FOUNDATION ANNUAL INVESTMENT POOL RETURNS

CALENDAR YEAR 2021

CAMBRIDGE ASSOCIATES

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FIGURES

This study is based on a survey that Cambridge Associates (CA) administers annually to our foundation clients. The report that follows summarizes returns, asset allocation, and other investment-related data for 112 institutions for the calendar year ended December 31, 2021. Included in this year's report are commentary and exhibits that are spread across six separate sections.

Calendar year 2021 was the third straight year in which the median participant return was in the double digits. Although foundations across the board have earned strong recent returns, the range of outcomes among participants was the widest it has been in more than 20 years. Our **INVESTMENT PORTFOLIO RETURNS** section highlights performance results for this past calendar year. This section investigates some of the factors that contributed to the historically large variation of peer returns and what made top performers in particular stand out. It also includes analyses on investment performance over multiyear trailing periods, and shows how these last few years helped boost longer-term results.

Foundations not only generated robust returns on an absolute basis in 2021. The vast majority of respondents to our survey also outperformed their policy portfolio benchmarks for the year, including some by extremely large margins. But what components are most commonly used in policy benchmarks? Our **INVESTMENT POLICY** section touches on this topic and how peer practices for benchmarking private equity have changed over the past decade. This section features data on real return objectives and how asset allocation strategies among foundations can differ from a policy perspective as well.

The **PORTFOLIO ASSET ALLOCATION** section highlights how foundations have evolved in investing their portfolios over the past decade, with a particular focus on the increased equity exposure that foundations have taken on in recent years. This section also incorporates data on target asset allocations to lend insights into how institutions are altering their portfolios heading into the future.

The number of managers that foundations use for their overall portfolio and within specific asset classes can vary widely. Our **INVESTMENT MANAGER STRUCTURES** section explores data on this topic, as well as implementation strategies for traditional assets (i.e., active versus passive management) and alternative assets.

Meanwhile, the **PAYOUT FROM THE LONG-TERM INVESTMENT PORTFOLIO** section contains a set of analyses that look at spending objectives and policies of private non-operating foundations. These types of foundations are required under the federal tax code to distribute approximately 5% of their assets each year.

Finally, our **INVESTMENT OFFICE STAFFING AND GOVERNANCE** section of the report takes a look at topics such as the number of personnel in the investment office and investment committee structure. Also included are analyses on how foundations use outside advisors/consultants and who has decision rights for asset allocation policy development and manager selection.

Section 1: Investment Portfolio Returns

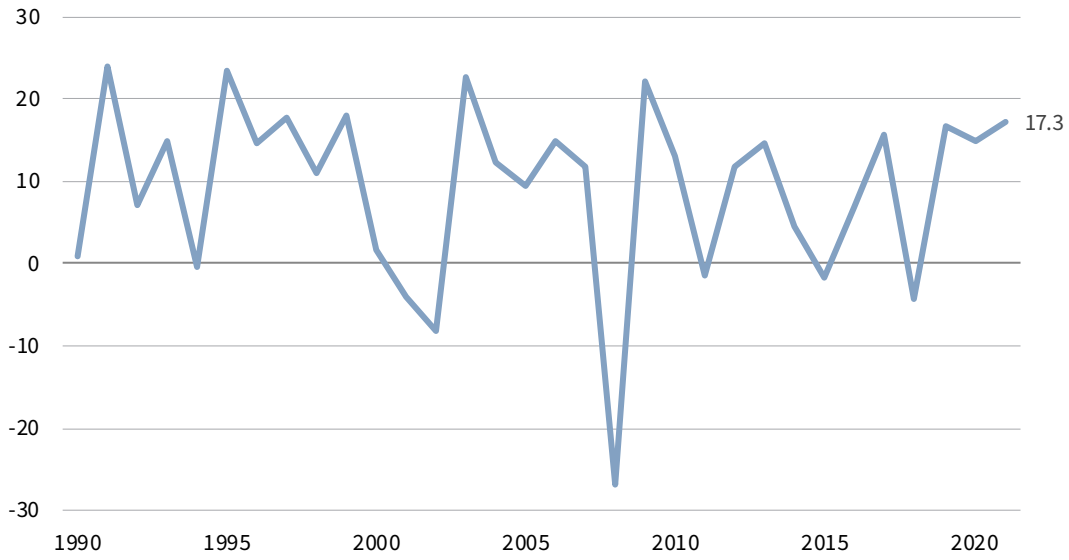
RETURNS IN CALENDAR YEAR 2021

Most risk assets thrived in 2021 as the global economy continued to recover from the downturn caused by the COVID-19 pandemic. The US public equity market closed the year near record highs and continued to stand out among other global regions in terms of investment returns. Performance for US private equity and venture capital investments was even better and these strategies delivered some of the best returns they have earned since the late 1990s. When it came to real assets, a spike up in inflation across the globe drove robust returns for commodities, natural resources, and real estate asset classes. However, not all investment strategies flourished in calendar year 2021. Returns for public Chinese equities slumped during the year and pushed the performance of aggregate emerging market equities into the red. In addition, US and global bond indexes ended the year in negative territory as well.

For many foundations, the calendar year brought about the best investment performance that they had earned in over a decade. The median one-year return among foundations participating in this study was 17.3% and was the highest calendar year figure calculated since 2009. When including data collected by CA dating back to 1990, the median foundation return for 2021 ranked seventh out of the 32 years from this historical period (Figure 1).

FIGURE 1 TRAILING 1-YR MEDIAN RETURNS

Calendar Years 1990–2021 • Periods Ended December 31



Source: Foundation data as reported to Cambridge Associates LLC.

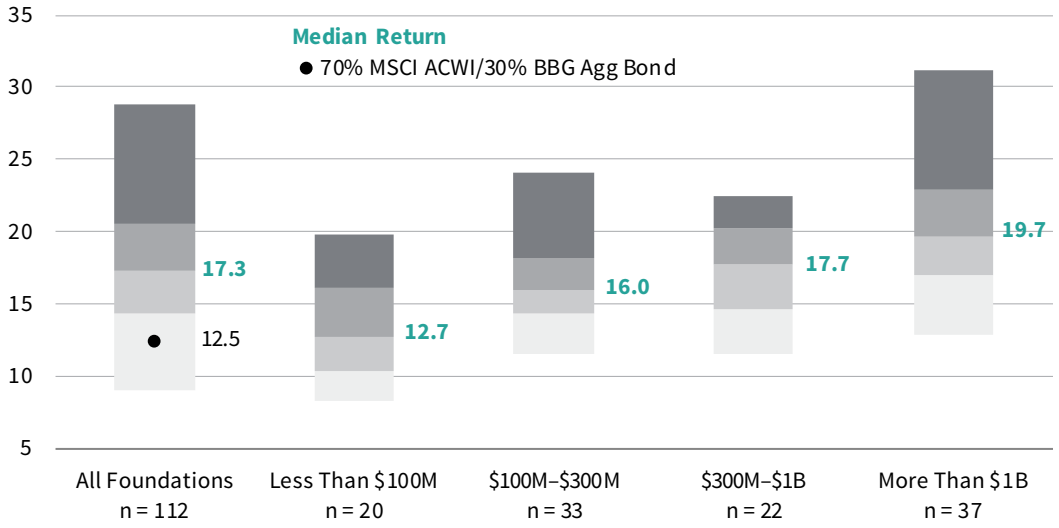
Note: The number of institutions included in the median calculation varies from one period to the next, ranging from 22 in 1990 to 112 in 2021.

The median foundation return for 2021 outperformed a blended benchmark consisting of 70% MSCI ACWI and 30% Bloomberg Aggregate Bond Index by almost 500 basis points (bps). The simple benchmark returned 12.5% for the calendar year and would

have fallen in the bottom quartile of the overall participant group. While the median return for each asset size subgroup listed in Figure 2 topped the blended benchmark, there was a significant degree of dispersion in the returns reported across the foundation universe. The largest portfolios tended to report the best returns, with those greater than $1 billion reporting the highest median return (19.7%) across the various subgroups. Meanwhile, those with assets less than $100 million reported a median return that was 700 bps lower at 12.7%.

FIGURE 2 CALENDAR YEAR 2021 TOTAL RETURN PERCENTILES

Trailing 1-Yr as of December 31, 2021 • Percent (%) • By Percentile Ranking



Sources: 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.

Note: For more information, see page 52 in the Appendix.

PERCENTILE RANKINGS

The percentile rankings in our analysis are in ascending order so that the highest figure in the data set is 0 and the lowest figure is 100. The graphs throughout this report that show a range of data are organized to highlight various percentile breaks as displayed here.

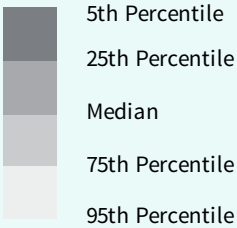
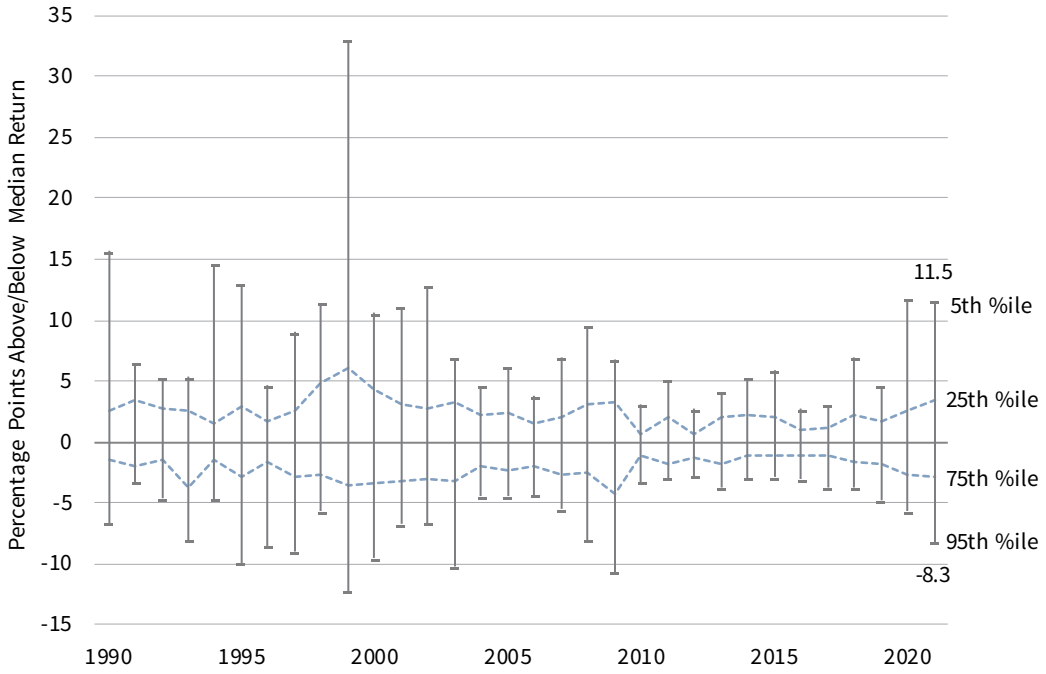


Figure 3 considers the dispersion in calendar year returns across the participant universe along with the historical context. After a decade of less variation in returns compared to past eras, the levels of dispersion jumped dramatically in 2020 as pandemic-induced volatility disrupted global markets. Yet, the range of performance outcomes among foundations was even wider for this most recent calendar. This was most evident at the top end of the universe, where the 5th percentile return (28.8%) was 11.5 percentage points (ppts) higher than the median return. After factoring in returns near the bottom end of the distribution, the range from the 5th percentile to the 95th percentile was 19.8 ppts. The last time the level of dispersion was greater was in 1999–2000, which saw the end of the "dot-com" bubble and venture capital boom of that era.

