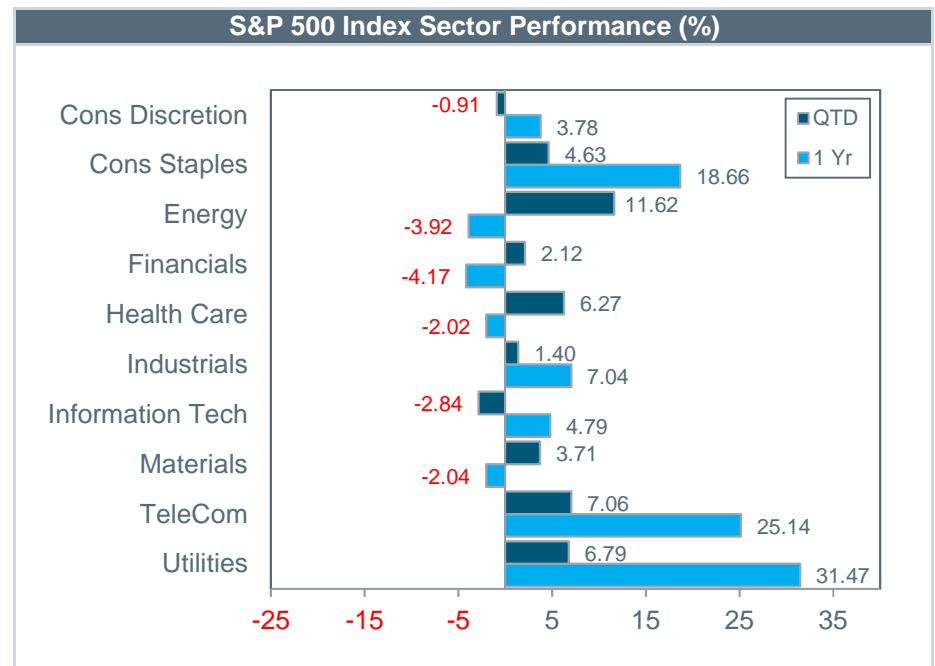
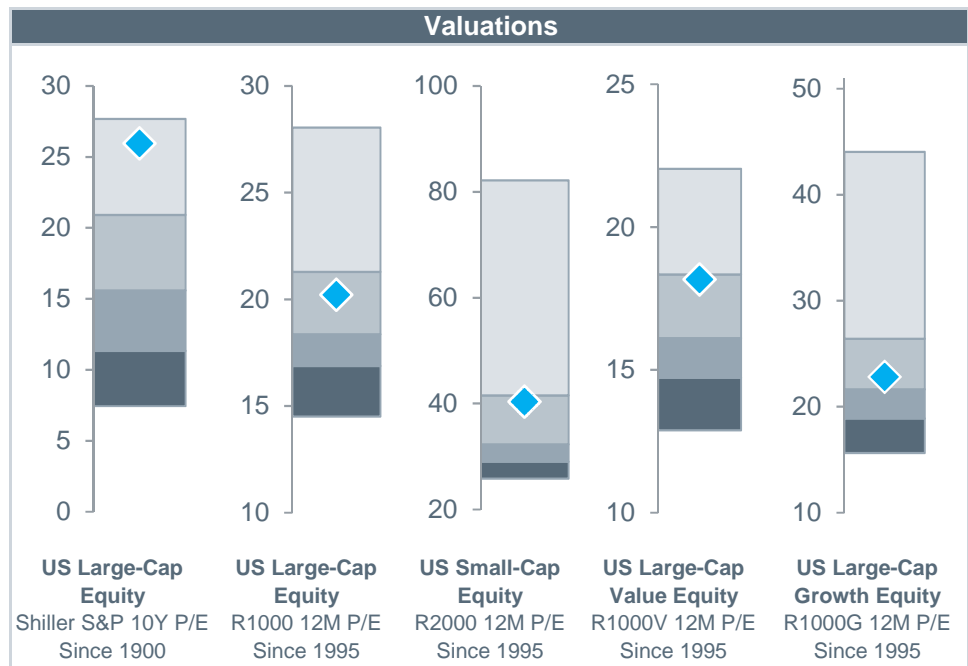
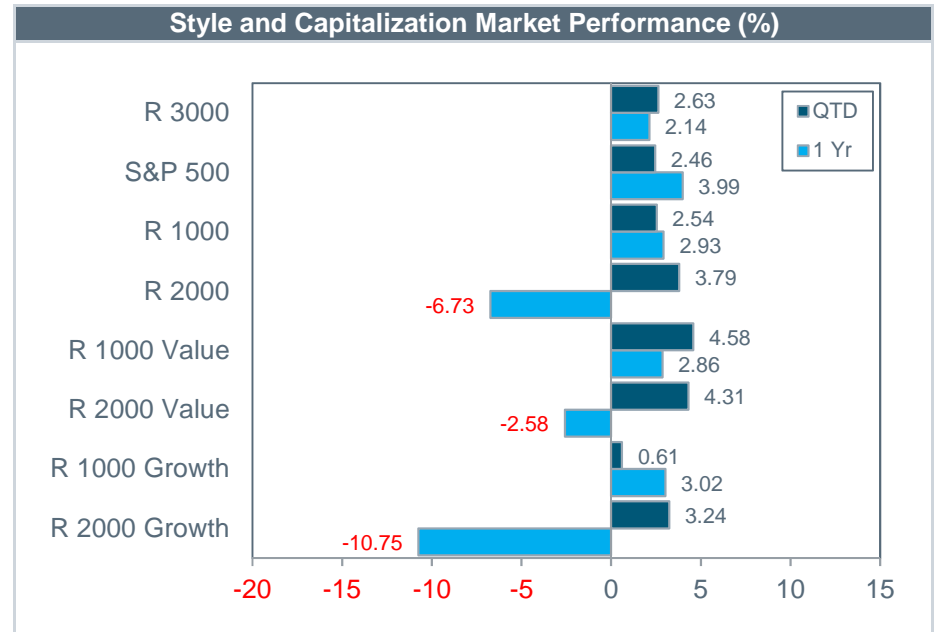


### Second Quarter Review

**Broad Market**  
US equity markets finished the quarter in positive territory across all market capitalization ranges and styles, with the Russell 3000 Index rising 2.6%.

**Market Cap**  
Small cap stocks outperformed larger-cap stocks this quarter, as the Russell 2000 Index outperformed the Russell 1000 Index by 125 basis points.

**Style and Sector**  
Historically stable sectors such as utilities, consumer staples, and telecommunications continued to post strong gains as market volatility persisted and notably increased in the final week of the quarter amidst the uncertainty created by the UK's EU Referendum. Additionally, value stocks outperformed their growth counterparts over the quarter.



Valuation data courtesy of Bloomberg Professional Service and Robert J. Shiller, Irrational Exuberance, Second Edition. P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.



**Second Quarter Review**

**Developed Markets**

Developed international markets continue to struggle, detracting value for the quarter and underperforming domestic equities. The uncertainty created by the UK's EU referendum is expected to result in a near-term slow-down in the EU, particularly in the UK. The European Economic Union ("EMU") was the worst performing developed region.

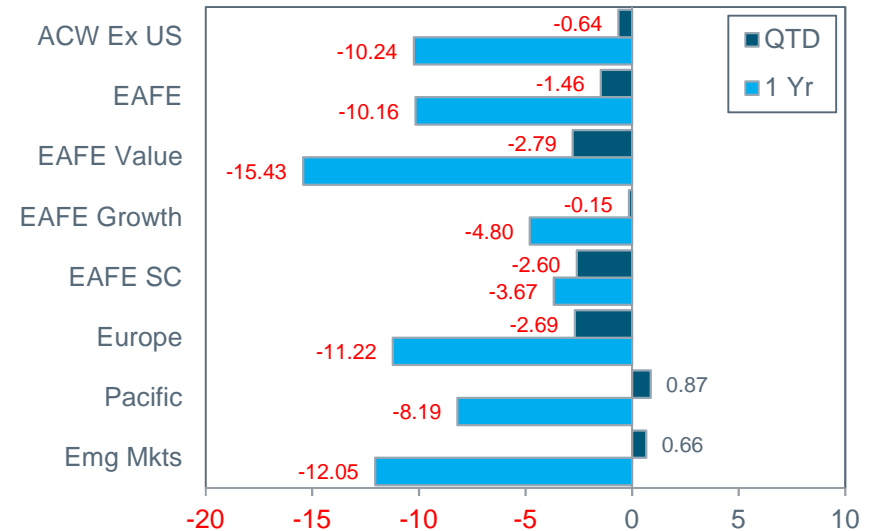
**Emerging Markets**

Emerging markets lagged domestic equities during the quarter, but performed better than developed international equity and have provided the highest returns among equity regions in 2016. Value underperformed growth for the quarter, but is still ahead year-to-date.

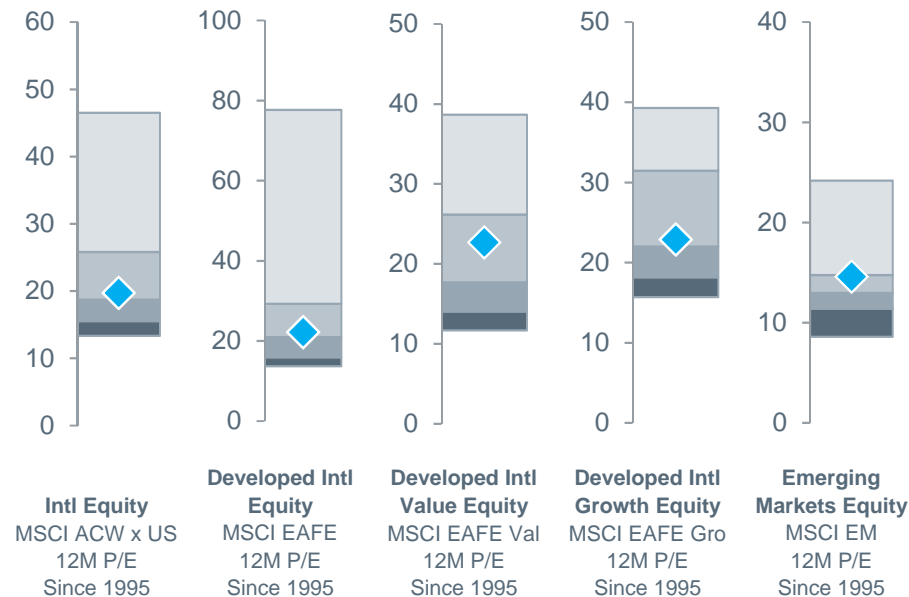
**Market Cap & Style**

The style trend continued as growth outpaced value with the MSCI EAFE Growth Index ending the quarter relatively flat at -0.1%, while the MSCI EAFE Value Index returned -2.8%. Small caps were a weak spot, lagging large cap developed stocks.

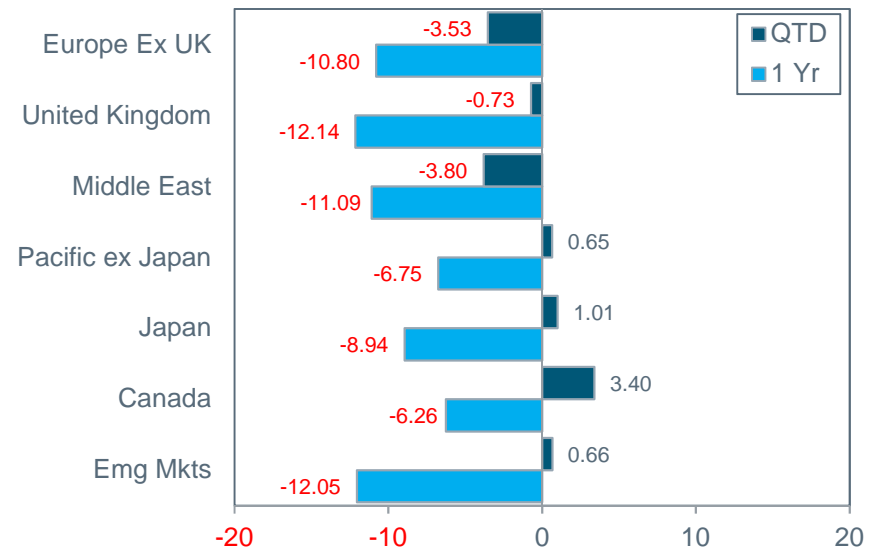
**MSCI Style and Capitalization Market Performance (%)**



**Valuations**



**MSCI Region Performance (%)**



Valuation data courtesy of Bloomberg Professional Service.

P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers. All returns are shown net of foreign taxes on dividends.





**Second Quarter Review**

**Broad Market**

Virtually all fixed income sectors posted positive performance as interest rates fell and credits improved during the quarter. The Barclays US Agg posted a strong quarter, returning 2.21%.

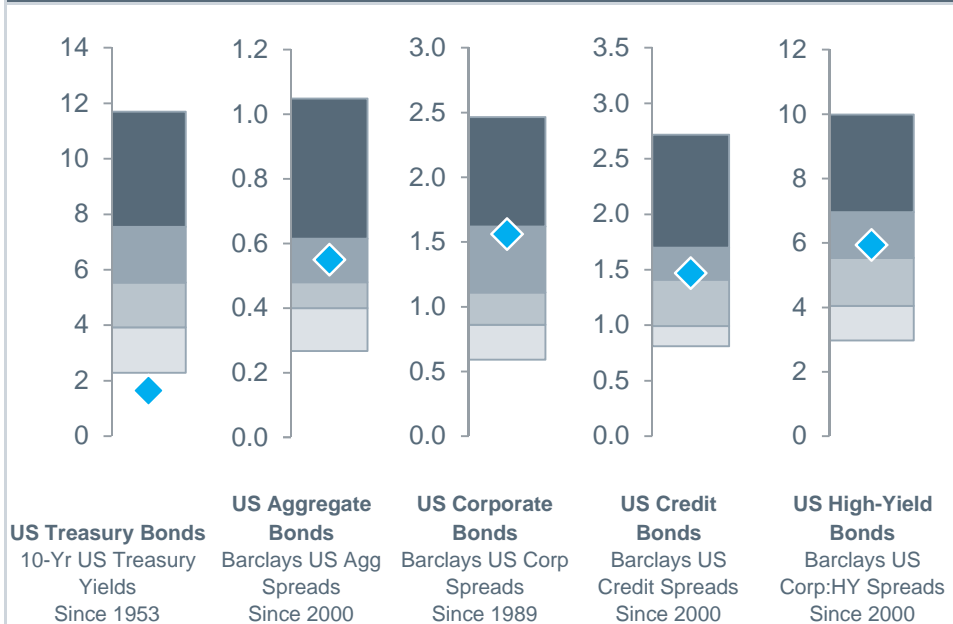
**Credit Market**

Utility and industrial bonds outperformed financial bonds as energy and commodity prices continued to rebound.

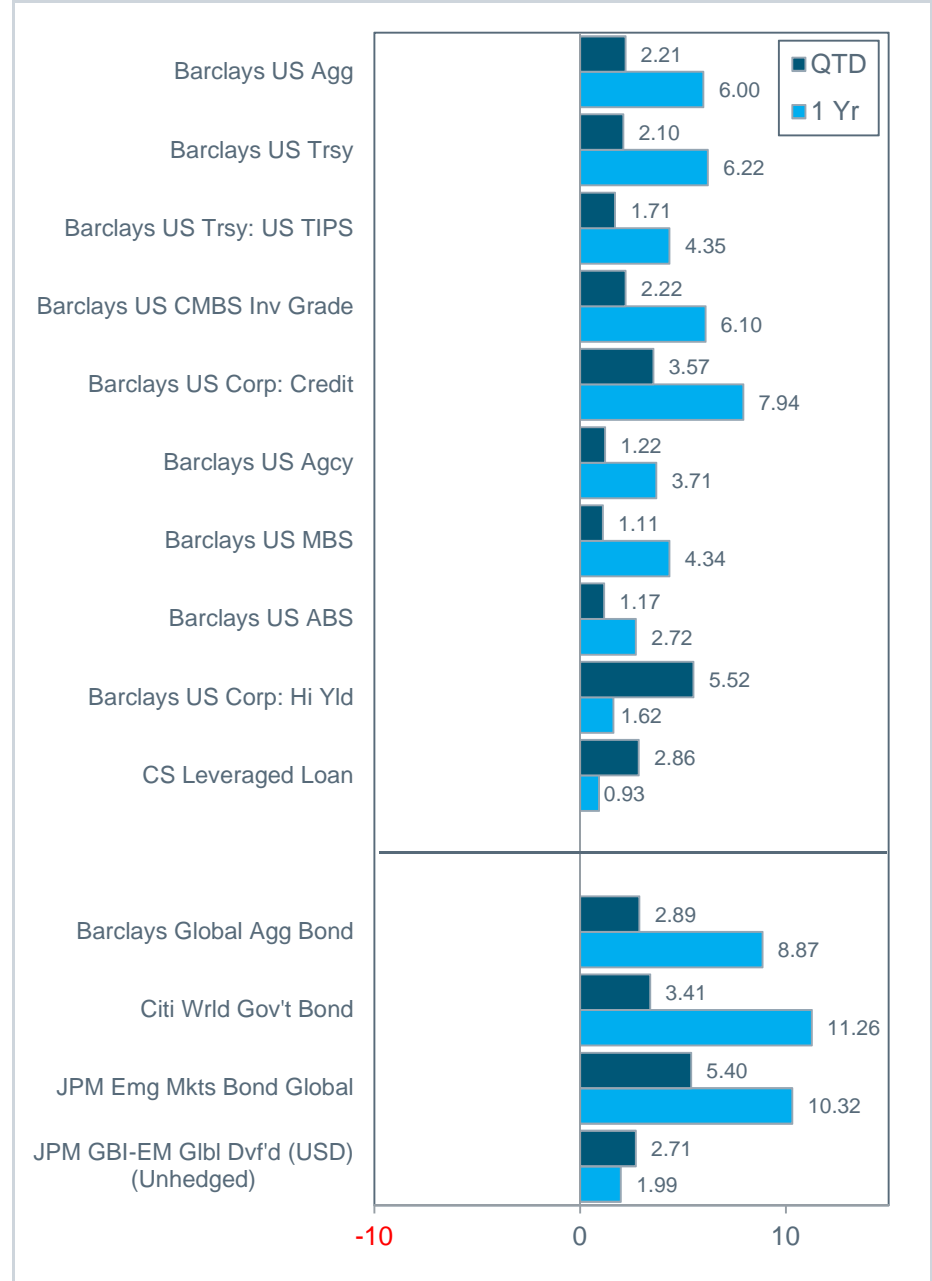
**Emerging Market Debt**

Both local currency and hard currency emerging markets debt posted strong returns for a second consecutive quarter. Emerging market debt outperformed both US and developed markets, as evidenced by the JPM Emg Mkts Bond Global Index returning 5.40% during the quarter.

**Valuations**



**Fixed Income Performance (%)**



Valuation data courtesy of Bloomberg Professional Service. Valuations shown represent the 5th through 95th percentiles to minimize the effect of outliers.



**Second Quarter Review - Absolute Return**

**General Market - Hedge Funds**

After a poor first quarter, the hedge fund industry performed better during the second quarter of 2016, though Fund of Hedge Fund (“FoHF”) portfolios are still down between 2.5% to 3.0% year-to-date based on available peer group based benchmarks. Most of the FoHF managers RVK follows closely have performed roughly in line with peers YTD, with any dispersion explained to a large degree by strategy allocation. On the direct side, multi-strategy managers as a group continued to outperform their FoHF counterparts.

**General Market - Global Tactical Asset Allocation (GTAA)**

GTAA funds provided a dispersion in results for the second quarter, with many significantly outperforming an undiversified static portfolio of 60% US large cap equity and 40% US fixed income. Those that outperformed by the widest margins tended to follow fundamental value-oriented processes that have led to higher allocations to emerging market fixed income, high yield fixed income, and REITs.

**Second Quarter Review - Real Assets**

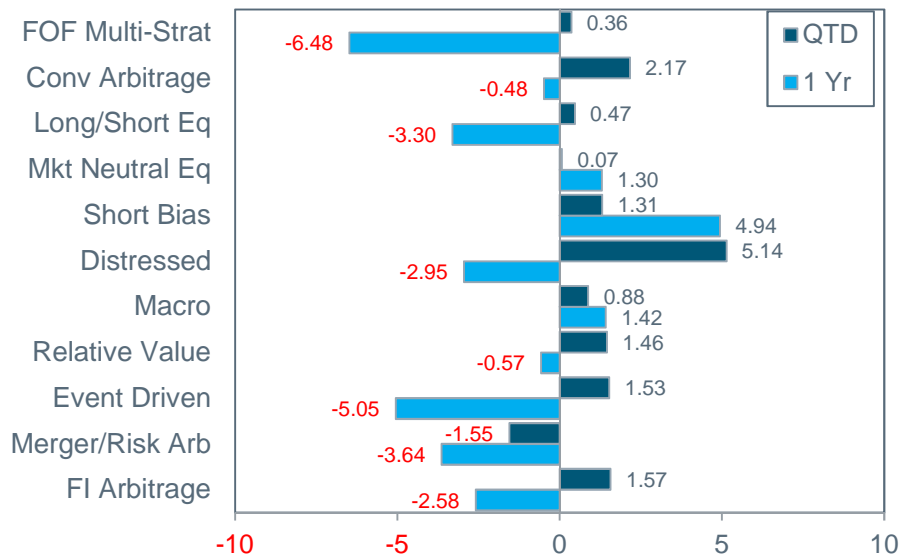
**General Market - Diversified Inflation Strategies (DIS)**

DIS provided strong performance with relatively narrow divergence for the second consecutive quarter. Most strategies significantly outperformed major world equity and fixed income indices, in addition to TIPS. Commodities, especially energy, provided strong performance over the quarter in a welcome reprieve from the longer-term trend of negative performance.

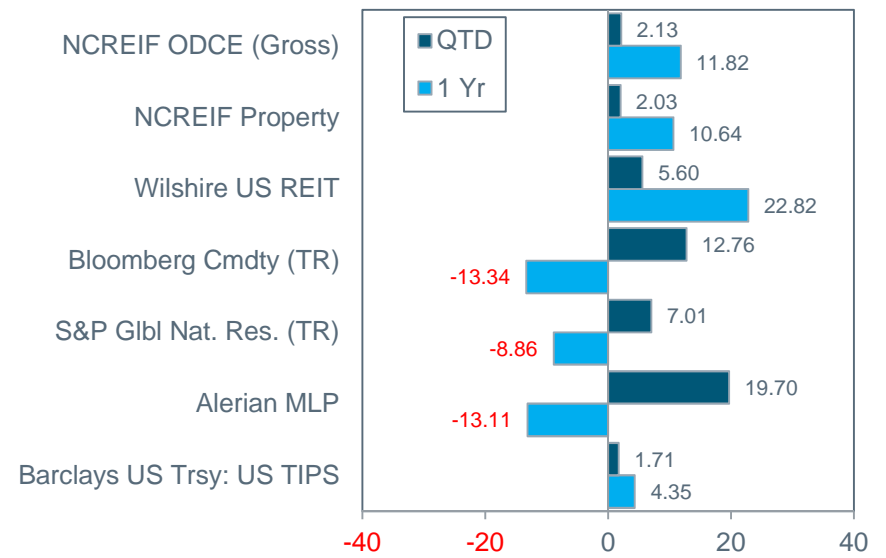
**General Market - Real Estate**

Due to the prolonged low-interest rate environment occurring globally and the economic uncertainty brought upon by the recent Brexit vote, the real estate sector proved to be an attractive option during the second quarter as investors sought the perceived safe-haven of property as well as the continued strong dividends yields relative to global treasury rates. The private real estate sector experienced themes similar to listed real estate as evidenced by a preliminary 2.1% return in the NCREIF-ODCE Index during Q2.

**HFN Hedge Fund Performance (%)**



**Real Asset Performance (%)**

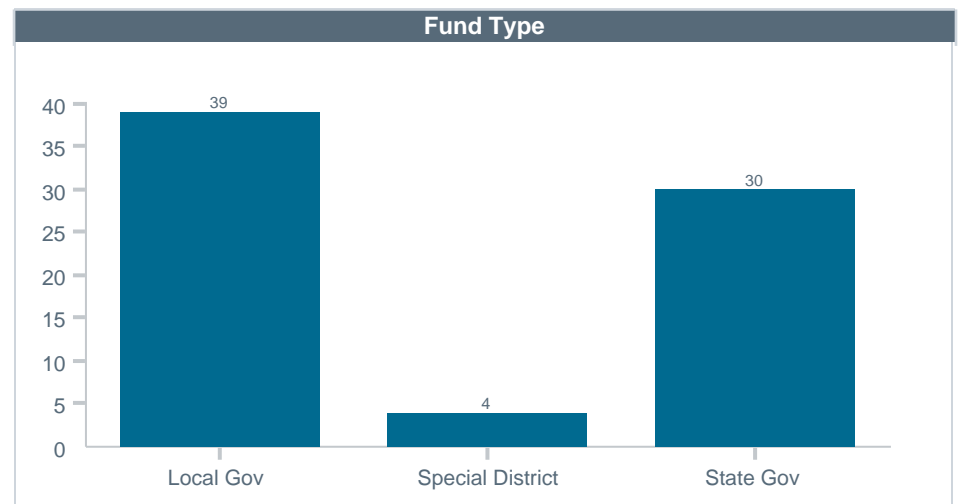
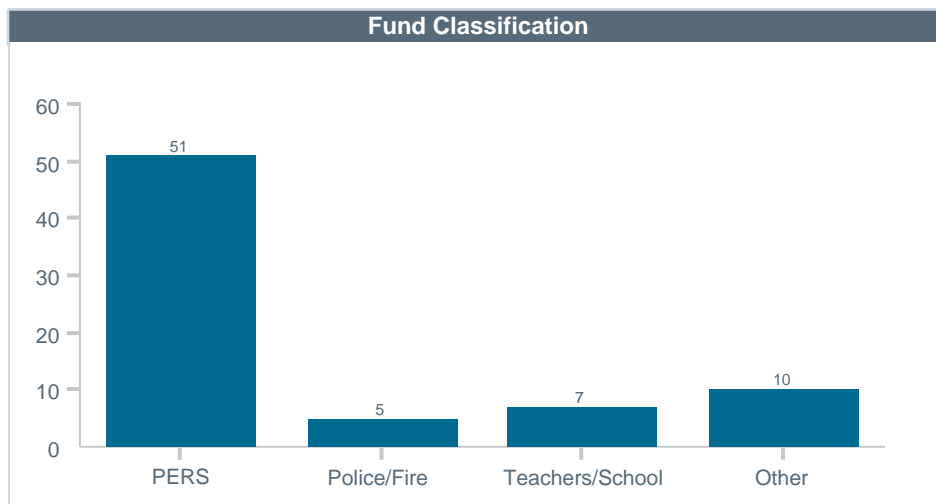
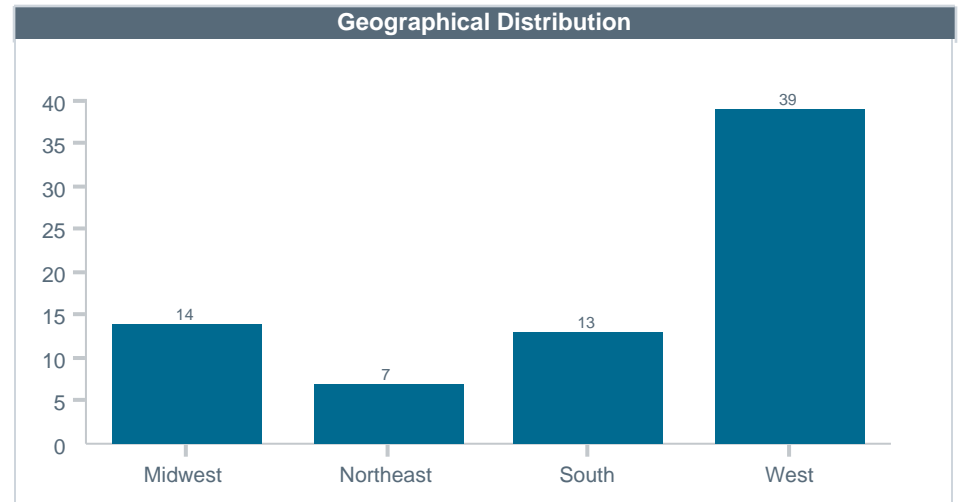
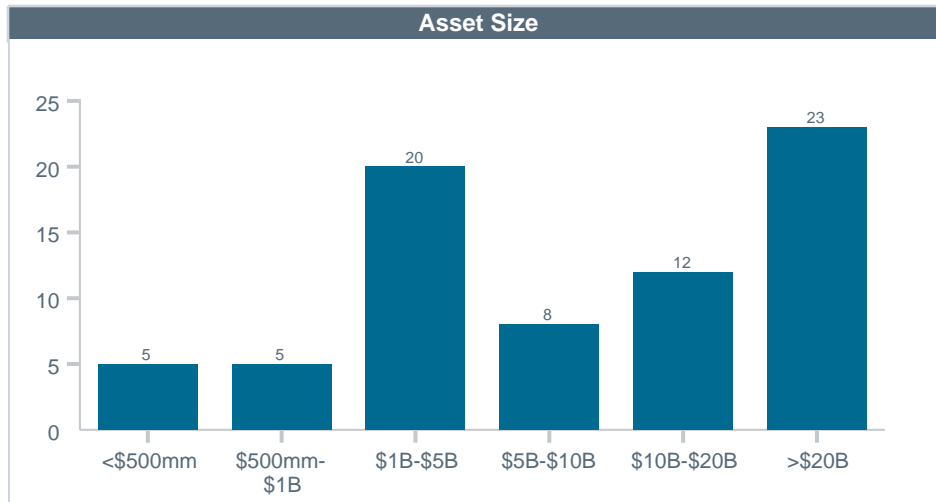


Annual Asset Class Performance

As of June 30, 2016

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	YTD
Best	25.91	61.34	33.16	34.00	35.97	39.38	8.44	78.51	28.60	22.49	20.00	38.82	31.78	15.02	14.33
	16.56	55.81	31.45	26.19	32.18	16.23	5.24	58.21	26.86	15.99	18.23	32.39	19.31	9.59	13.23
	14.81	47.25	25.55	21.39	26.34	15.97	2.06	46.78	22.04	13.56	17.59	29.30	13.69	4.23	11.09
	10.25	38.59	20.25	21.36	19.31	11.63	-2.35	31.78	18.88	9.24	17.32	22.78	12.50	1.38	9.06
	5.54	36.18	18.33	13.82	18.37	11.17	-10.01	28.60	16.83	7.84	16.34	13.94	5.97	0.55	6.41
	3.58	28.97	13.06	13.54	16.32	9.91	-20.47	27.18	16.36	4.98	16.00	9.10	4.89	0.05	6.24
	3.12	28.68	11.13	6.75	15.79	6.97	-26.16	26.46	15.12	2.11	15.81	7.44	3.64	-0.81	5.31
	1.78	23.93	10.88	5.33	11.85	6.60	-33.79	18.91	15.06	0.10	10.94	1.86	3.03	-1.24	4.36
	-1.41	11.93	9.15	4.91	9.85	5.49	-35.65	11.41	10.16	-4.18	8.82	0.07	2.45	-1.44	3.84
	-6.17	9.28	8.56	4.55	4.85	5.00	-37.00	9.72	7.75	-5.55	6.98	-2.02	0.04	-3.30	2.22
	-7.83	8.39	8.46	3.07	4.33	1.87	-39.20	5.93	6.54	-12.14	4.80	-2.60	-2.19	-4.41	0.15
	-15.94	5.87	6.79	2.84	2.71	1.45	-43.38	1.92	6.31	-13.32	4.21	-8.61	-4.30	-4.47	-2.83
	-20.48	4.10	4.34	2.74	2.07	-1.57	-47.01	0.21	4.77	-15.94	0.11	-8.83	-4.95	-14.92	-3.18
Worst	-22.10	1.15	1.33	2.43	0.41	-17.55	-53.33	-29.76	0.13	-18.42	-1.06	-9.52	-17.01	-24.66	-4.42
	S&P 500 - US Large Cap	R 2000 - US Small Cap	MSCI EAFE (Net) - Int'l Dev.	MSCI EAFE SC (Net) - Int'l SC	MSCI EM (Net) - Int'l Emg Mkts	Barclays US Agg Bond - FI	Barclays US Corp: Hi Yield - FI	Barclays US Trsy: US TIPS - FI	Barclays US Gov/Credit: Lng - FI	NCREIF ODCE (Gross) - Real Estate	Wilshire US REIT - REITs	HFN FOF Multi-Strat (Net) - ARS	Bloomberg Cmdty (TR) - Commod.	BofA ML 3 Mo T-Bill - Cash Equiv	



