

1ST QUARTER • 2023

# ENDOWMENTS QUARTERLY

A LOOK AT ASSET ALLOCATION AND TOTAL RETURNS FOR US ENDOWMENTS AND FOUNDATIONS

## TRAILING ONE-YEAR RESULTS

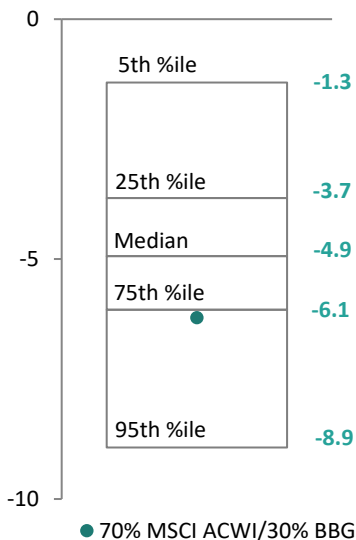
The median return of the endowment and foundation universe was -4.9% for the trailing one-year period (Figure 1) ended March 31, 2023. A blended index return consisting of 70% MSCI ACWI and 30% Bloomberg Aggregate Bond Index earned -6.2% and would have landed within the bottom performance quartile of the respondent group. The average combined allocation to public equity and private equity/venture capital (PE/VC) exceeded 60%, although the exact breakdown across these strategies varies. Asset size continues to be the key differentiator in the variation of asset allocations across the total participant group. Institutions with portfolios less than \$100 million had the highest mean allocation to public equity (50.8%), while those with portfolios greater than \$3 billion had the highest mean allocation to PE/VC (26.5%).

**FIGURE 1 PERFORMANCE AND ASSET ALLOCATION SNAPSHOT**

Period Ended March 31, 2023 • Percent (%)

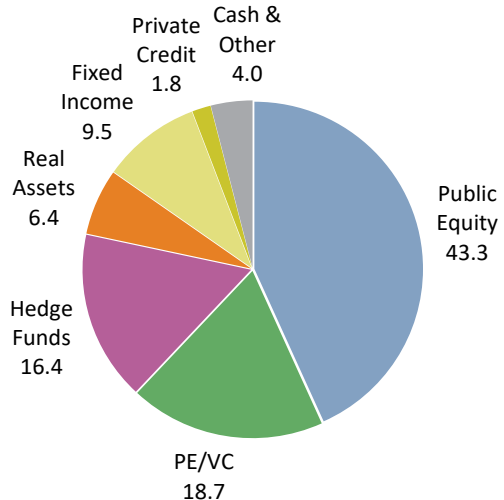
### Trailing 1-Yr Return

n = 371



### Mean Average Asset Allocation

n = 372



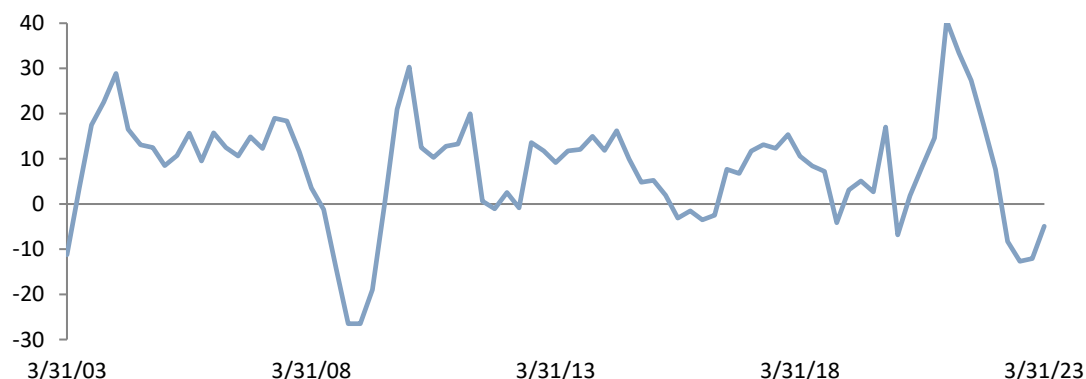
Sources: Endowment and foundation data as reported to Cambridge Associates LLC. Index data are provided by Bloomberg Index Services Limited and MSCI Inc. MSCI data provided "as is" without any express or implied warranties.

Figure 2 incorporates performance data that Cambridge Associates (CA) has collected from endowments and foundations for the last 20 years and shows the median one-year

return on a rolling basis. While the median return for this most recent one-year period was negative, it is an improvement compared to what was reported over the last three quarters. Of the 81 trailing one-year returns plotted on this graph, just 18 (22%) represented a period where the median return was negative.

**FIGURE 2 TRAILING ONE-YEAR MEDIAN RETURNS**

Quarters Ended March 31, 2003 – March 31, 2023



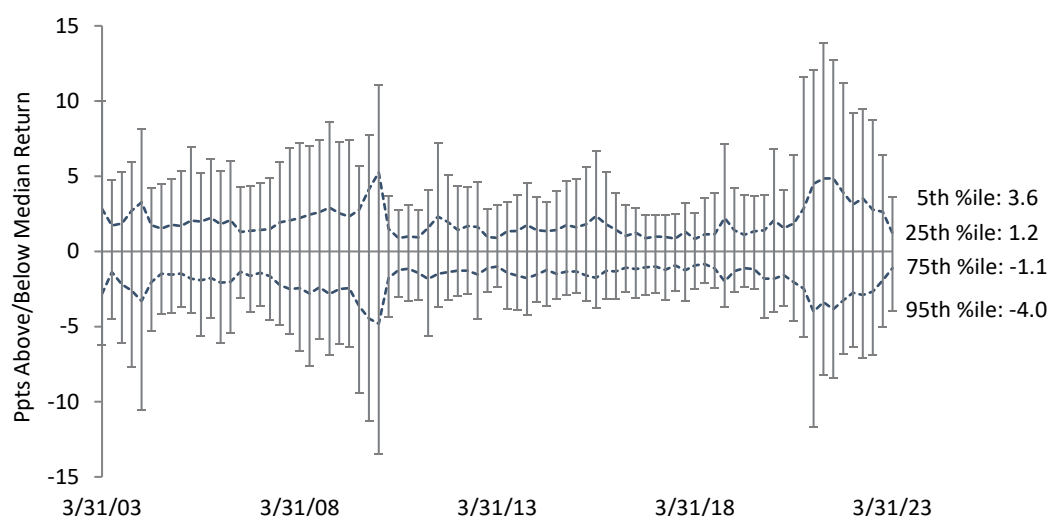
Source: Endowment and foundation data as reported to Cambridge Associates LLC.

Note: The number of institutions included in the median calculation varies from one period to the next and is smaller in earlier years compared to the present day.

Figure 3 shows the percentage points (ppts) above or below the median that certain percentile returns were for trailing one-year periods. For example, the 5th percentile return (-1.3%) for the most recent one-year period was 3.6 ppts above the median return. The spread between the 5th percentile and the 95th percentile return (-8.9%) was 7.6 ppts. The overall range in returns has narrowed considerably over recent periods and is the smallest spread reported since 2019.

**FIGURE 3 DISPERSION IN TRAILING 1-YR RETURNS RELATIVE TO THE MEDIAN RETURN**

Based on Quarters Ended March 31, 2003 – March 31, 2023



Source: Endowment and foundation data as reported to Cambridge Associates LLC.

**PRIVATE INVESTMENT REPORTING METHODOLOGIES.** In each edition of this study, we highlight the different reporting methodologies used to incorporate private investments into the total return calculation. This issue is an important factor to keep in

mind when conducting peer performance comparisons for shorter-term periods, and recent market volatility has made this topic particularly noteworthy.