FIGURE 3 DISPERSION IN TRAILING 1-YR RETURNS RELATIVE TO THE MEDIAN RETURN
Calendar Years 1990–2021 • Periods Ended December 31



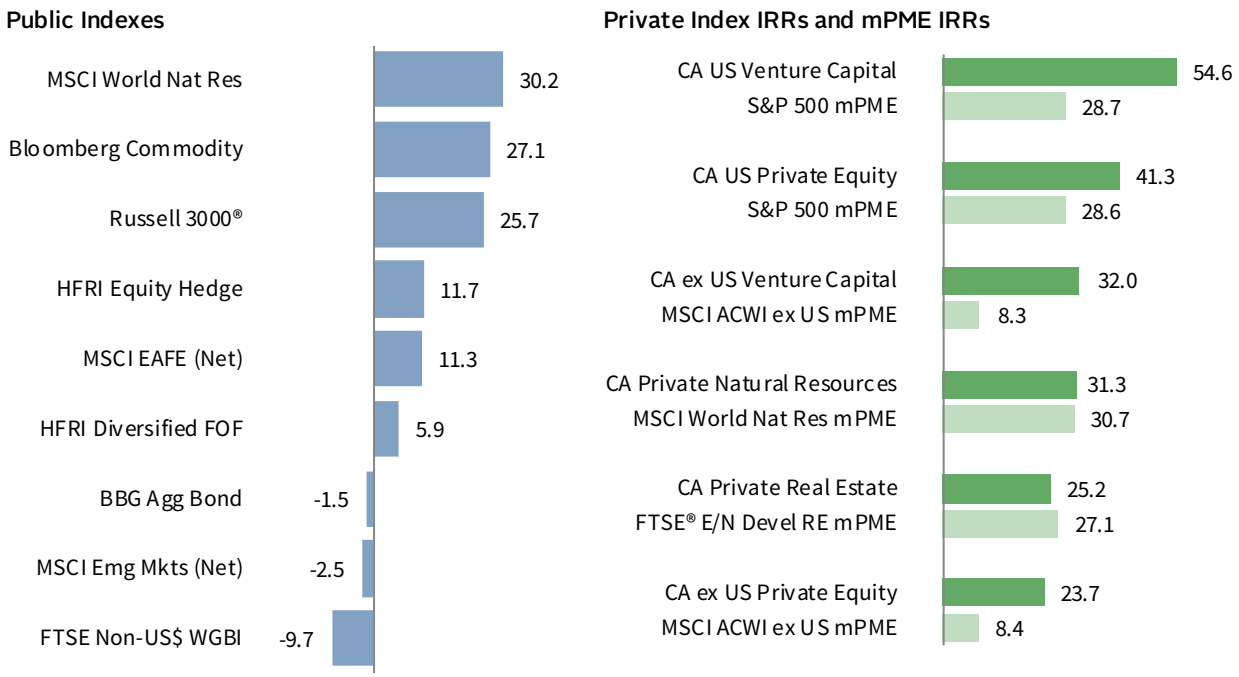
Source: Foundation data as reported to Cambridge Associates LLC.

The biggest similarity between these past couple of years and the late 1990s was the extraordinary performance of venture capital. In calendar year 2021, the CA US Venture Capital Index produced a horizon internal rate of return (IRR), net of fees, expenses, and carried interest, of 54.6% (Figure 4). This nearly doubled the S&P 500 Index's return of 28.7%, as computed under the modified public market equivalent (mPME) methodology. The mPME analysis computes public market performance, which traditionally is reported as a time-weighted return, on an IRR basis and allows for a direct comparison of returns between public and private markets. The result of the mPME calculation is the return that would have been earned had the capital invested in the private strategy been invested in the public market index instead. Returns were also stellar for the global ex US version of the venture capital index and the US Private Equity Index, with both performing significantly better than the mPME benchmarks.

On the public index side, strong returns were reported for long-only US equities and real assets–related strategies. The indexes representing long/short equity hedge funds strategies and global ex US equities in developed countries also posted returns in the double digits for the calendar year. In contrast, investment-grade fixed income strategies and emerging markets equities produced negative returns.

FIGURE 4 1-YR INDEX RETURNS

As of December 31, 2021 • Percent (%)



Sources: 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.

The market backdrop for 2021 helps bring to light some of the key factors that contributed to the historically large variation in foundation performance. Asset allocation is always the first place we start when analyzing peer performance, and the differences in asset allocations across participating foundations typically correlate with the market environment. This was especially the case this past year, when the top performers had the highest allocations to the best-performing asset classes and vice versa.

The heat map analysis in Figure 5 breaks the participant group into four quartiles based on 2021 performance and displays the average allocation across the one-year period for the foundations within each quartile. The top performance quartile stood out in the breakdown of the average total equity allocation, with a relatively small difference between the public equity allocation (35.1%) and private equity/venture capital (PE/VC) (29.2%). Digging into the total PE/VC figure, we see that the most of that allocation for top-performing foundations came from venture capital, which made up 17.5% of the portfolio on average. This allocation was substantially higher than for any of the other performance quartiles and—along with the extraordinary performance produced by venture capital investments—helps explain why the top quartile of foundations performed so well in 2021.

Another category where allocations varied quite a bit among participants was in fixed income. Given the enormous spread in returns between most equity markets and fixed income over the past year, it is not surprising to learn that foundations with the highest bond allocations tended to have the lowest performance. The bottom quartile of performers reported the highest average allocation to fixed income (14.9%), while those in the top performance quartile reported an average allocation that was considerably lower (7.8%).

FIGURE 5 1-YR MEAN ASSET ALLOCATION BY PERFORMANCE QUARTILE
Percent (%) • n = 107

		Private Equity & Venture Capital								
Quartile	Public Equity	Total PE/VC	VC	PE	Other PI	Hedge Funds	Real Assets	Fixed Income	Private Credit	Cash & Other
Top Quartile	35.1	29.2	17.5	9.8	1.8	14.2	8.2	7.8	2.0	3.5
2nd Quartile	42.6	21.3	10.0	7.6	3.7	15.3	6.2	8.8	1.5	4.3
3rd Quartile	52.0	13.7	5.6	5.3	2.8	13.0	4.1	10.8	2.0	4.3
Bottom Quartile	53.8	7.1	3.1	2.7	1.3	12.3	5.6	14.9	0.8	5.5
All Foundation Mean	45.8	17.8	9.1	6.3	2.4	13.7	6.1	10.6	1.6	4.4

Divergence of Asset Allocation From All Foundation Mean

-4% or lower | -2% | Mean | 2% | 4% or higher

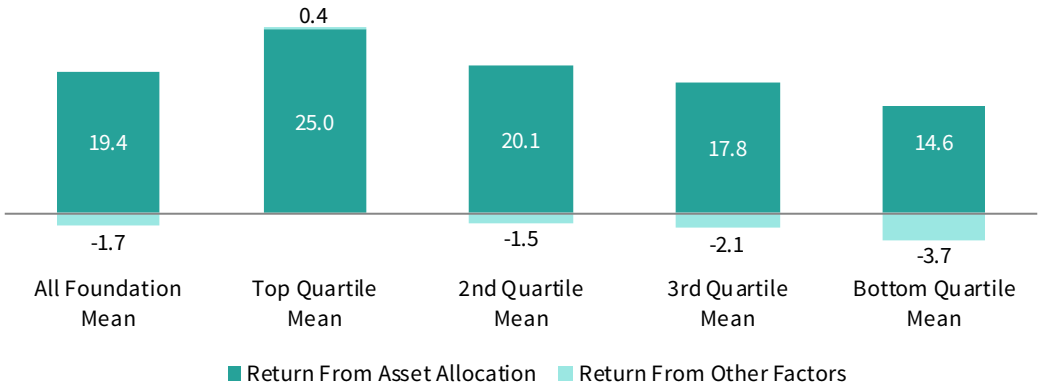
Source: Foundation data as reported to Cambridge Associates LLC.
Notes: Asset allocation is averaged across the two December 31 periods from 2020 to 2021 for each institution in this analysis. Other PI consists primarily of multi-strategy FOFs, secondaries, and other private funds that can't be allocated solely to venture capital or non-venture private equity.

While the heat map analysis highlights asset classes that are important in understanding the 2021 performance story, our attribution analysis goes a step further and quantifies the performance impact of those different asset allocation structures. The attribution analysis we use for Figure 6 assigns a specific index return to represent each asset class in our framework. For each foundation in our universe, we have calculated a blended index return that is based on the portfolio's beginning year asset allocation.[1] The result of this calculation is the "return from asset allocation" and represents what the foundation would have earned if it was managed passively throughout the year. The average asset allocation return for the top quartile of performers was 25.0%, which was more than 10 ppts higher than the average of the bottom performance quartile (14.6%). These results, when paired with the heat map analysis, clearly demonstrate that differences in private investment asset allocations played a key role in the historically wide dispersion in foundation returns this past year.

1 See the Appendix for a list of asset class indexes used and a breakdown of the average return from asset allocation.

FIGURE 6 1-YR ATTRIBUTION ANALYSIS

Trailing 1-Yr as of December 31, 2021 • Percent (%) • n = 107



Source: Foundation data as reported to Cambridge Associates LLC.
Note: For more information, see page 52 in the Appendix.

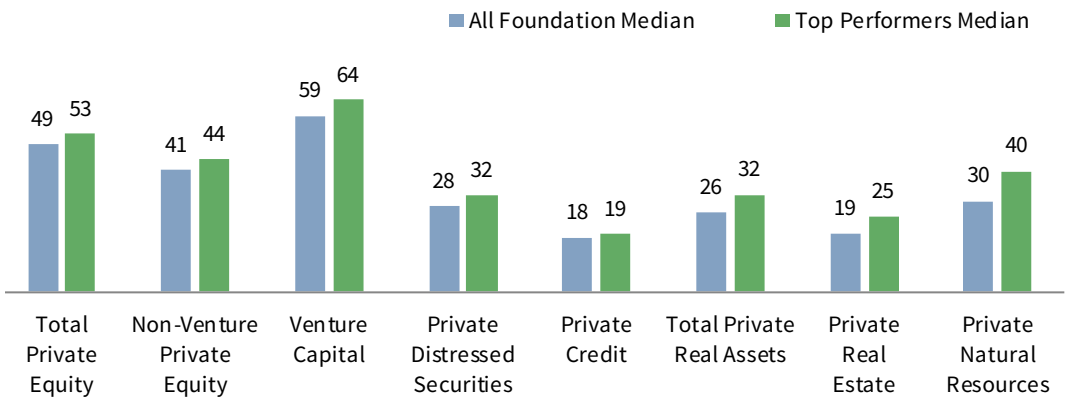
However, asset allocation alone is not the only driver of performance, as implementation of the allocations is an important piece to consider. Implementation is primarily driven by the effects of active management, or alpha. In addition, there is a performance impact if an asset allocation structure is altered or rebalanced in the middle of the calendar year. Our attribution analysis aggregates these effects into the "return from other factors" category in Figure 6. The analysis estimates that the top quartile of performers added an average of 0.4% to their returns from these other factors in 2021. In contrast, this other source of returns was negative, on average, for each of the other three performance quartiles. While the differentials across quartiles were not as large as for the asset allocation return, these other factors are also key to understanding why top performers separated themselves so much from rest of the pack in 2021.

The attribution analysis establishes that there are differentials among foundations in the performance impact from implementation. The returns that participants earn for the asset class strategies in their portfolios are key drivers of these differentials. This is most evident among private strategies, where the range of returns from the top end of the universe to the bottom was much wider than what was reported in public strategies. The range was widest for venture capital where the 5th percentile return (113%) was a staggering 109 ppts higher than the 95th percentile (4%).