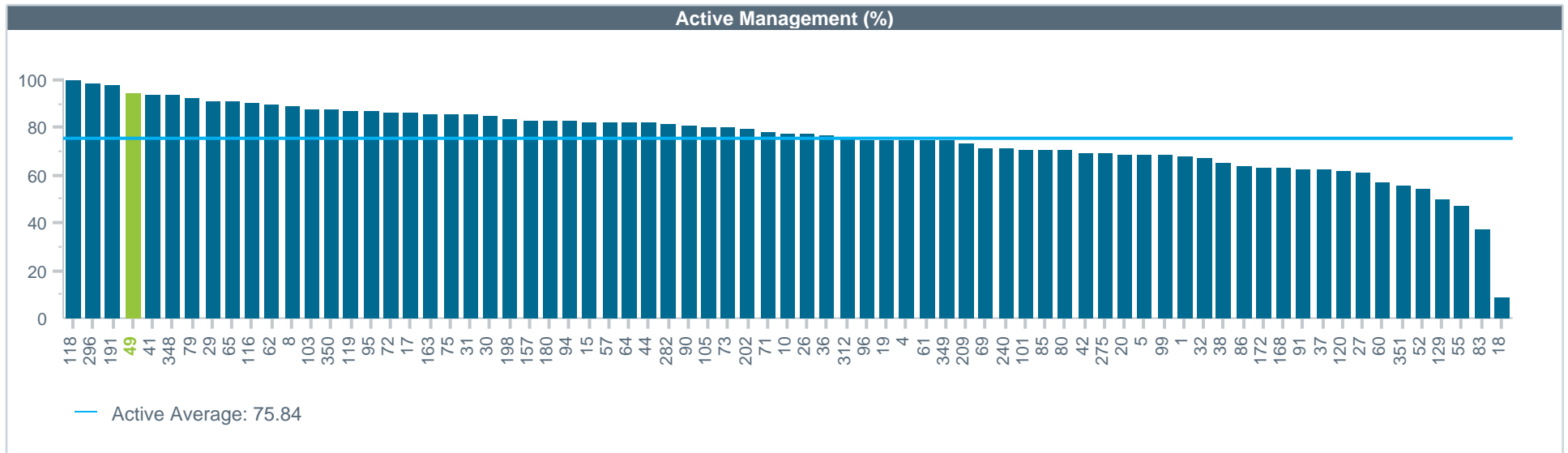
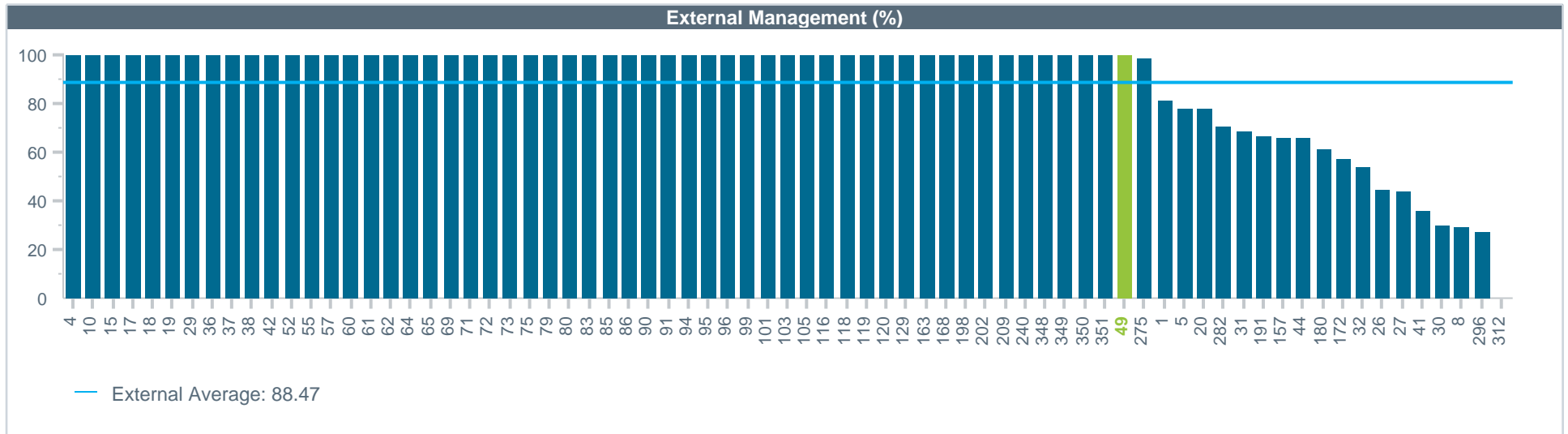


■ Universe: 73 funds



Portfolio Management

Percentage Externally Managed & Percentage Actively Managed



■ Mendocino County ERA



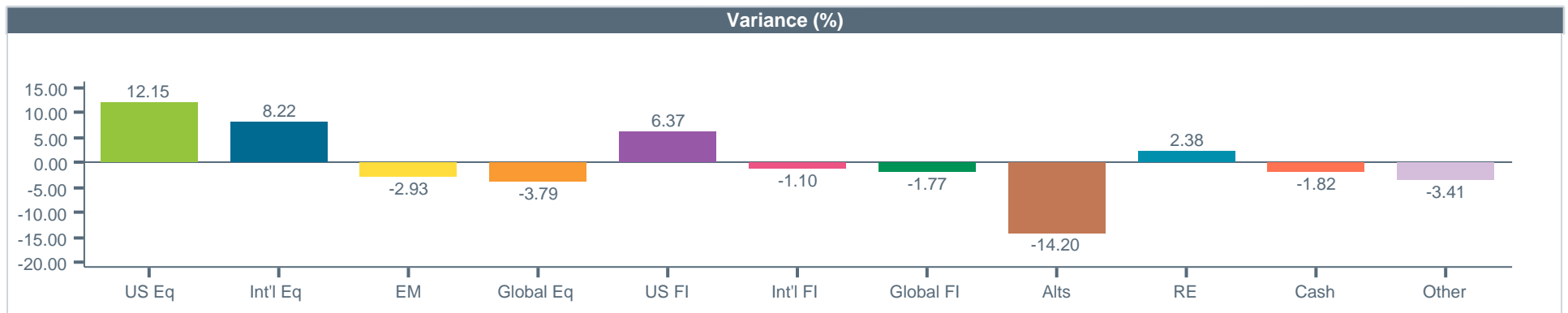
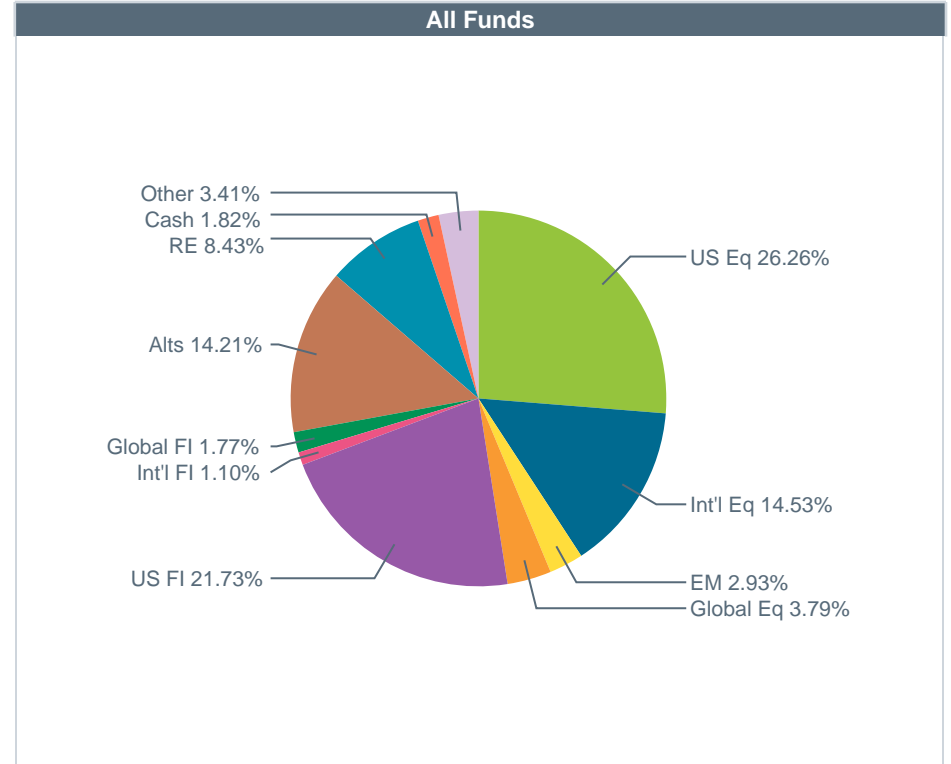
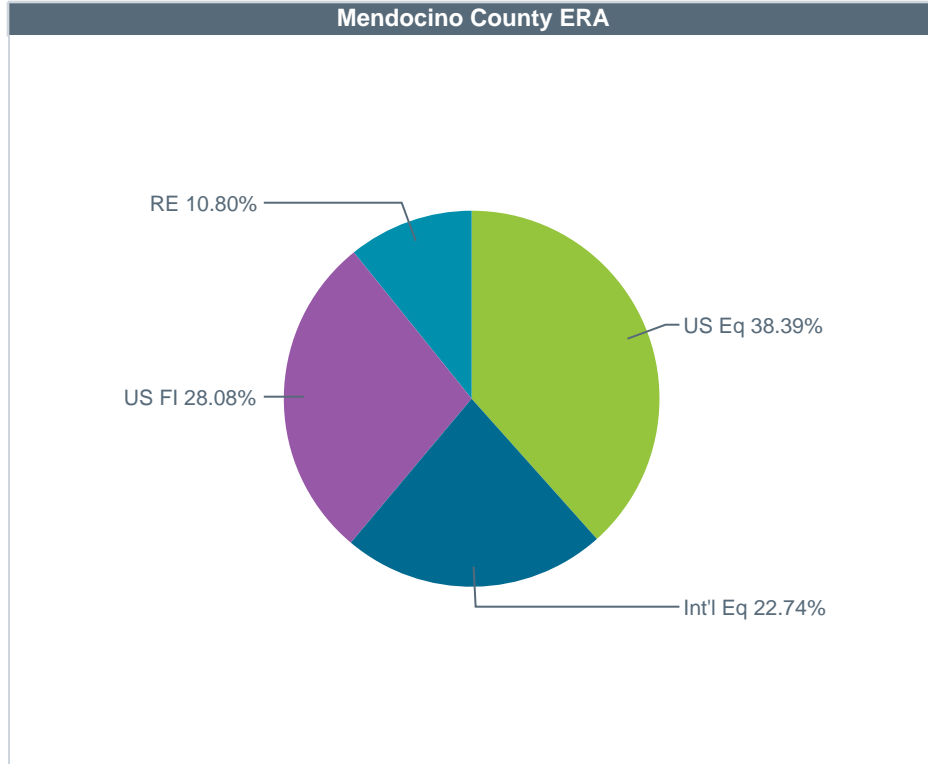
Asset Range	Actively Managed (%)	Passively Managed (%)	Externally Managed (%)	Internally Managed (%)
Over \$20B	75.54	24.46	75.18	24.82
\$10B-\$20B	73.18	26.82	81.24	18.76
\$5B-\$10B	72.43	27.57	97.26	2.74
\$1B-\$5B	76.78	23.22	98.91	1.09
\$500mm-\$1B	74.62	25.38	99.71	0.29
Under \$500mm	86.49	13.51	99.96	0.04
<b>Mendocino County ERA</b>	<b>94.65</b>	<b>5.35</b>	<b>99.80</b>	<b>0.20</b>

Portfolio (%)	Active Management		External Management	
	Public Fund Universe	Mendocino County ERA	Public Fund Universe	Mendocino County ERA
90 to 100	10	1	55	1
50 to 89	59	0	11	0
10 to 49	3	0	6	0
Less than 10	1	0	1	0
<b>Total Funds Reporting</b>	<b>73</b>	<b>1</b>	<b>73</b>	<b>1</b>



Asset Allocation

Mendocino County ERA vs. Average of All Funds

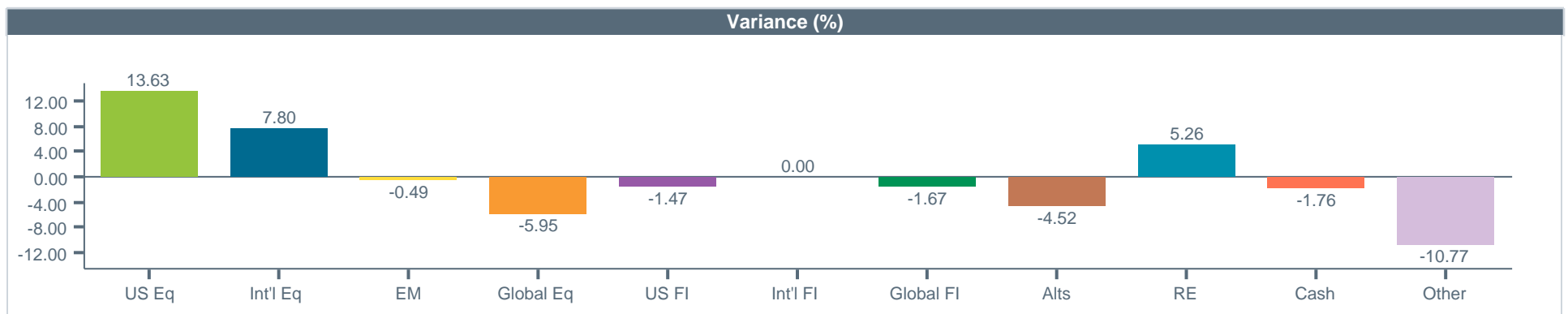
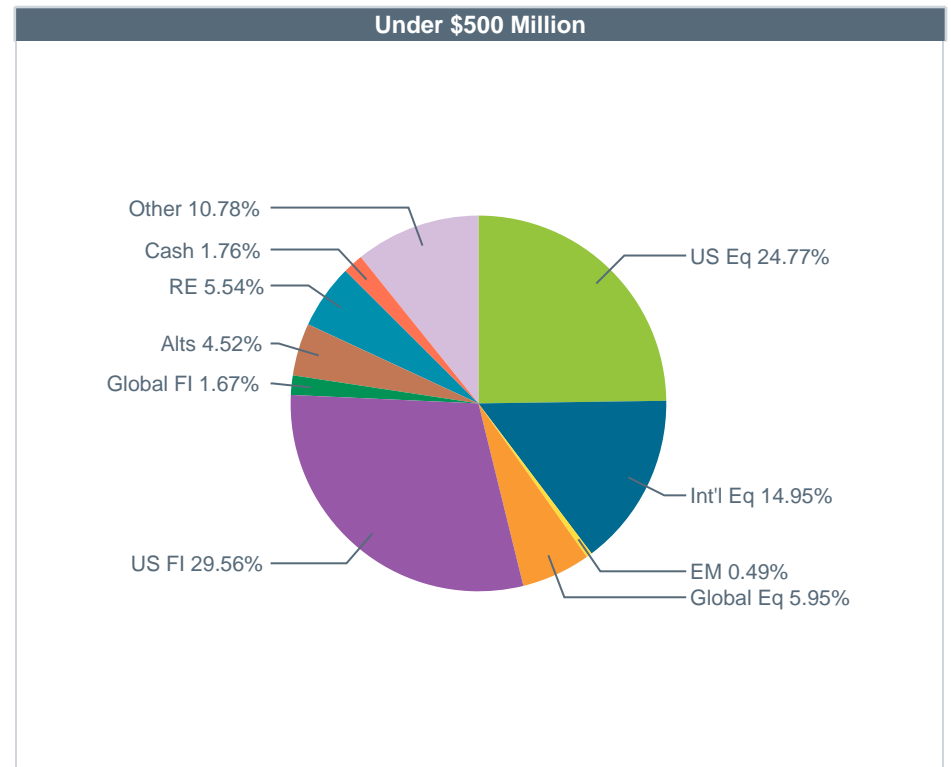
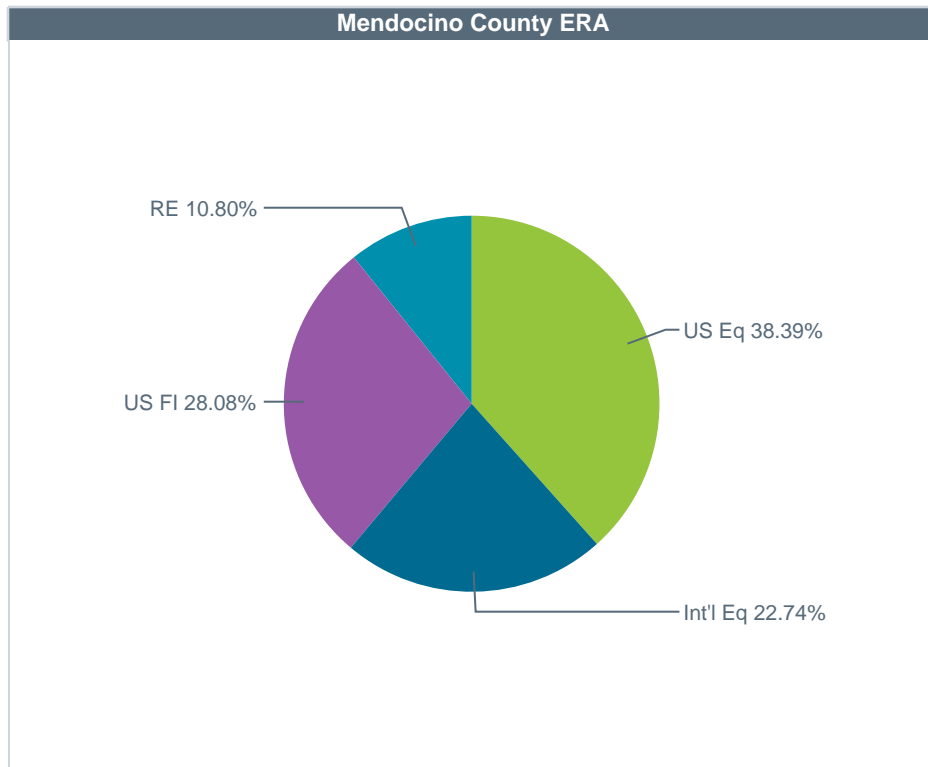


Allocations shown may not sum up to 100% exactly due to rounding.



Asset Allocation

Mendocino County ERA vs. Average of Similar Size Funds



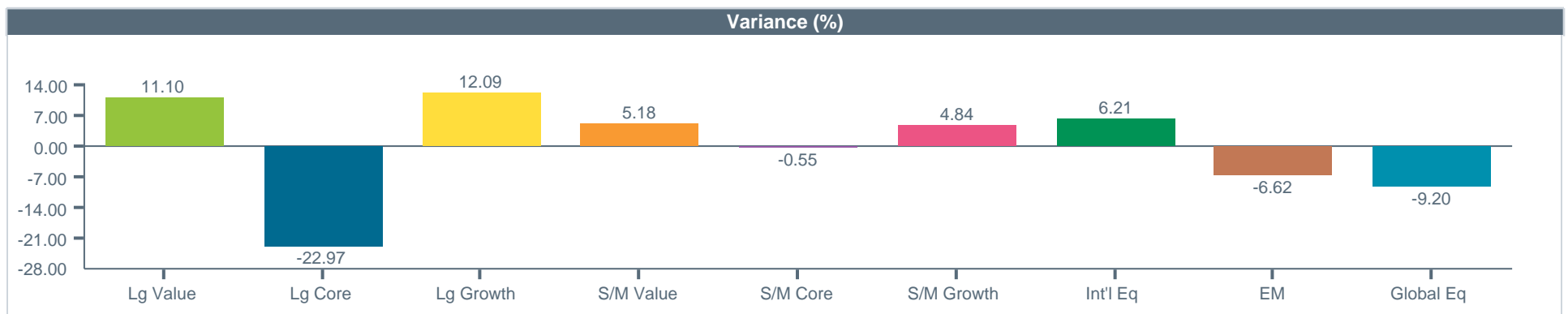
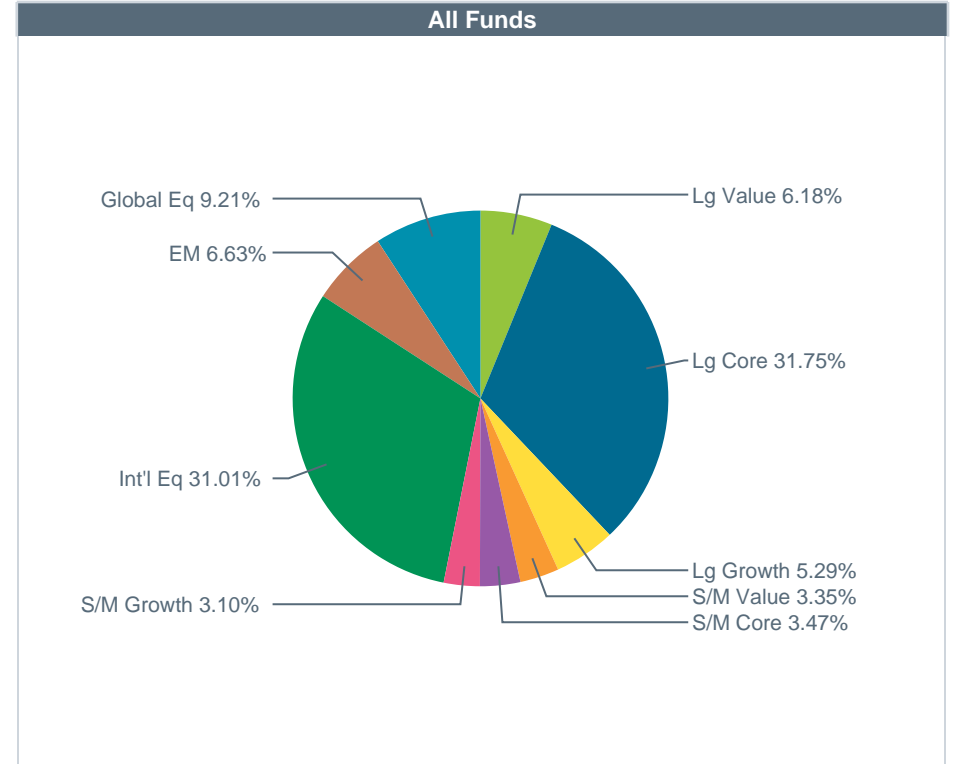
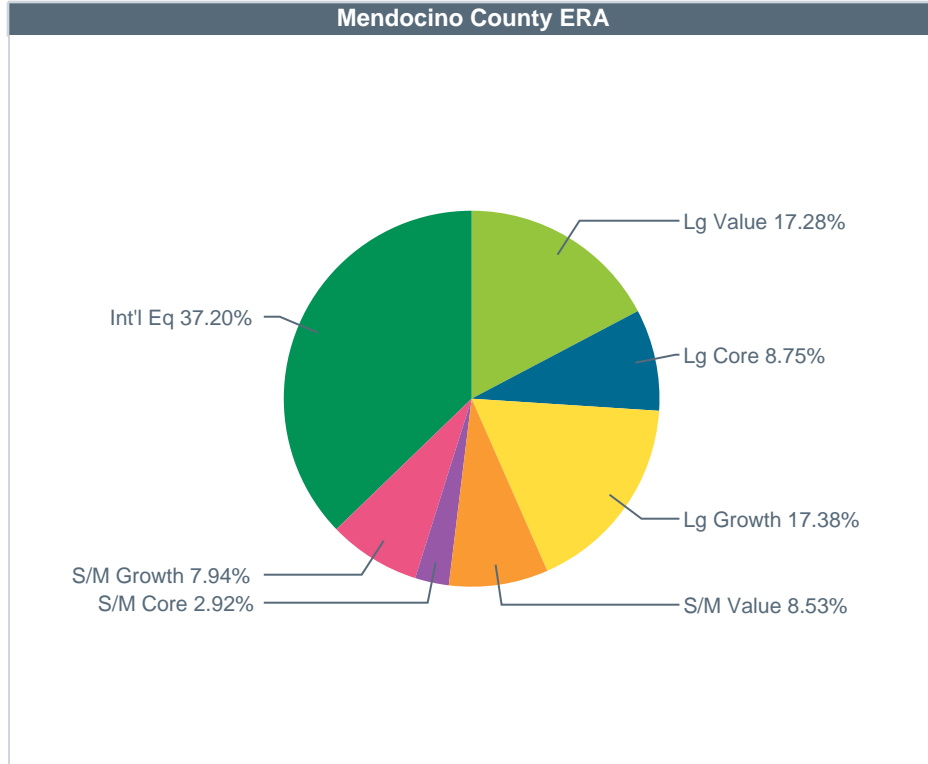
Allocations shown may not sum up to 100% exactly due to rounding.





Equity Style Allocation

Mendocino County ERA vs. Average of All Funds

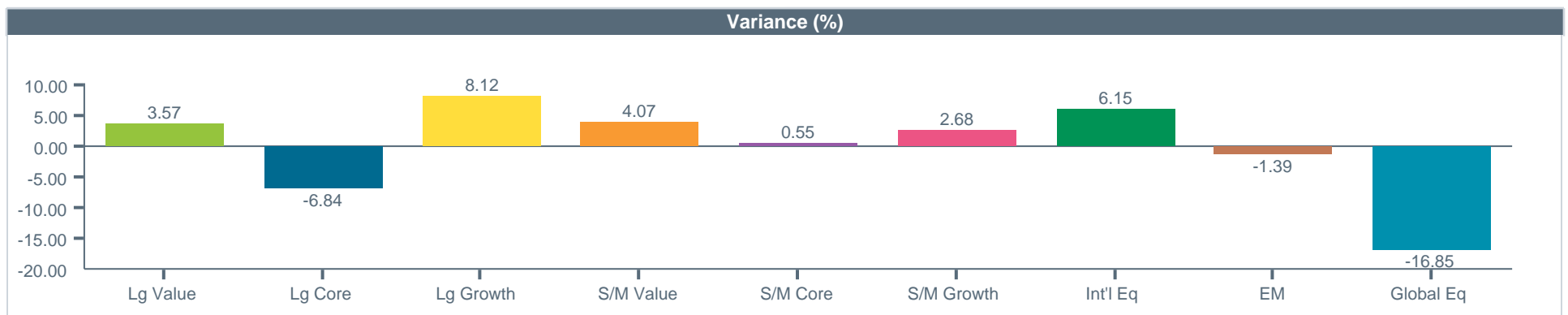
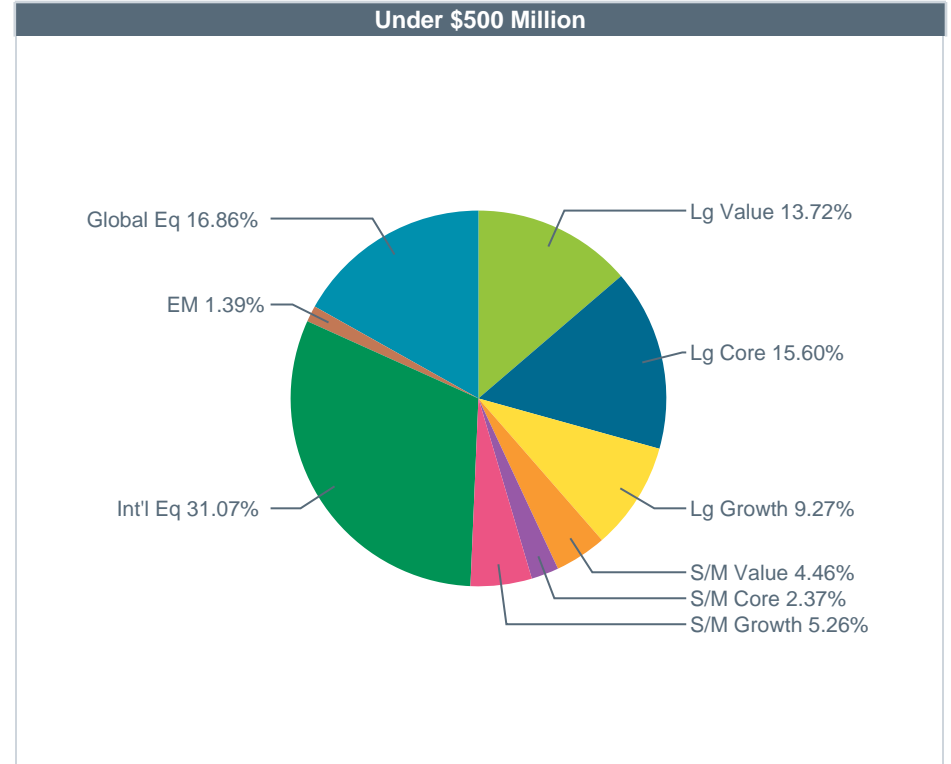
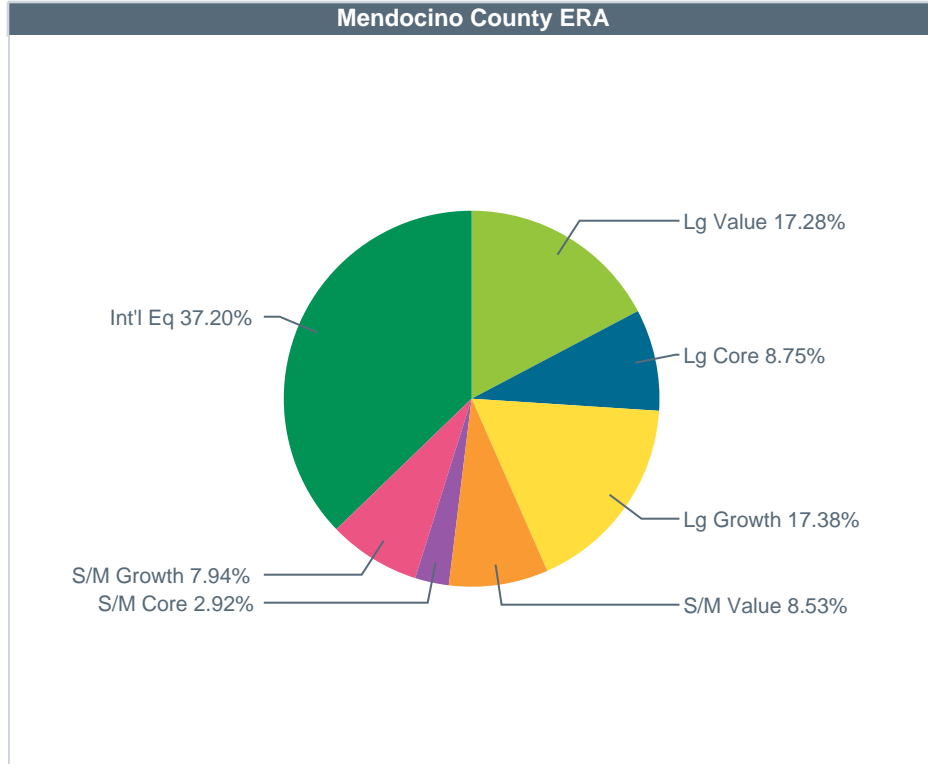


Allocations shown may not sum up to 100% exactly due to rounding.



Equity Style Allocation

Mendocino County ERA vs. Average of Similar Size Funds



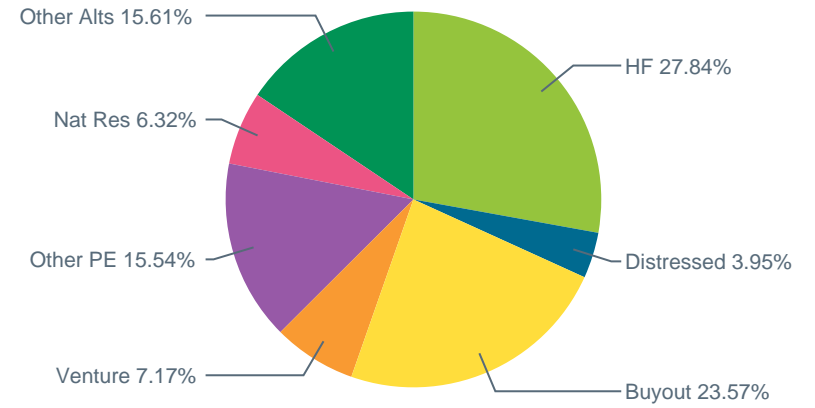
Allocations shown may not sum up to 100% exactly due to rounding.