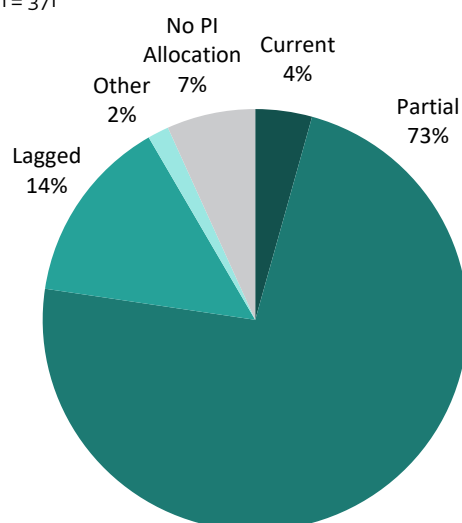
Figure 4 provides an illustration of the most common reporting methodologies used across the peer universe to calculate the one-year return as of March 31. Nearly three-fourths (73%) of institutions used a partial basis calculation, meaning only the first three quarters of private investment returns were incorporated into the one-year total portfolio return. The unique feature of this methodology is that private investments get carried at a 0% return for the last quarter of the trailing one-year period. As March 31 private investment valuations become available, the 0% return will be replaced with actual private investment performance and the trailing one-year return for the total portfolio will be revised.

**FIGURE 4 PERFORMANCE REPORTING METHODOLOGIES: PRIVATE INVESTMENTS**

As of March 31, 2023

#### All Endowments & Foundations

n = 371



#### Current Basis

Trailing one-year period includes private investment performance for April 1, 2022, to March 31, 2023.

#### Partial Basis

Trailing one-year period includes private investment performance for April 1, 2022, to December 31, 2022, and a flat return (0%) for January 1, 2023, to March 31, 2023.

#### Lagged Basis

Trailing one-year period includes private investment performance for January 1, 2022, to December 31, 2022.

Marketable Assets			
2Q22	3Q22	4Q22	1Q23
Private Investments			

Marketable Assets				
2Q22	3Q22	4Q22	1Q23	
Actual Return				0%
Private Investments				

Marketable Assets				
1Q22	2Q22	3Q22	4Q22	1Q23
Private Investments				

Source: Endowment and foundation data as reported to Cambridge Associates LLC.

The remaining institutions in the universe are already reporting a total return that incorporates four quarters of private investment performance. Under the lagged basis, which was cited by 14% of participants, private investment valuations are perpetually lagged by one quarter so that the one-year return represents private investment performance from January 1, 2022, to December 31, 2022. In contrast, under the current basis, the four quarters of private investment performance are time-matched with other assets in the portfolio and reflect investment activity from April 1, 2022, to March 31, 2023. Just 4% of institutions used the current basis method when reporting returns for this study. Approximately 7% of the peer universe has little (<1%) or no allocation to private investments.

Figure 5 uses the CA private index returns to demonstrate how each reporting methodology incorporates private investment performance for the one year ended March 31. Those using the lagged methodology are the only institutions that incorporated private

investment returns for first quarter 2022, which saw strong returns for real assets and smaller gains for private credit and distressed strategies. However, these gains were offset by negative performance for PE/VC, which makes up the bulk of private investment exposure for most institutions.

**FIGURE 5 CAMBRIDGE ASSOCIATES PRIVATE INVESTMENT INDEX RETURNS**

	One Quarter End-to-End Pooled Return (%)				Preliminary
	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
US Private Equity	-0.1	-5.0	-0.2	0.9	NA
Global ex US Private Equity	-3.4	-6.2	-5.1	5.4	NA
US Venture Capital	-3.9	-9.4	-2.3	-6.9	NA
Global ex US Venture Capital	-2.5	-6.2	-3.8	-0.3	NA
Private Credit	2.1	-1.6	-0.1	3.5	2.6
Distressed Control - Oriented	3.2	-1.1	-0.2	2.0	1.5
Real Estate	4.5	-0.5	-1.3	0.1	NA
Natural Resources	10.8	3.4	1.8	3.0	-0.8

Lagged Basis
Partial Basis
Current Basis

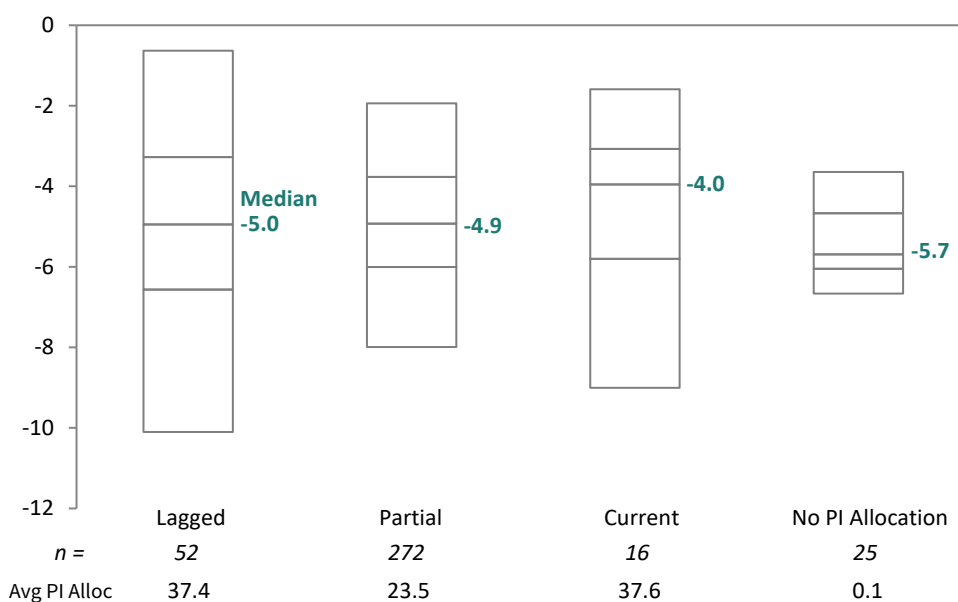
Source: Cambridge Associates LLC.

Note: NA indicates that the sample size was too small at this time to report data.

The inclusion of four quarters of private investment performance did not give the lagged basis much, if any, of a comparative advantage over the partial methodology for one-year returns reported in this study. As Figure 6 shows, the median return for institutions using the lagged methodology was nearly identical to the median for those using the partial methodology. The median return was highest for the subgroup using the current basis, although it should be noted that cohort represents a very small subset ( $n = 16$ ) of the overall peer group.

**FIGURE 6 RANGE OF 1-YR RETURNS BY PRIVATE INVESTMENT REPORTING METHODOLOGY**

As of March 31, 2023 • Percent (%)



Source: Endowment and foundation data as reported to Cambridge Associates LLC.

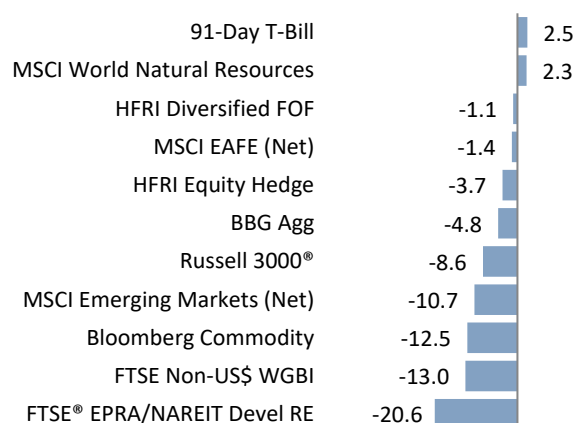
Note: Excluded from this analysis are six institutions that reported "Other," which is typically a combination of the Partial and Current methodologies.