As Figure 7 shows, venture capital produced the highest median asset class return (59%) among participating foundations in 2021. The analysis also isolates the top performance quartile as defined by the trailing one-year total return and displays the median private investment IRRs for that subgroup. The median return for top performers was higher than the median return of the overall universe across all asset classes, and in some instances by large margins. The effect of this on total return comparisons is magnified considering that top performers were allocating an average 40% of their portfolio to private investments as of the end of 2021. Not only did top performers have the highest allocations to private investments, but they generally outperformed other participating institutions in these strategies by significant margins. While the differentials were not as great as with private strategies, the median return

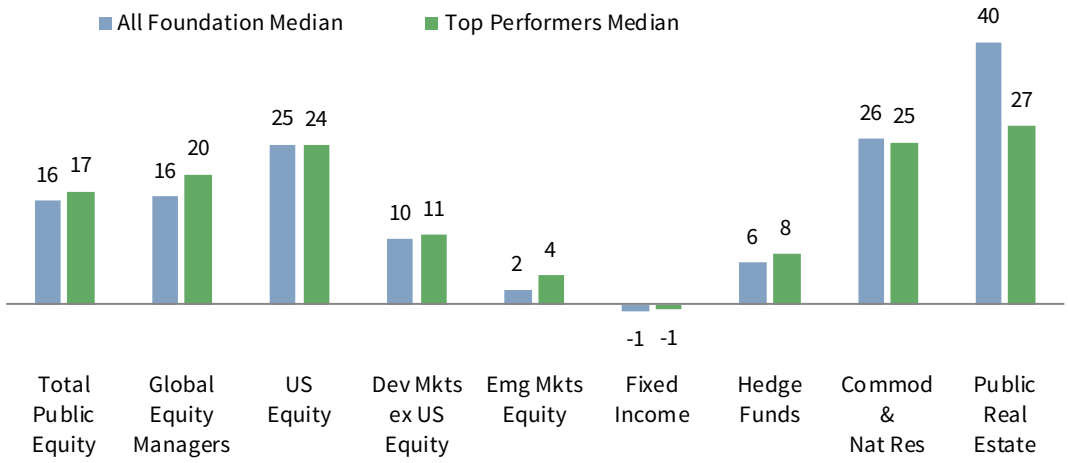
of top performers was higher relative to the overall peer group across most of the public asset classes as well (Figure 8).

FIGURE 7 MEDIAN FOUNDATION 1-YR ASSET CLASS IRRs: PRIVATE INVESTMENTS
Trailing 1-Yr as of December 31, 2021 • Percent (%)



Source: Foundation data as reported to Cambridge Associates LLC.
Notes: The Top Performers subset is based on institutions that were in the top quartile for total portfolio performance for the calendar year 2021 period. Private investment return statistics are reported as horizon IRRs. For more information, including the number of participants, see page 53 in the Appendix.

FIGURE 8 MEDIAN FOUNDATION 1-YR ASSET CLASS RETURNS: MARKETABLE INVESTMENTS
Trailing 1-Yr as of December 31, 2021 • Percent (%)



Source: Foundation data as reported to Cambridge Associates LLC.
Notes: The Top Performers subset is based on institutions that were in the top quartile for total portfolio performance for the calendar year 2021 period. For more information, including the number of participants, see page 54 in the Appendix.

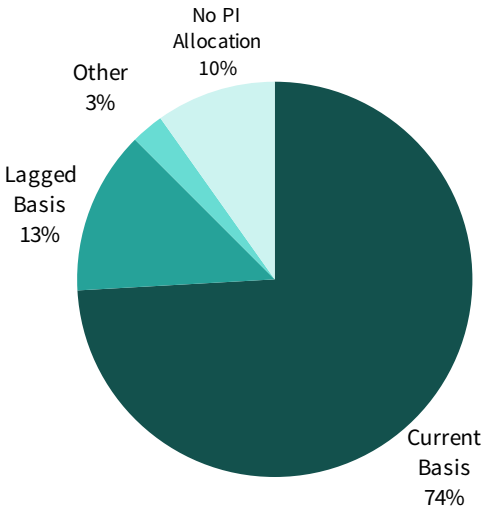
RETURN CALCULATION METHODOLOGIES

Most participants (74%) in this study incorporate private investment marks into the 2021 total return calculation on a current basis (Figure 9). For these foundations, private investment performance is time-matched with the actual trailing one-year period and reflects investment activity from January 1, 2021, to December 31, 2021. In contrast, under the lagged basis, which is used by 13% of respondents, private investment marks perpetually lag other assets in the portfolio by one quarter so that the total return captures private investment performance from October 1, 2020, to September 30, 2021. Of the remaining respondents, 3% use some other methodology, while 10% have no private investment allocation.

FIGURE 9 PERFORMANCE REPORTING METHODOLOGIES: PRIVATE INVESTMENTS

As of December 31, 2021

All Foundations



Foundations By Asset Size

	Current Basis	Lagged Basis	Other	No PI Allocation
Less Than $100M	55%	—	—	45%
n	*11*			*9*
$100M–$300M	94%	3%	3%	3%
n	*30*	*1*	*1*	*1*
$300M–$1B	86%	10%	5%	5%
n	*18*	*2*	*1*	*1*
More Than $1B	67%	33%	3%	—
n	*24*	*12*	*1*	

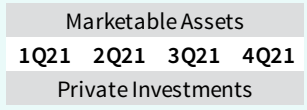
Source: Foundation data as reported to Cambridge Associates LLC.

Note: Institutions with no significant private investment allocations (<1% of their total investment portfolios) are reflected in the No PI Allocation category.

PERFORMANCE METHODOLOGY DESCRIPTIONS

Current Basis

Total investment pool return for the trailing one-year period includes marketable asset performance and private investment performance for January 1, 2021, to December 31, 2021.



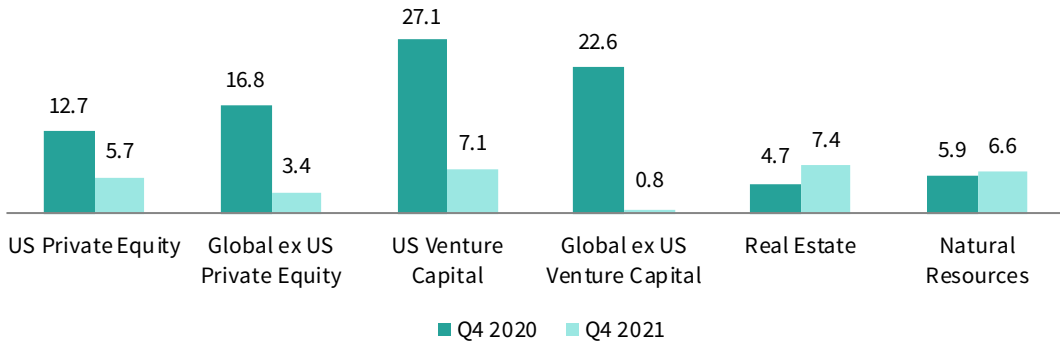
Lagged Basis

Total investment pool return for the trailing one-year period includes marketable asset performance for January 1, 2021, to December 31, 2021, and private investment performance for October 1, 2020, to September 30, 2021.

Using one methodology over the other has a performance impact. The issue is less significant for longer measurement periods, as the performance impact is diminished through the annualized return calculation. However, the choice of private reporting methodology can be an important factor to consider when conducting peer performance comparisons over short-term periods. When assessing the impact of the two most common methods for calendar year 2021, the focus should on be both fourth quarter 2020 and fourth quarter 2021. With the lagged basis methodology, performance for the former period will be included in the one-year total return calculation, and performance for the latter period will be excluded.

Figure 10 shows the returns of several CA private investment indexes for fourth quarter 2021 and the same quarter one year earlier. The period from 2020 produced exceptional returns for the PE/VC strategies, which make up the majority of private investment allocations. This would point to the lagged method producing a higher return for a foundation in calendar year 2021 compared to the current basis.

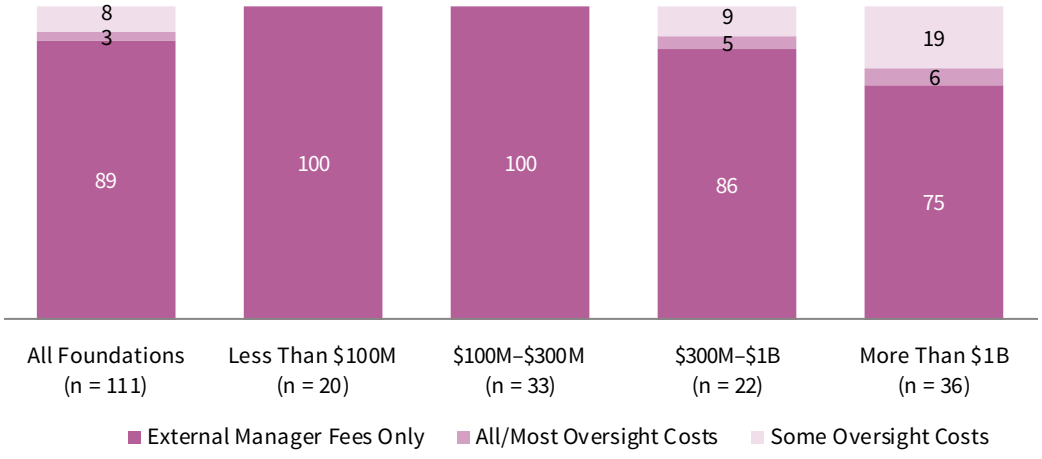
FIGURE 10 CAMBRIDGE ASSOCIATES' PRIVATE INVESTMENT INDEX IRRs
Percent (%)



Source: Cambridge Associates LLC.
Note: Private investment return statistics are reported as horizon IRRs.

Another reporting issue that can impact peer return comparisons is the method in which net returns are calculated. With the exception of one foundation, each participant in this study reported performance on a net-of-fees basis. Almost 90% of these foundations reported returns net of external manager fees only for 2021 (Figure 11). Another 8% of respondents deduct external manager fees plus some additional costs but are gross of the major oversight cost expenses. The main drivers of the major cost categories tend to be staff compensation for those institutions that have internal investment offices or consultant/advisor fees for those that rely heavily on external investment advisors. Just 3% of foundations reported returns net of these major oversight cost expenses.

FIGURE 11 TYPES OF FEES DEDUCTED IN CY 2021 NET RETURN CALCULATION
As of December 31, 2021 • Percent (%)



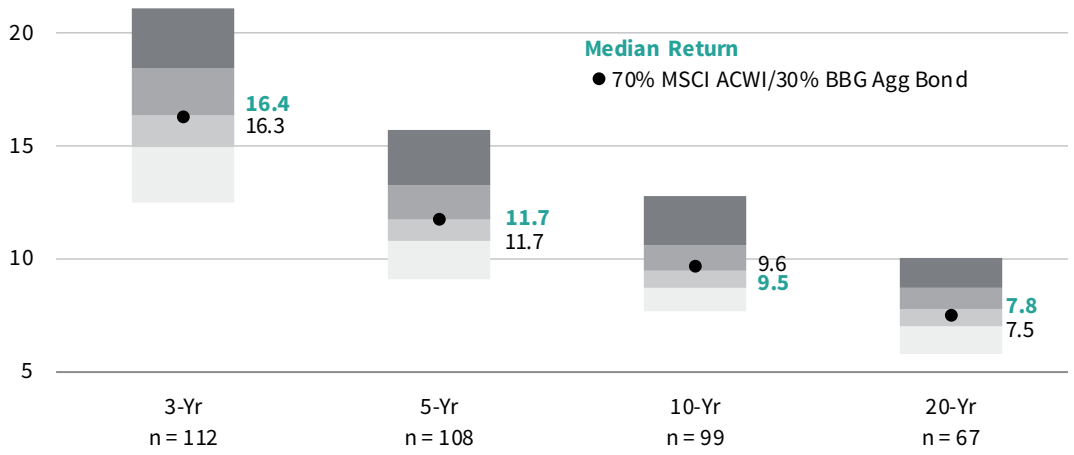
Source: Foundation data as reported to Cambridge Associates LLC.
Notes: Institutions in the All/Most Oversight Costs category net out all or the majority of oversight costs, including the major cost drives (e.g., investment staff compensation and consultant/advisor fees). Institutions in the Some Oversight Costs category deduct external manager fees and some investment oversight costs, but are gross of the major cost drivers.

LONGER-TERM RETURNS

Strong returns for 2021 contributed to foundations improving their longer-term relative performance versus the 70/30 benchmark (Figure 12). The median foundation return was 10 bps higher than the simple benchmark for the trailing three-year period and equaled the benchmark over the trailing five years. In the 2020 study, the median participant return underperformed the benchmark by 90 bps and 80 bps for the trailing three- and five-year periods, respectively. Looking out over a longer horizon, the median foundation return was just a tick below the simple benchmark for the ten-year period (9.5% vs 9.6%) and outperformed by 30 bps for the 20-year period.