Mendocino County ERA

Mendocino County ERA does not have data for Alternatives Style Allocation

All Funds



Variance (%)

Mendocino County ERA does not have data for Alternatives Style Allocation

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



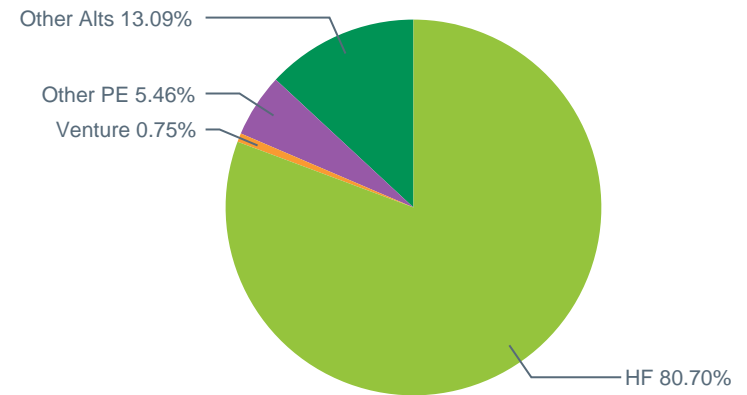
Alternatives Style Allocation

Mendocino County ERA vs. Average of Similar Size Funds

Mendocino County ERA

Under \$500 Million

Mendocino County ERA does not have data for Alternatives Style Allocation



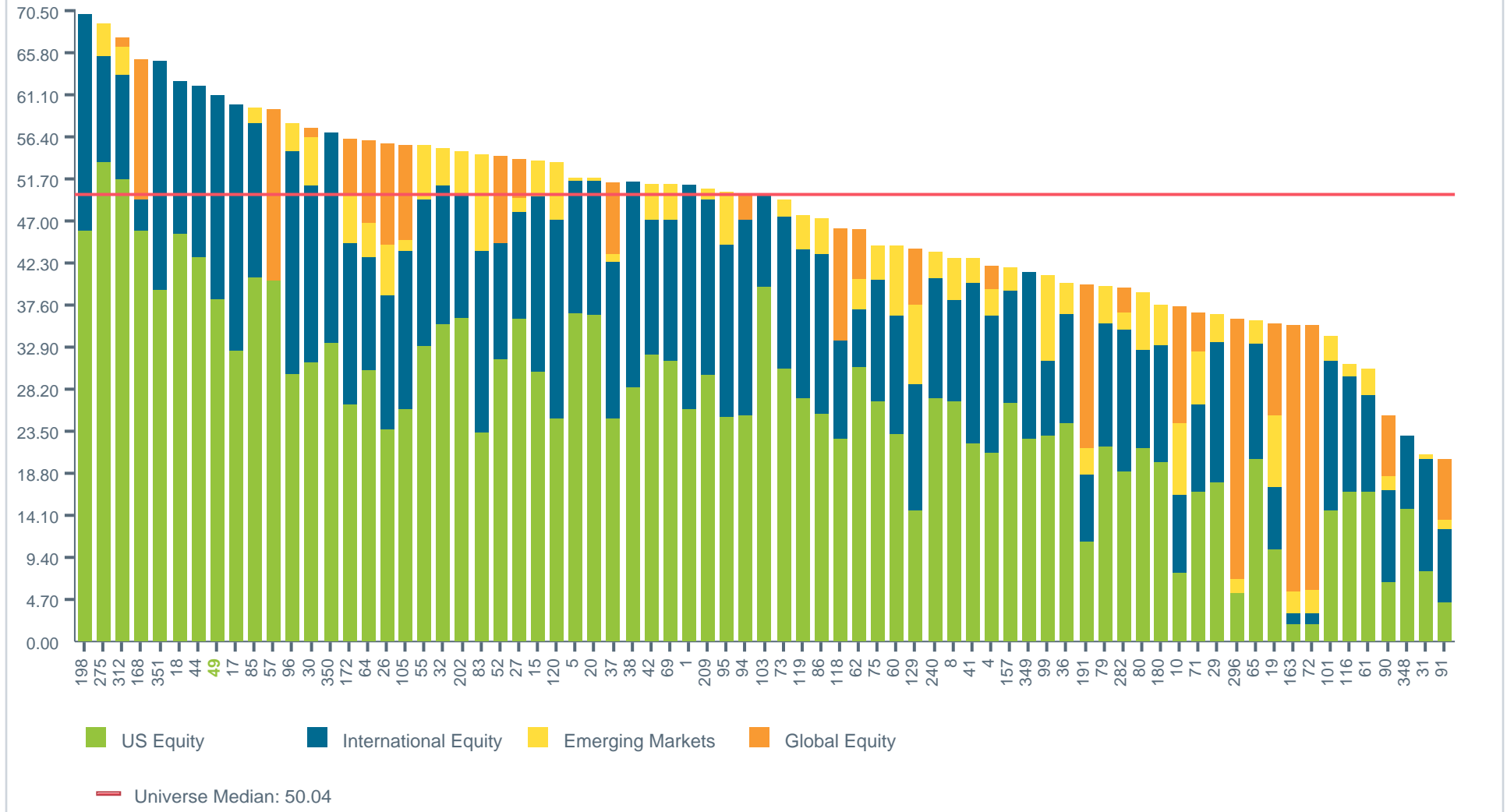
Variance (%)

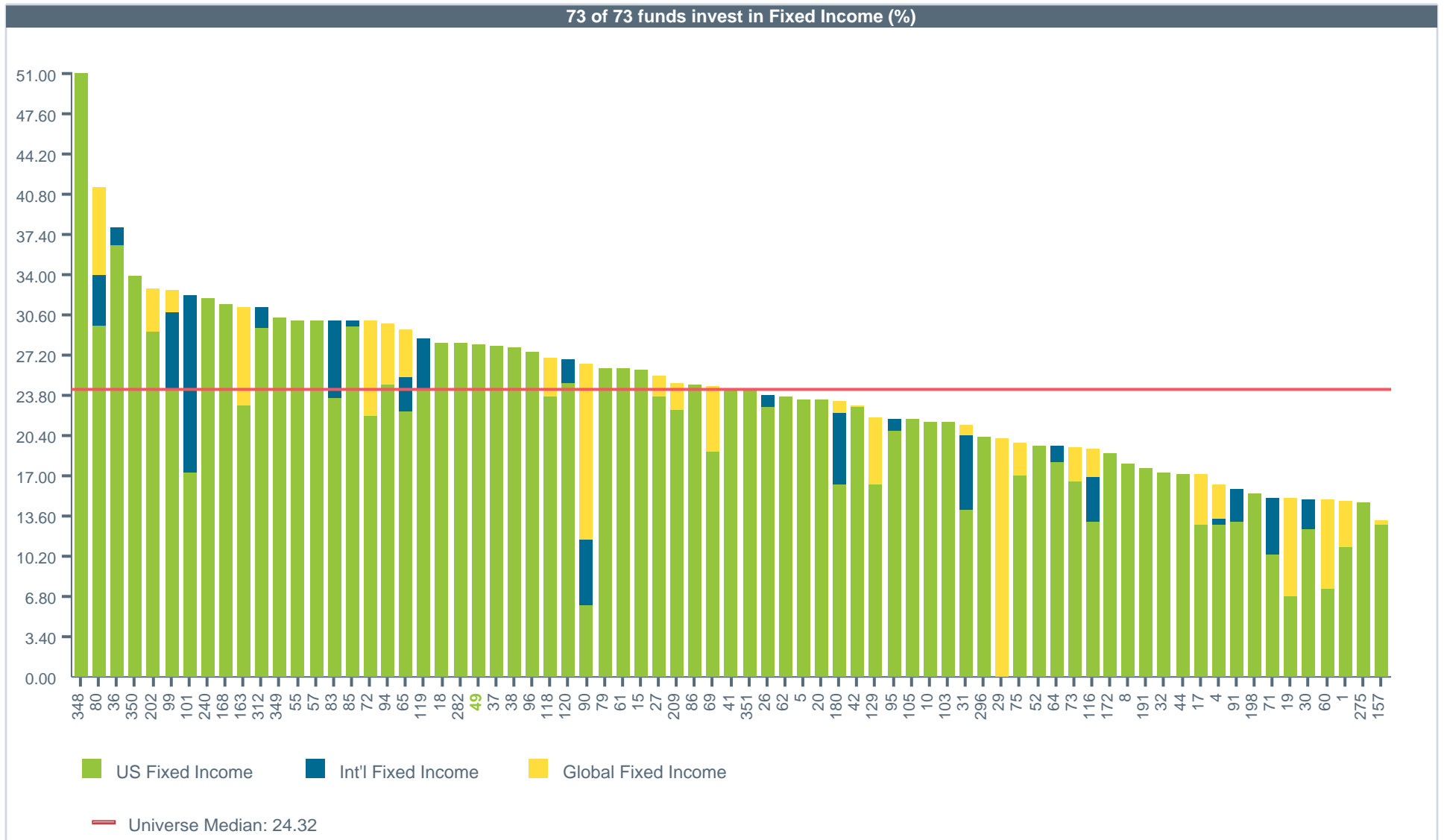
Mendocino County ERA does not have data for Alternatives Style Allocation

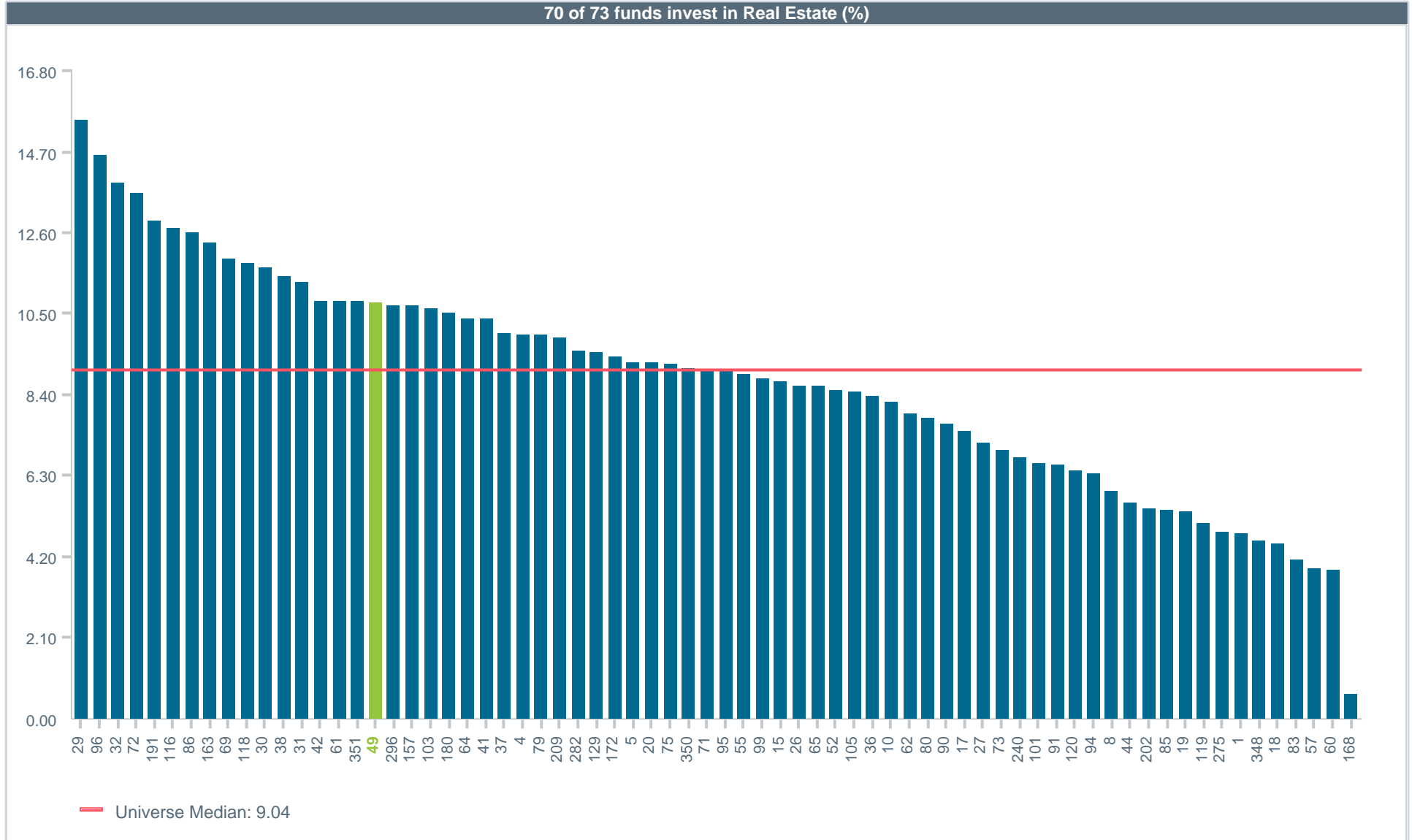
Allocations shown may not sum up to 100% exactly due to rounding.

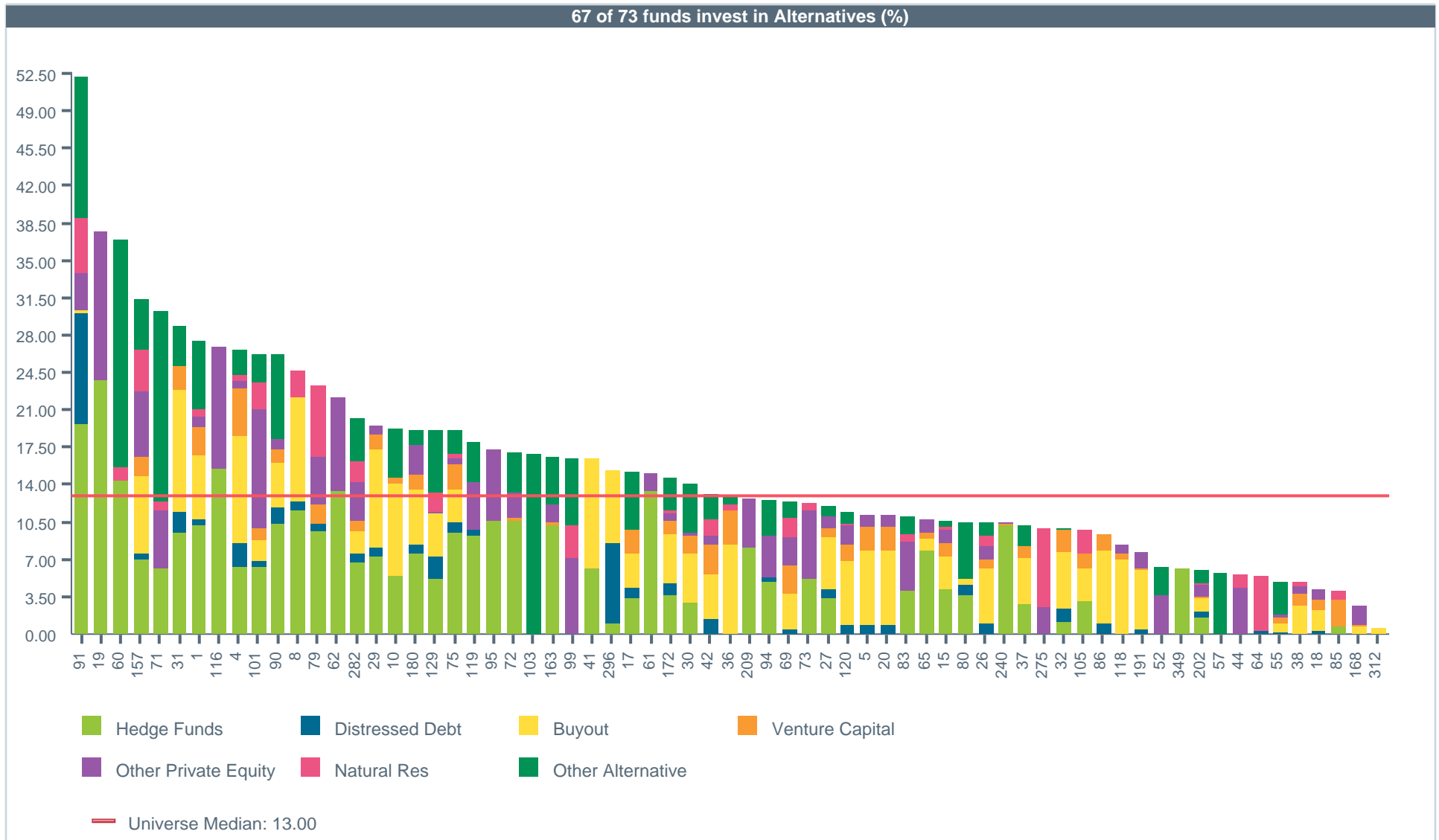


73 of 73 funds invest in Equity (%)

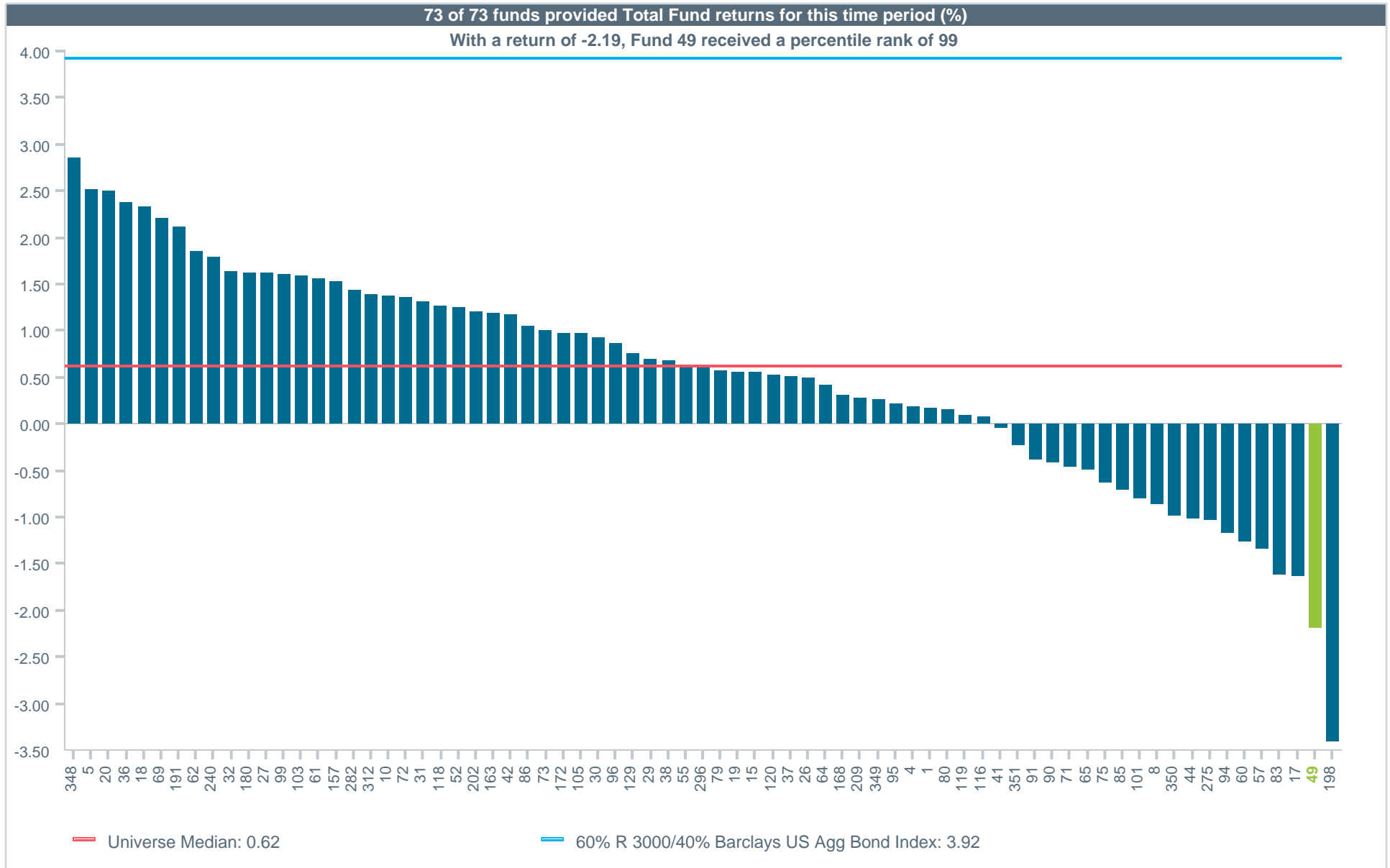






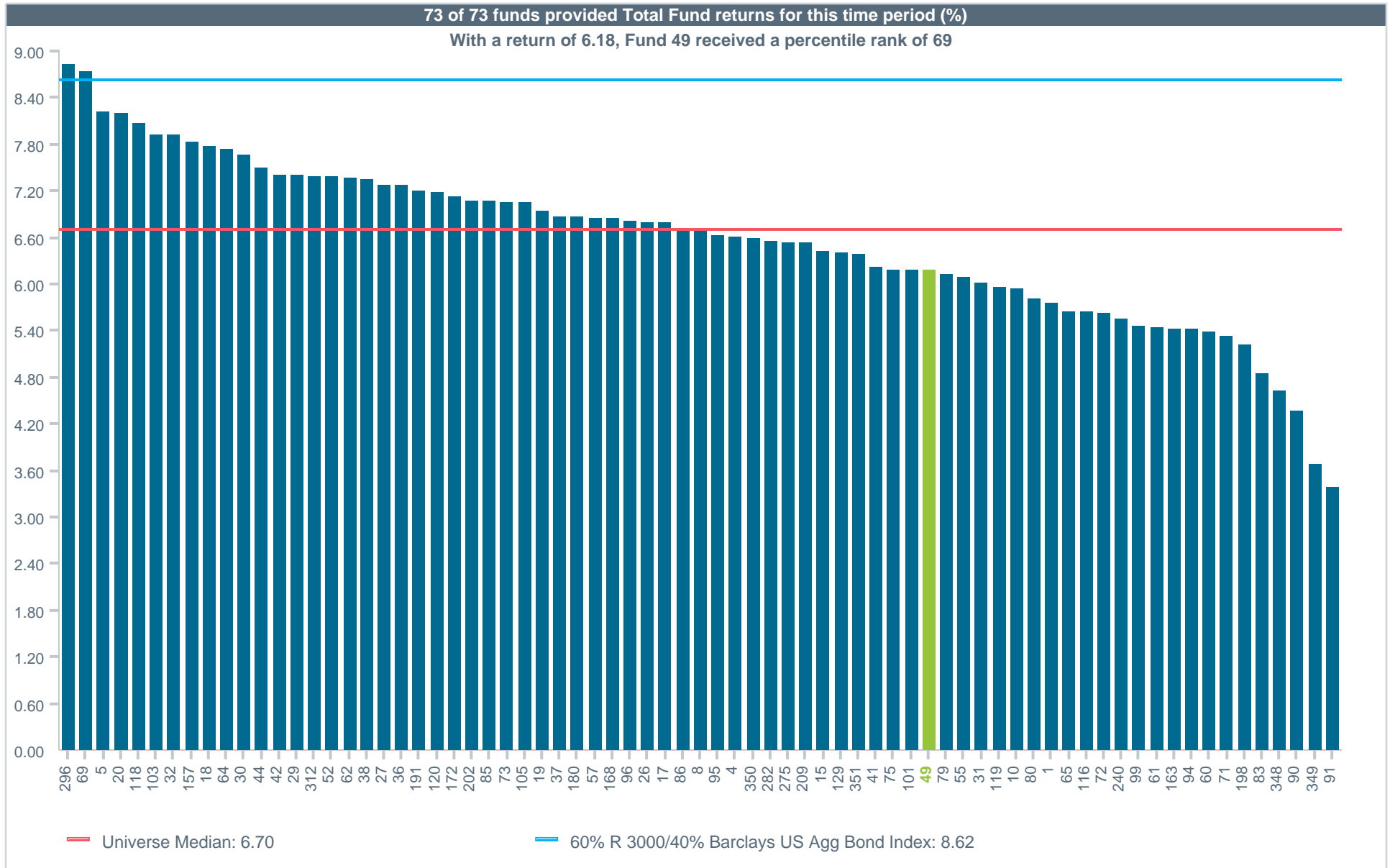






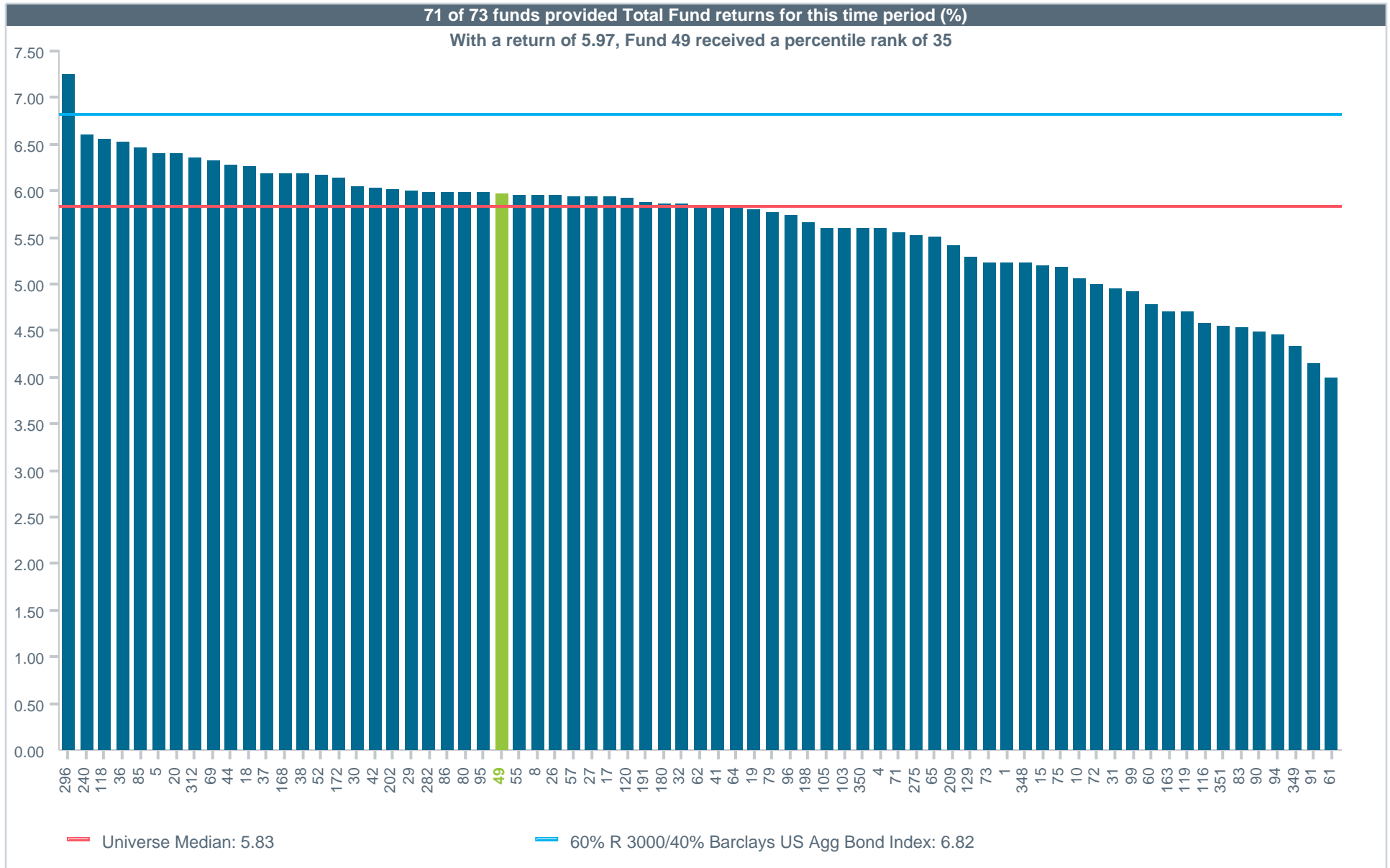
Funds with less history than the specified time period will not appear in the chart.





Funds with less history than the specified time period will not appear in the chart.



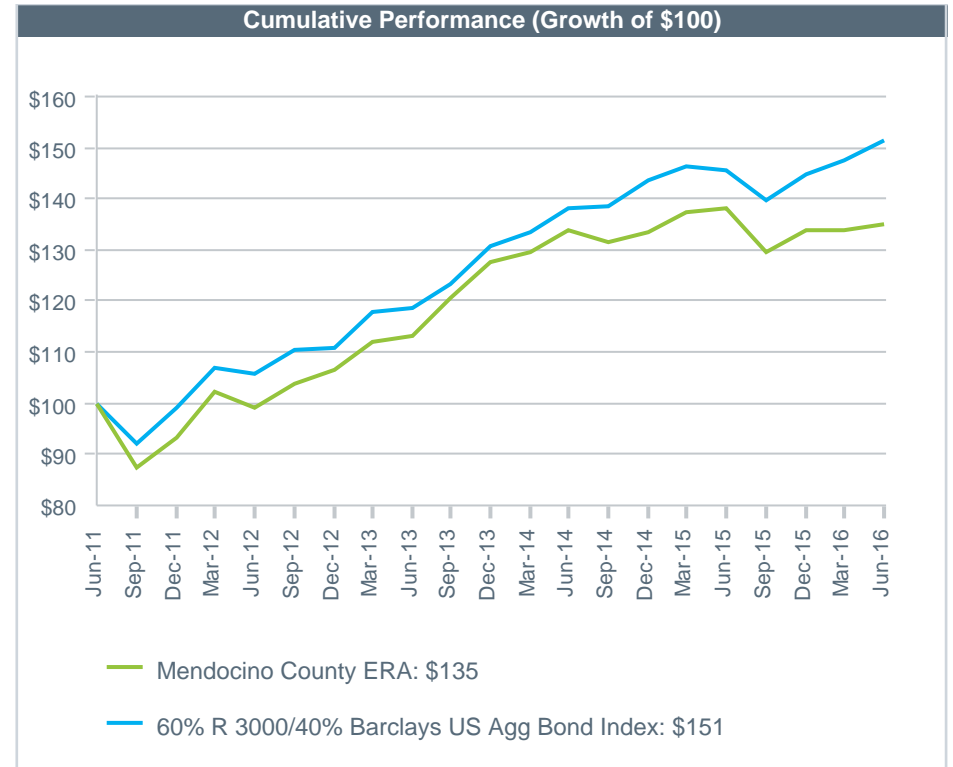
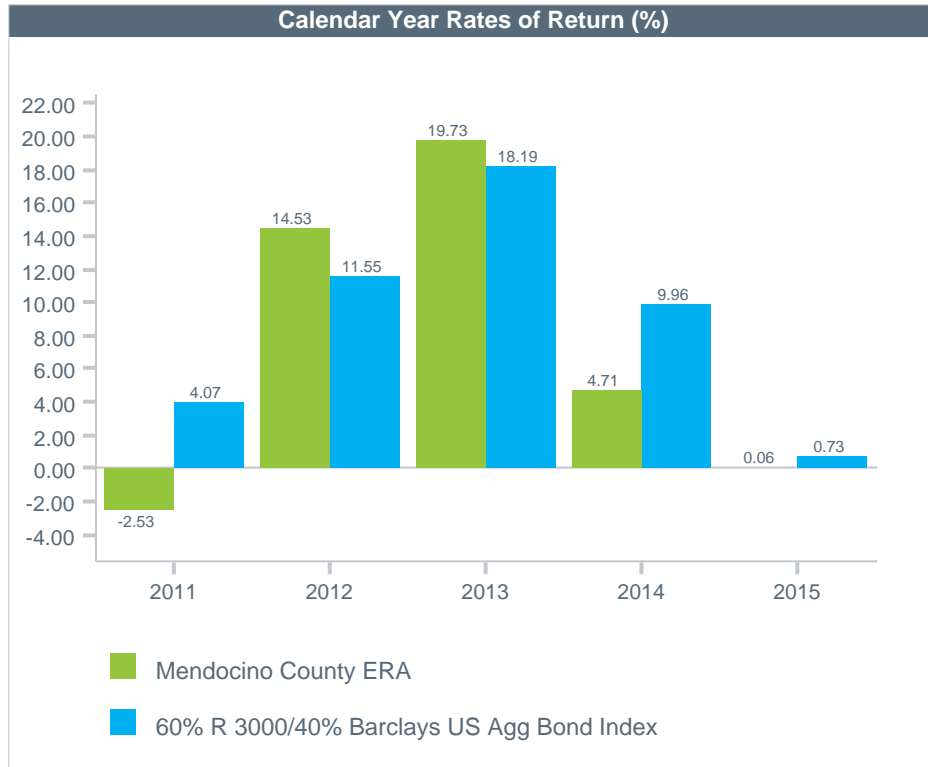