**ONE-YEAR ASSET ALLOCATION.** The heat map analysis in Figure 7 explores the relationship between peer asset allocations and performance. The index returns in the top half provide context on the capital market environment for the trailing one-year period. Private investment indexes are pooled horizon internal rates of return (IRRs) net of fees, expenses, and carried interest, and public indexes are time-weighted returns. Included alongside the private benchmark IRRs are public market returns on a modified public market equivalent basis (mPME). The CA mPME replicates private investment performance under public market conditions and allows for an appropriate comparison of private and public market returns. The mPME analysis evaluates what return would have been earned had the dollars invested in private investments been allocated to the public market index instead. Since most participants used the partial methodology to calculate returns for this study, the private investment and mPME indexes are aligned with this methodology and reported for the trailing nine months ended December 31, 2022.

**FIGURE 7 1-YR INDEX RETURNS AND ASSET ALLOCATION OF TOP AND BOTTOM PERFORMERS: US ENDOWMENTS AND FOUNDATIONS**

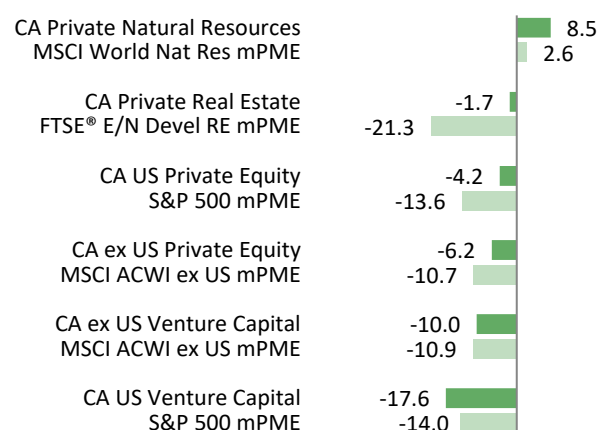
**Public Indexes**

Trailing 1 Year as of 3/31/23



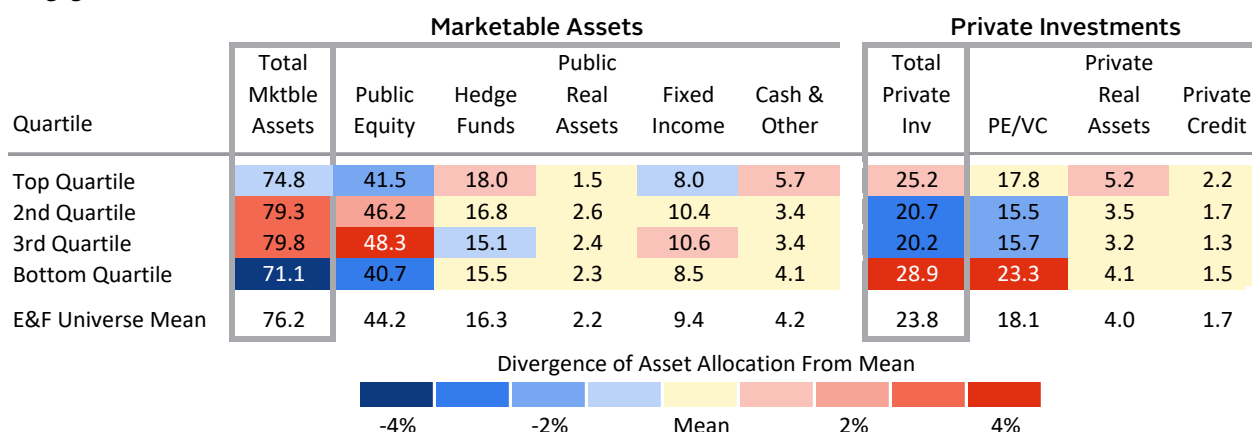
**Private Index IRRs and mPME IRRs**

Trailing 9 Months as of 12/31/22



**Mean Asset Allocation by Performance Quartile: March 31, 2022, to March 31, 2023**

*n* = 363



Sources: Endowment and foundation data as reported to Cambridge Associates LLC. Index data are provided by Bloomberg Index Services Limited, Cambridge Associates LLC, Frank Russell Company, FTSE International Limited, Hedge Fund Research, Inc., MSCI Inc., the National Association of Real Estate Investment Trusts, Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

In the heat map table on the bottom, each institution's asset allocation was averaged across the beginning and ending points for the trailing one-year period. The four quartiles represent the average asset allocation of the institutions within each quartile. When we conduct this analysis, we expect the takeaways from the index comparisons to be compatible with the differentials in peer allocation data reported in the table. For this period, the top quartile of performers had the highest average allocations to hedge funds, private real assets, and cash, which were among the top-performing asset classes in the index charts.

However, the analysis paints a murkier picture when it comes to equity allocations. For public equities, the bottom performance quartile reported the lowest average public equity allocation (40.7%) and the top quartile average was not that much different (41.5%). The middle 50% of the universe had an average public equity allocation that was noticeably higher. For PE/VC, the bottom performance quartile had the highest average allocation (23.3%), while allocations for the other three quartiles were bunched relatively close together. When drilling down further into private investment allocations, we see that the bottom performance quartile had an average allocation to venture capital that was substantially higher than the rest of the universe (Figure 8). This makes sense, given that the CA US Venture Capital Index was one of the lowest-performing benchmarks over the last year.

**ONE-YEAR ATTRIBUTION.** The implementation of the asset allocation is another important piece to consider when comparing peer returns. Our analysis in Figure 9 estimates how much of peer performance can be attributed to asset allocation structures versus what can be attributed to the implementation of those allocations. For each participating institution, we have calculated a blend of representative asset class indexes that is weighted according to their beginning year asset allocation. This is the amount of return that can be explained by the institution's asset allocation heading into the one-year period.

**FIGURE 8 MEAN PE/VC ALLOCATION BY PERFORMANCE QUARTILE**

**March 31, 2022, to March 31, 2023**

*n = 363*

Quartile	Private Equity & Venture Capital			
	Total PE/VC	Venture Capital	Non-Venture Private Equity	Other Private Invest
Top Quartile	17.8	6.8	8.3	2.7
2nd Quartile	15.5	6.3	6.7	2.5
3rd Quartile	15.7	7.0	6.3	2.4
Bottom Quartile	23.3	12.8	7.6	2.9
E&F Universe Mean	18.1	8.2	7.2	2.6

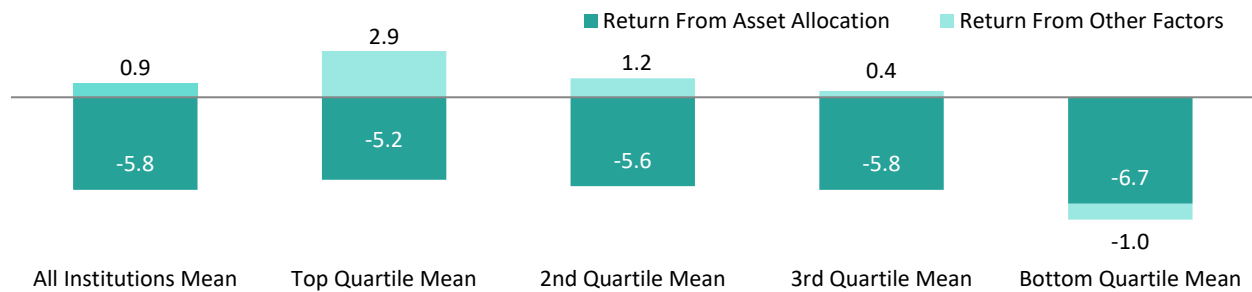
Sources: Endowment and foundation data as reported to Cambridge Associates LLC.