FIGURE 12 TOTAL RETURNS SUMMARY: TRAILING 3-, 5-, 10-, AND 20-YR

Years Ended December 31, 2021 • Percent (%) • By Percentile Ranking



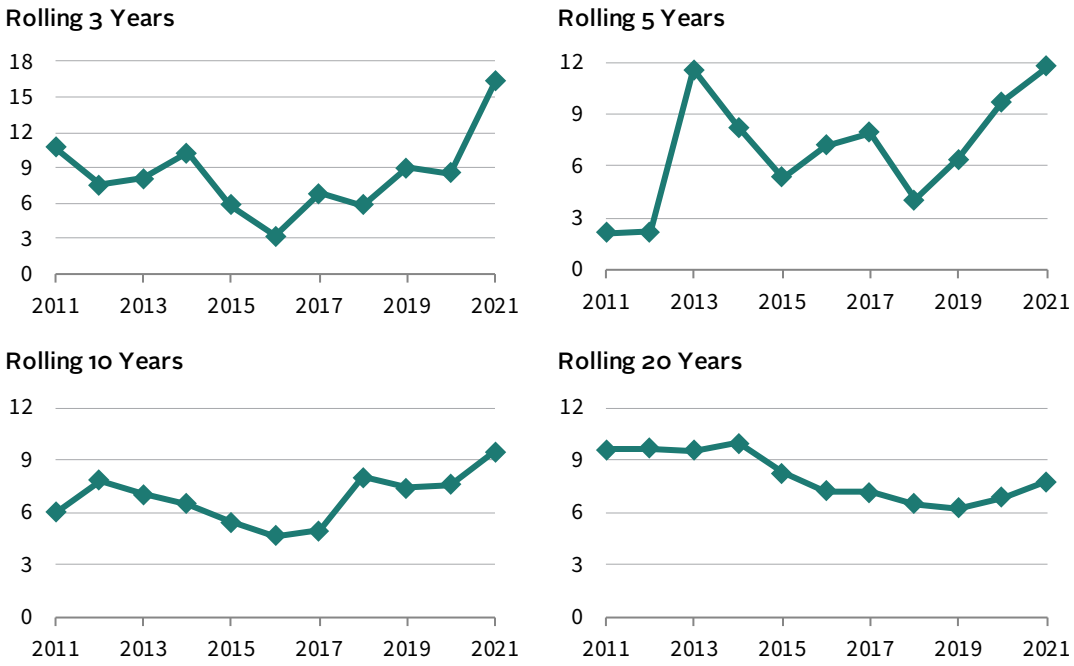
Sources: Foundation data as reported to Cambridge Associates LLC. Index data are provided by Bloomberg Index Services Limited and MSCI Inc. MSCI data provided "as is" without any express or implied warranties.

Note: For more information, please see page 55 in the Appendix.

The calendar year 2021 period also contributed to strong foundation performance on an absolute basis over these trailing periods. The median foundation returns for the trailing three- and five-year periods were both well into the double digits and were the highest we have calculated for those rolling periods from the past decade. The trailing ten-year median return was just shy of 10%, but similarly was the highest reported for the group from the periods listed in Figure 13. The rolling 20-year analysis shows more of a prolonged downward trend in the median return until reversing in 2020 and continuing to climb back up in 2021.

FIGURE 13 ROLLING MEDIAN RETURNS: TRAILING 3-, 5-, 10-, AND 20-YR

Years Ended December 31 • Percent (%)



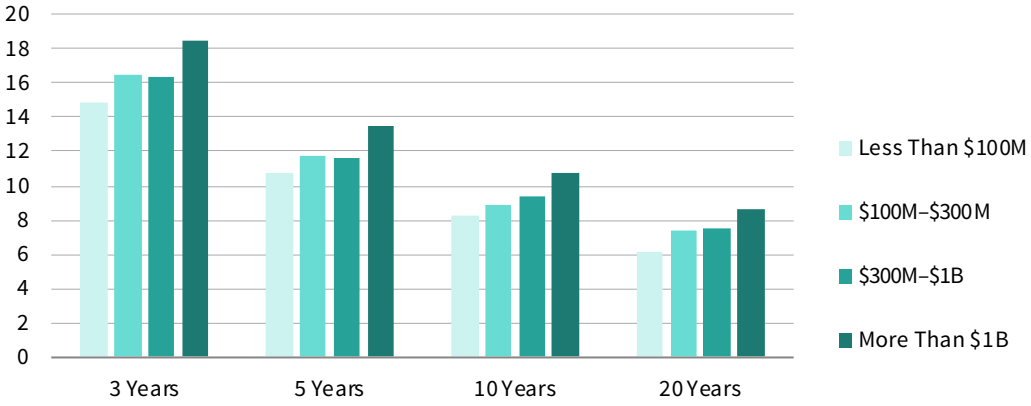
Source: Foundation data as reported to Cambridge Associates LLC.

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.

As we already reviewed in the calendar year 2021 return analyses, the largest foundations tended to outperform smaller foundations by significant margins. The same was true over the long term as well, with the median return of the greater than $1 billion cohort outperforming the median of the other asset size groups for each of the trailing periods shown in Figure 14.

FIGURE 14 MEDIAN TRAILING 3-, 5-, 10-, AND 20-YR RETURNS BY ASSET SIZE

Years Ended December 31, 2021 • Percent (%)



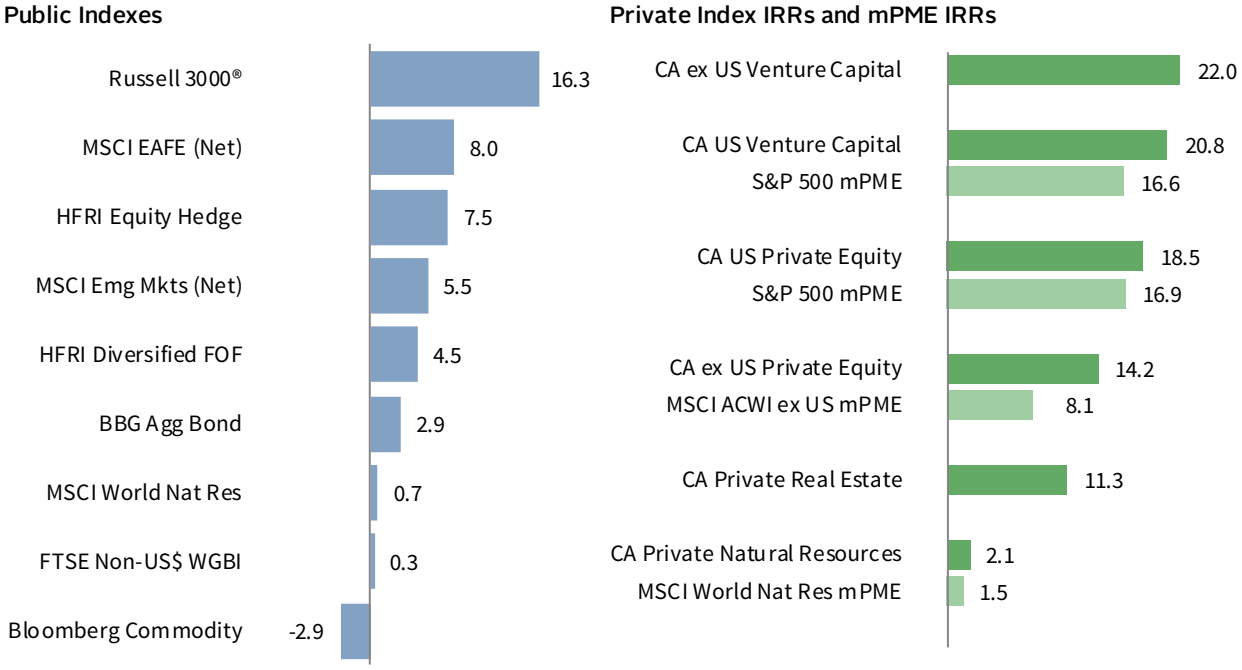
Source: Foundation data as reported to Cambridge Associates LLC.

Note: For more information, please see page 55 in the Appendix.

Many of the same dynamics that drove returns for calendar 2021 also played out over the long term. Venture capital was the highest-performing asset class over the trailing ten-year period as measured by the index returns in Figure 15. Non-venture private equity strategies also produced returns that outperformed their mPME benchmarks over the last decade. Among the public benchmarks, the US stock market as represented by the Russell 3000® Index was by far the top-performing strategy. Meanwhile, the low interest rate environment of the last decade resulted in historically low returns for investment-grade fixed income strategies.

FIGURE 15 10-YR INDEX RETURNS

As of December 31, 2021 • Percent (%)



Sources: 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.

This market backdrop leads us to exploring the differences in asset allocations among foundations over the last decade. The heat map analysis in Figure 16 averages asset allocation data of participating foundations across the 11 December 31 periods from 2011 to 2021 and places each participant into the performance quartile that aligns with their ten-year peer return ranking. The four quartiles in the table represent the average of the foundations that fell within each quartile.

The average combined allocation to public equity and PE/VC was highest for the top quartile of performers (57.9%) and lowest for the bottom quartile (52.2%). The distinction between the mix of public and private equities was even more drastic. The top quartile of performance had the highest average allocation to PE/VC (21.9%), with just over half of that coming from venture capital alone (12.2%). In contrast, the bottom quartile had the lowest average allocation to total PE/VC (4.8%). The results were the inverse for public equity, with top performers having the lowest average allocation (36.0%) and the bottom quartile having an average that was substantially higher (47.4%).

FIGURE 16 10-YR MEAN ASSET ALLOCATION BY PERFORMANCE QUARTILE

Percent (%) • n = 71

		Private Equity & Venture Capital								
Quartile	Public Equity	Total PE/VC	VC	PE	Other PI	Hedge Funds	Real Assets	Fixed Income	Private Credit	Cash & Other
Top Quartile	36.0	21.9	12.2	8.8	0.9	18.0	10.7	7.7	1.8	3.8
2nd Quartile	43.7	13.7	6.2	6.2	1.3	18.2	8.9	10.5	1.5	3.5
3rd Quartile	47.0	9.2	3.3	3.7	2.2	18.0	8.6	10.5	1.4	5.2
Bottom Quartile	47.4	4.8	1.4	1.4	2.0	17.1	8.2	16.8	0.6	5.1
All Foundation Mean	43.5	12.4	5.8	5.0	1.6	17.8	9.1	11.4	1.3	4.4

Divergence of Asset Allocation From All Foundation Mean

-4% or lower | -2% | Mean | 2% | 4% or higher

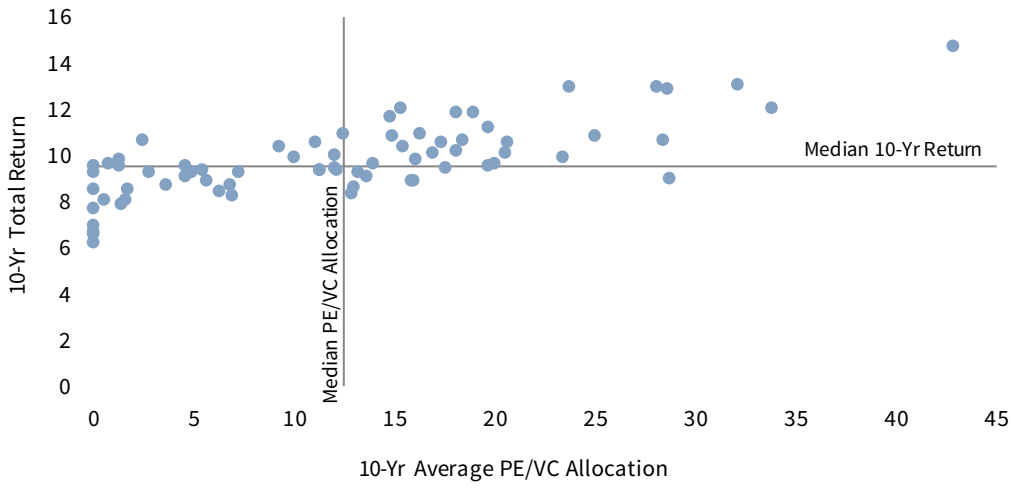
Source: Foundation data as reported to Cambridge Associates LLC.