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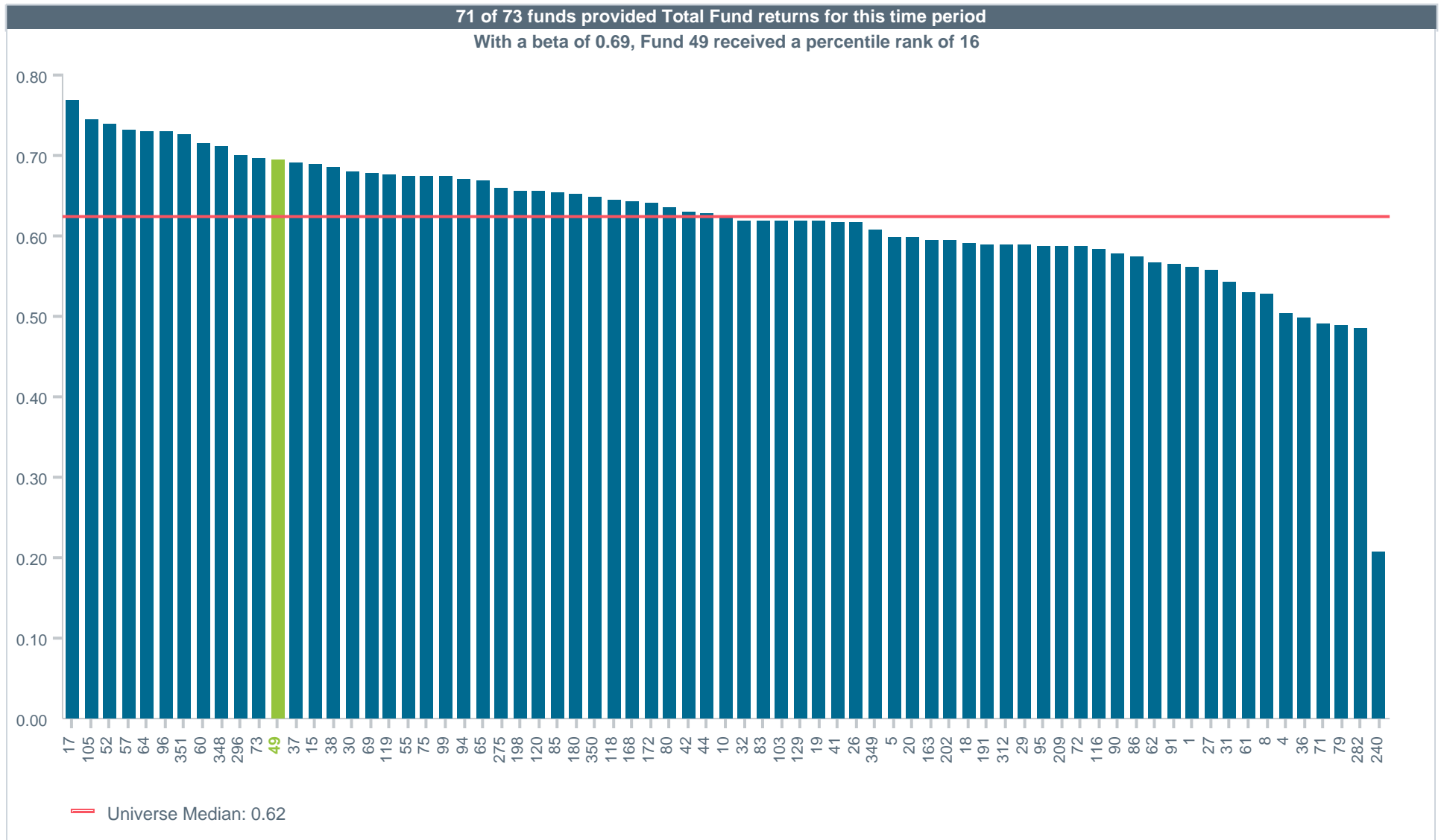
Total Return - Total Fund

Mendocino County ERA vs. 60% R 3000/40% Barclays US Agg Bond Index



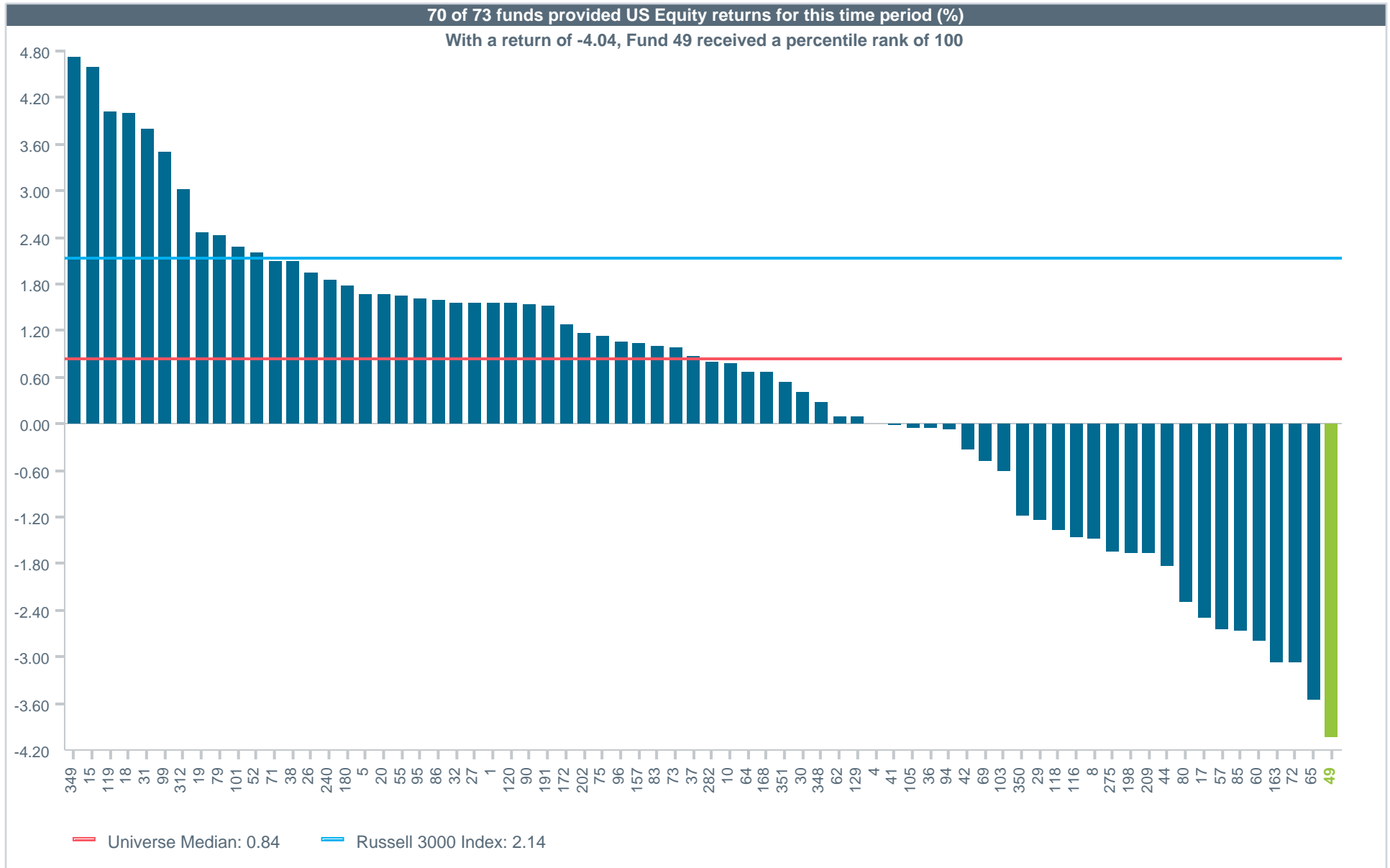
Annualized Returns (%)			
	1 Year	3 Years	5 Years
Mendocino County ERA	-2.19	5.99	6.18
60% R 3000/40% Barclays US Agg Bond Index	3.92	8.42	8.62
Variance	-6.11	-2.43	-2.44





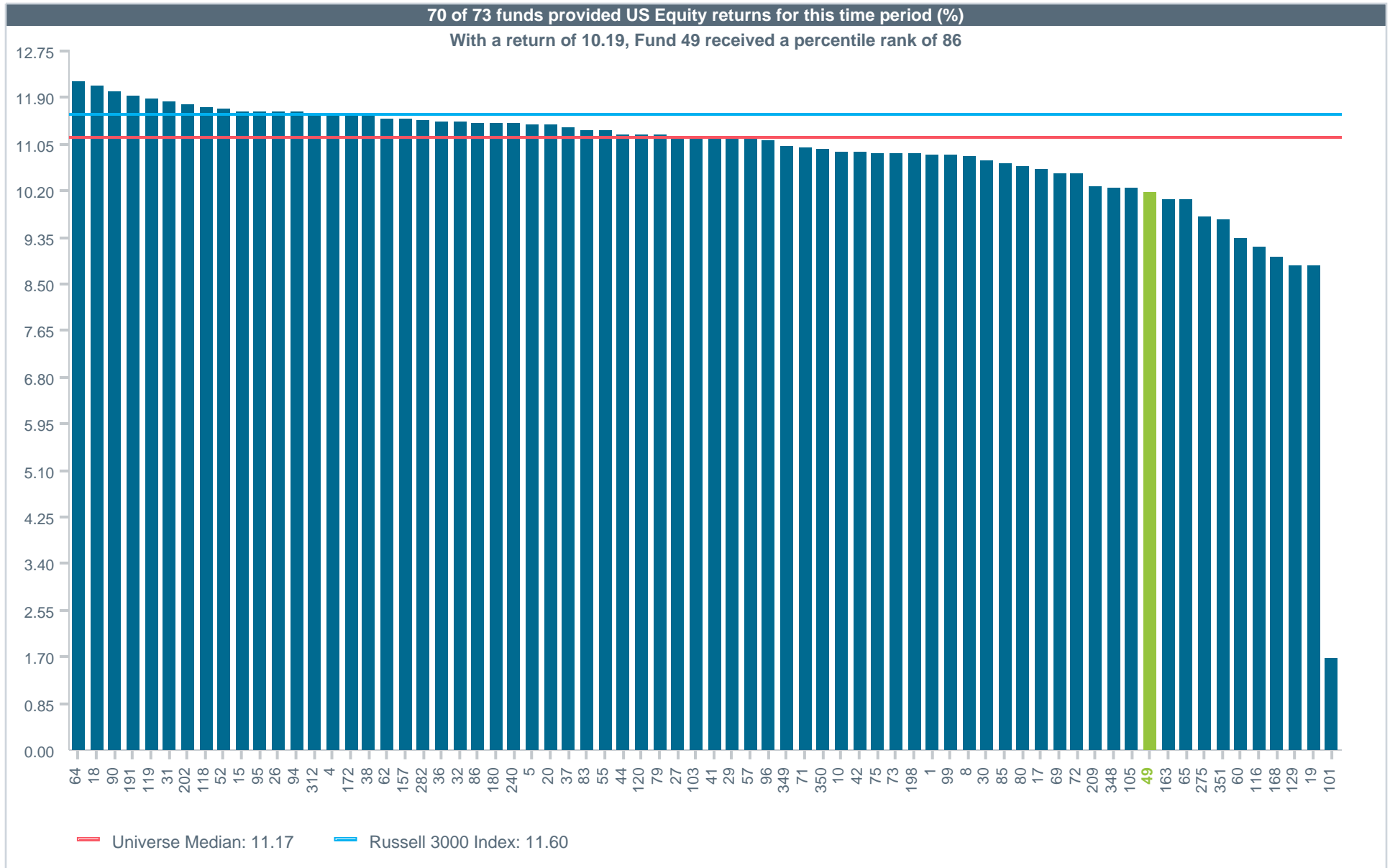
Funds with less history than the specified time period will not appear in the chart. Benchmark used is the S&P 500 Index (Cap Wtd).





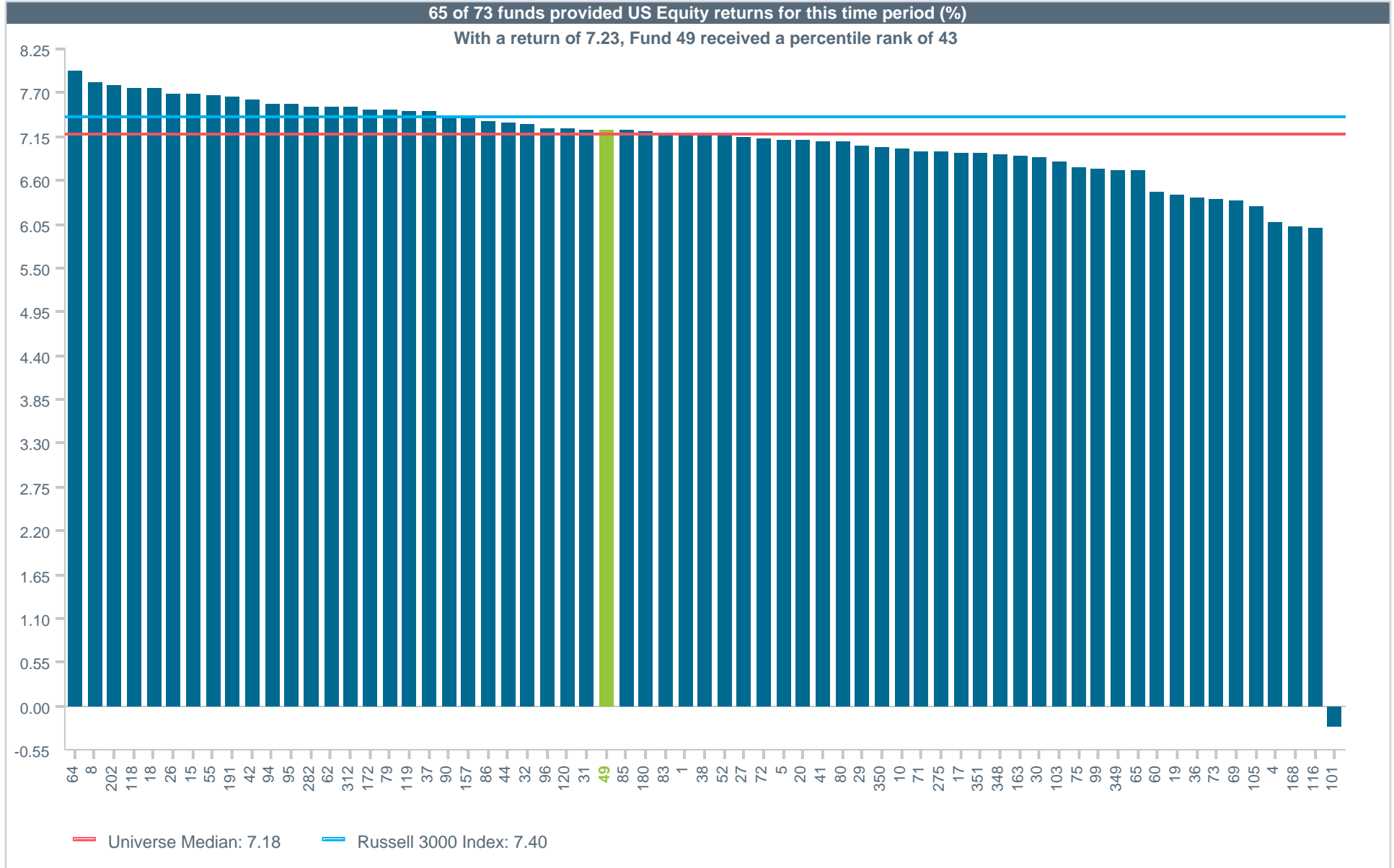
Funds with less history than the specified time period will not appear in the chart.





Funds with less history than the specified time period will not appear in the chart.





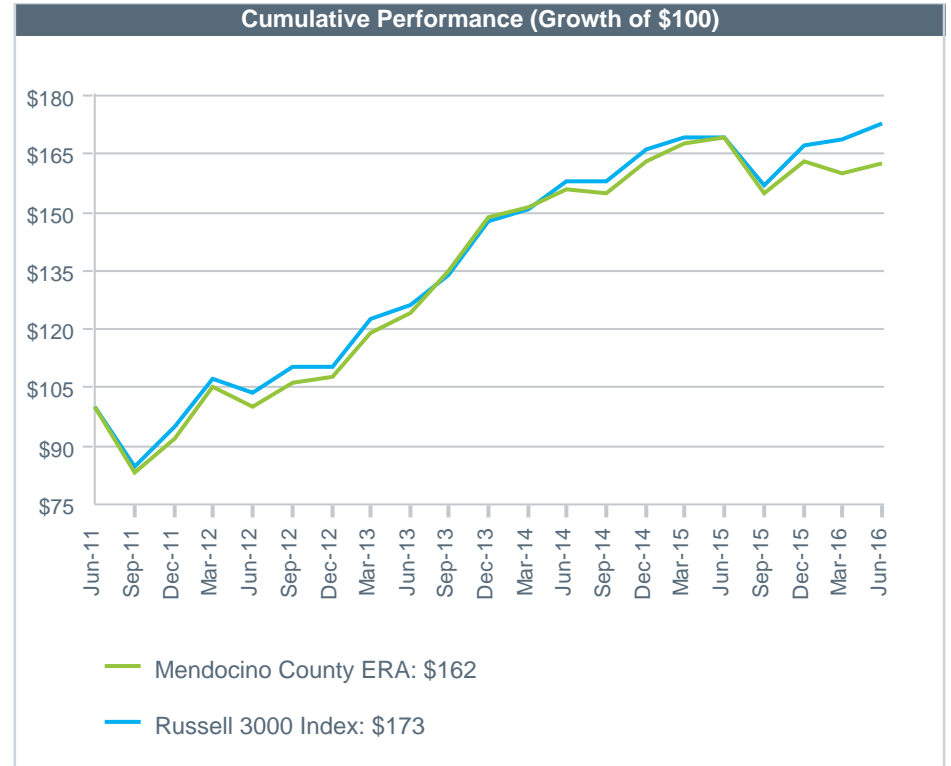
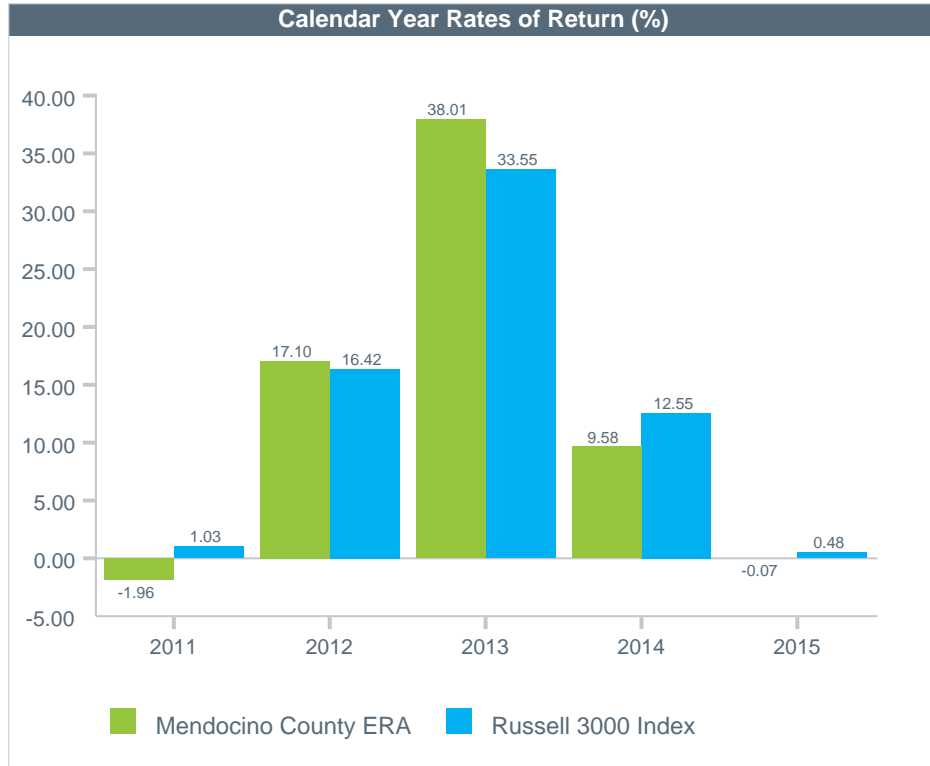
Funds with less history than the specified time period will not appear in the chart.





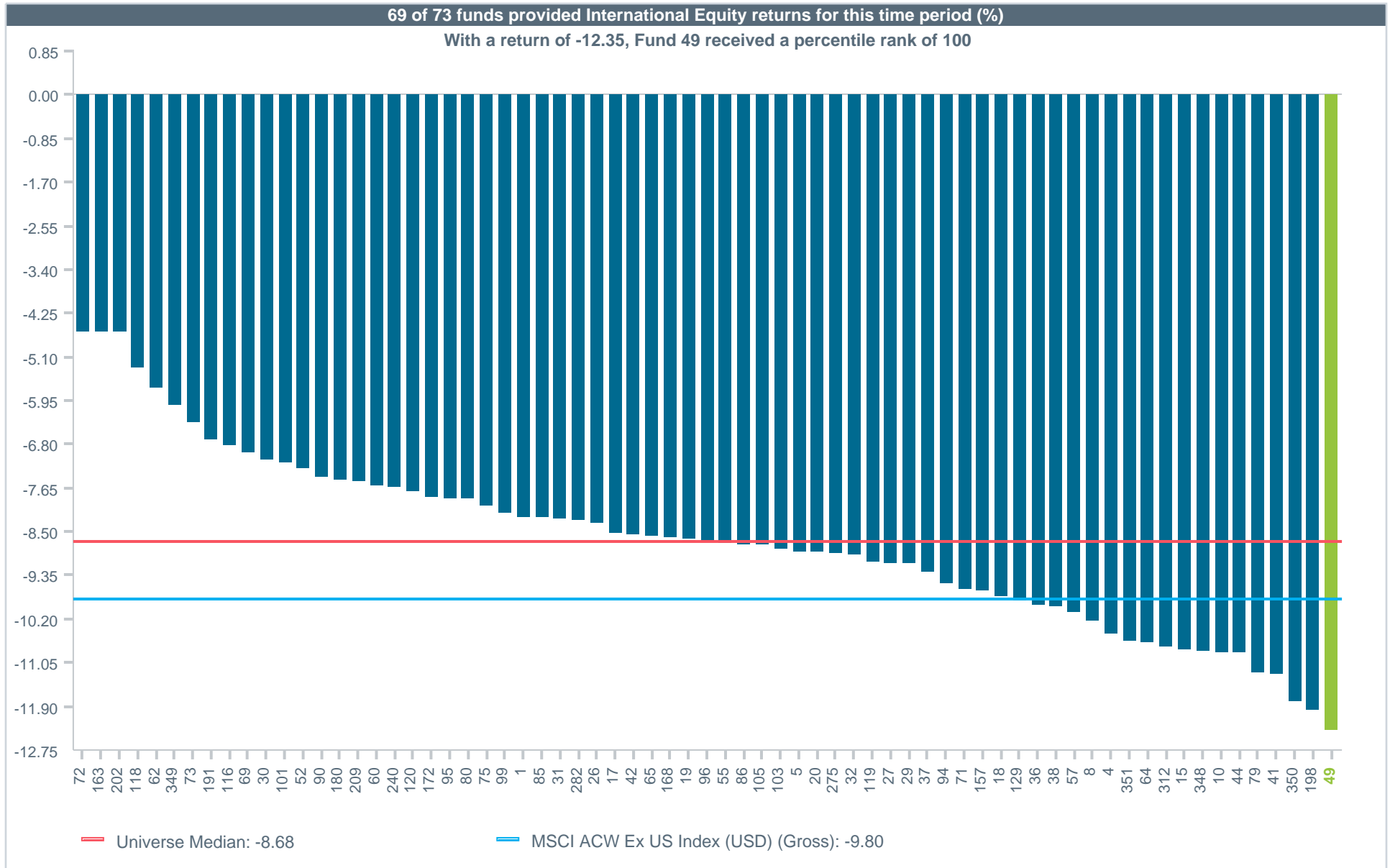
Total Return - US Equity

Mendocino County ERA vs. Russell 3000 Index



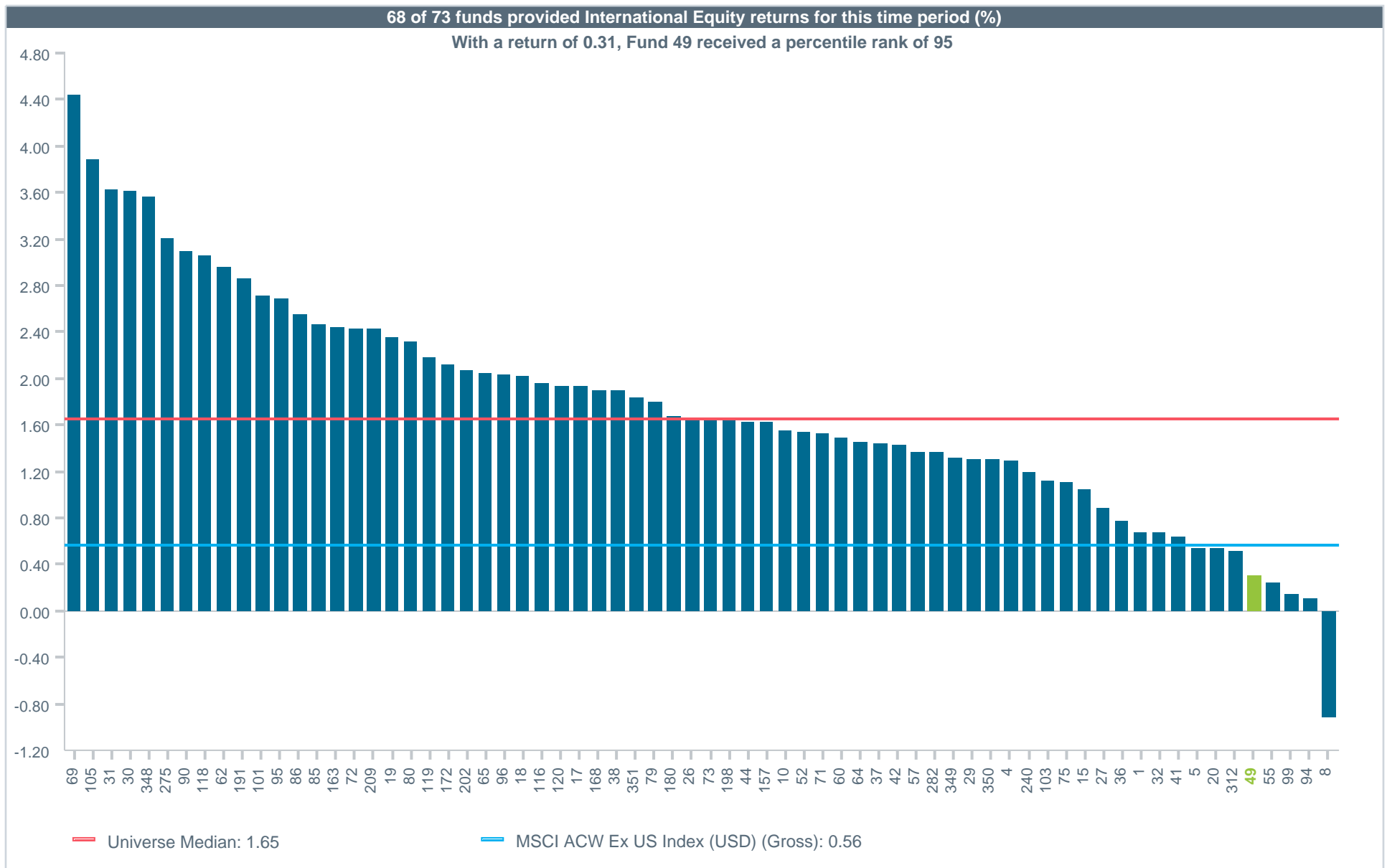
Annualized Returns (%)			
	1 Year	3 Years	5 Years
Mendocino County ERA	-4.04	9.40	10.19
Russell 3000 Index	2.14	11.12	11.60
Variance	-6.18	-1.72	-1.41





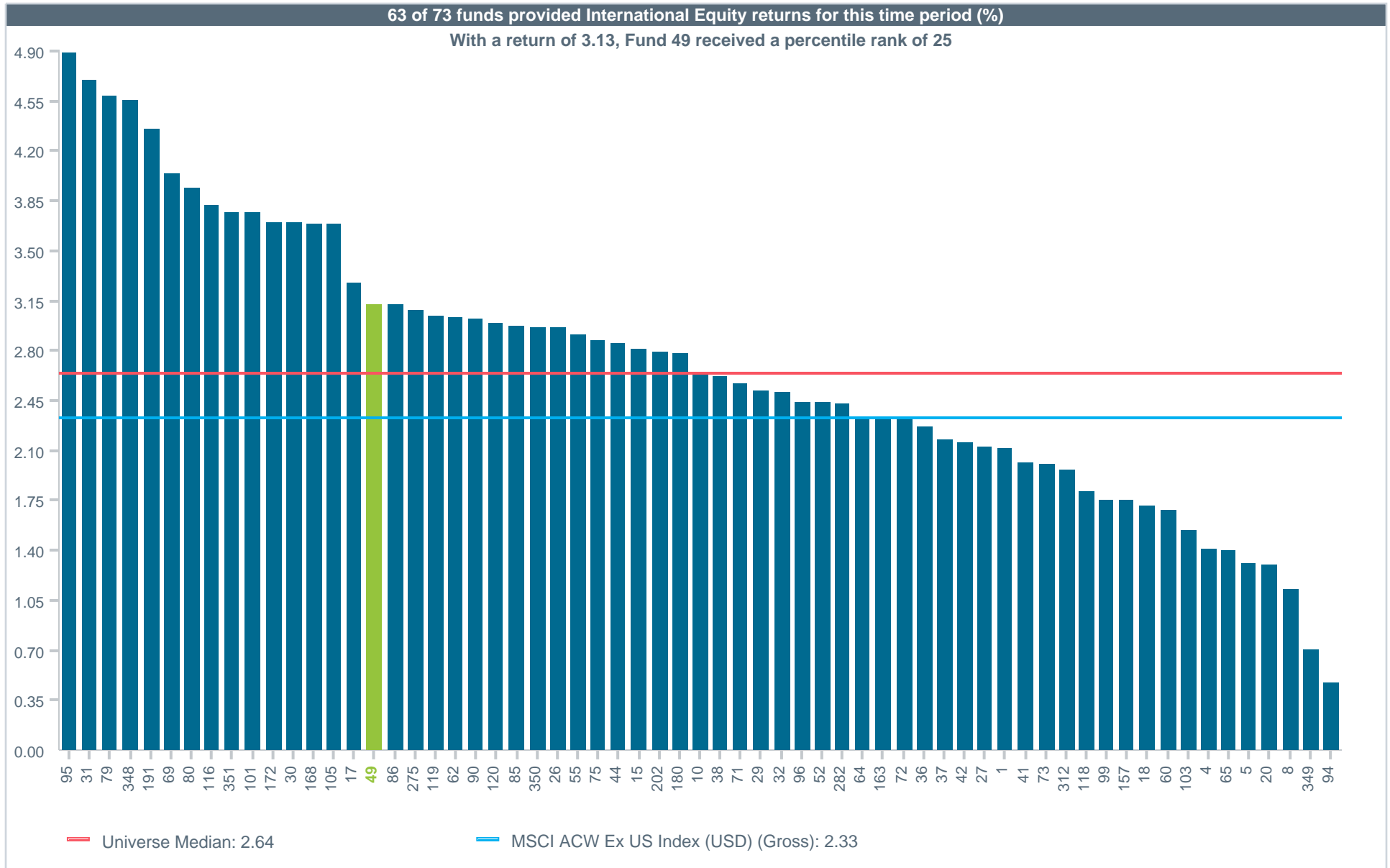
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Funds with less history than the specified time period will not appear in the chart.