Note: Other private investments represents secondaries and multi-strategy fund-of-funds that cannot be allocated solely to venture capital or non-venture private equity.

# FIGURE 9 1-YR RETURN ATTRIBUTION ANALYSIS BY PERFORMANCE QUARTILE: US ENDOWMENTS AND FOUNDATIONS

As of March 31, 2023 • Percent (%) • n = 364

## 1-Yr Return Attribution Analysis by Quartile



## Breakdown of Return From Asset Allocation

Asset Class	Mean Beginning Year Asset Allocation	Asset Class Benchmark Return	Contribution to Asset Class Return
Private Oil & Gas/Natural Resources	1.9	8.4	0.2
Cash & Equivalents	3.9	2.5	0.1
Private Credit	1.1	1.8	0.0
Public Energy/Natural Resources	0.9	2.3	0.0
Distressed-Private Equity Structure	0.5	0.7	0.0
Global ex US Bonds	0.0	-13.0	0.0
High Yield Bonds	0.3	-3.3	0.0
Private Real Estate	1.8	-1.7	0.0
Other	0.5	-6.2	0.0
Global Bonds	0.3	-9.6	0.0
Inflation-Linked Bonds	0.5	-6.1	0.0
Distressed-Hedge Fund Structure	1.0	-4.6	0.0
Commodities	0.4	-12.5	0.0
Absolute Return (ex Distressed)	8.6	-1.1	-0.1
Public Real Estate	0.5	-20.6	-0.1
Global ex US Equity-Developed Mkts	9.9	-1.4	-0.1
Other Private Investments	2.5	-8.0	-0.2
Long/Short Hedge Funds	6.6	-3.7	-0.2
Non-Venture Private Equity	6.8	-4.3	-0.3
US Bonds	8.6	-4.8	-0.4
Global ex US Equity-Emerging Mkts	4.6	-10.7	-0.5
Global Equity	9.7	-7.2	-0.7
Venture Capital	8.5	-17.6	-1.6
US Equity	20.5	-8.6	-1.8

Source: Endowment and foundation data as reported to Cambridge Associates LLC.

Note: Private investment benchmark returns are for the period of 4/1/22 to 12/31/22.

The portion of return that comes from other factors is calculated by subtracting the asset allocation return from the actual total return that the institution earned. This “other” portion of returns is mostly driven by implementation or execution decisions, which can include active management and manager selection. In addition, this other portion of return will account for any decision to modify the asset allocation structure or rebalance the portfolio allocations throughout the course of the one-year period.

## CA US ENDOWMENT & FOUNDATION UNIVERSE AT A GLANCE

The Cambridge Associates US endowment and foundation universe includes colleges and universities, cultural and environmental institutions, healthcare institutions, independent schools, and other endowed nonprofit institutions as well as foundations. This report provides asset allocation and return analyses for

**373** US endowments and foundations that participated in our quarterly survey

**\$1.8B** Average market value of participating long-term investment portfolios

**\$361M** Median value

Returns are reported net of external manager fees for 372 of 373 institutions in this universe. Past Cambridge Associates surveys have shown that approximately 10% to 15% of institutions also deduct investment oversight costs in the net of fee calculation.

The average data for the four performance quartiles show that implementation contributed more to the dispersion in peer returns than asset allocation did for the trailing one-year period. The average asset allocation return for the top performance quartile was -5.2%, which was 150 basis points (bps) higher than the average for the bottom quartile. Top performers added an average of 2.9% through implementation, 390 bps higher than the average for the bottom quartile (-1.0%).

The table on the bottom of Figure 9 shows each asset class's contribution to the average asset allocation return of the overall universe. Each category's contribution is a function of its benchmark return for the one-year period, as well as the participant group's average allocation to the category. This analysis also accounts for the method in which each institution incorporates private investment performance in their one-year return calculation. Positive contributions to the average asset class return came from natural resources and cash. However, these contributions were dwarfed by the sum of the negative contributions from most of the other asset classes, most notably from venture capital and US equity.

## TRAILING TEN-YEAR RESULTS

The median trailing ten-year return was 6.7% (Figure 10). Returns ranged from 9.3% at the 5th percentile to 4.9% at the 95th percentile. The simple 70/30 index return earned 6.5% and would have landed in the middle of the third performance quartile of the respondent group.

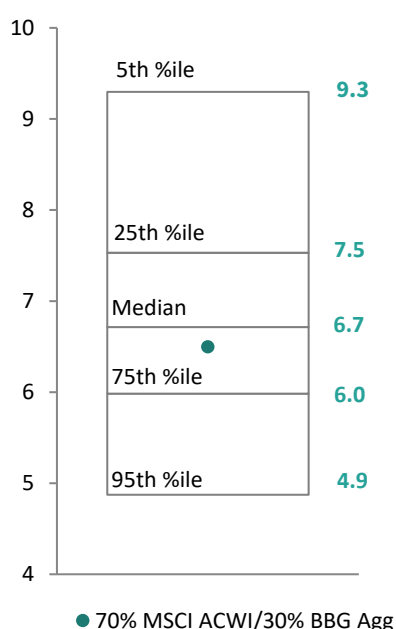


**FIGURE 10 10-YR PERFORMANCE AND ASSET ALLOCATION SNAPSHOT**

Percent (%)