Notes: Asset allocation is averaged across the 11 periods ended December 31 from 2011 to 2021 for each institution in this analysis. Other PI consists primarily of multi-strategy FOFs, secondaries, and other private funds that can't be allocated solely to venture capital or non-venture private equity.

Another way to visualize the relationship between PE/VC allocations and relative peer performance is by plotting foundation data on a scatterplot. In Figure 17, each foundation that reported data over the last decade is represented by a dot based on where its ten-year average allocation to PE/VC intersects with its trailing ten-year returns. The data do not show a perfect relationship—some foundations that have above-median allocations to PE/VC had below-median total returns over the trailing ten-year period and vice versa. However, there is a clear trend from left to right on the scatterplot as foundation performance tends to be higher as the allocation to PE/VC increases.

FIGURE 17 10-YR PE/VC ALLOCATION VS TOTAL RETURN

As of December 31, 2021 • n = 71



Source: Foundation data as reported to Cambridge Associates LLC.

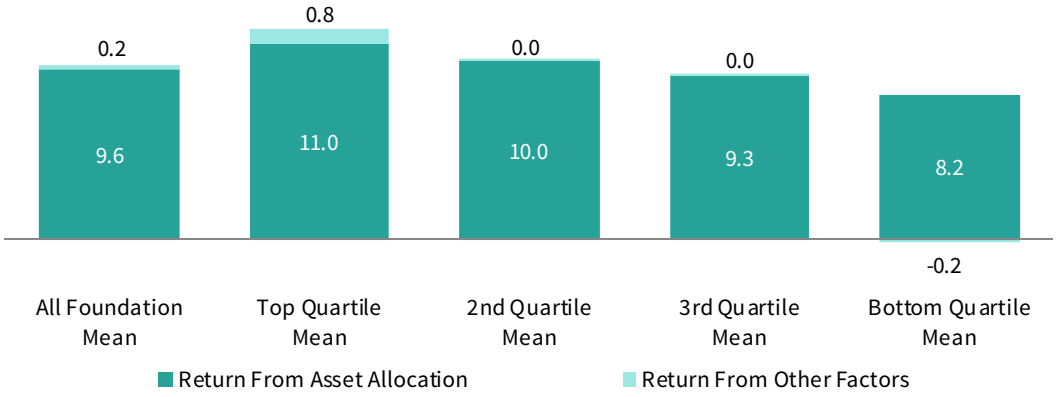
Note: The lines that traverse the graph are drawn where the median PE/VC allocation among participants intersects with the median ten-year participant return.

There were also notable differences among foundations elsewhere in the asset allocation framework (Figure 16). The next largest differential was in fixed income, where top performers had the lowest average allocation (7.7%) over the past decade, while the bottom quartile of performers had the highest allocation (16.8%). Although the detail on real assets is not shown in the heat map table, most of the underlying allocation for top performers came from private investments, while most of the allocation for the bottom performance quartile came from marketable strategies.

The attribution model further illustrates the impact of different asset allocation structures on the trailing ten-year return. The average asset allocation return over this period for the top quartile of performers was 11.0% (Figure 18). For the bottom quartile of performers, the average asset allocation return was 280 bps lower at 8.2%. The attribution model estimates the average return from other factors for top performers was 0.8%, which was 100 bps higher than the average of the bottom quartile (-0.2%).

FIGURE 18 10-YR ATTRIBUTION ANALYSIS BY PERFORMANCE QUARTILE

As of December 31, 2021 • Percent (%) • n = 71

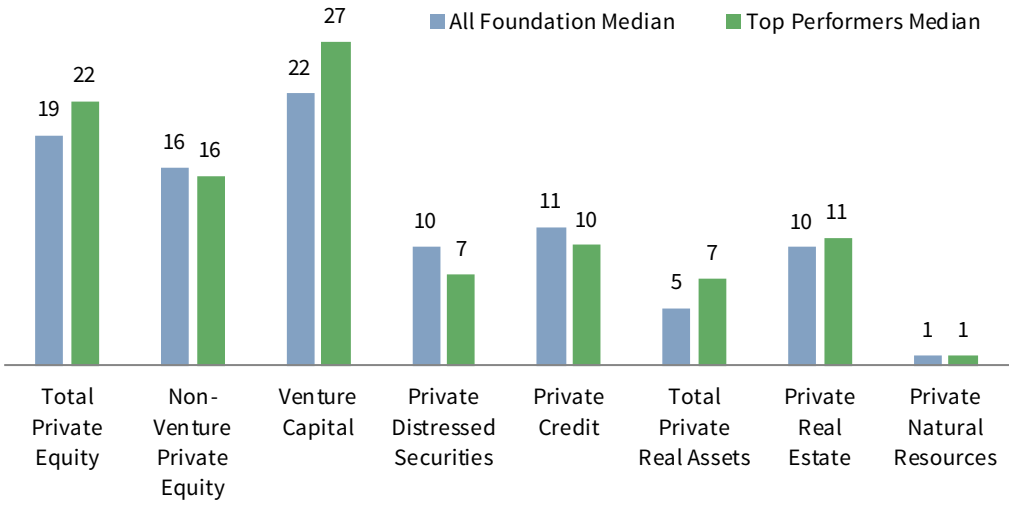


Source: Foundation data as reported to Cambridge Associates LLC.

The foundations that reported the highest total returns over the past decade not only had the largest allocations to private investments, but they also tended to earn the best performance among peers in many of these strategies as well. The results for venture capital stand out the most as the median IRR for the top-performing foundations was 27% over the trailing ten-year period, approximately 500 bps higher than the median for the overall foundation universe (Figure 19). As is typically the case, there was less variation in the returns reported by participants in marketable asset classes (Figure 20). The full percentile breakdown of asset class returns across the trailing three-, five-, and ten-year periods is included in the appendix.

FIGURE 19 MEDIAN FOUNDATION 10-YR ASSET CLASS IRRs: PRIVATE INVESTMENTS

Trailing 1-Yr as of December 31, 2021 • Percent (%)

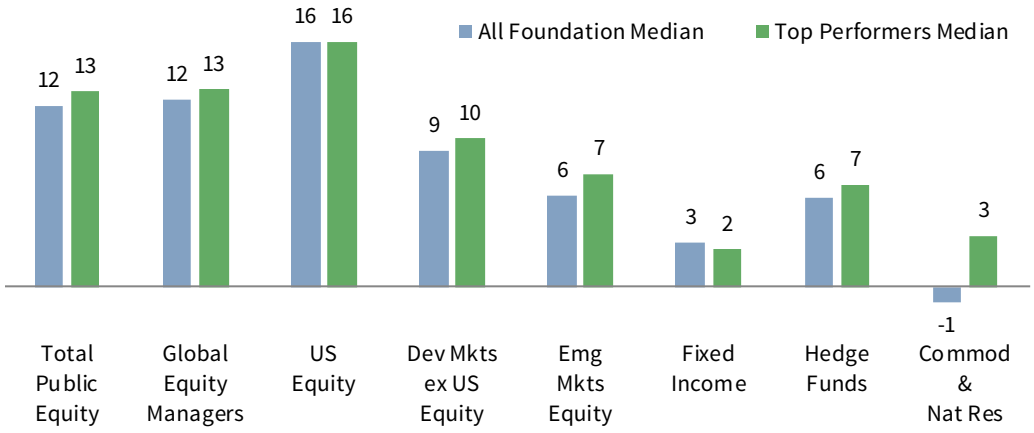


Source: Foundation data as reported to Cambridge Associates LLC.

Notes: The Top Performers subset is based on institutions that were in the top quartile for total portfolio performance for the trailing ten-year period. For more information, including the number of participants, see pages 56 and 57 in the Appendix.

FIGURE 20 MEDIAN FOUNDATION 10-YR ASSET CLASS RETURNS: MARKETABLE INVESTMENTS

Trailing 10-Yr as of December 31, 2021 • Percent (%)



Source: Foundation data as reported to Cambridge Associates LLC.

Notes: The Top Performers subset is based on institutions that were in the top quartile for total portfolio performance for the trailing ten-year period. For more information including the number of participants, see pages 58 and 59 in the Appendix.

INFLATION-ADJUSTED RETURNS

A common objective when managing a long-term pool of capital is to preserve the purchasing power of the portfolio. To achieve this goal, a foundation must earn a return that offsets or exceeds its payout rate and the inflation rate. Most participants in this study are private non-operating foundations that must pay out 5% of their assets on an annual basis. Consequently, most participants aim to earn at least a 5% real return because of this legal requirement. Meeting the real return target allows a foundation to offset the erosion of purchasing power caused by inflation and replenish the annual spending that is drawn from the portfolio.[2]

2 See the Investment Policy section, and Figure 24 specifically, for more information on this topic.

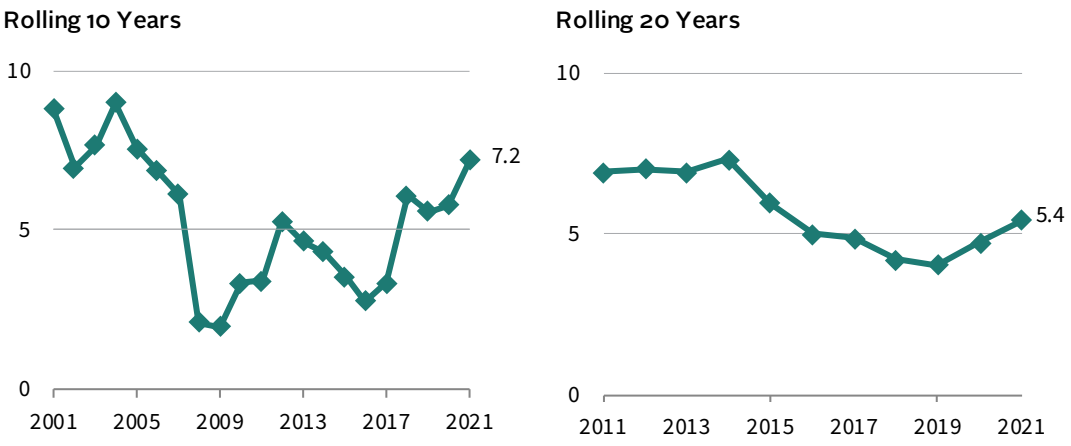
To calculate the real return for a portfolio, we deduct the growth rate of the Consumer Price Index – All Urban Consumers (CPI-U) from the analyzed portfolio's reported nominal return for the period.[3] While the inflation rate did spike up to 7% in 2021, the longer-term rate of inflation was near the historical norm. The annualized CPI-U growth rate was 2.1% for the trailing ten-year period as of December 31, 2021, and 2.3% for the trailing 20-year period.

Figure 21 displays the trailing ten-year median real return for the participant group going back to 2001. At the beginning of this historical period, the trailing ten-year median was nearly 9%. By 2008, as the impact of the Global Financial Crisis (GFC) was beginning to be felt worldwide, the task of earning 5% on a real basis over the long term had become significantly more challenging than it once was. The median ten-year return had fallen well below 5% by 2008, and it stayed below this level for much of the ensuing decade. As the GFC track record was removed from the rolling calculation, the median surged back above 5%. As of December 31, 2021, the ten-year median real return was 7.2% and was at its highest level since calendar year 2005.

The historical data for the trailing 20-year period runs from 2011 to 2021 in Figure 21. This statistic was well above 5% for the first part of the last decade but fell below that level in 2017. The performance from 2021, as well as cycling out of a poor performing year on the front end, helped push the median 20-year real return back above 5% for this most recent year-end. The Portfolio Asset Allocation section details how foundations responded to that more challenging return environment by raising allocations to equity-oriented assets over the past decade and reducing allocations to fixed income and other lower-volatility assets.

3 See the Notes on the Data section for an illustration of the real return calculation.

FIGURE 21 ROLLING MEDIAN REAL RETURNS: TRAILING 10- AND 20-YR
Years Ended December 31 • Percent (%)

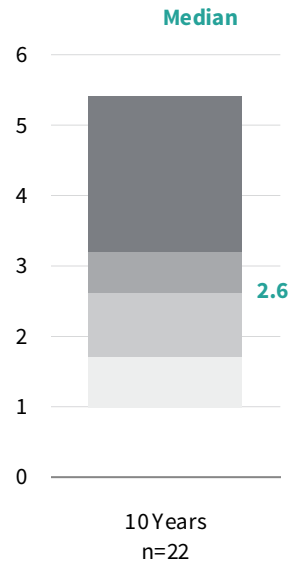


Source: Foundation data as reported to Cambridge Associates LLC.
Note: The number of institutions included in the median calculation varies from one period to the next and is smaller in earlier years compared to the present day.