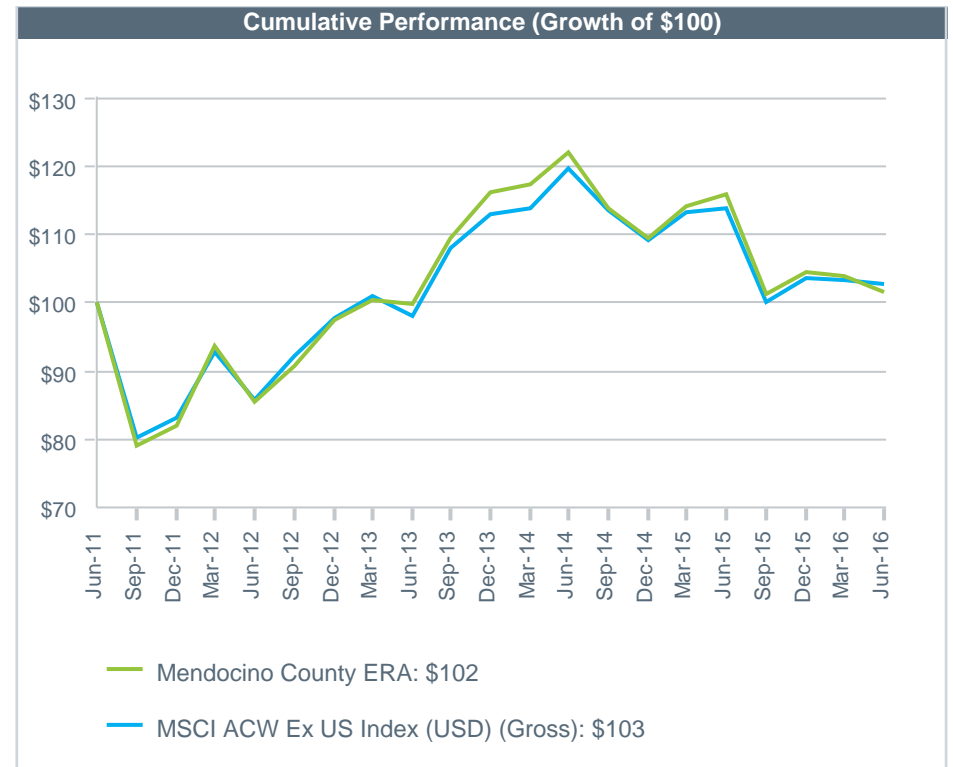
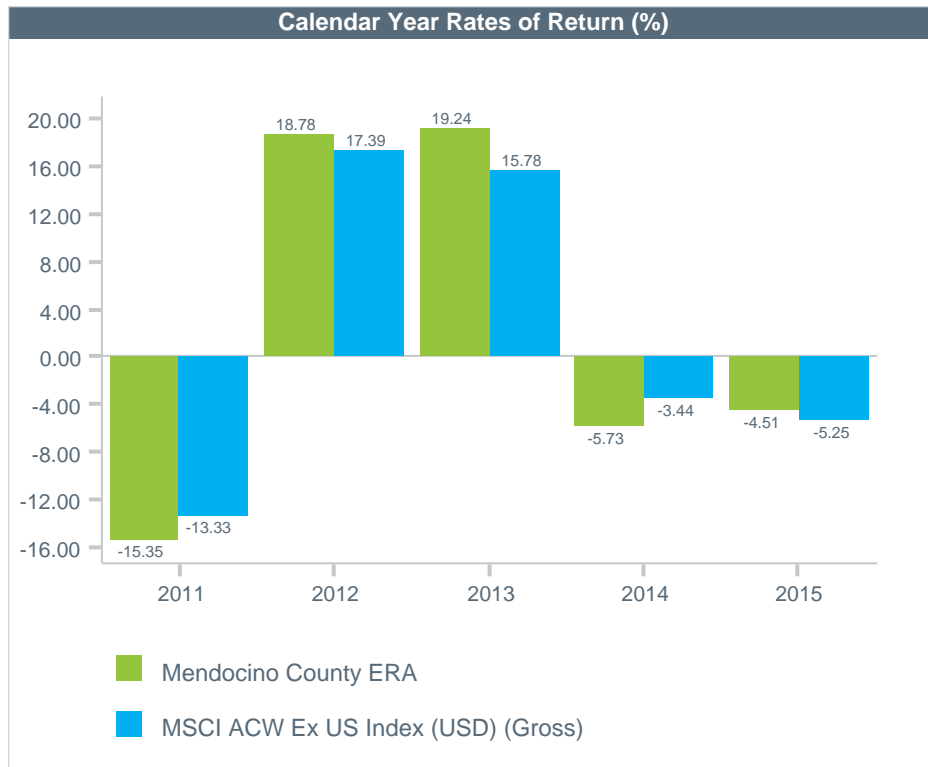


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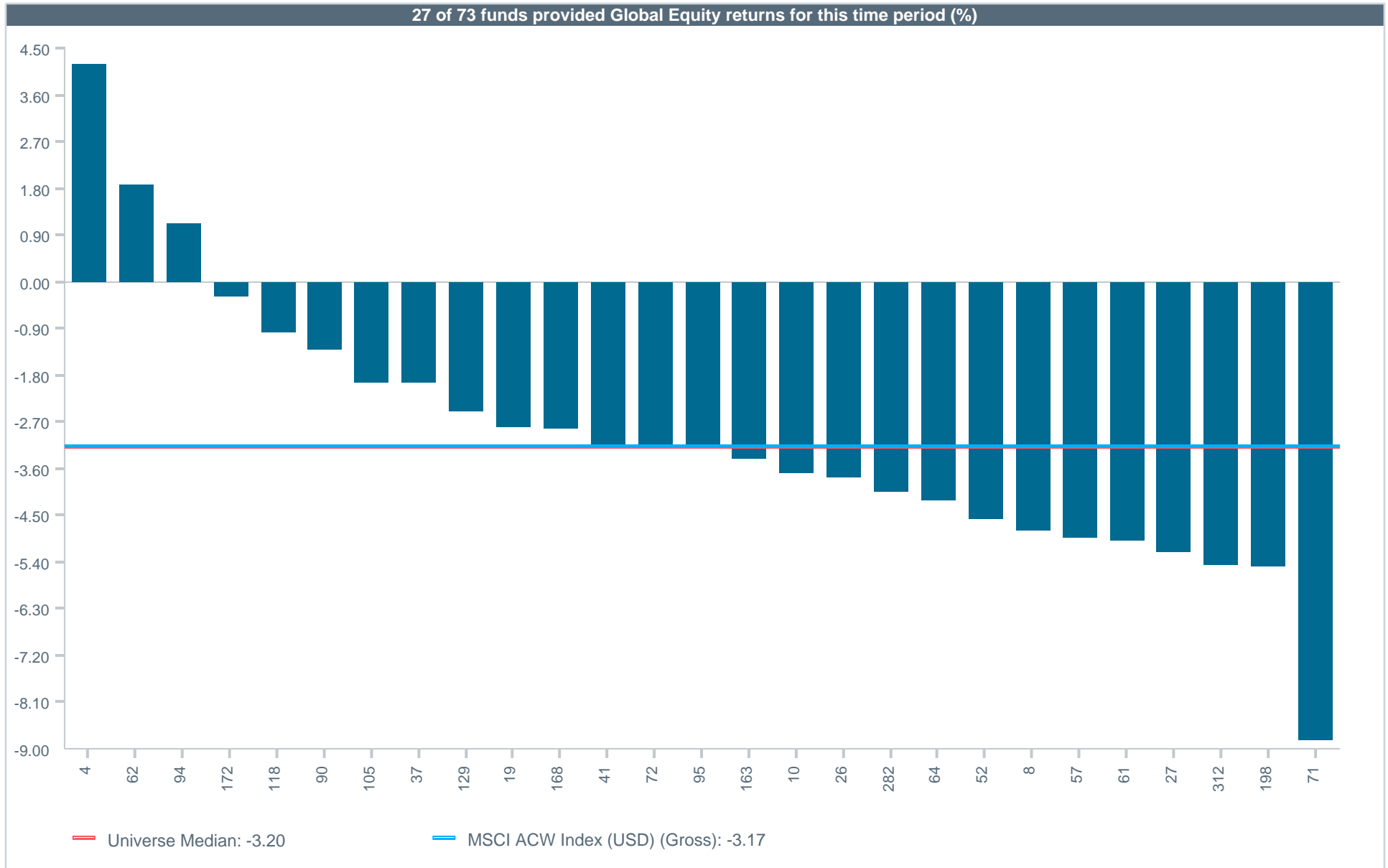
Total Return - International Equity

Mendocino County ERA vs. MSCI ACW Ex US Index (USD) (Gross)



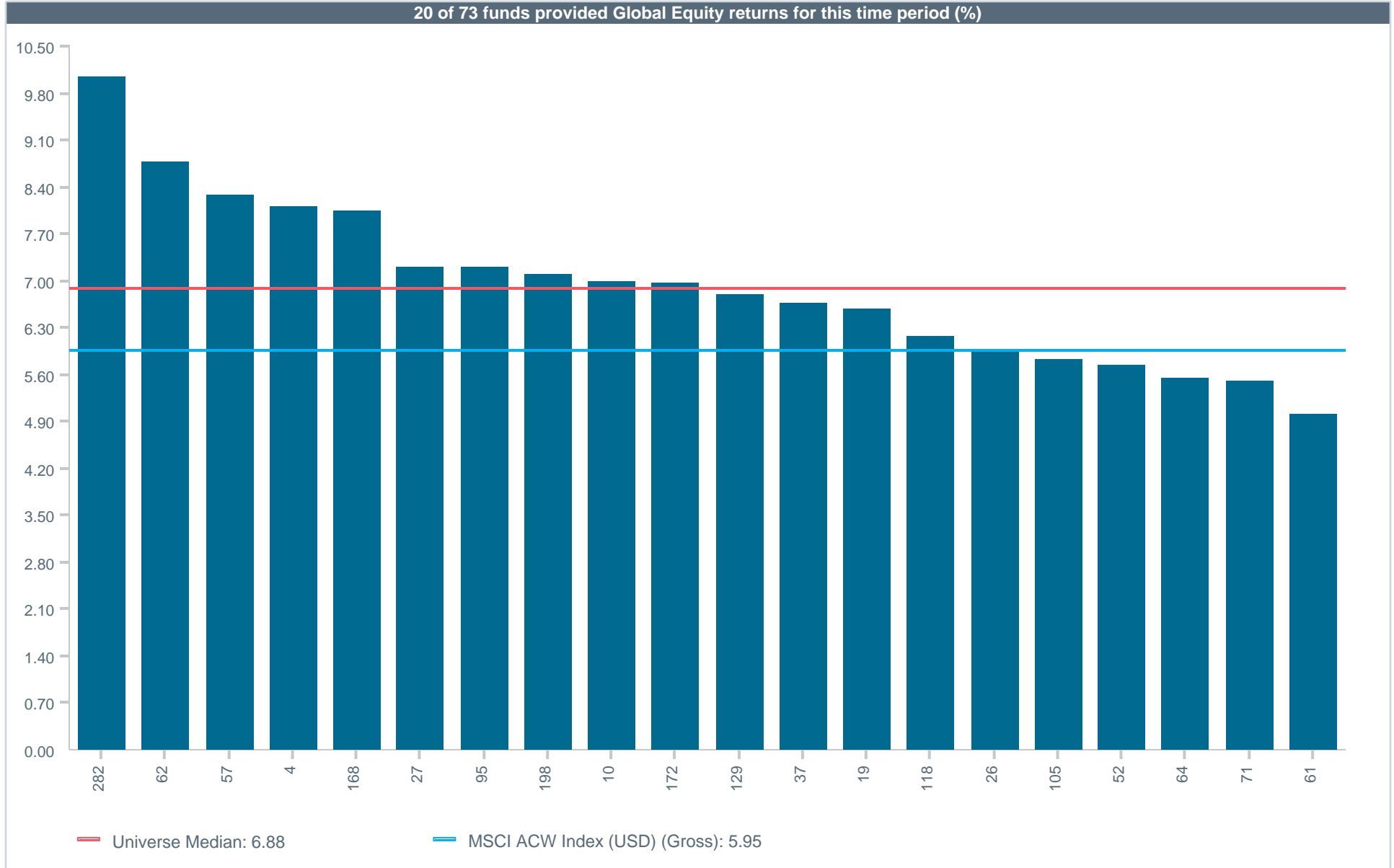
Annualized Returns (%)			
	1 Year	3 Years	5 Years
Mendocino County ERA	-12.35	0.57	0.31
MSCI ACW Ex US Index (USD) (Gross)	-9.80	1.62	0.56
Variance	-2.55	-1.05	-0.25





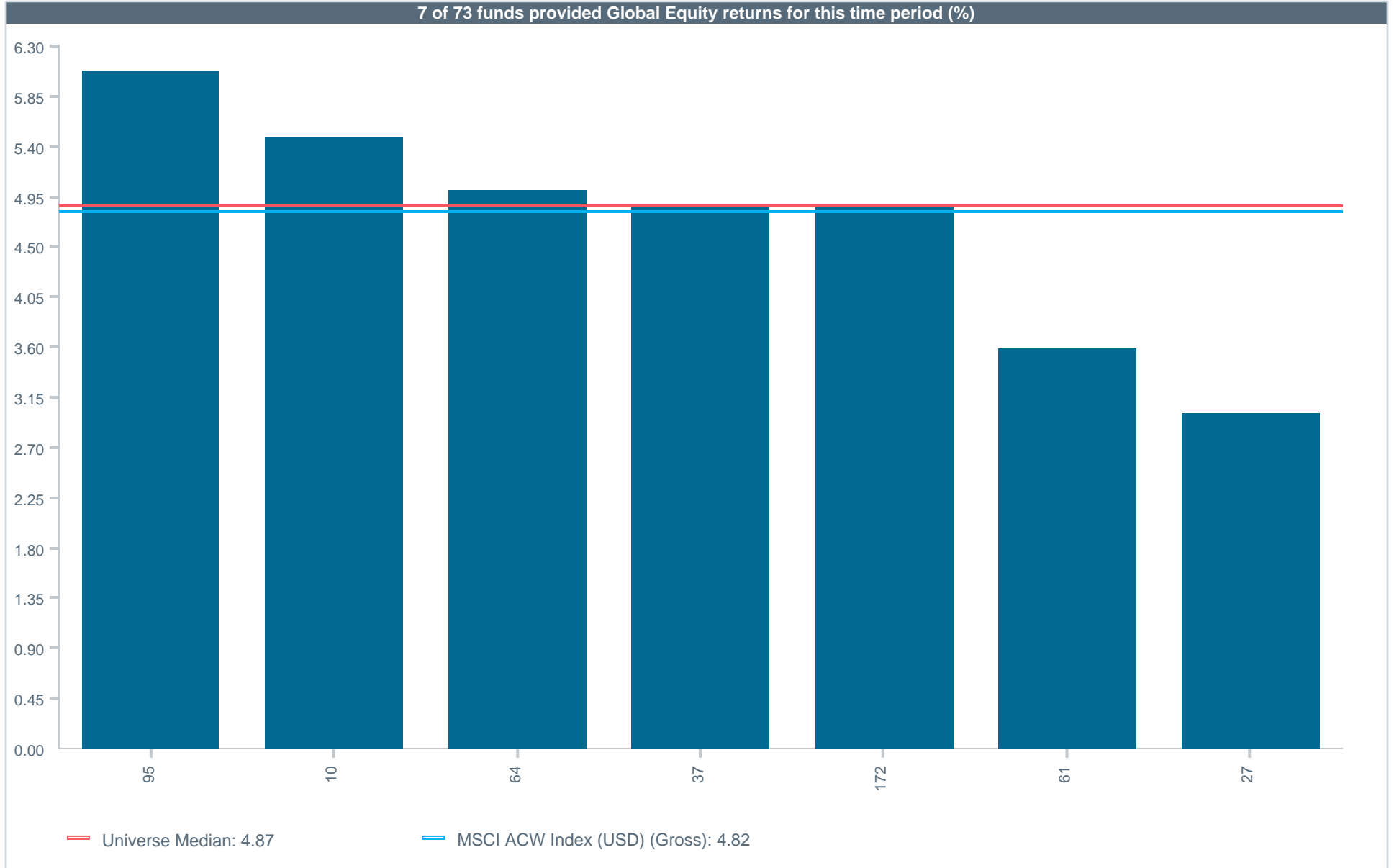
Funds with less history than the specified time period will not appear in the chart.





Funds with less history than the specified time period will not appear in the chart.





Funds with less history than the specified time period will not appear in the chart.





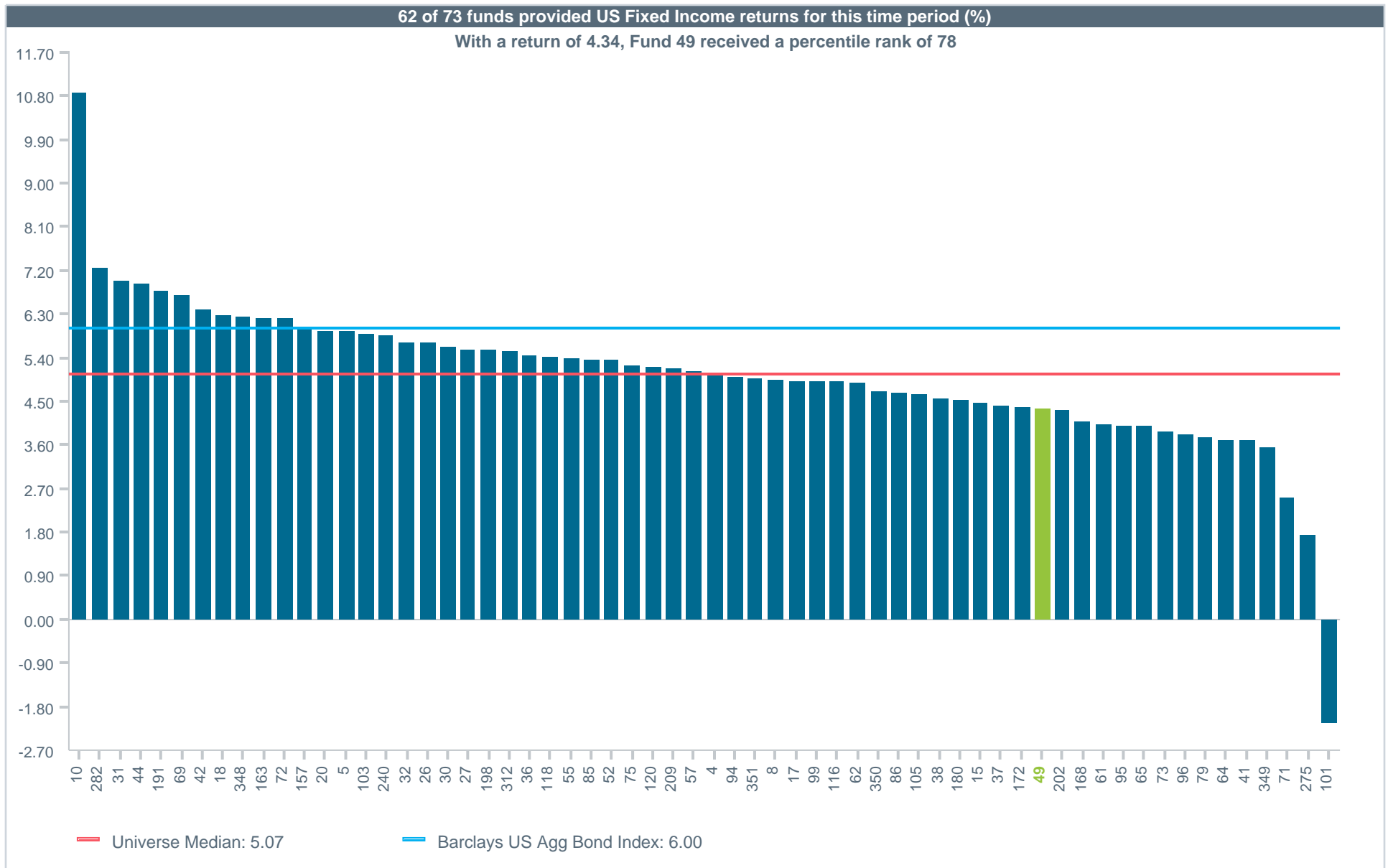
Total Return - Global Equity

Mendocino County ERA vs. MSCI ACW Index (USD) (Gross)

Calendar Year Rates of Return (%)	Cumulative Performance (Growth of \$100)
<p>Mendocino County ERA does not have return data for Global Equity</p>	

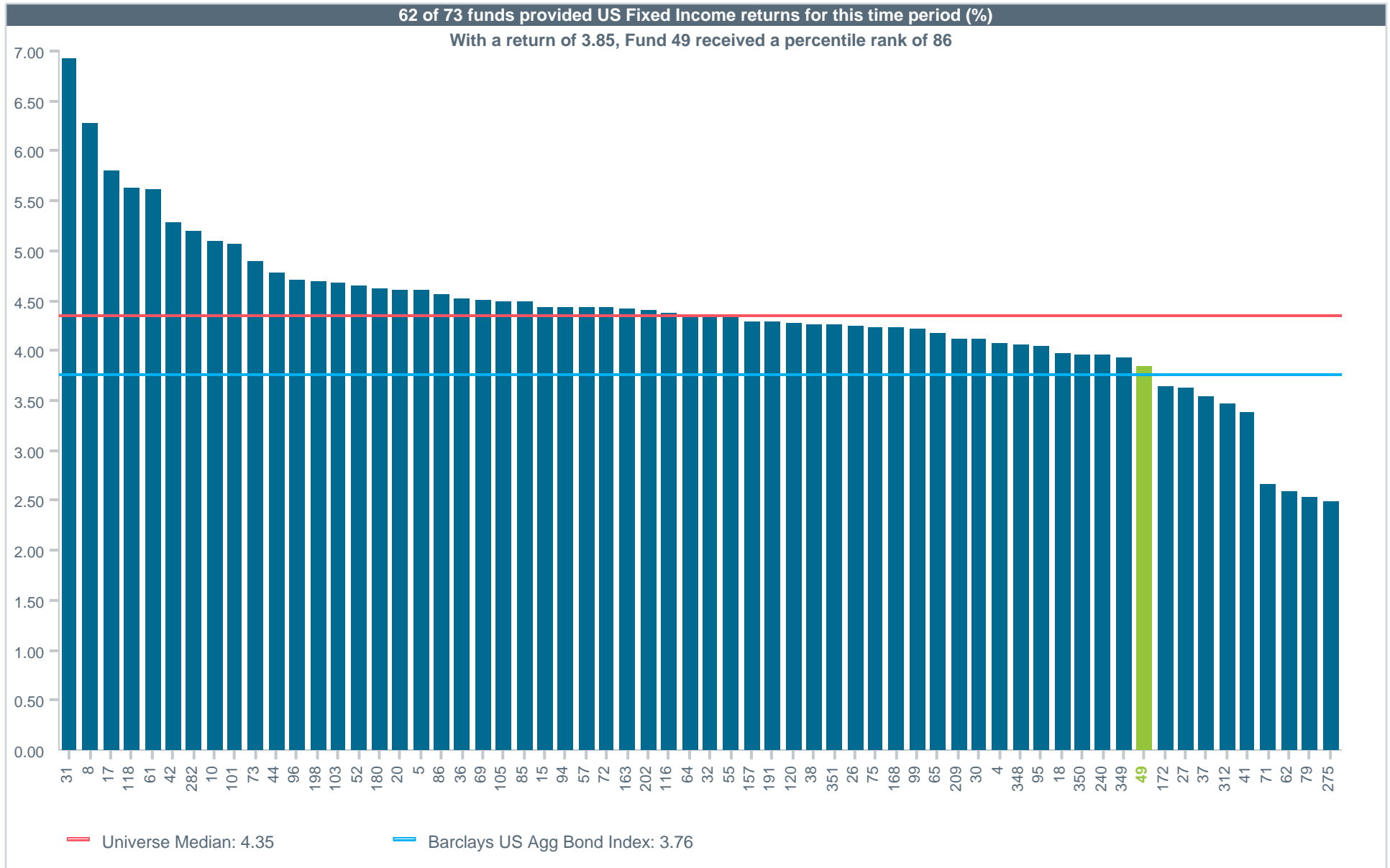
Annualized Returns (%)			
	1 Year	3 Years	5 Years
Mendocino County ERA	N/A	N/A	N/A
MSCI ACW Index (USD) (Gross)	N/A	N/A	N/A
Variance	N/A	N/A	N/A





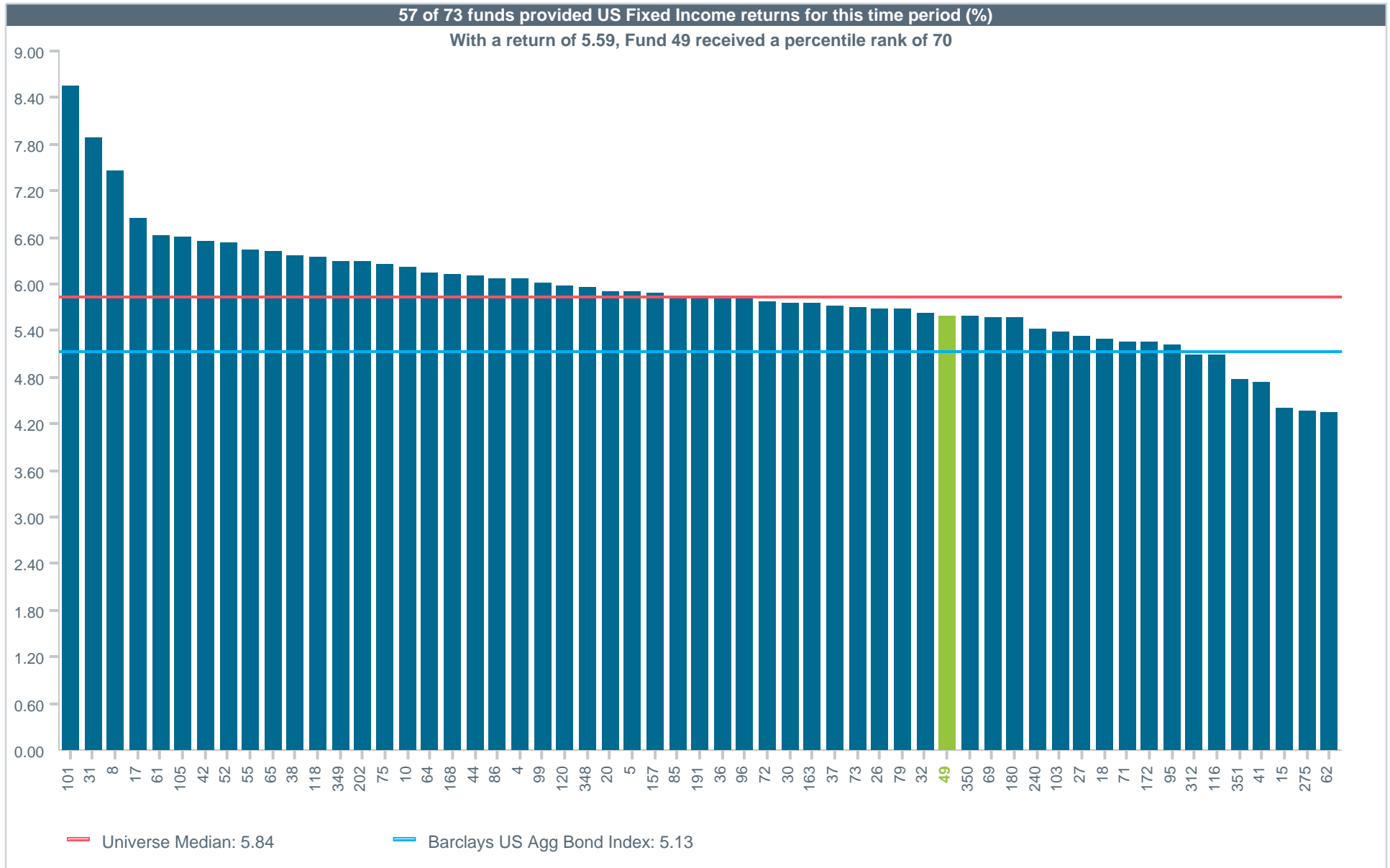
Funds with less history than the specified time period will not appear in the chart.





Funds with less history than the specified time period will not appear in the chart.



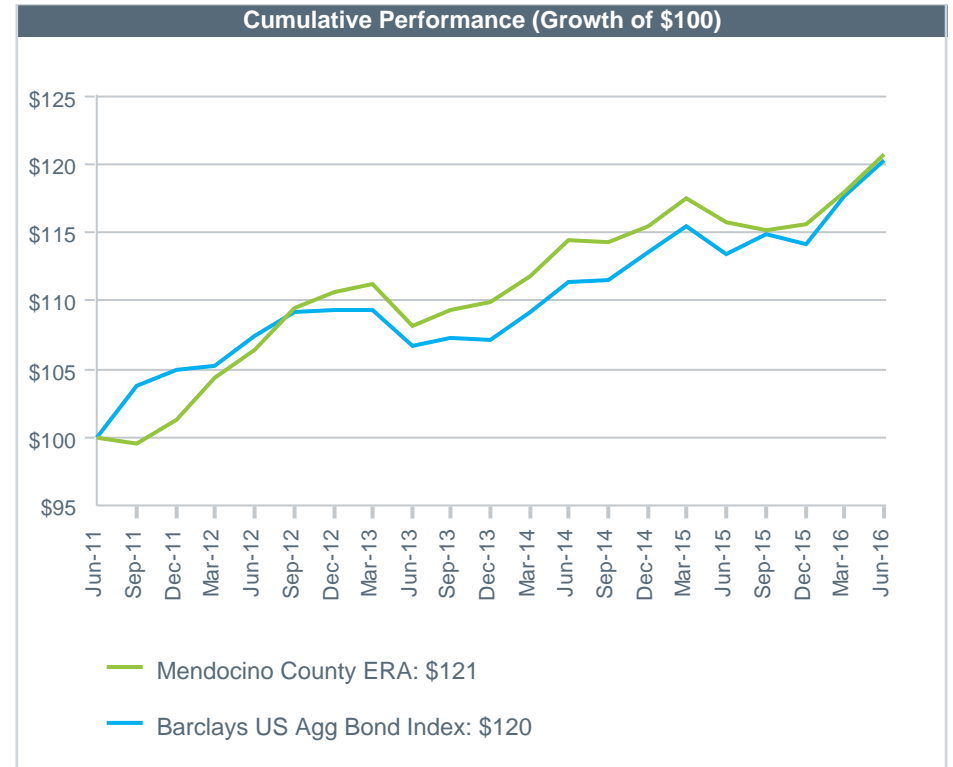
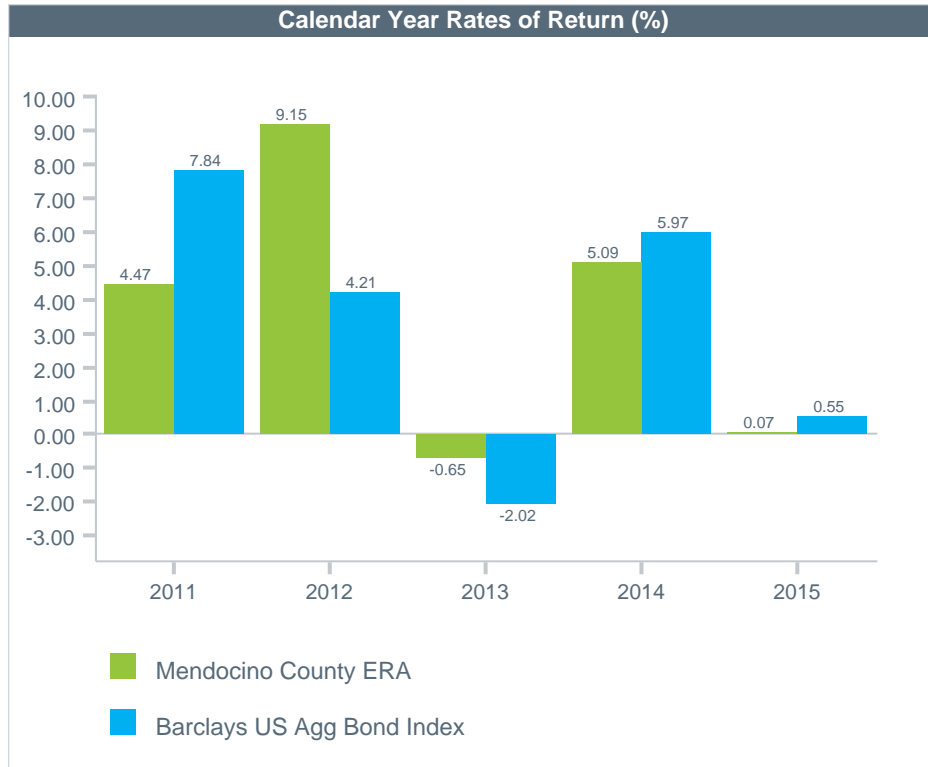