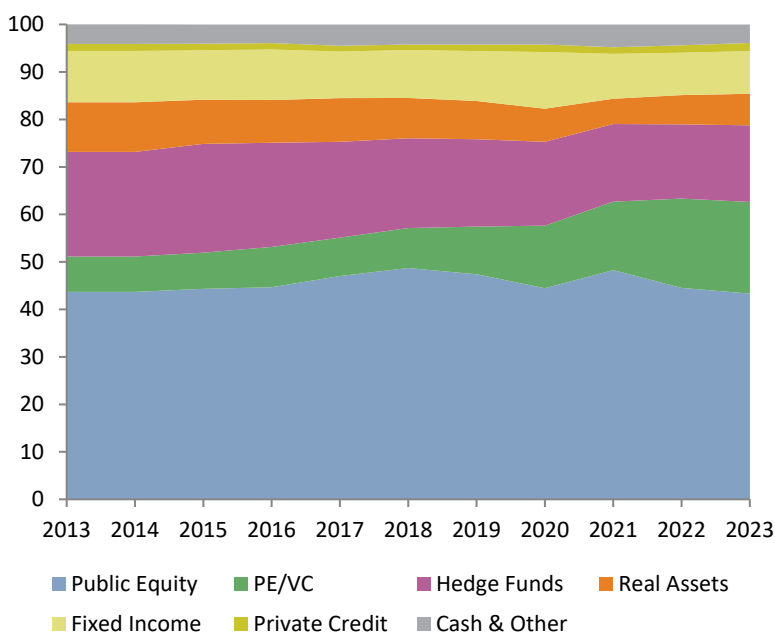
**Trailing 10-Yr Return**

Period Ended March 31, 2023 • n = 344



**Trend in Mean Average Asset Allocation**

Periods Ended March 31 • n = 245



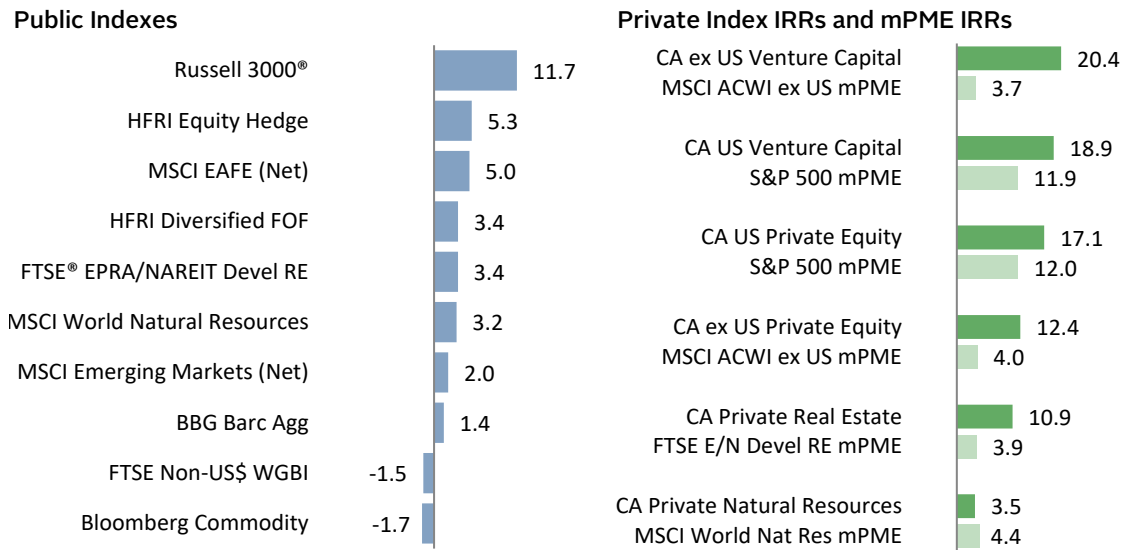
Sources: Endowment and foundation data as reported to Cambridge Associates LLC. Index data are provided by Bloomberg Index Services Limited and MSCI Inc. MSCI data provided "as is" without any express or implied warranties.

There were several meaningful shifts over the past ten years to the average asset allocation mix for participants. The average PE/VC allocation more than doubled over the last decade, growing by 11.9 ppts across this period. The biggest decline in allocations was to hedge funds, where the average allocation in 2023 was 5.9 ppts lower than it was in 2013. And despite ticking up a bit over the last two years, the average real assets allocation in 2023 was 3.8 ppts lower than ten years ago.

**TEN-YEAR ASSET ALLOCATION.** Figure 11 explores the relationship between peer returns and asset allocations for the trailing ten-year period. In this analysis, the participant group is broken down into four quartiles based on the trailing ten-year investment return. Each institution's asset allocation was averaged across the 11 periods ended March 31 that fell from 2013 to 2023. The four quartiles in the heat map represent the average of the institutions within each quartile.

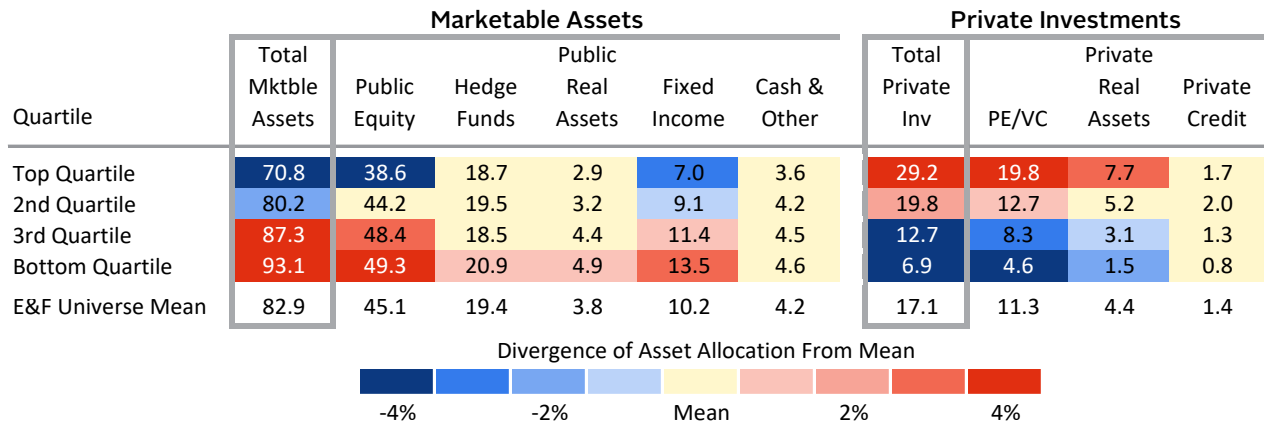
Most of the private investment indexes outperformed their mPME benchmarks by significant margins over the past decade. As would be expected, given the market backdrop, the top quartile of performers over this period reported an average allocation to private investments that was considerably higher than the other performance quartiles. The average private investment allocation was 29.2% for the top quartile of performers over this ten-year period and just 6.9% for the bottom quartile of performers. In addition, the top quartile's average allocations to public equities (38.6%) and fixed income (7.0%) were significantly lower than that of the bottom quartile, which were 49.3% and 13.5%, respectively.

**FIGURE 11 10-YR INDEX RETURNS AND ASSET ALLOCATION OF TOP AND BOTTOM PERFORMERS: US ENDOWMENTS AND FOUNDATIONS**



**Mean Asset Allocation by Performance Quartile: March 31, 2013, to March 31, 2023**

*n* = 240



Sources: Endowment and foundation data as reported to Cambridge Associates LLC. Index data are provided by Bloomberg Index Services Limited, Cambridge Associates LLC, Frank Russell Company, FTSE International Limited, Hedge Fund Research, Inc., MSCI Inc., the National Association of Real Estate Investment Trusts, Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Figure 12 organizes participants into five subgroups based on each institution's trailing ten-year average allocation to total private investments. The median ten-year return for portfolios with an allocation of over 30% to private investments was 8.7%, approximately 300 bps higher than the median return reported by portfolios with little to no private investment allocation. The distribution of returns for the five subgroups shows a wide range of results, a disclaimer that not all portfolios with the highest private investment allocations earn top performance. However, these ten-year analyses show that allocations to private investments generally are a key factor in a portfolio's relative performance within the overall participant group over the long term. Institutions that benchmark peer performance should consider the subgroup median that aligns with their own private investment allocation as an alternative or complement to the peer medians that they already use.

**FIGURE 12 RANGE OF 10-YR RETURNS BY PRIVATE INVESTMENT ALLOCATION**

As of March 31, 2023 • Percent (%)



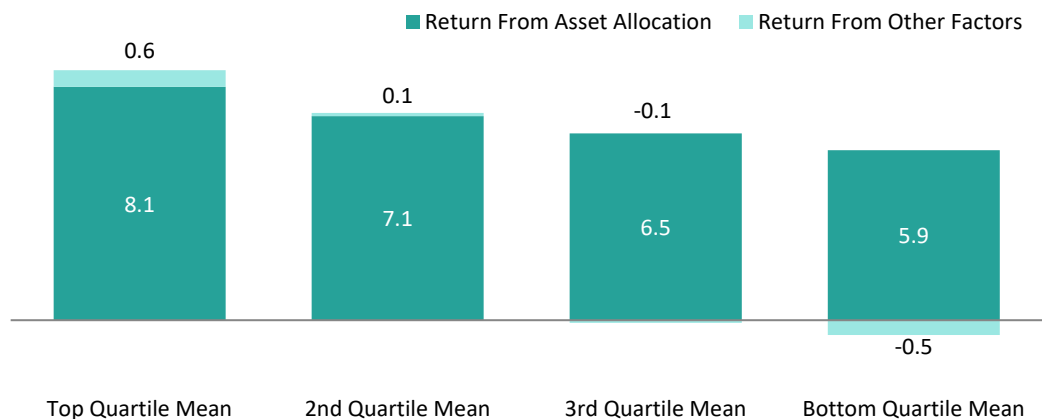
Source: Endowment and foundation data as reported to Cambridge Associates LLC.