Of the foundations that provided payout rate data over the last decade, each reported a real return after spending that was above 0% for this trailing ten-year period. The significance of this is that each of these foundations experienced asset growth, even after the effects of inflation and spending were removed from the equation (Figure 22).

FIGURE 22 10-YR REAL RETURNS AFTER SPENDING

As of December 31, 2021 • Percent (%) • By Percentile Ranking



Source: Foundation data as reported to Cambridge Associates LLC.
Note: For more information, see page 59 in the Appendix.

RISK-ADJUSTED RETURNS

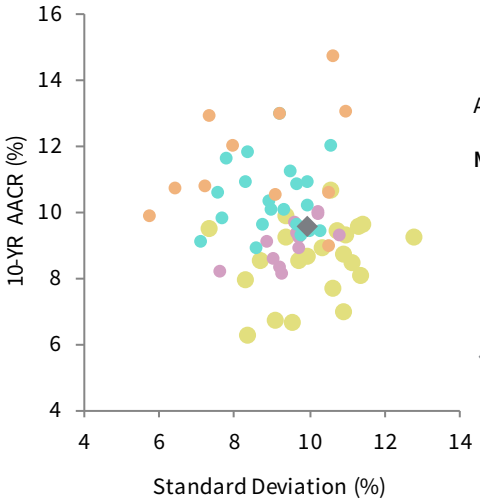
Risk-adjusted performance is important to evaluate, as it measures the total return relative to the total amount of risk taken by the portfolio. The most common approach to measuring risk-adjusted performance is by the Sharpe ratio, which shows how much return above the risk-free rate (T-bills) the investor 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 complicated when portfolios have significant allocations to private investments. The frequency and timing of private investment valuations can dampen the standard deviation for the returns of 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, we have split foundations out into subcategories in Figure 23 based on their average allocations to private investments over the trailing ten-year period.

The median Sharpe ratio was 1.32 for foundations that had an allocation of 30% or more to private investments. In comparison, the median Sharpe ratio was 0.95 for the overall participant group. Although the better Sharpe ratio for the group with the highest private allocations is partly a function of this group's higher median return, it is also attributable to their lower median standard deviation.

FIGURE 23 10-YR STANDARD DEVIATION AND SHARPE RATIO

Periods Ended December 31, 2021



	AACR	Standard Deviation	Sharpe Ratio	*n*
All Foundation Median	9.5	9.6	0.95	*68*
Median by PI Allocation				
Less Than 10%	8.7	10.4	0.82	*22*
10%–20%	9.3	9.7	0.92	*14*
20%–30%	10.2	9.2	1.06	*21*
More Than 30%	10.8	9.1	1.32	*11*
70/30 Benchmark	9.6	9.9	0.92	

Sources: 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.

Section 2: Investment Policy

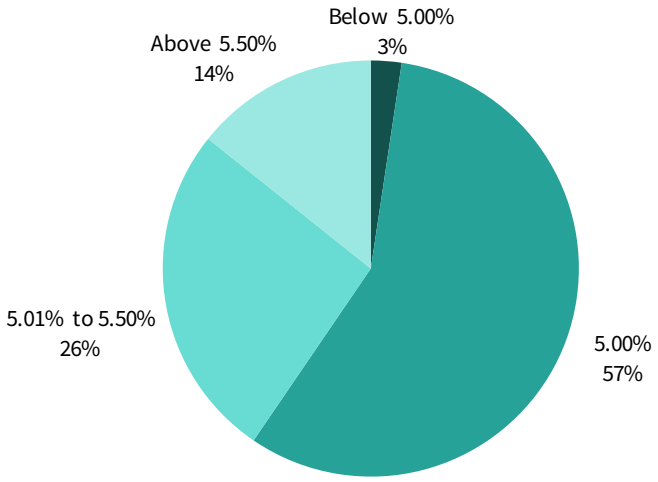
An investment policy provides guidelines for trustees, investment committee members, investment staff, advisors, and other relevant parties that are involved in the foundation's investment management and governance processes. The investment policy statement (IPS) is the formal document that outlines the important components of this policy. Some institutions may have additional informal guidelines that are considered in the investment management process, but are not documented in the IPS. Our survey touched on several issues that are related to foundation investment policies/guidelines and the following section summarizes these responses.

RETURN OBJECTIVE

Most foundations in this study are private, non-operating foundations and are required by law to distribute approximately 5% of their assets on an annual basis. To comply with this requirement and maintain purchasing power over time, a foundation must achieve a real return (i.e., adjusted for inflation) that offsets their payout rate. Since investment returns are volatile from year to year, return objectives should be evaluated from the long-term perspective instead of a goal that must be met every year. Among participants reporting a real return objective, a majority of foundations reported that their real return objective was 5%. All of the remaining participants have a real return objective above 5% except for one community foundation that reported an objective below 5% (Figure 24).

FIGURE 24 REAL TOTAL PORTFOLIO RETURN OBJECTIVES

n = 42



Source: Foundation data as reported to Cambridge Associates LLC.

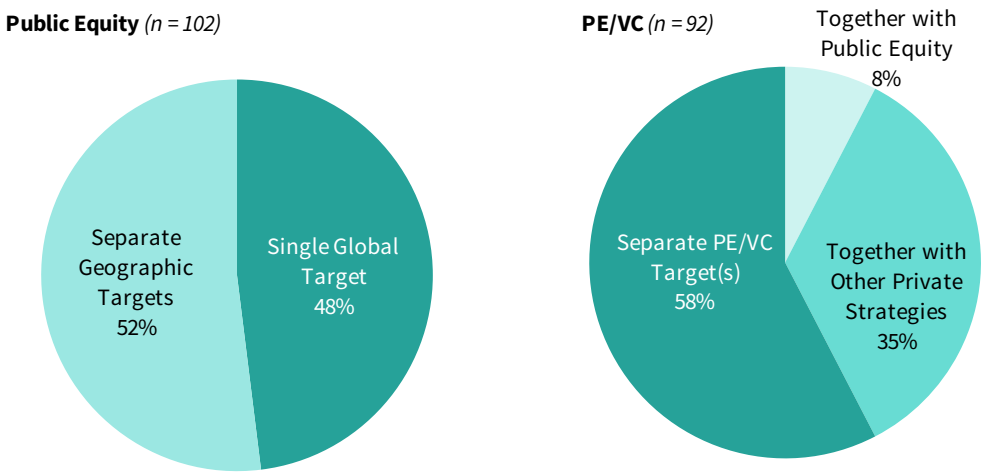
ASSET ALLOCATION POLICY

The asset allocation component of the investment policy specifies the asset classes allowed in the portfolio and assigns target allocations and/or ranges for those asset class categories. The categories and targets that are chosen are based on the portfolio's risk tolerance, liquidity needs, and performance objectives. Our survey requested that respondents provide the asset class categories used in their asset allocation policies.

Respondents reported differences in their policy frameworks, with some foundations using more detailed categories than others. This is most evident with public equity categories, where there are contrasting approaches to the inclusion of geographic regions into the policy framework. A slight majority of respondents (52%) assigns multiple targets that are based on geographic regions, although there are various combinations of regions used. The remaining 48% of foundations use a broad approach with a single category that captures their entire public equity allocation (Figure 25). The single-category approach provides the investment management team more flexibility, while the multi-category approach puts more constraints on how the public allocations are implemented.

A small percentage (8%) of respondents roll PE/VC together with public equity into a single category in their policy framework. In these instances, a name such as "Growth" or simply "Equity" is used to capture the combined exposure. A majority of foundations (58%) have a dedicated target for PE/VC or break out non-venture private equity and venture capital separately. The remaining 35% of respondents include PE/VC together with other private strategies into a single private investments category in their framework.

FIGURE 25 CAPTURING EQUITIES IN THE ASSET ALLOCATION POLICY



Source: Foundation data as reported to Cambridge Associates LLC.

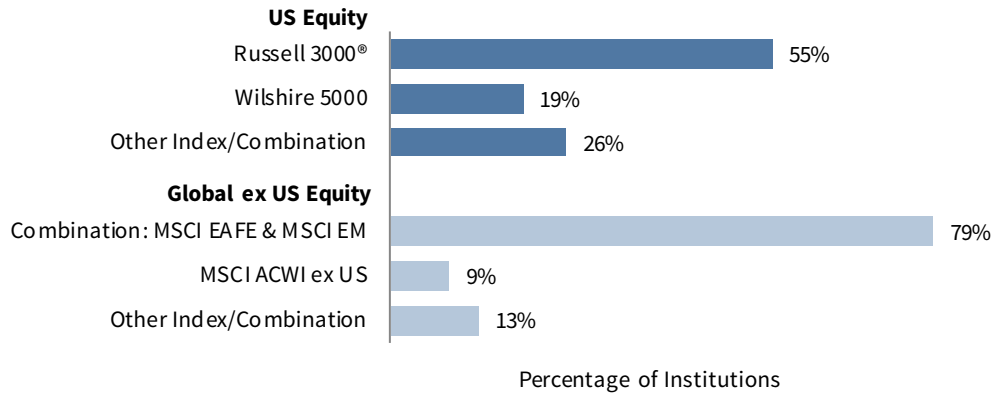
COMPONENTS OF POLICY PORTFOLIO BENCHMARKS

When done well, benchmarking is all about answering the question, "How are we doing?" in ways that are both accurate and relevant to the objectives of the portfolio being measured. The comparison of a foundation's return to its policy portfolio benchmark is used to evaluate whether the portfolio is being successfully implemented according to its asset allocation policy. Such an evaluation not only captures the impact of manager selection decisions, but also the effect of differences between the portfolio's actual asset allocation and the policy targets. The policy portfolio benchmark is typically a blend of indexes that represents the desired portfolio risk exposures without any expression of more active alternatives. In certain alternative asset classes, there are no investable proxies and other types of benchmarks may be used.

The structure of the policy portfolio benchmark matches or closely resembles the framework of the asset allocation policy for most foundations.[4] Of those that use a single category for their entire public equity allocation in the policy framework, over 90% also use the MSCI All Country World Index to represent that allocation in the policy benchmark. In instances where foundations use separate policy targets for US and global ex US categories, the Russell 3000® Index was most commonly cited for US equity and a combination of the MSCI EAFE and MSCI Emerging Markets indexes was most prevalent for global ex US equity (Figure 26).

FIGURE 26 FREQUENTLY USED COMPONENTS OF POLICY PORTFOLIO BENCHMARKS: PUBLIC EQUITY FOR US AND GLOBAL EX US REGIONS

As of December 31, 2021 • n = 47



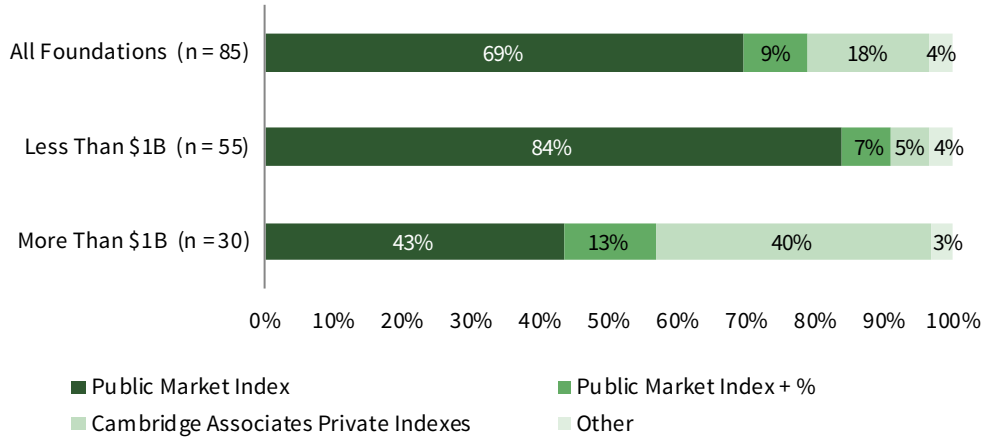
Source: Foundation data as reported to Cambridge Associates LLC.