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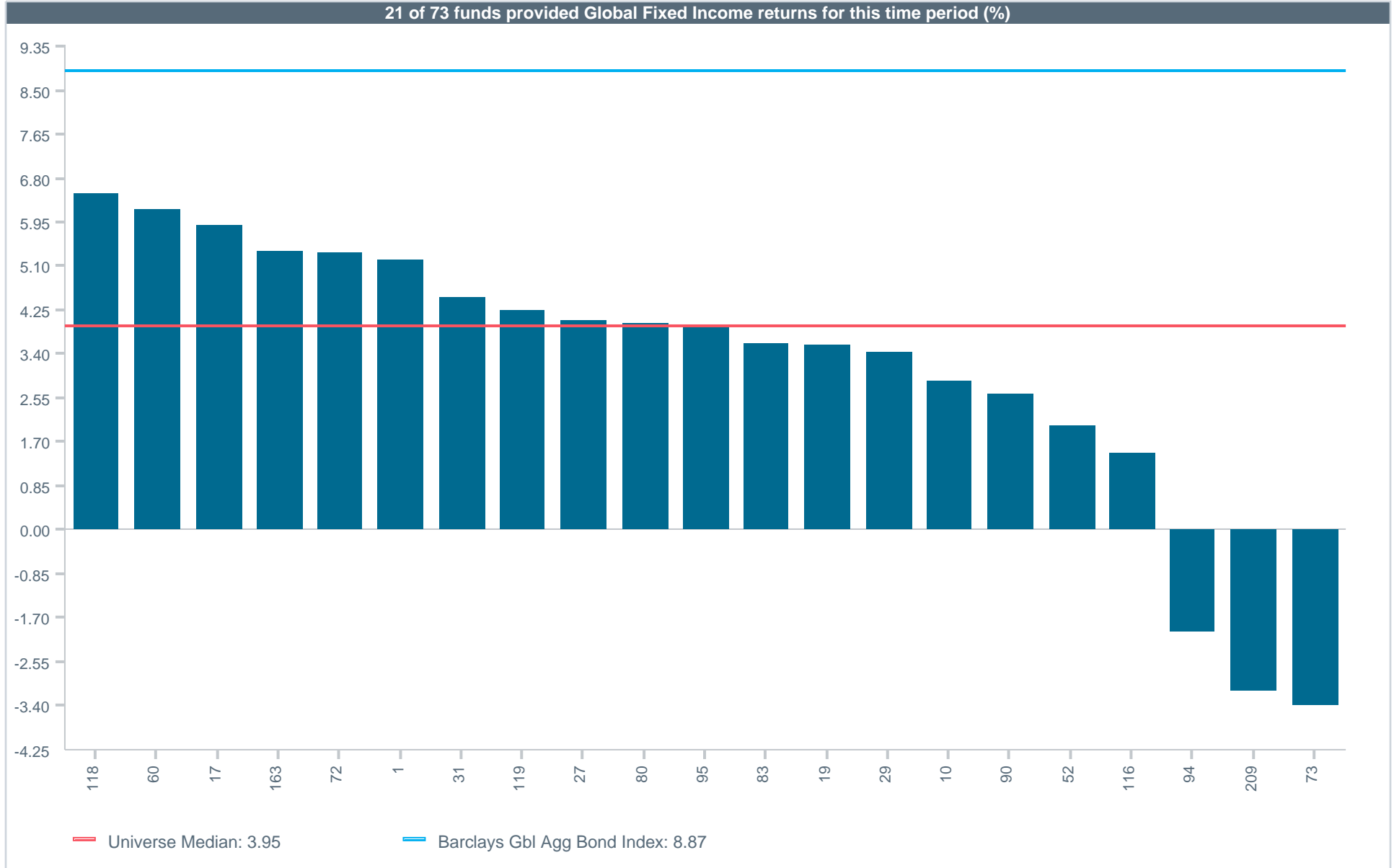
Total Return - US Fixed Income

Mendocino County ERA vs. Barclays US Agg Bond Index



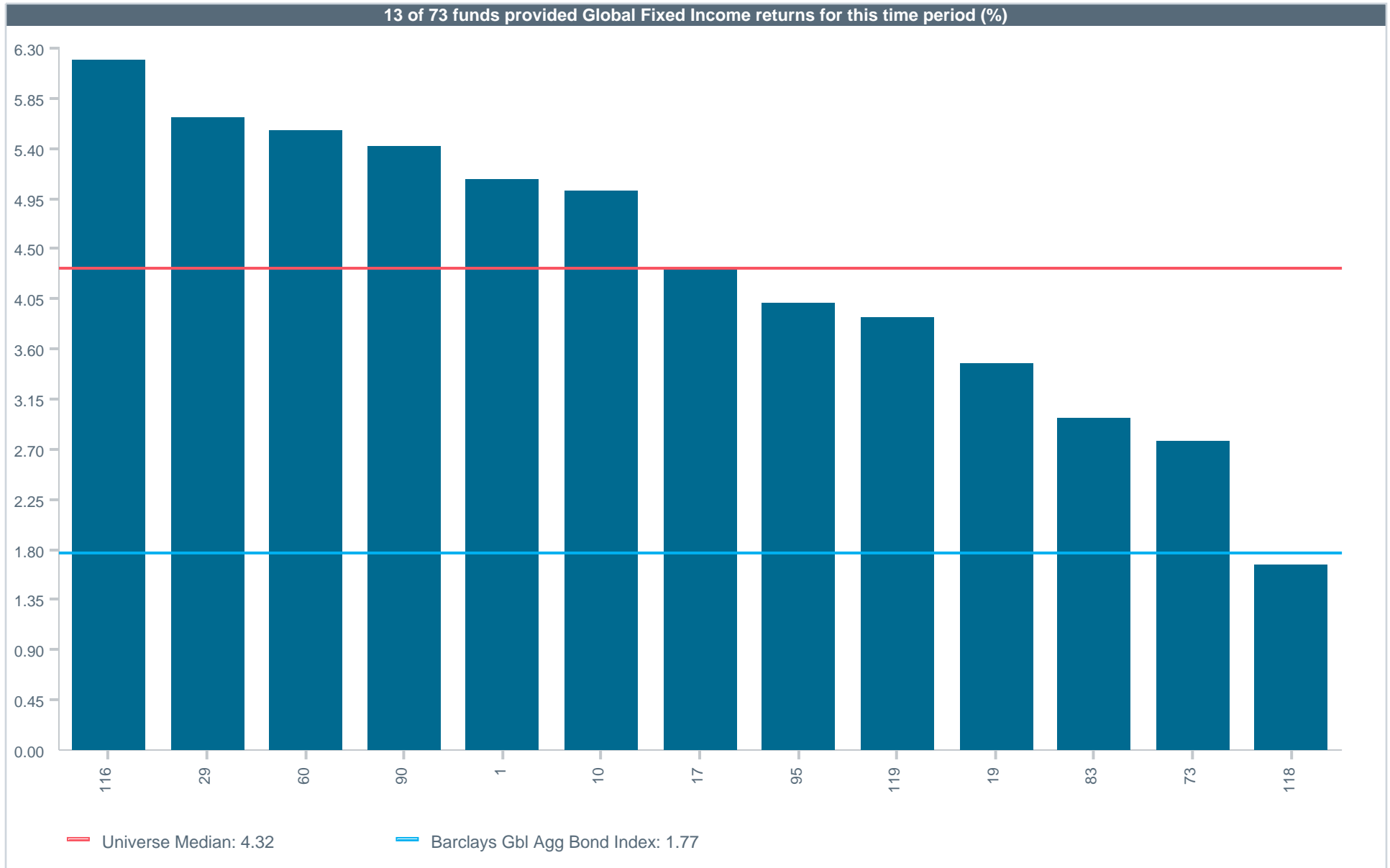
Annualized Returns (%)			
	1 Year	3 Years	5 Years
Mendocino County ERA	4.34	3.73	3.85
Barclays US Agg Bond Index	6.00	4.06	3.76
Variance	-1.66	-0.33	0.09





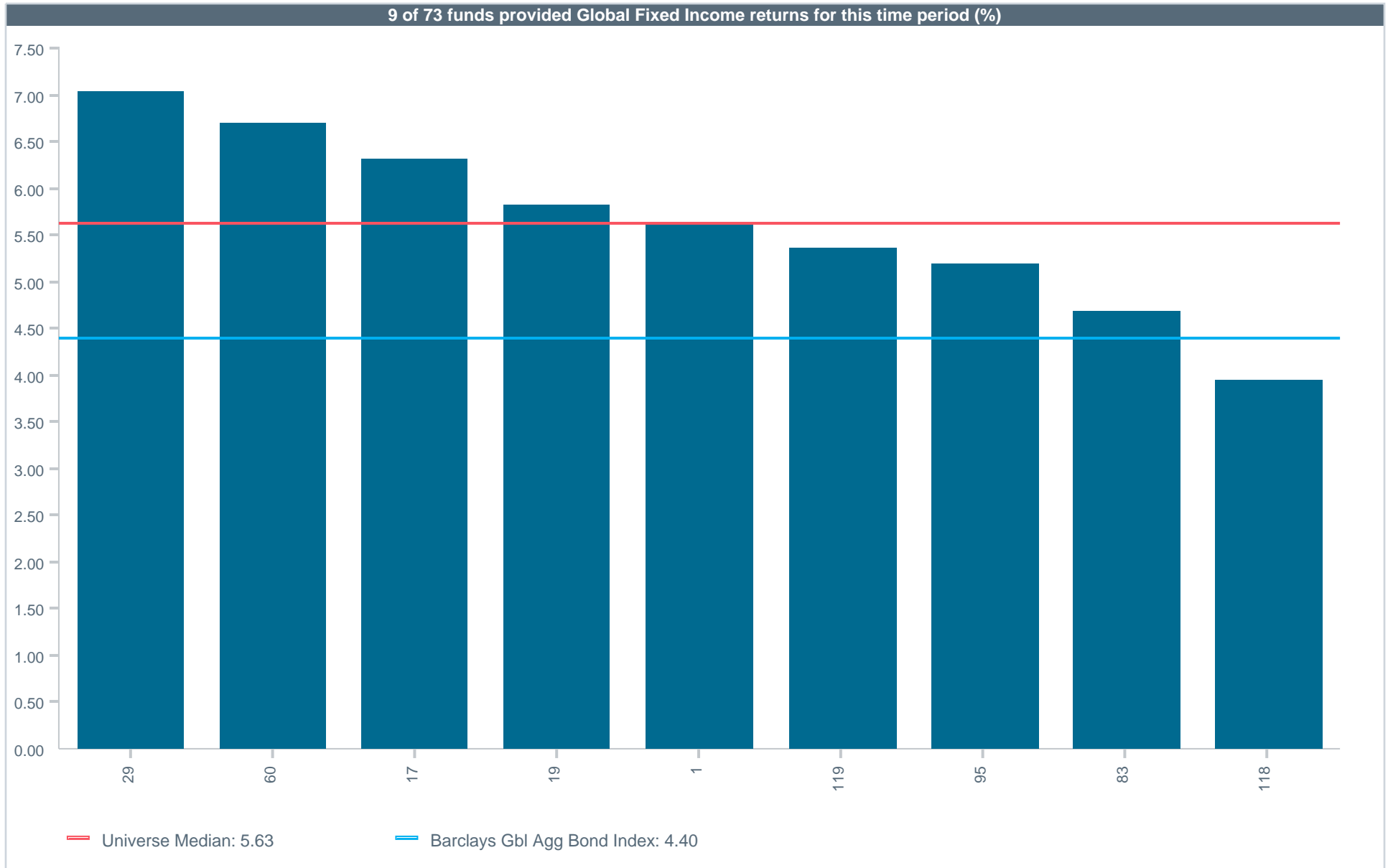
Funds with less history than the specified time period will not appear in the chart.





Funds with less history than the specified time period will not appear in the chart.





Funds with less history than the specified time period will not appear in the chart.





Total Return - Global Fixed Income

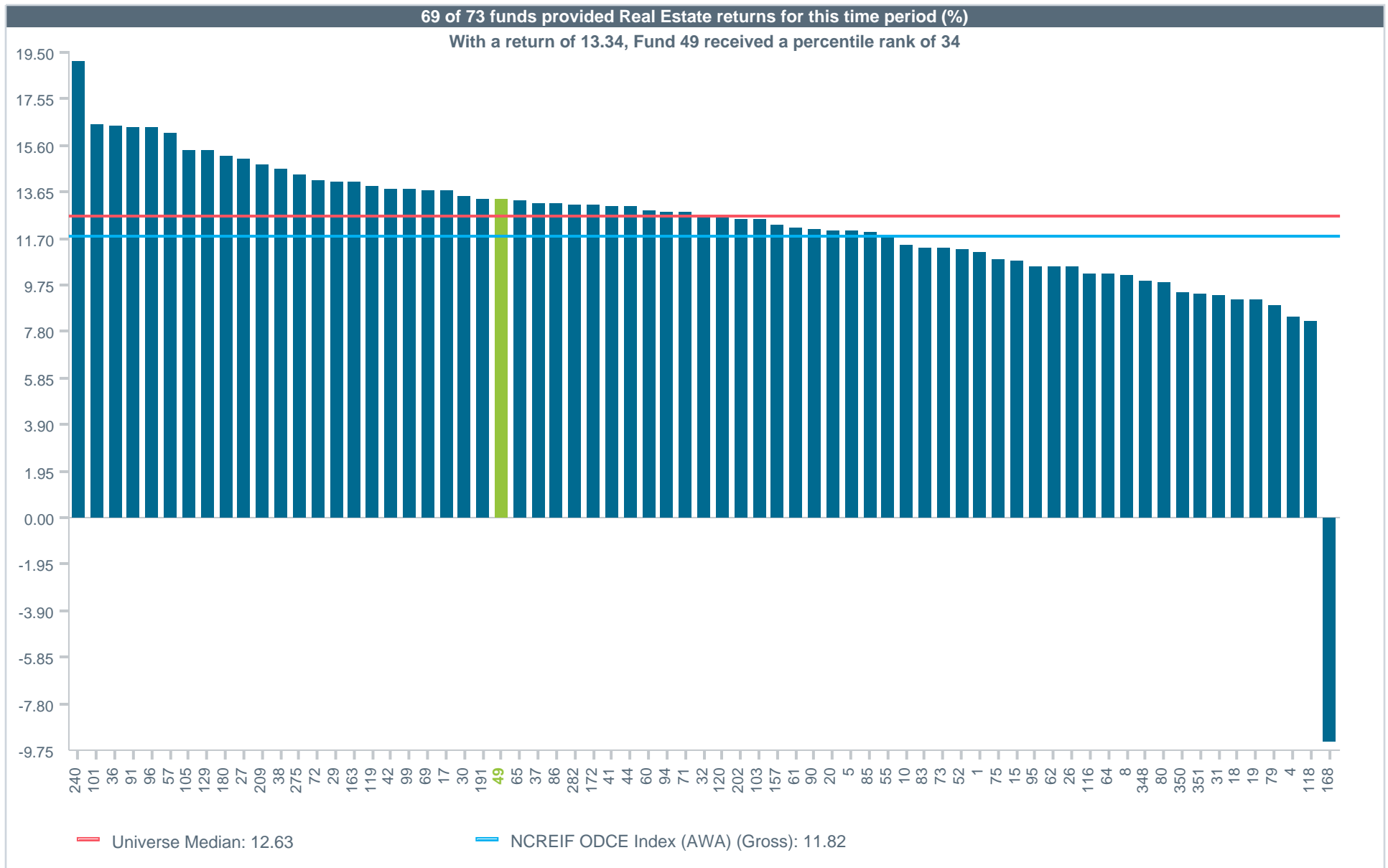
Mendocino County ERA vs. Barclays Gbl Agg Bond Index

Calendar Year Rates of Return (%)
Mendocino County ERA does not have return data for Global Fixed Income

Cumulative Performance (Growth of \$100)
Mendocino County ERA does not have return data for Global Fixed Income

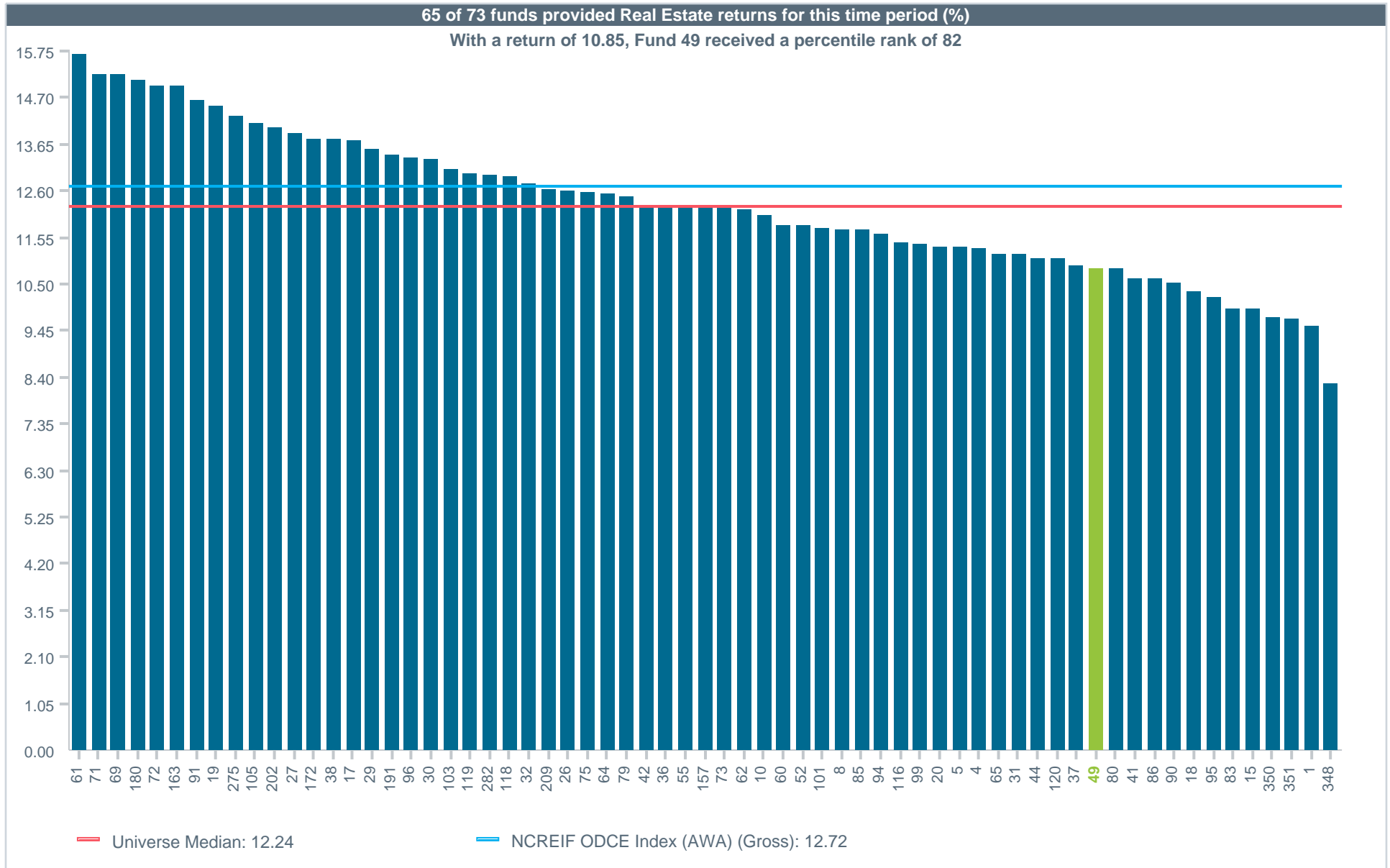
Annualized Returns (%)			
	1 Year	3 Years	5 Years
Mendocino County ERA	N/A	N/A	N/A
Barclays Gbl Agg Bond Index	N/A	N/A	N/A
Variance	N/A	N/A	N/A





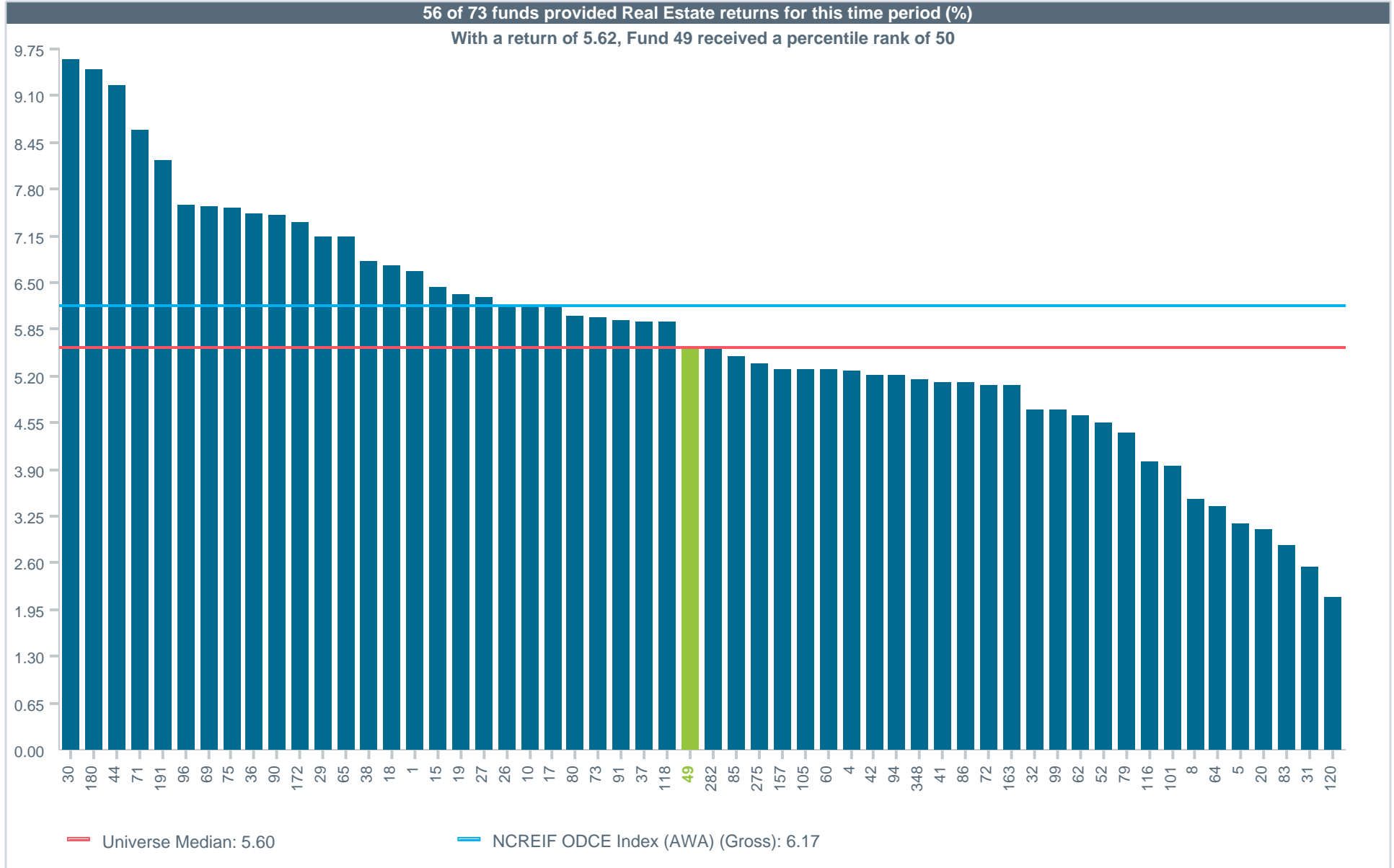
Funds with less history than the specified time period will not appear in the chart.





Funds with less history than the specified time period will not appear in the chart.



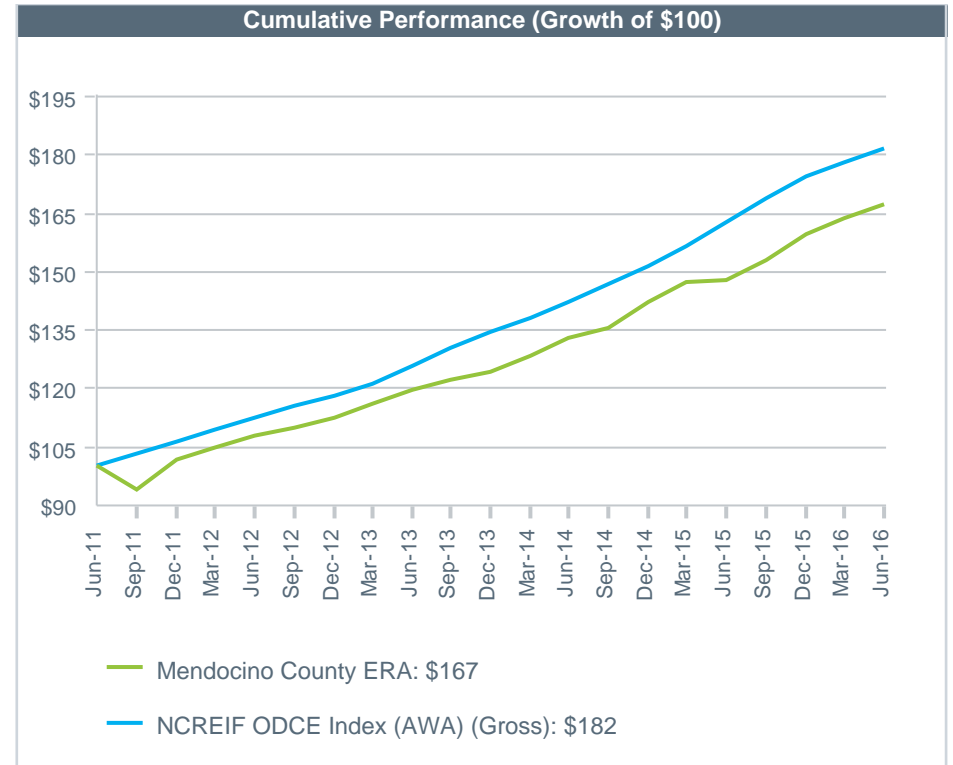
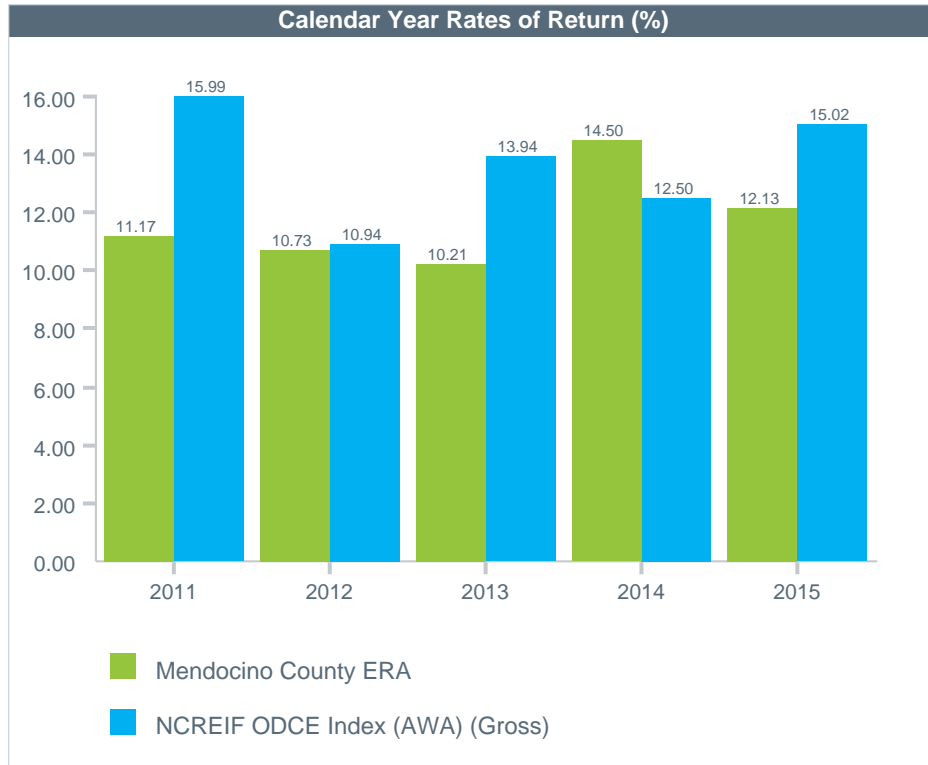


Funds with less history than the specified time period will not appear in the chart.



Total Return - Real Estate

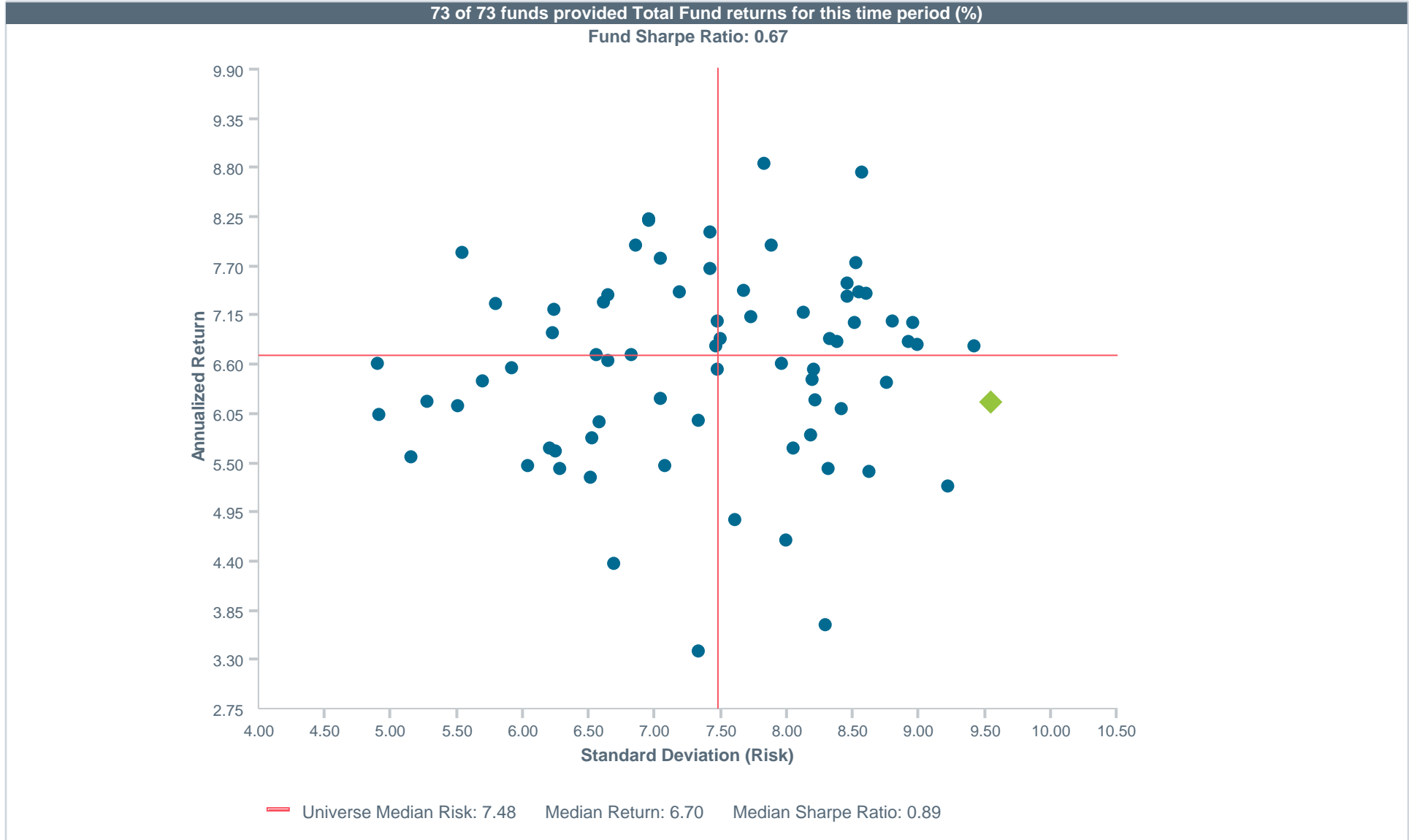
Mendocino County ERA vs. NCREIF ODCE Index (AWA) (Gross)



Annualized Returns (%)			
	1 Year	3 Years	5 Years
Mendocino County ERA	13.34	11.88	10.85
NCREIF ODCE Index (AWA) (Gross)	11.82	13.00	12.72
Variance	1.52	-1.12	-1.87



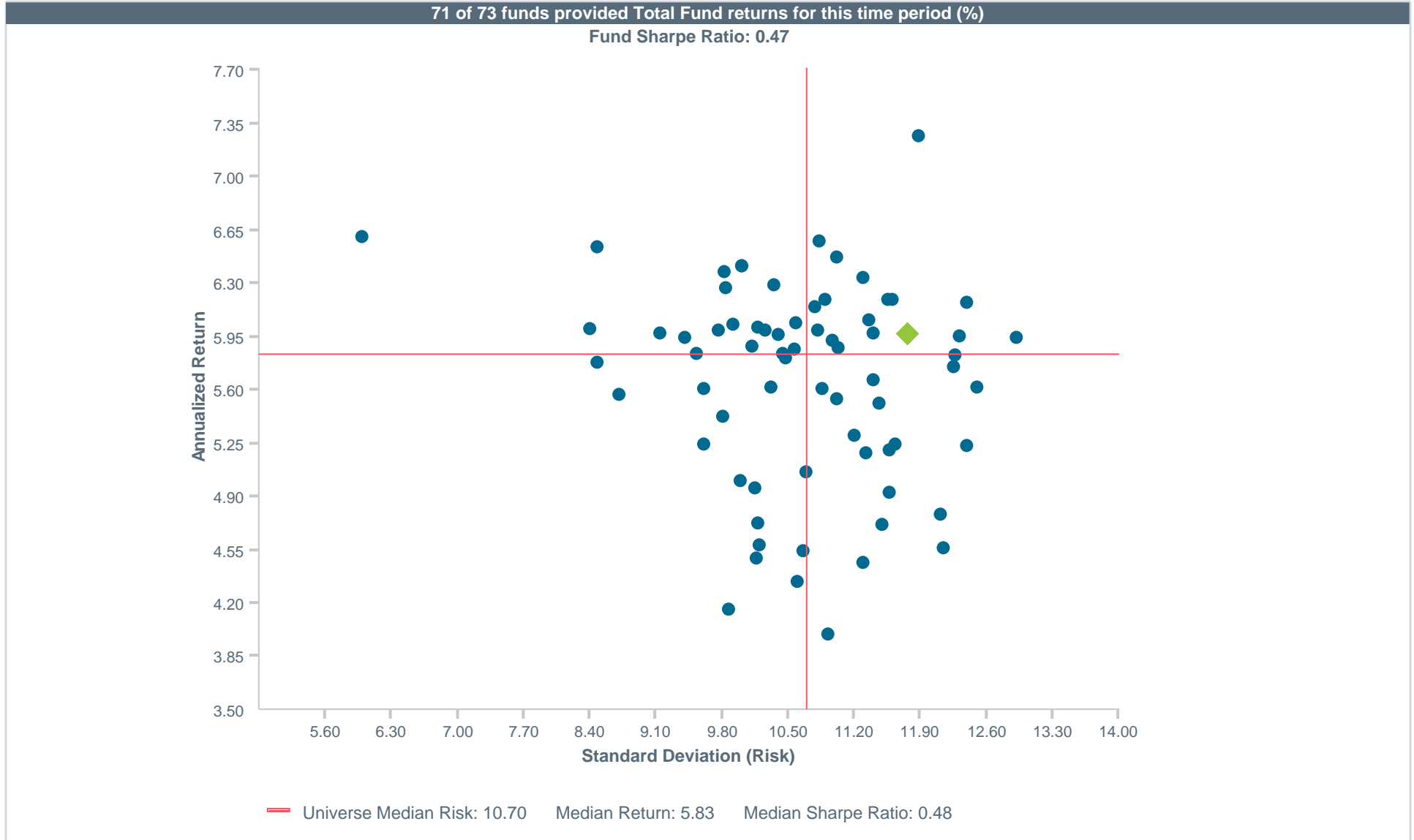
5 Year Annualized Total Fund Returns vs. Standard Deviation



Funds with less history than the specified time period will not appear in the chart.