Note: Each institution's private investment allocation represents the mean for the 11 March 31 periods from 2013 to 2023.

**TEN-YEAR ATTRIBUTION.** The attribution model also indicates asset allocation factors were the primary reason that top performers separated themselves from the rest of the peer universe over the trailing ten-year period. Figure 13 shows that the top performance quartile had a mean asset allocation return of 8.1% for the trailing ten-year period, approximately 220 bps higher than the bottom performance quartile. The top performance quartile also added another 0.6% on average from other factors, while the bottom performance quartile lost an average of 0.5%.

**FIGURE 13 10-YR ATTRIBUTION ANALYSIS BY PERFORMANCE QUARTILE: US ENDOWMENTS AND FOUNDATIONS**

As of March 31, 2023 • Percent (%) • n = 241



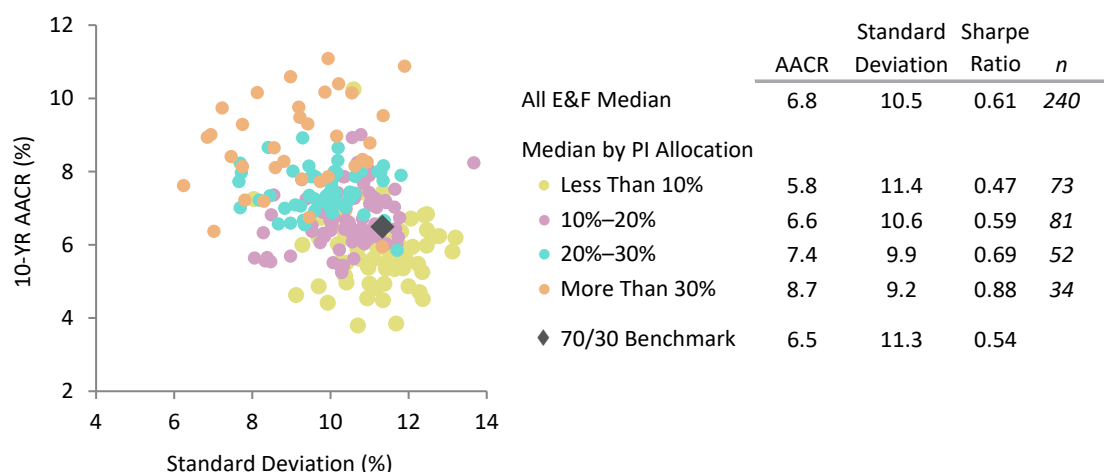
Source: Endowment and foundation data as reported to Cambridge Associates LLC.

**SHARPE RATIO.** Risk-adjusted performance is important to evaluate, as it measures the total return relative to the total amount of risk taken by the portfolio. The most common approach to measuring risk-adjusted performance is by the Sharpe ratio, which shows how much return above the risk-free rate (T-bills) the investor has earned per unit of risk (defined as the standard deviation of returns). The higher the Sharpe ratio, the more the investor has been compensated for each unit of risk taken.

Risk-adjusted performance comparisons can be impacted when portfolios have significant allocations to private investments. The frequency and timing of private investment valuations can lead to a lower standard deviation of returns for these assets. Thus, a portfolio with high allocations to private investments can yield a lower volatility statistic relative to portfolios that have higher public equity allocations. For this reason, Figure 14 shows subcategories based on an institution's private investment allocation.

**FIGURE 14 10-YR STANDARD DEVIATION AND SHARPE RATIO**

Periods Ended March 31, 2023



Sources: Endowment and foundation data as reported to Cambridge Associates LLC. Index data are provided by Bloomberg Index Services Limited, Frank Russell Company, and MSCI Inc. MSCI data provided "as is" without any express or implied warranties.

The median Sharpe ratio was 0.88 for institutions that had an allocation of more than 30% to private investments over the last ten years. This cohort's ratio was higher than that of the other subgroups with smaller private investment allocations, and the blended global benchmark. While the higher Sharpe ratio was partly a function of a higher median return, it was also attributable to fact that this group had the lowest median standard deviation. ■

## NOTES ON THE DATA

Returns for periods greater than one year are annualized.

The 70/30 simple portfolio benchmarks are calculated assuming rebalancing occurs on the final day of each quarter.

The MSCI indexes contained in this report are net of dividend taxes for global ex US securities.

Hedge Fund Research data are preliminary for the preceding five months.

Figures 4 and 6: Institutions with no significant private investment allocations (less than 1% of the total portfolio) are reflected in the No PI Allocation category.

Figure 9: To be consistent with the methodology in which private investment returns are incorporated into the total portfolio composite calculation, private investment benchmark data represent quarterly end-to-end returns that have been compounded.

Figure 14: Analysis includes only institutions that provided underlying quarterly returns and asset allocation for the ten years. Each institution's private investment allocation represents the mean for the 11 March 31 periods from 2013 to 2023. The Global 70/30 benchmark is composed of 70% MSCI ACWI/30% Bloomberg Aggregate Bond Index.

## Appendix: Figures A–E

**FIGURE A DETAILED ASSET ALLOCATION BY PEER GROUP: US ENDOWMENTS AND FOUNDATIONS**

As of March 31, 2023 • Percent (%)

	Colleges & Universities <i>n</i> = 122	Cultural & Environmental 48	Foundations 100	Healthcare 33	Independent Schools 29	Other Nonprofits 40
	Mean	Mean	Mean	Mean	Mean	Mean
<b>Public Equity</b>	<b>40.6</b>	<b>45.0</b>	<b>42.7</b>	<b>42.3</b>	<b>44.8</b>	<b>50.3</b>
Global	8.4	10.0	9.4	6.8	10.1	13.8
US	18.7	20.8	19.4	20.3	21.8	21.3
Global ex US Developed	9.5	10.3	9.5	10.7	9.3	10.9
Emerging Markets	4.1	3.8	4.5	4.4	3.6	4.4
<b>PE/VC</b>	<b>22.6</b>	<b>15.9</b>	<b>20.8</b>	<b>15.1</b>	<b>14.5</b>	<b>11.2</b>
Venture Capital	10.0	7.3	9.5	6.7	4.8	4.0
Non-Venture Private Equity	9.8	6.5	7.9	6.6	7.0	4.1
Other Private Investments	2.8	2.1	3.4	1.7	2.7	3.2
<b>Hedge Funds</b>	<b>15.0</b>	<b>18.8</b>	<b>14.0</b>	<b>16.9</b>	<b>21.5</b>	<b>19.6</b>
Long/Short	5.9	7.6	4.9	6.3	11.2	6.7
Absolute Return	8.1	10.4	8.4	9.2	10.0	11.6
Distressed	1.0	0.9	0.7	1.4	0.3	1.3
<b>Real Assets &amp; ILBs</b>	<b>7.6</b>	<b>5.1</b>	<b>6.7</b>	<b>5.6</b>	<b>4.8</b>	<b>5.0</b>
Private Real Estate	2.7	1.5	2.5	1.7	0.9	1.2
Public Real Estate	0.5	0.4	0.3	0.4	0.2	0.4
Commodities	0.3	0.3	0.3	0.3	0.6	0.1
Inflation Linked-Bonds	0.4	0.6	0.6	0.6	0.8	0.9
Private O&G/Nat Resources	3.0	1.8	2.4	1.7	1.6	1.3
Public Energy/Nat Resources	0.7	0.6	0.7	0.8	0.9	1.1
<b>Bonds</b>	<b>8.4</b>	<b>8.6</b>	<b>10.2</b>	<b>13.0</b>	<b>7.4</b>	<b>10.5</b>
Global	0.1	0.4	0.3	0.3	0.0	0.6
US	8.0	8.0	9.6	12.4	7.3	9.9
Global ex US	0.0	0.0	0.0	0.1	0.0	0.0
High-Yield Bonds	0.3	0.2	0.2	0.2	0.1	0.0
<b>Private Credit</b>	<b>2.0</b>	<b>1.4</b>	<b>1.9</b>	<b>2.2</b>	<b>1.9</b>	<b>0.9</b>
Distressed - Control Oriented	0.8	0.4	0.6	0.7	0.7	0.2
Private Credit ex Distressed	1.2	1.0	1.3	1.5	1.2	0.6
<b>Cash &amp; Equivalents</b>	<b>3.2</b>	<b>5.0</b>	<b>3.2</b>	<b>4.5</b>	<b>4.3</b>	<b>2.3</b>
<b>Other Assets</b>	<b>0.6</b>	<b>0.1</b>	<b>0.4</b>	<b>0.5</b>	<b>0.8</b>	<b>0.3</b>