Accounting for private equity in the policy benchmark can be challenging because there is no single index that meets all of the standards of a valid benchmark. Hence, there are different approaches that we see used across foundations in this study. For the overall respondent group, the use of a public index is the most common practice as 69% of respondents use this method (Figure 27). The rationale for using this approach is that the capital would have been invested in public equity markets if it was not invested in private equity. Therefore, the public index can help evaluate whether the decision to invest in private equity paid off for the portfolio. The use of the public index can also be a straightforward approach when a foundation is still in a phase of building up its private program and there is an underweight in current private allocations versus the long-term target. This may be one explanation for why this approach is more common at smaller foundations compared to larger peers.

4 For this section, we exclude respondents that reported a simple benchmark as their policy benchmark. A simple benchmark typically incorporates a broad-based equity benchmark and a bond index weighted in proportion to the overall risk profile of the portfolio. Just 6% of respondents that provided data on their policy portfolio benchmark reported a simple benchmark.

FIGURE 27 FREQUENTLY USED COMPONENTS OF POLICY PORTFOLIO BENCHMARKS: PRIVATE EQUITY

As of December 31, 2021

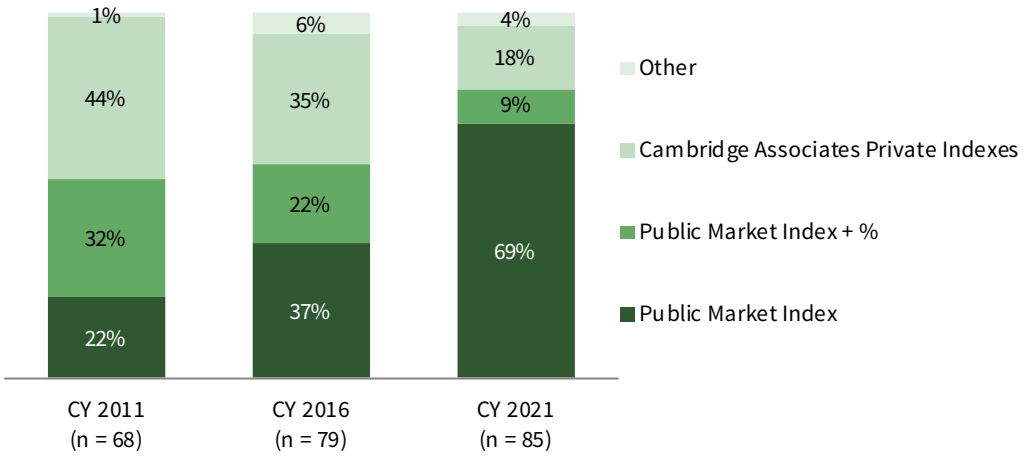


Source: Foundation data as reported to Cambridge Associates LLC.

While the use of a public equity index in this way can capture the opportunity cost of investing in private equity, it does not evaluate how well those private allocations are implemented. Approximately 18% of the total participant group use the CA private investment indexes, which are calculated by pooling together all of the cash flows and valuation changes for the underlying private funds that are included in a specific strategy's index. These indexes are not investable, nor is there transparency into the names and weightings of the private companies included, and consequently they don't satisfy the requirements sought for an ideal benchmark. However, these indexes can be custom weighted by vintage year and provide a better evaluation of private investment fund selection compared to what a public index offers. This is likely why this approach is most prevalent among larger foundations, of which many have performance-based incentive compensation programs for their investment staff.

The CA private indexes were the most common benchmarks used for private equity and venture capital ten years ago, when 44% of foundations reported this approach (Figure 28). Another common method in 2011 was the use of a public index return plus a prespecified percentage. The reasoning behind this approach is based on the expectation that investing in private equity offers an illiquidity premium, or the potential to earn a return that is above and beyond what can be earned in the public equity market. However, the addition of a premium to a public index return introduces a non-market force that fails the test for having the qualities of a valid benchmark. Present day, just 9% of respondents add a prespecified percentage to a public index return to represent their private equity allocation in the policy benchmark.

FIGURE 28 TREND IN PRIVATE EQUITY BENCHMARKS

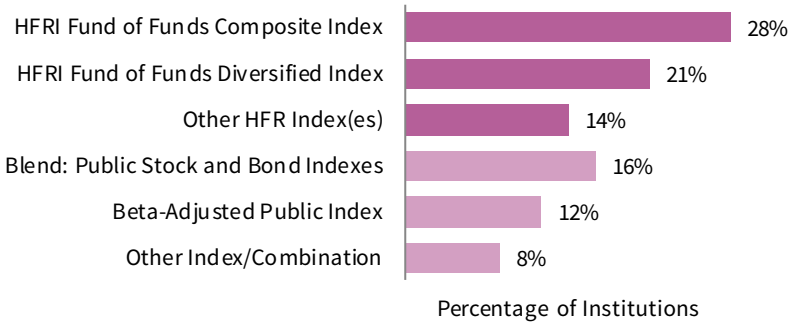


Source: Foundation data as reported to Cambridge Associates LLC.

Foundations also face similar challenges of selecting an appropriate index when accounting for hedge fund allocations in the policy benchmark. Hedge Fund Research® (HFR) produces indexes that broadly track hedge fund managers that report to their database. The HFR indexes may be defined more granularly by investment substrategies, geographic regions, and other criteria. While foundations may use this approach to evaluate their own manager selection versus a broad universe of hedge funds, these indexes lack some of the desired qualities of a valid benchmark, such as being investable and transparent. Still, more than half of the respondent group use one or more of the indexes calculated by HFR. The HFRI Fund of Funds (FOF) Composite Index was used by 28% of foundations, while the HFRI FOF Diversified Index was the next most commonly cited (21%). Another 14% of respondents use another index or a combination of indexes provided by HFRI. As shown in Figure 29, the remaining respondents use either a beta-adjusted public equity index, a blend of a public equity index and a bond index, or some other type of index.

FIGURE 29 FREQUENTLY USED COMPONENTS OF POLICY PORTFOLIO BENCHMARKS: HEDGE FUNDS

As of December 31, 2021 • n = 85

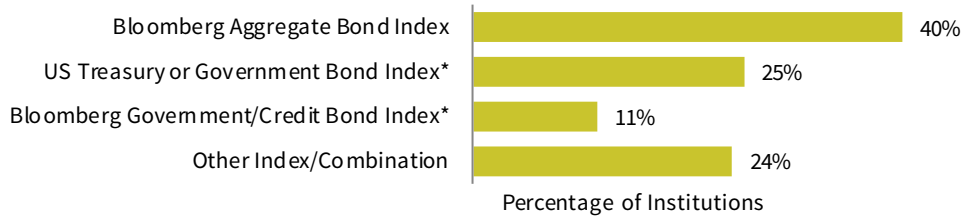


Source: Foundation data as reported to Cambridge Associates LLC.

The Bloomberg Aggregate Bond Index was the most common benchmark for fixed income but was cited by just 40% of foundations (Figure 30). Approximately one-quarter of respondents use a US Treasury or US government bond index, and another 11% use a version of the Bloomberg Government/Credit Bond Index. There are different versions for each of these indexes based on range of maturity and many foundations use the specific version that reflects their portfolio's underlying fixed income exposure. The remaining 24% of respondents use some other type of index or a combination of multiple indexes. For real assets, benchmark combinations are even more unique across the participant group due to the wide variety of strategies employed under this category.

FIGURE 30 FREQUENTLY USED COMPONENTS OF POLICY PORTFOLIO BENCHMARKS: FIXED INCOME

As of December 31, 2021 • n = 96



Source: Foundation data as reported to Cambridge Associates LLC.

*Includes subindexes of the overall strategy that have various ranges of maturity.

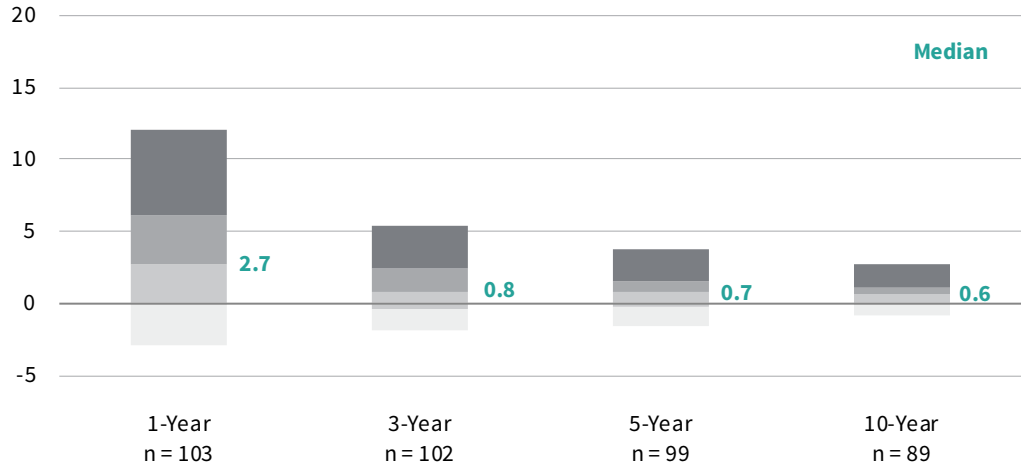
INVESTMENT PERFORMANCE VERSUS POLICY PORTFOLIO BENCHMARKS

The various approaches to benchmarking covered in this section are important to keep in mind when analyzing foundation performance relative to policy benchmarks. This is perhaps most evident with the benchmarking of PE/VC. As we detailed in the Investment Portfolio Returns section, the CA Private Equity and Venture Capital index returns were substantially higher than the performance of public equity indexes in 2021. Foundations that use the private indexes calculated a policy benchmark return that was considerably higher compared to what it would have been if a public index were used to represent PE/VC, and vice versa.

Nearly three-quarters (74%) of participating foundations outperformed their policy portfolio benchmark in 2021. The median spread between the actual return and the policy benchmark return was 2.7 ppts (Figure 31). The range of results among foundations was extremely large, with the spread at the 5th percentile reaching 12.0 ppts. The magnitude of outperformance for the most recent calendar year across most foundations also help boost results for longer periods. A similar percentage of participants (73%) reported a return that outperformed their policy benchmark over the trailing ten-year period.

FIGURE 31 RANGE OF OUT/UNDERPERFORMANCE OF TOTAL RETURN VS POLICY PORTFOLIO BENCHMARK

Years Ended December 31, 2021 • Percentage Points • By Percentile Ranking



Source: Foundation data as reported to Cambridge Associates LLC.

Note: Data points represent the difference between the total portfolio return and the policy portfolio benchmark return.

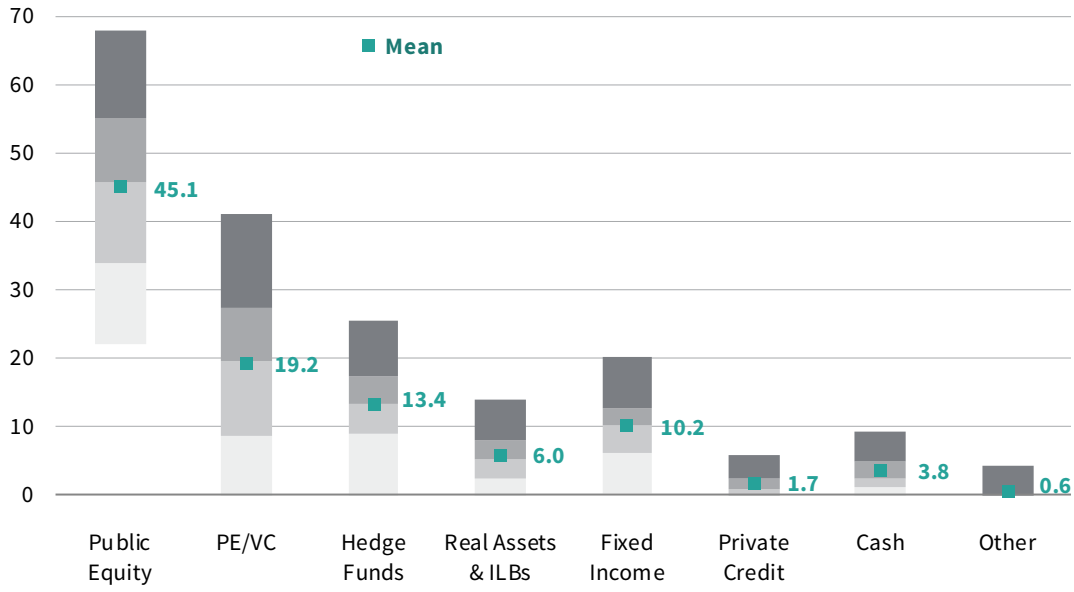
Section 3: Portfolio Asset Allocation

2021 ASSET ALLOCATION

Most foundations had significant allocations to equities at the end of 2021. On average, 45.1% of the long-term investment portfolio (LTIP) was invested in long-only public equities and 19.2% was allocated to PE/VC (Figure 32). However, the range in allocations reported across respondents was extremely wide within these categories. Even after removing the top and bottom 5% of outliers, public equity allocations were as high as 68% at the top end of the universe and as low as 22% at the bottom end. For PE/VC, allocations ranged from 41% at the 5th percentile to no allocation at the 95th percentile.