10 Year Annualized Total Fund Returns vs. Standard Deviation



Funds with less history than the specified time period will not appear in the chart.



Risk/Return Analysis

5 Year Annualized US Equity Returns vs. Standard Deviation



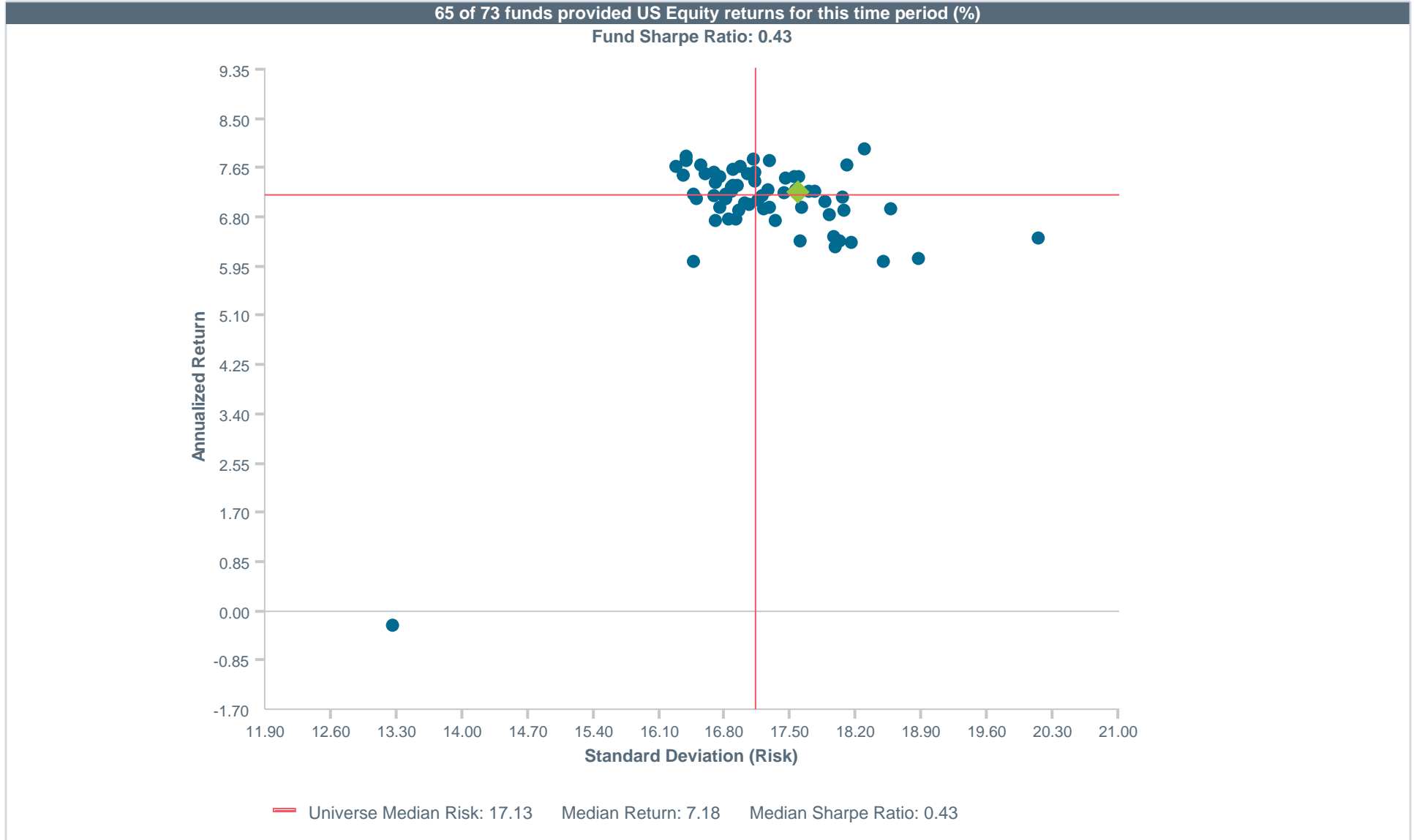
Funds with less history than the specified time period will not appear in the chart.





Risk/Return Analysis

10 Year Annualized US Equity Returns vs. Standard Deviation

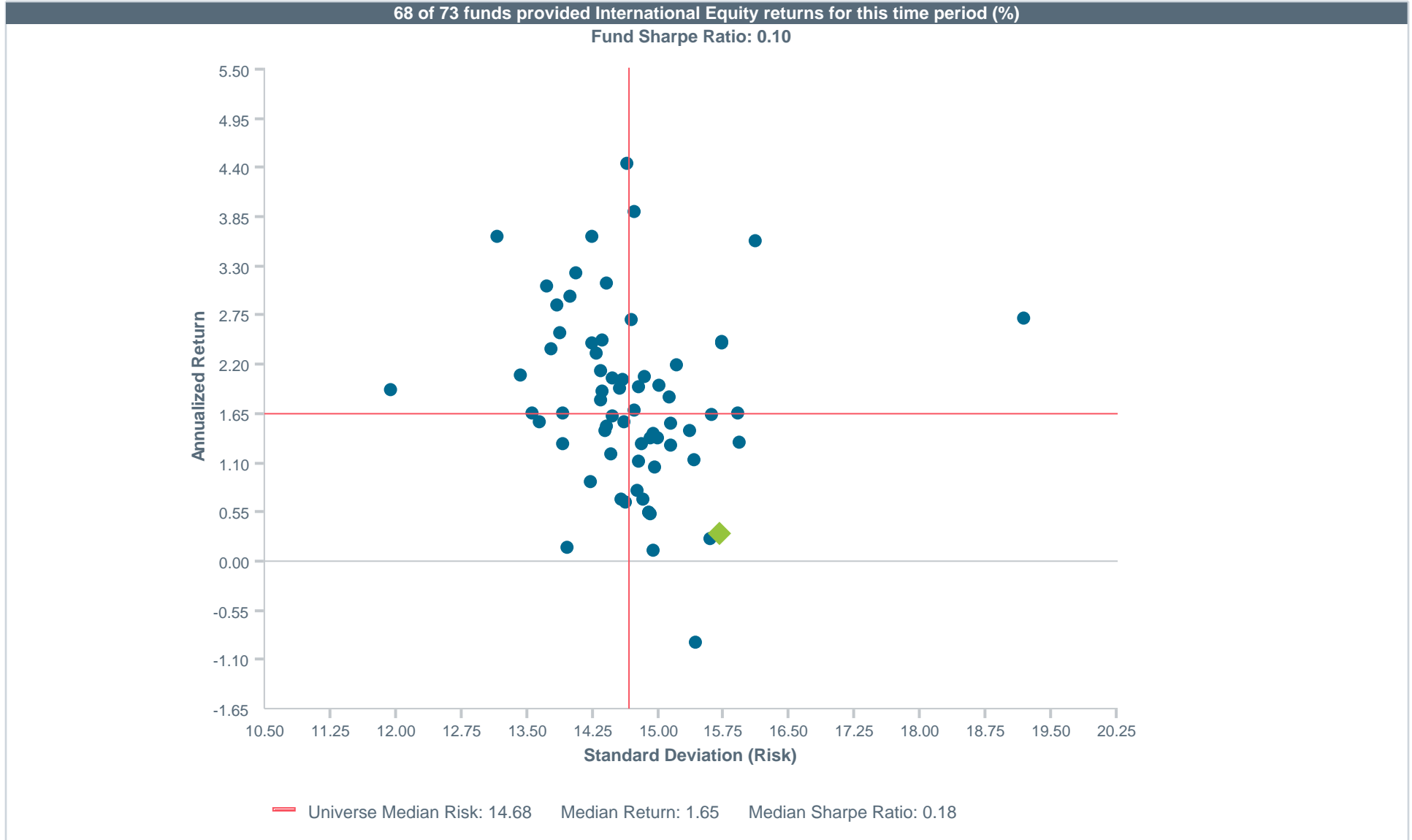


Funds with less history than the specified time period will not appear in the chart.



Risk/Return Analysis

5 Year Annualized International Equity Returns vs. Standard Deviation

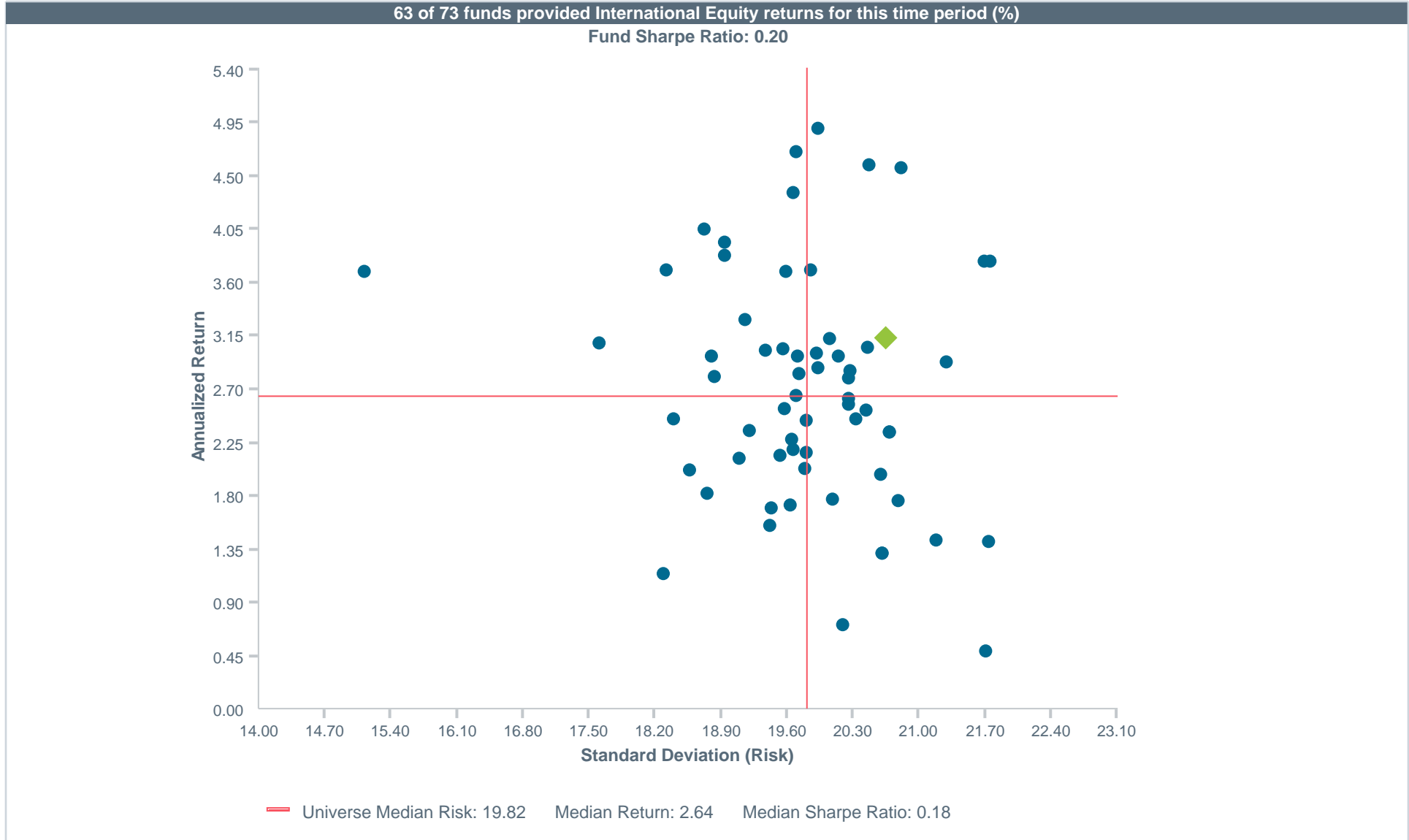


Funds with less history than the specified time period will not appear in the chart.



Risk/Return Analysis

10 Year Annualized International Equity Returns vs. Standard Deviation

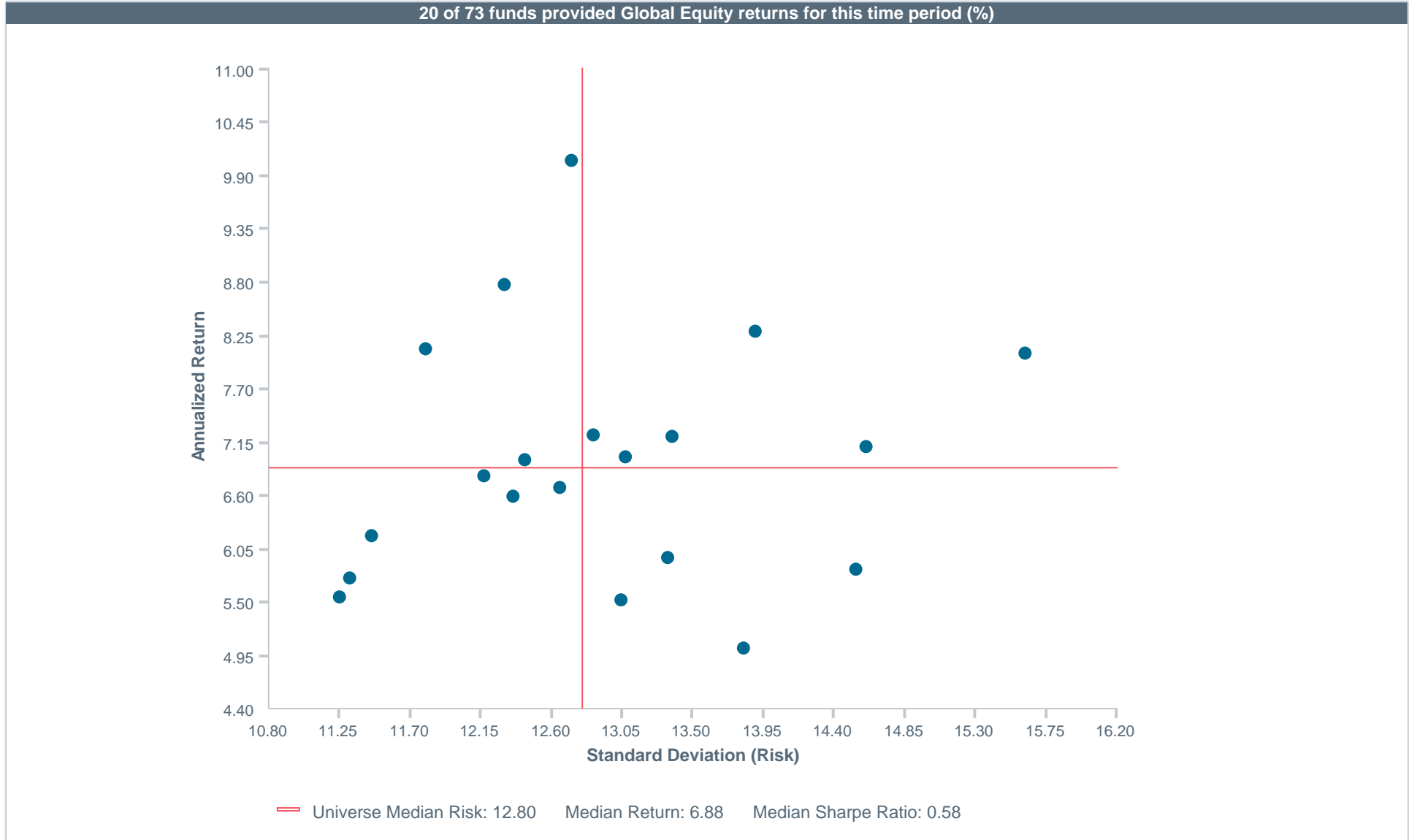


Funds with less history than the specified time period will not appear in the chart.



Risk/Return Analysis

5 Year Annualized Global Equity Returns vs. Standard Deviation

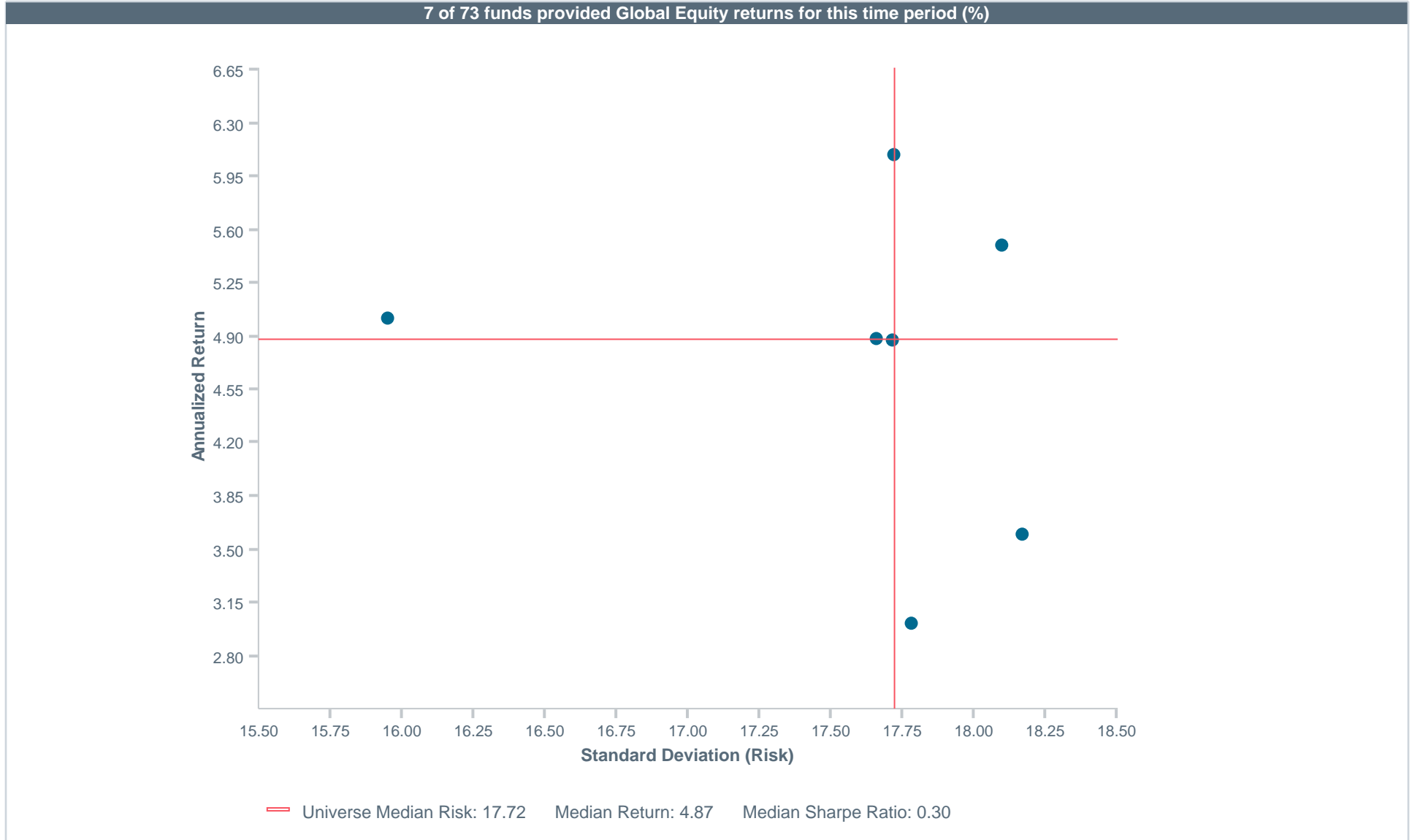


Funds with less history than the specified time period will not appear in the chart.



Risk/Return Analysis

10 Year Annualized Global Equity Returns vs. Standard Deviation

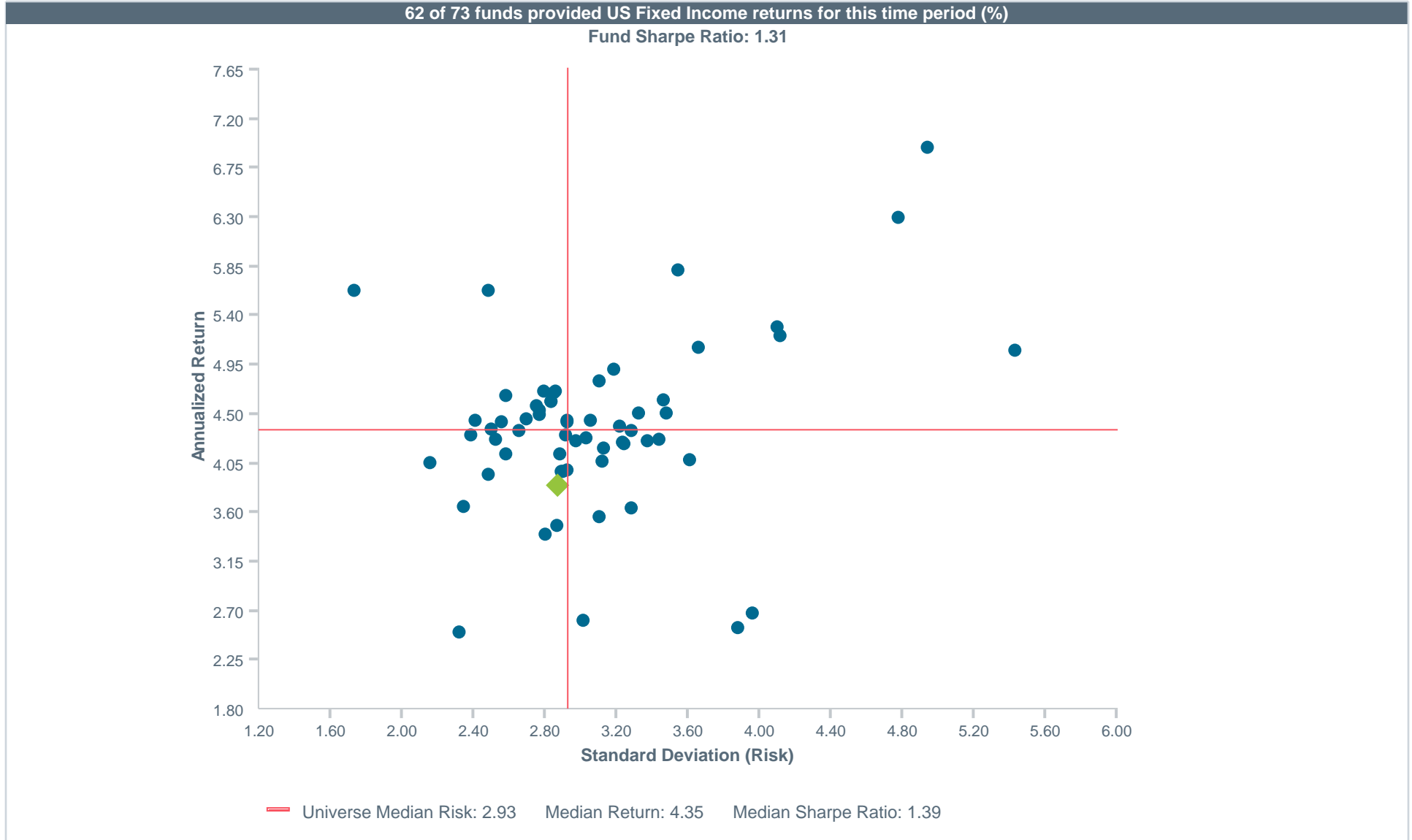


Funds with less history than the specified time period will not appear in the chart.



Risk/Return Analysis

5 Year Annualized US Fixed Income Returns vs. Standard Deviation

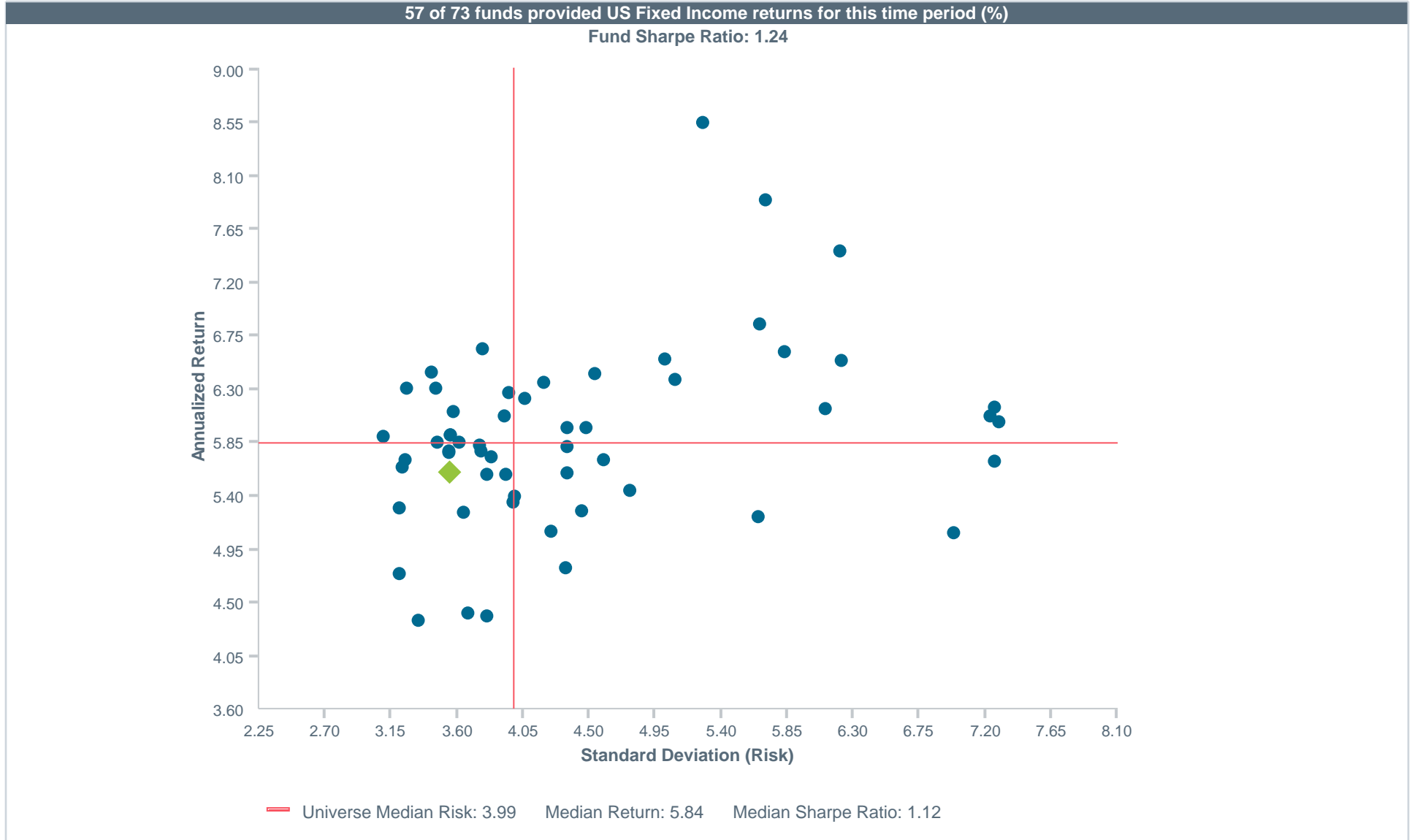


Funds with less history than the specified time period will not appear in the chart.



Risk/Return Analysis

10 Year Annualized US Fixed Income Returns vs. Standard Deviation



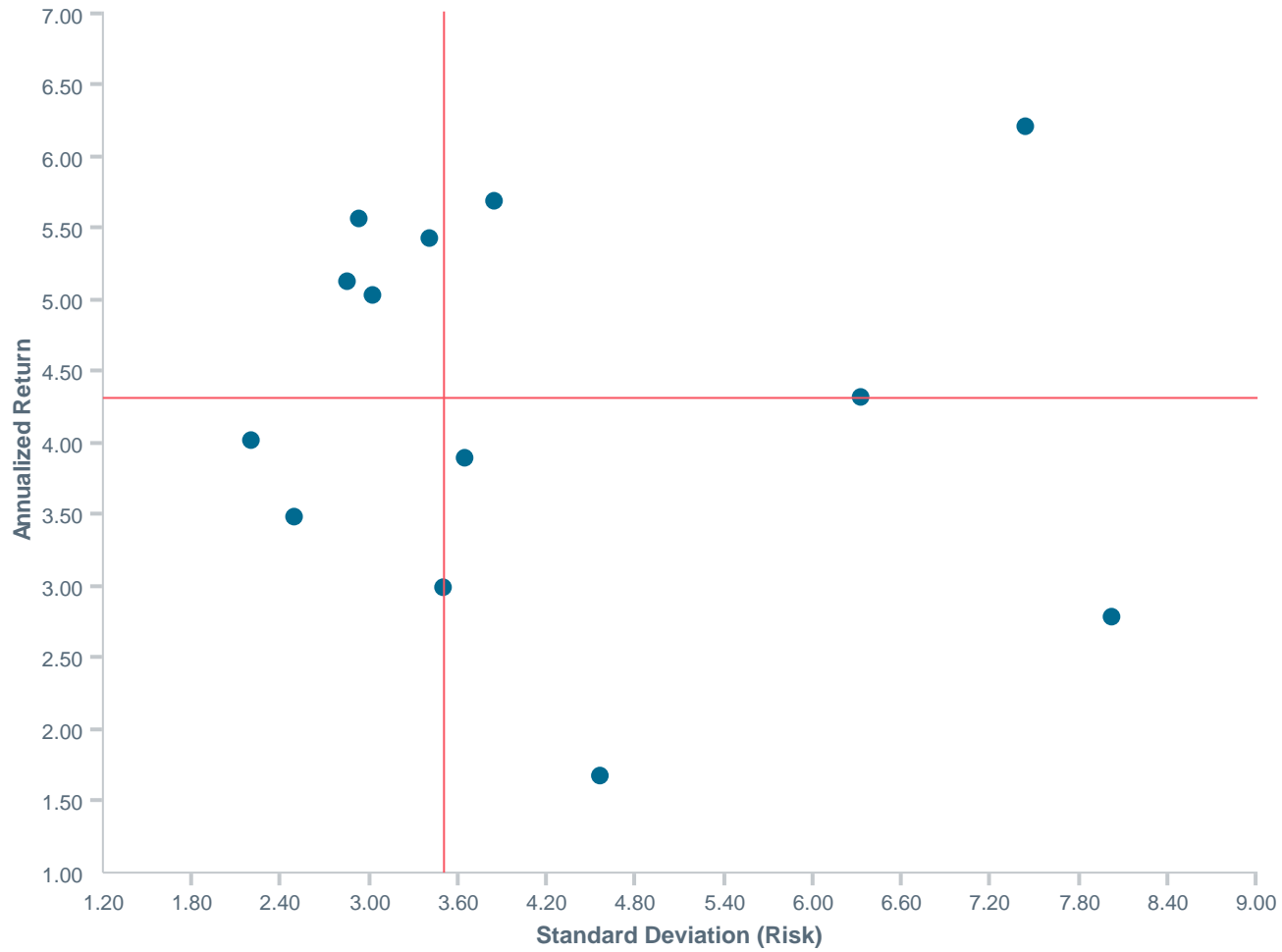
Funds with less history than the specified time period will not appear in the chart.