Source: Endowment and foundation data as reported to Cambridge Associates LLC.

## FIGURE B DETAILED ASSET ALLOCATION BY ASSET SIZE: US ENDOWMENTS AND FOUNDATIONS

As of March 31, 2023 • Percent (%)

	All Endow & Fdn <i>n</i> = 372	Less Than \$100M <i>64</i>	\$100M– \$200M <i>67</i>	\$200M– \$500M <i>78</i>	\$500M– \$1B <i>44</i>	\$1B– \$3B <i>65</i>	More Than \$3B <i>54</i>
	Mean	Mean	Mean	Mean	Mean	Mean	Mean
<b>Public Equity</b>	<b>43.3</b>	<b>50.8</b>	<b>46.1</b>	<b>46.6</b>	<b>42.1</b>	<b>37.7</b>	<b>33.7</b>
Global	9.5	12.6	9.9	9.7	6.6	9.0	7.7
US	19.8	23.2	21.2	22.7	20.6	15.8	14.1
Global ex US Developed	9.8	11.0	11.0	10.0	10.5	9.2	6.9
Emerging Markets	4.2	4.0	3.9	4.2	4.4	3.7	5.0
<b>PE/VC</b>	<b>18.7</b>	<b>11.8</b>	<b>15.6</b>	<b>16.4</b>	<b>20.6</b>	<b>23.8</b>	<b>26.5</b>
Venture Capital	8.2	4.9	6.1	6.3	8.5	10.6	14.1
Non-Venture Private Equity	7.7	3.5	4.8	6.9	9.4	11.9	11.3
Other Private Investments	2.8	3.4	4.7	3.2	2.7	1.2	1.1
<b>Hedge Funds</b>	<b>16.4</b>	<b>15.2</b>	<b>17.9</b>	<b>16.1</b>	<b>14.8</b>	<b>17.2</b>	<b>16.6</b>
Long/Short	6.4	6.4	6.7	6.2	4.8	6.6	7.1
Absolute Return	9.1	8.6	10.7	9.1	8.6	9.1	8.1
Distressed	0.9	0.2	0.5	0.8	1.4	1.4	1.4
<b>Real Assets &amp; ILBs</b>	<b>6.4</b>	<b>4.3</b>	<b>4.9</b>	<b>5.1</b>	<b>7.6</b>	<b>6.9</b>	<b>10.9</b>
Private Real Estate	2.1	0.8	0.8	1.2	3.1	2.8	4.9
Public Real Estate	0.4	0.5	0.3	0.3	0.5	0.4	0.4
Commodities	0.3	0.2	0.2	0.2	0.4	0.2	0.7
Inflation Linked–Bonds	0.6	0.6	0.9	0.7	0.5	0.3	0.5
Private O&G/Nat Resources	2.3	1.1	1.6	2.1	2.5	2.6	4.1
Public Energy/Nat Resources	0.7	1.1	1.1	0.6	0.6	0.7	0.3
<b>Bonds</b>	<b>9.5</b>	<b>12.4</b>	<b>10.3</b>	<b>10.1</b>	<b>9.3</b>	<b>7.3</b>	<b>6.9</b>
Global	0.3	0.4	0.2	0.1	0.4	0.4	0.2
US	8.9	11.8	10.0	9.9	8.7	6.7	5.9
Global ex US	0.0	0.0	0.0	0.0	0.0	0.0	0.2
High-Yield Bonds	0.2	0.3	0.1	0.0	0.2	0.2	0.6
<b>Private Credit</b>	<b>1.8</b>	<b>1.0</b>	<b>1.4</b>	<b>1.7</b>	<b>2.4</b>	<b>2.5</b>	<b>2.1</b>
Distressed - Control Oriented	0.6	0.3	0.4	0.5	1.0	0.8	0.8
Private Credit ex Distressed	1.2	0.7	1.0	1.1	1.3	1.7	1.3
<b>Cash &amp; Equivalents</b>	<b>3.6</b>	<b>3.9</b>	<b>3.5</b>	<b>3.2</b>	<b>3.1</b>	<b>4.4</b>	<b>3.0</b>
<b>Other Assets</b>	<b>0.5</b>	<b>0.5</b>	<b>0.3</b>	<b>0.8</b>	<b>0.1</b>	<b>0.3</b>	<b>0.5</b>

Source: Endowment and foundation data as reported to Cambridge Associates LLC.

# FIGURE C NOMINAL TOTAL RETURN SUMMARY BY ASSET SIZE: US ENDOWMENTS AND FOUNDATIONS

Periods Ended March 31, 2023 • Percent (%)

	Latest Qtr	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
<b>All Endowments &amp; Foundations</b>						
5th %ile	5.7	7.9	-1.3	16.5	10.0	9.3
25th %ile	4.6	6.2	-3.7	14.5	7.8	7.5
Median	3.8	4.5	-4.9	12.8	6.5	6.7
75th %ile	2.9	2.9	-6.1	11.4	5.5	6.0
95th %ile	1.3	-0.2	-8.9	9.1	4.0	4.9
Mean	3.7	4.4	-4.9	12.9	6.7	6.8
<i>n</i>	373	372	371	370	366	343
<b>Less Than \$100M</b>						
5th %ile	6.4	8.0	-2.6	15.4	7.9	7.5
25th %ile	5.3	7.1	-4.7	12.5	6.0	6.5
Median	4.4	6.0	-5.5	11.5	5.2	6.0
75th %ile	3.5	3.4	-6.4	10.6	4.7	5.4
95th %ile	2.3	1.1	-9.1	8.3	3.3	4.5
Mean	4.3	5.2	-5.7	11.6	5.3	5.9
<i>n</i>	64	64	63	62	61	51
<b>\$100M–\$200M</b>						
5th %ile	5.6	7.9	-2.2	15.0	7.6	7.4
25th %ile	4.9	6.8	-4.1	13.5	6.9	6.7
Median	4.2	5.1	-4.7	12.4	6.1	6.1
75th %ile	3.4	3.3	-5.6	11.3	5.3	5.6
95th %ile	2.1	2.0	-7.6	8.5	3.6	4.5
Mean	4.1	5.1	-4.7	12.3	6.0	6.2
<i>n</i>	67	67	67	67	67	64
<b>\$200M–\$500M</b>						
5th %ile	5.6	7.7	-1.8	15.9	8.5	8.0
25th %ile	4.8	6.2	-3.7	14.6	7.3	7.2
Median	4.0	5.0	-4.7	13.1	6.4	6.5
75th %ile	3.4	3.9	-5.7	11.8	5.5	5.9
95th %ile	2.8	2.3	-7.3	9.3	4.6	5.1
Mean	4.1	5.1	-4.7	13.0	6.5	6.5
<i>n</i>	78	78	78	78	78	75
<b>\$500M–\$1B</b>						
5th %ile	5.1	6.5	-2.0	16.4	8.8	8.0
25th %ile	4.3	5.5	-3.6	14.3	7.7	7.5
Median	3.6	4.5	-4.6	12.8	6.5	6.9
75th %ile	3.0	3.6	-5.4	11.7	6.1	6.4
95th %ile	2.3	1.8	-9.1	9.9	5.1	5.5
Mean	3.6	4.3	-4.9	13.1	6.9	6.9
<i>n</i>	44	44	44	44	44	44
<b>\$1B–\$3B</b>						
5th %ile	4.9	7.3	-0.2	17.4	11.1	9.5
25th %ile	4.0	5.6	-3.2	14.9	8.5	8.2
Median	3.4	4.1	-4.7	13.9	7.8	7.4
75th %ile	2.7	2.5	-5.8	12.2	6.2	6.7
95th %ile	1.3	-0.1	-7.7	10.0	5.0	5.6
Mean	3.4	4.0	-4.4	13.6	7.6	7.5
<i>n</i>	65	65	65	65	64	60
<b>More Than \$3B</b>						
5th %ile	4.8	6.2	-0.9	17.9	11.6	10.5
25th %ile	3.2	3.4	-3.8	15.5	9.9	9.3
Median	2.5	1.7	-5.3	13.4	8.2	8.3
75th %ile	1.4	-0.3	-7.2	11.8	6.7	7.2
95th %ile	-1.3	-2.0	-10.2	10.1	5.6	6.2
Mean	2.3	1.9	-5.4	13.8	8.4	8.3
<i>n</i>	55	54	54	54	52	49

Source: Endowment and foundation data as reported to Cambridge Associates LLC.



# FIGURE D NOMINAL TOTAL RETURN SUMMARY BY PEER GROUP: US ENDOWMENTS AND FOUNDATIONS

Periods Ended March 31, 2023 • Percent (%)

	Latest Qtr	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
<b>Colleges &amp; Universities</b>						
5th %ile	5.5	7.3	-1.3	17.5	10.5	9.8
25th %ile	4.2	5.1	-3.7	15.3	8.5	8.0
Median	3.4	3.9	-5.1	14.1	7.5	7.2
75th %ile	2.6	2.3	-6.1	12.5	6.3	6.5
95th %ile	0.4	-0.5	-9.4	10.5	5.1	5.7
Mean	3.3	3.7	-5.1	13.9	7.6	7.4
<i>n</i>	123	123	122	121	121	118
<b>Cultural &amp; Environmental</b>						
5th %ile	5.9	8.2	-1.3	15.7	8.9	8.2
25th %ile	4.8	6.9	-3.2	13.7	6.9	7.3
Median	4.2	5.2	-4.5	12.6	6.2	6.6
75th %ile	3.3	3.7	-5.8	10.8	5.2	5.8
95th %ile	2.0	1.8	-7.5	9.2	4.0	4.9
Mean	4.1	5.1	-4.5	12.5	6.3	6.6
<i>n</i>	48	48	48	48	47	46
<b>Foundations</b>						
5th %ile	5.6	7.2	-2.0	15.7	9.7	9.2
25th %ile	4.5	5.9	-4.5	14.3	7.7	7.5
Median	3.8	4.2	-5.2	12.4	6.4	6.7
75th %ile	2.9	2.9	-6.5	11.3	5.7	6.0
95th %ile	1.5	-0.7	-9.2	9.1	4.2	5.0
Mean	3.6	4.0	-5.5	12.6	6.7	6.9
<i>n</i>	100	99	99	99	97	89
<b>Healthcare</b>						
5th %ile	5.3	7.6	-3.0	15.5	9.4	8.5
25th %ile	4.7	6.2	-3.8	12.5	6.7	6.8
Median	3.8	4.3	-4.9	11.7	5.9	6.2
75th %ile	2.6	2.6	-5.6	10.6	5.2	5.7
95th %ile	1.5	0.1	-6.6	8.9	4.7	5.0
Mean	3.6	4.2	-4.8	11.7	6.2	6.4
<i>n</i>	33	33	33	33	33	31
<b>Independent Schools</b>						
5th %ile	5.4	7.9	0.2	15.6	7.6	7.7
25th %ile	4.6	6.6	-3.1	13.9	6.8	6.5
Median	4.0	4.7	-4.6	12.3	6.0	6.4
75th %ile	3.6	3.6	-5.9	11.4	5.5	5.7
95th %ile	2.6	2.1	-8.5	8.0	3.3	4.5
Mean	4.0	5.2	-4.3	12.4	6.1	6.2
<i>n</i>	29	29	29	29	29	27
<b>Other Nonprofits</b>						
5th %ile	6.3	8.2	-1.2	14.8	7.6	7.5
25th %ile	5.1	7.2	-3.4	13.4	6.6	6.9
Median	4.3	6.4	-4.6	11.7	5.5	5.9
75th %ile	3.4	4.8	-5.1	11.1	4.7	5.3
95th %ile	2.6	2.1	-6.4	9.2	3.8	4.4
Mean	4.4	5.9	-4.2	11.9	5.6	6.0
<i>n</i>	40	40	40	40	39	32

Source: Endowment and foundation data as reported to Cambridge Associates LLC.

## FIGURE E PRIVATE INVESTMENT PERFORMANCE REPORTING METHODOLOGIES BY ASSET SIZE AND INSTITUTION TYPE

As of March 31, 2023

### By Asset Size

	Current Basis	Partial Basis	Lagged Basis	Other	No PI Allocation
Less Than \$100M	—	71%	—	—	29%
<i>n</i>		45			18
\$100M–\$200M	—	96%	—	—	4%
<i>n</i>		64			3
\$200M–\$500M	—	94%	1%	—	5%
<i>n</i>		73	1		4
\$500M–\$1B	—	86%	14%	—	—
<i>n</i>		38	6		
\$1B–\$3B	14%	60%	25%	2%	—
<i>n</i>	9	39	16	1	
More Than \$3B	13%	24%	54%	9%	—
<i>n</i>	7	13	29	5	

### By Institution Type

	Current Basis	Partial Basis	Lagged Basis	Other	No PI Allocation
Colleges & Universities	7%	64%	23%	3%	2%
<i>n</i>	9	78	28	4	3
Cultural & Environmental	2%	79%	6%	—	13%
<i>n</i>	1	38	3		6
Foundations	5%	77%	11%	1%	6%
<i>n</i>	5	76	11	1	6
Healthcare	—	67%	24%	3%	6%
<i>n</i>		22	8	1	2
Independent Schools	—	97%	—	—	3%
<i>n</i>		28			1
Other Nonprofits	3%	75%	5%	—	15%
<i>n</i>	1	30	2		7

Source: Endowment and foundation data as reported to Cambridge Associates LLC.

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