Risk/Return Analysis

5 Year Annualized Global Fixed Income Returns vs. Standard Deviation

13 of 73 funds provided Global Fixed Income returns for this time period (%)



— Universe Median Risk: 3.51    Median Return: 4.32    Median Sharpe Ratio: 1.35

Funds with less history than the specified time period will not appear in the chart.

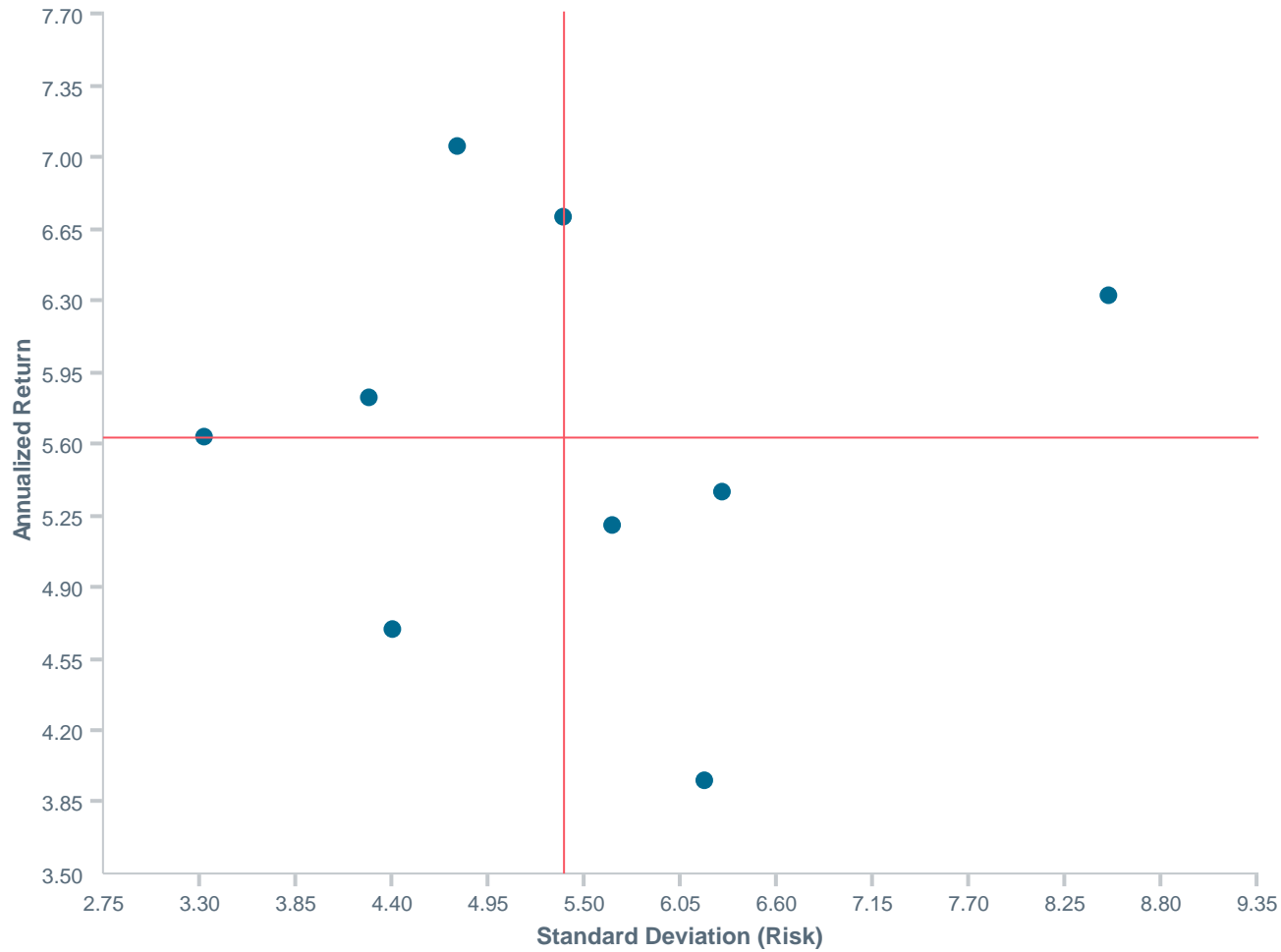




Risk/Return Analysis

10 Year Annualized Global Fixed Income Returns vs. Standard Deviation

9 of 73 funds provided Global Fixed Income returns for this time period (%)



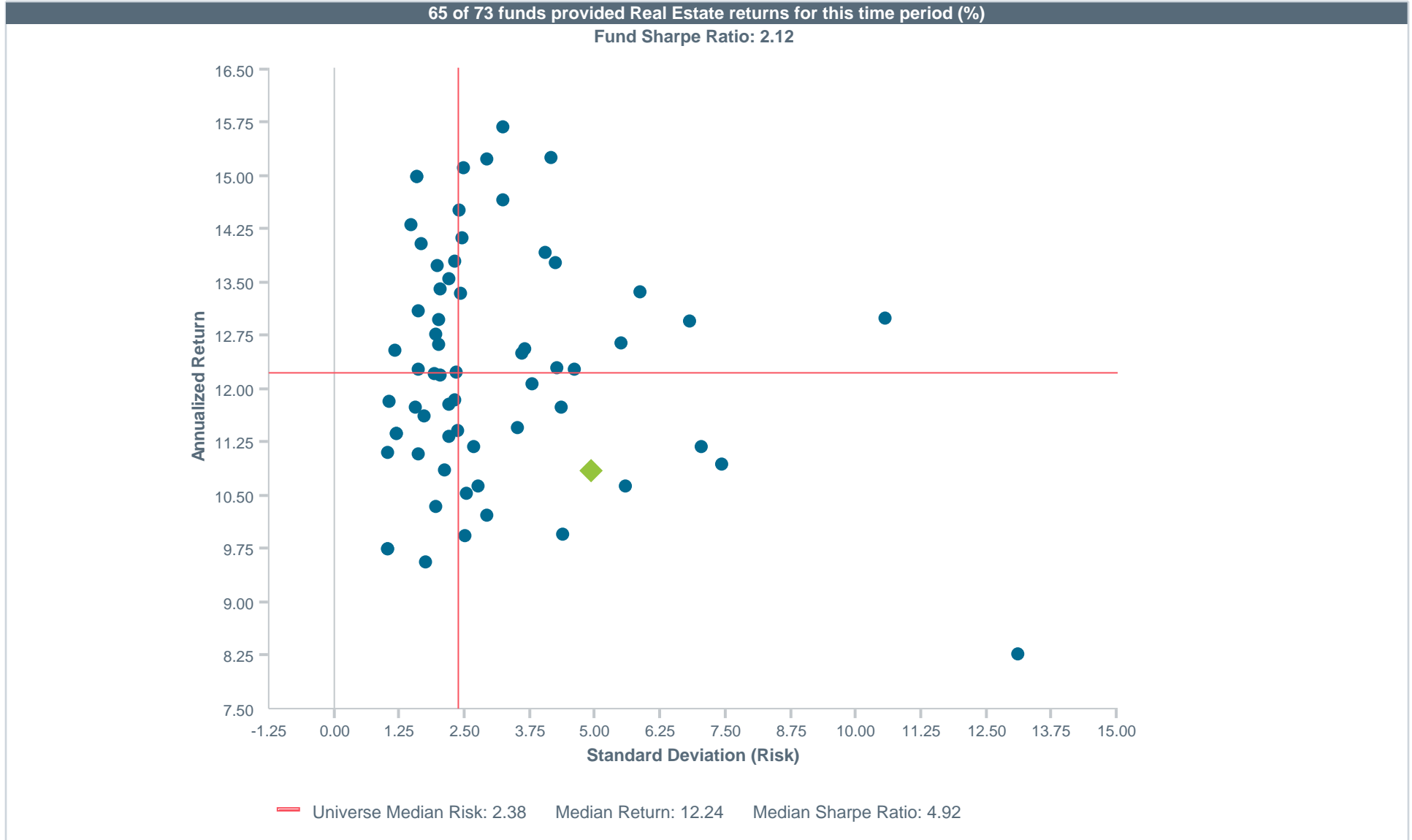
— Universe Median Risk: 5.38    Median Return: 5.63    Median Sharpe Ratio: 0.82

Funds with less history than the specified time period will not appear in the chart.



Risk/Return Analysis

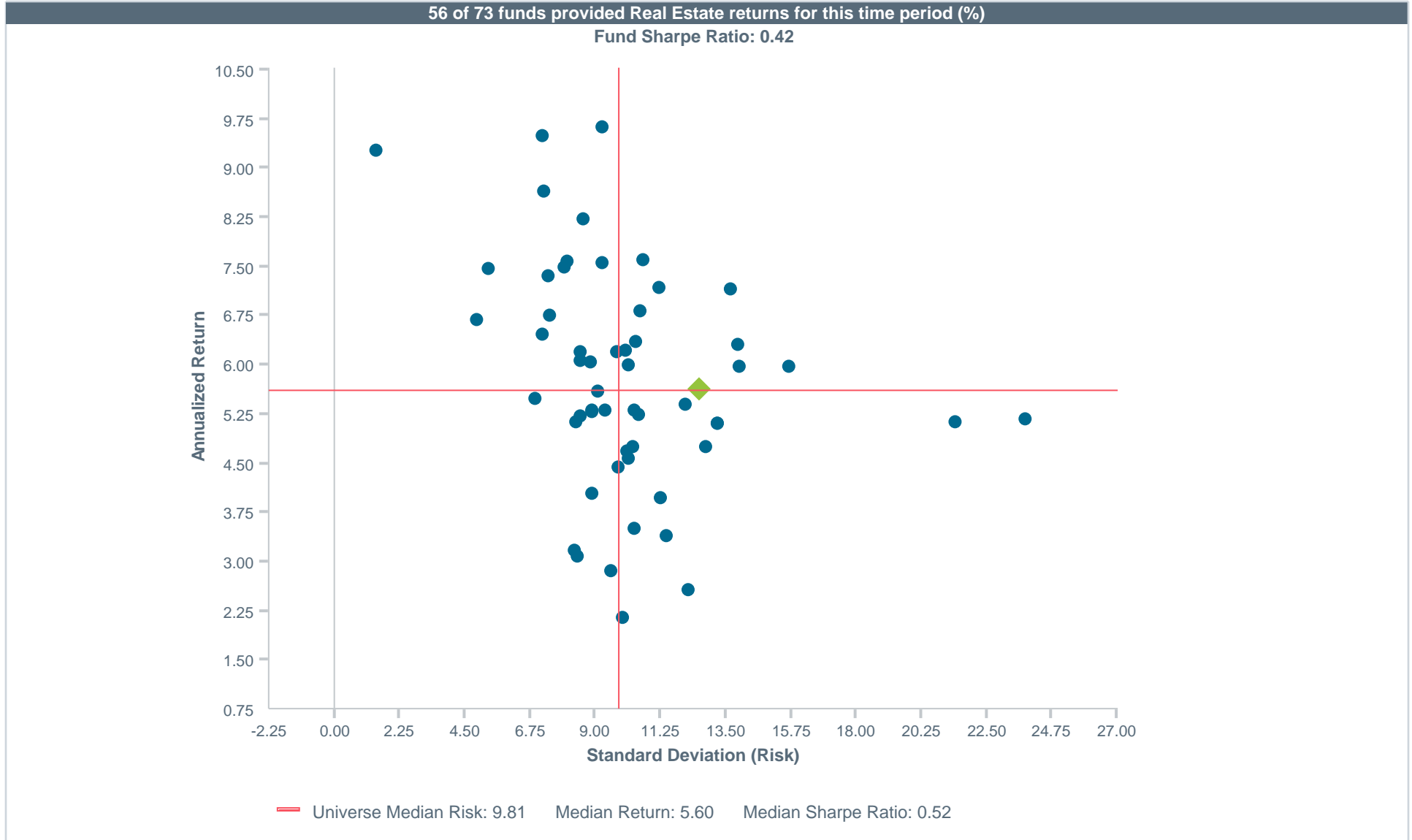
5 Year Annualized Real Estate Returns vs. Standard Deviation



Funds with less history than the specified time period will not appear in the chart.



10 Year Annualized Real Estate Returns vs. Standard Deviation

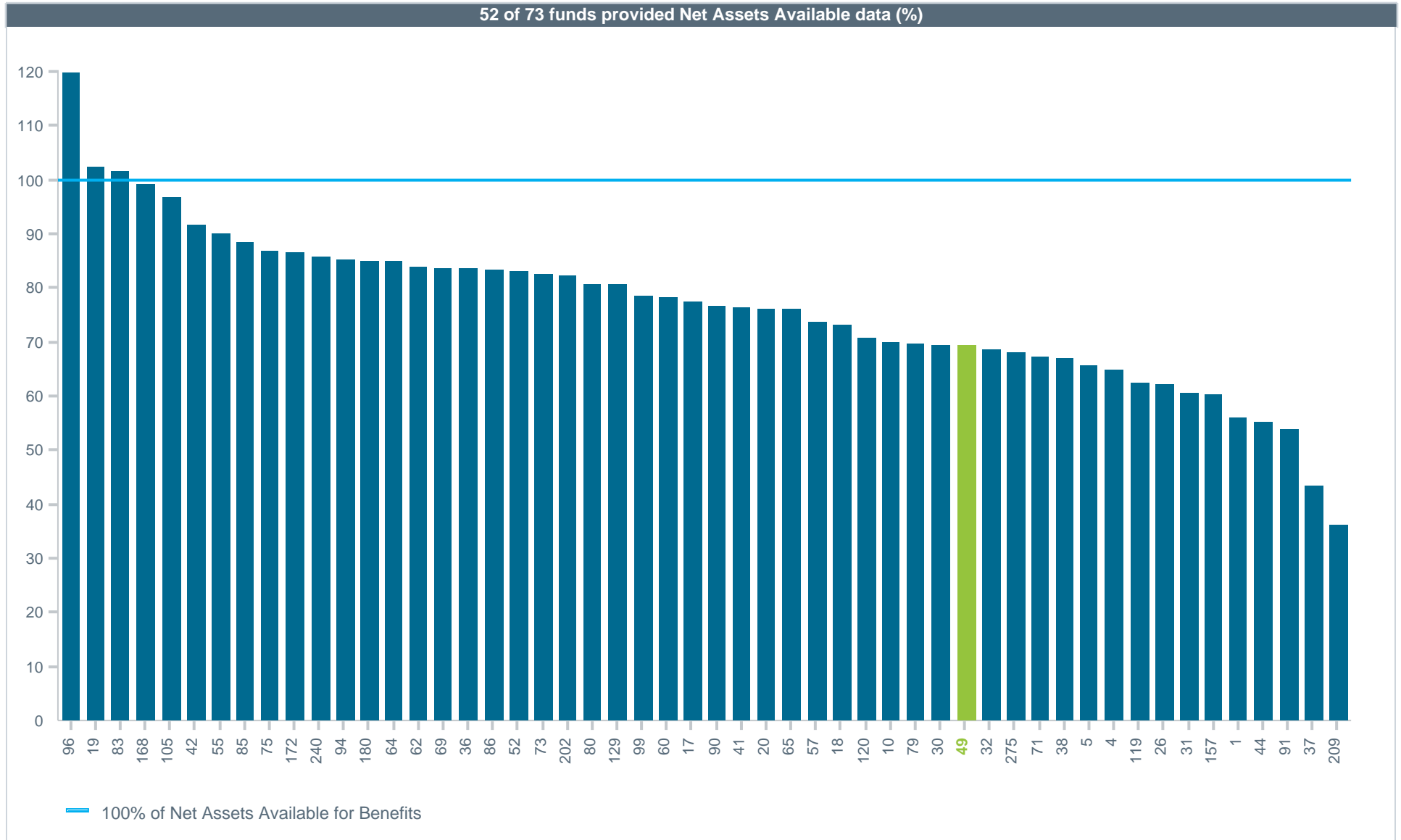


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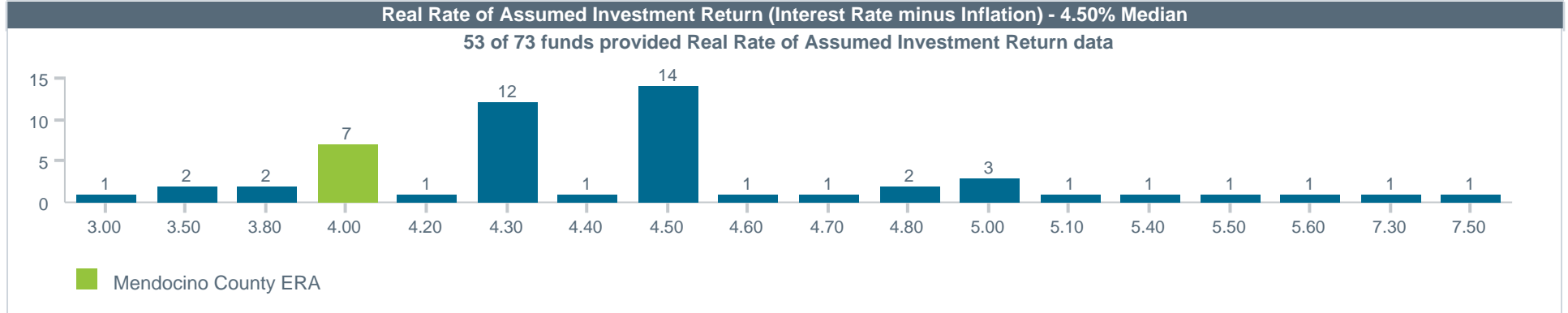
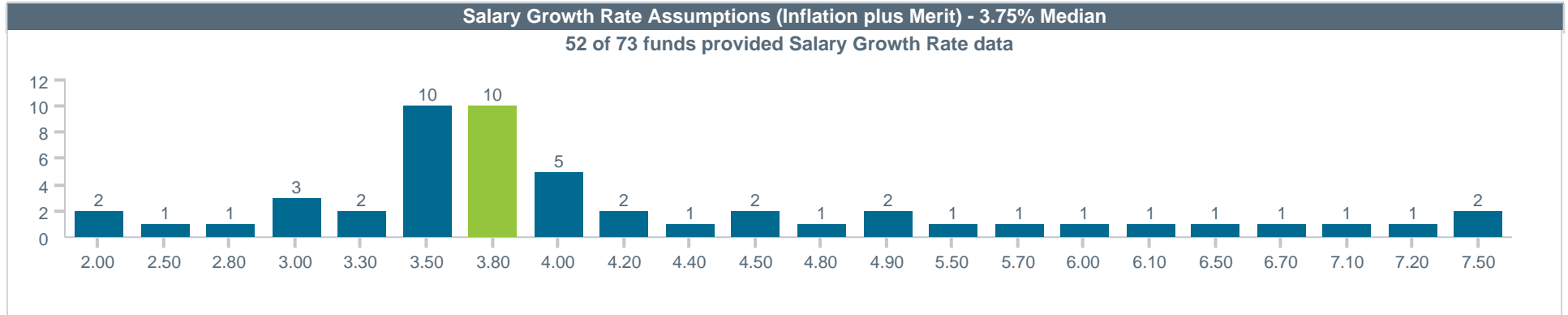
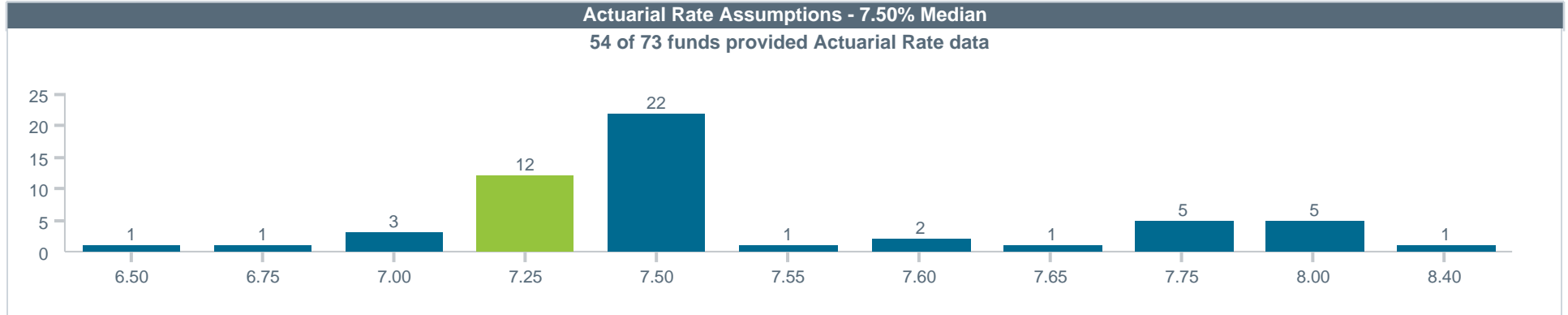
Net Assets Available For Benefits

Expressed as a Percentage of the Pension Benefit Obligation



Funds that did not provide data will not appear in the chart.

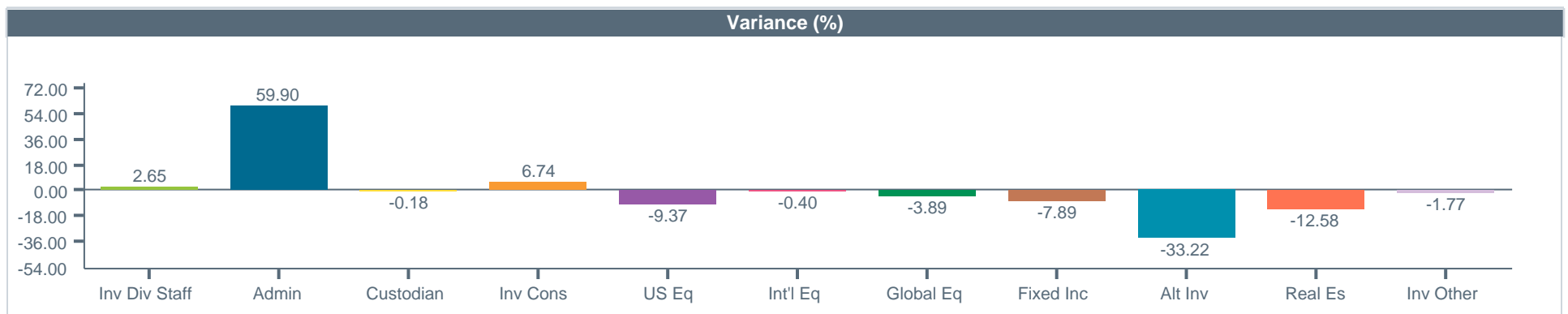
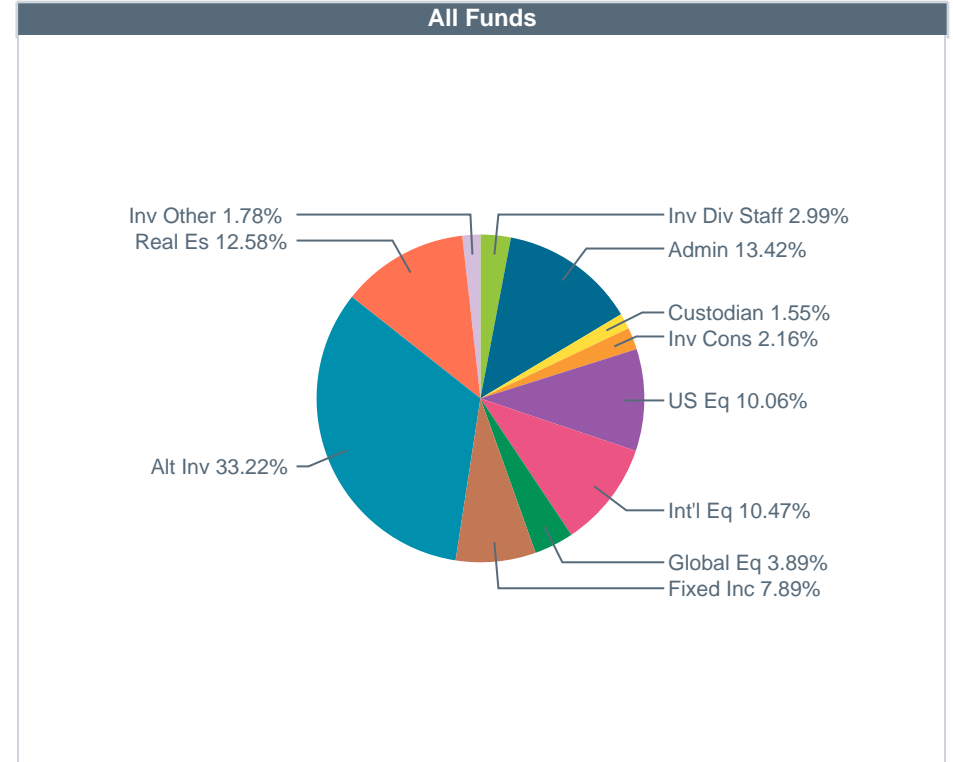
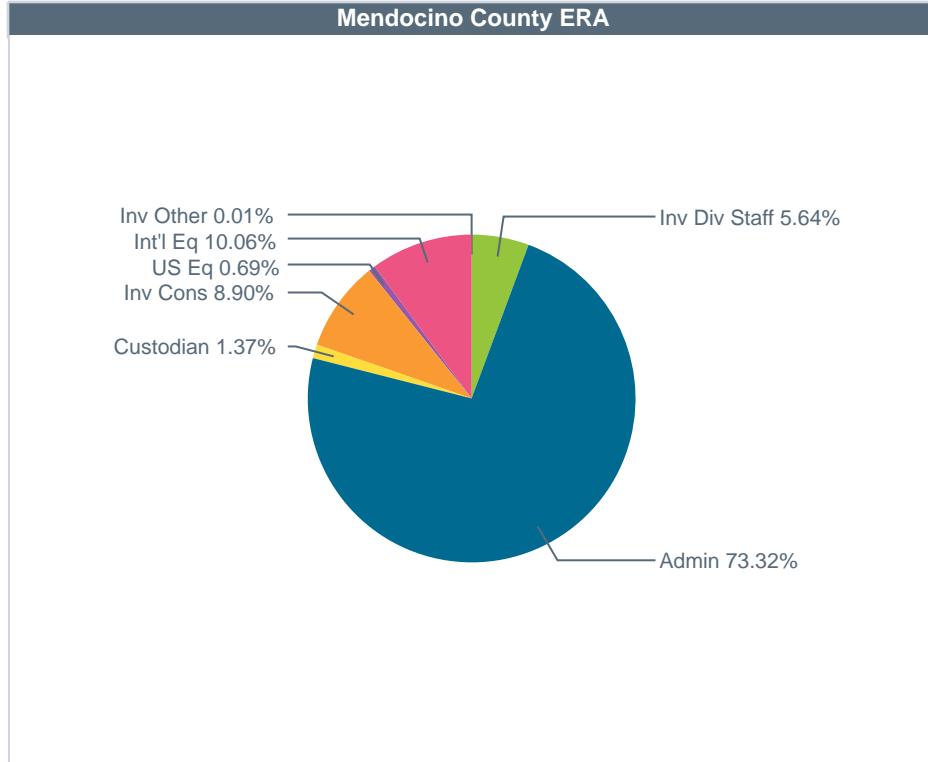




Funds that did not provide data will not appear in the chart.



Total Administrative and Investment Fees  
Mendocino County ERA vs. All Funds



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



## Total Fund Fee Summary in Basis Points

## Mendocino County ERA vs. Average by Asset Range

55 of 73 funds provided fee data for this time period

Administrative Expenses	Mendocino County ERA	Under \$500 Million	\$500mm - \$1 Billion	\$1 - \$5 Billion	\$5 - \$10 Billion	\$10 - \$20 Billion	Over \$20 Billion
Internal Inv. Div. Staff	2.16	2.16	0.00	2.16	0.74	0.77	1.92
Actuary	2.49	2.49	1.05	0.59	0.24	0.12	0.12
Legal	1.68	1.68	1.06	0.84	0.27	0.25	0.15
Consultant	0.15	0.15	0.00	0.21	0.09	0.09	0.13
Audit	0.87	0.87	0.43	0.23	0.10	0.06	0.08
Other Professional	0.00	0.00	0.46	0.25	0.07	0.17	0.54
General Administrative	22.93	22.93	7.93	7.84	4.78	4.69	3.20
<b>Total Administrative Expenses</b>	<b>30.28</b>	<b>30.28</b>	<b>10.94</b>	<b>12.12</b>	<b>6.29</b>	<b>6.15</b>	<b>6.15</b>
Investment Expenses	Mendocino County ERA	Under \$500 Million	\$500mm - \$1 Billion	\$1 - \$5 Billion	\$5 - \$10 Billion	\$10 - \$20 Billion	Over \$20 Billion
Custodial	0.53	0.53	3.90	1.31	0.49	0.52	0.31
Investment Consulting	3.41	3.41	2.11	2.07	0.60	0.74	0.45
US Equity	0.26	0.26	9.62	8.83	6.31	2.84	2.70
International Equity	3.86	3.86	8.55	6.37	6.31	5.54	4.09
Global Equity	0.00	0.00	0.00	1.76	5.73	1.73	1.40
Fixed Income	0.00	0.00	5.99	5.19	4.17	3.64	3.45
Real Estate	0.00	0.00	8.07	6.86	8.01	4.60	7.15
Other Investment Management	0.00	0.00	0.00	1.16	1.03	1.01	0.80
<b>Total Investment Expenses (ex. Alt Inv)</b>	<b>8.07</b>	<b>8.07</b>	<b>38.24</b>	<b>33.55</b>	<b>32.66</b>	<b>20.63</b>	<b>20.36</b>
Alternative Investments	0.00	0.00	3.25	16.34	14.34	17.45	22.29
<b>Total Investment Expenses</b>	<b>8.07</b>	<b>8.07</b>	<b>41.49</b>	<b>49.89</b>	<b>47.00</b>	<b>38.07</b>	<b>42.65</b>
<b>Total Expenses</b>	<b>38.35</b>	<b>38.35</b>	<b>52.43</b>	<b>62.01</b>	<b>53.30</b>	<b>44.22</b>	<b>48.80</b>

Expressed in basis points on total fund assets. Funds that did not provide fee data will not appear in the table.



### Miscellaneous Comments

- Performance shown is gross of fees, with the exception of the following:
  - **Funds 31, 49, 350, and 351:** Performance shown is net of fees.
  - **Funds 5 and 20:** Performance shown is net of fees, except for Total Fund performance.
- Performance shown is calculated using quarterly performance provided by participating public funds.
- Performance shown may differ from a fund's actual performance due to rounding.
- Net Assets Available for Benefit includes funding percentage valuation as of dates between June 2015 and June 2016.
- Allocations shown reflect dedicated managers/mandates rather than actual exposure, with the exception of the following:
  - **Funds 1, 29, and 119:** Performance shown for Global Fixed Income includes US and Non-US exposure.
  - **Funds 4, 42, and 64:** Performance shown for US Fixed Income includes US and Non-US exposure.

### Glossary of Terms

**Beta** - A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk.

**Return** - Compounded rate of return for the period.

**%Return** - The time-weighted rate of return of a portfolio for a specified time period.

**Sharpe Ratio** - Represents the excess rate of return over the risk-free return (i.e., BofA ML 3 Mo US T-Bill Index), divided by the standard deviation of the excess return. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance.

**Standard Deviation** - A statistical measure of the range of a portfolio's performance. The variability of a return around its average return over a specified time period. Calculation is based on quarterly periodicity.



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