FIGURE 32 SUMMARY ASSET ALLOCATION DISTRIBUTION

As of December 31, 2021 • Percent (%) • n = 112 • By Percentile Ranking



Source: Foundation data as reported to Cambridge Associates LLC.
Note: For more information, see page 60 in the Appendix.

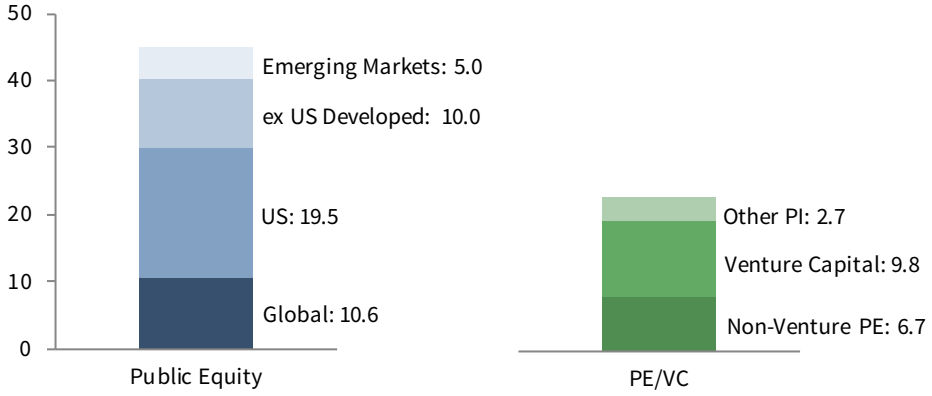
Figure 33 shows the breakdown of detailed categories that fall under public equity and PE/VC in our asset allocation framework. On the public side, we collect data based on the primary geographic region that each fund/manager is invested.[5] The highest allocations among the public categories tend to be in US-focused funds, with 19.5% of the average LTIP invested in these strategies. Foundations have substantial allocations to equities outside of the US, with an average of 10.0% allocated to funds that primarily invested in global ex US developed regions and another 5.0% invested with dedicated emerging markets funds. Funds that are invested across multiple geographic regions are included in our global category and make up 10.6% of the average LTIP.

5 We reference investment managers and their funds in our review of asset allocations in this section. However, some foundations gain exposure to these asset classes via internally managed holdings or derivatives. The Investment Manager Structures section contains analysis on how asset allocations are implemented across various strategies.

The largest average allocation on the private side was to venture capital (9.8%), while the average allocation to non-venture private equity was 6.7%. Non-venture private equity in our framework consists of buyouts and growth equity, which is aligned with the way these strategies are combined in the CA Private Equity indexes. A third category called "other private investments" is reserved for multi-strategy fund-of-funds, secondaries, and other private funds that can't be allocated solely to either of the aforementioned categories. The average allocation to other PI was just 2.7%.

FIGURE 33 MEAN ASSET ALLOCATION: PUBLIC EQUITY AND PE/VC

As of December 31, 2021 • Percent (%) • n = 112



Source: Foundation data as reported to Cambridge Associates LLC.

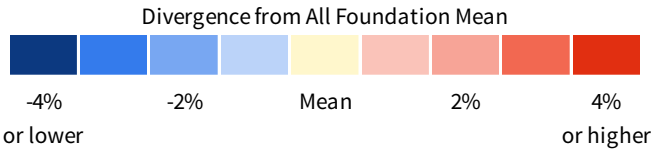
Elsewhere in the reporting framework, the average allocation to hedge funds was 13.4% (Figure 32). Real assets, which consist of a diversified group of public and private assets, made up 6.0% of portfolios, on average. Fixed income made up 10.2% of the average LTIP, while private credit accounted for just 1.7%. Rounding out the average asset allocation among participants, 3.8% was allocated to cash and 0.6% was allocated other miscellaneous assets. Average allocations for the more granular asset classes that fall under these broader categories are included in the appendix.

The total asset size of the LTIP has long been a key factor in the variation of asset allocations among foundations. Smaller portfolios continue to maintain higher allocations to fixed income and public equities, while larger portfolios have the highest allocations to alternative assets. The differences are most noticeable in the breakdown of public equity versus private equity. Foundations with assets less than $100 million had an average allocation of 54.0% to public equity, while those with assets greater than $1 billion had an average of 37.7% (Figure 34). For PE/VC, the largest foundations had an average allocation of 28.0%, while the smallest foundations had an average of 9.4%.

FIGURE 34 MEAN ASSET ALLOCATION BY ASSET SIZE

As of December 31, 2021 • Percent (%)

Asset Size	Public Equity	PE/VC	Hedge Funds	Private Credit	Fixed Income	Real Assets & ILBs	Cash
Less Than $100M *n = 20*	54.0	9.4	10.0	0.5	16.4	5.5	3.1
$100M–$300M *n = 33*	45.9	17.1	15.9	2.0	10.4	4.1	3.8
$300M–$1B *n = 22*	48.0	16.6	12.0	1.7	11.4	6.5	3.2
More Than $1B *n = 37*	37.7	28.0	13.8	2.0	6.0	7.6	4.5
All Foundation Mean *n = 112*	45.1	19.2	13.4	1.7	10.2	6.0	3.8



Source: Foundation data as reported to Cambridge Associates LLC.
Note: For more information, see page 60 in the Appendix.

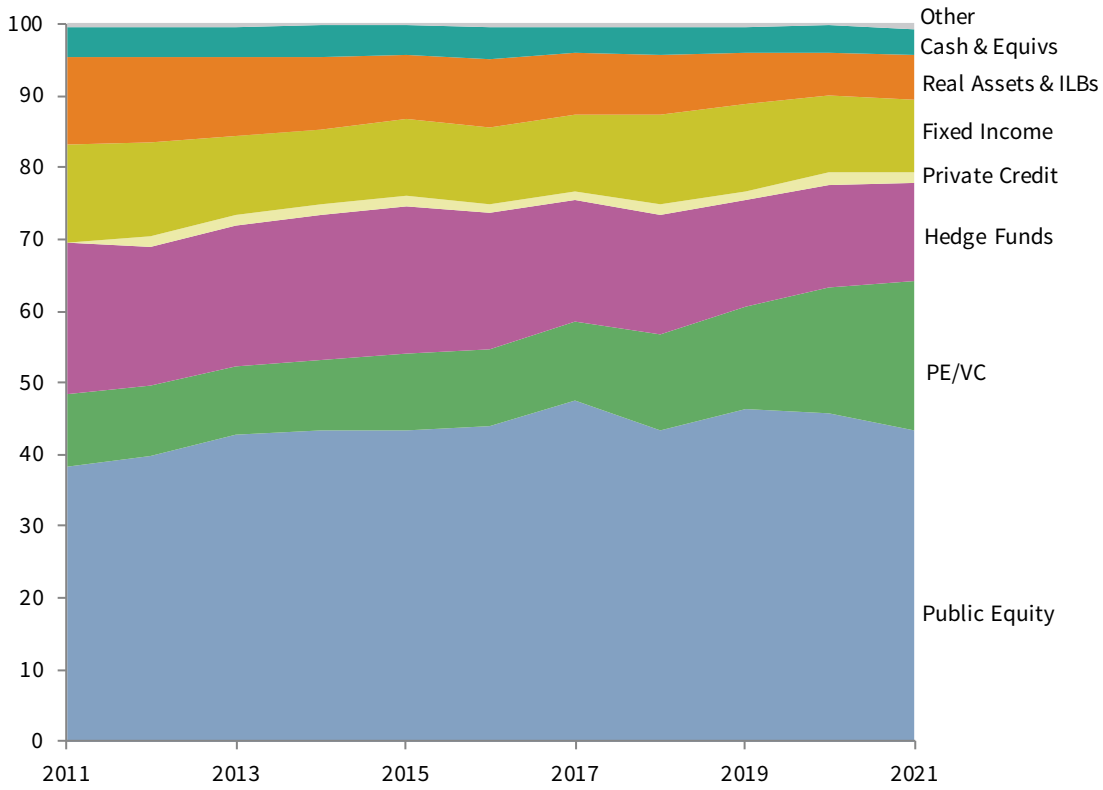
HISTORICAL ASSET ALLOCATION

Institutional investors that have adopted the endowment model of investing have seen significant shifts in their asset allocation policies over the last few decades. Exposure to bonds has decreased substantially, while the equity allocation—which once was invested overwhelmingly in US public equities—has become more diversified. The largest institutions pioneered this transition in the 1980s, with the trend spreading among other institutions in the 1990s. Allocations to alternative asset classes increased throughout the first decade of the 2000s, although they were weighted more heavily towards hedge fund and inflation-hedging strategies than to private equities.

Figure 35 picks up the trend in asset allocations beginning in 2011 and shows how average allocations have shifted over the last ten years. The investment environment for the ten years ended December 31, 2021, was characterized by a sustained bull market for equity-oriented assets and a historically low interest rate environment for bonds. The average allocation to equities trended up over the last decade, with higher increases reported to public equities compared to private equities through 2017. However, allocations to PE/VC have risen dramatically since 2017, which is a result of both increased private commitments by foundations and the extraordinary investment performance from these strategies. Meanwhile, average allocations to hedge funds, real assets, and fixed income have trended down over the last decade.

FIGURE 35 HISTORICAL MEAN ASSET ALLOCATION TRENDS

Years Ended December 31 • Percent (%) • n = 71



Source: Foundation data as reported to Cambridge Associates LLC.
Note: For more information, see page 61 in the Appendix.

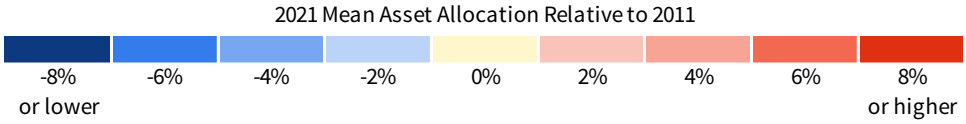
Foundations of various asset sizes followed the same overall trends from the last decade (Figure 36). Each asset size group saw increases to PE/VC, with portfolios between $300 million and $1 billion reporting the highest average increase (14.0 ppts) and those under $100 million reporting the smallest average increase (4.2 ppts). The average public equity allocation rose for each asset size cohort, although the increases were largest among foundations less than $100 million.

There was a stark contrast between the trend in growing equity allocations and the decreases that were reported elsewhere in portfolios. The largest decrease in the average asset allocation structure was to hedge funds for most of the asset size groups. Each cohort also reported meaningful decreases in the average allocation to real assets. In addition, the average allocation to fixed income declined for all subgroups except for foundations less than $100 million.

FIGURE 36 TRENDS IN MEAN ASSET ALLOCATION BY ASSET SIZE

Means as of December 31 • Percent (%)

	Public Equity	PE/VC	Hedge Funds	Private Credit	Fixed Income	RA & ILBs	Cash
Less Than $100M (n = 13)							
2011	40.9	6.2	18.8	NA	17.5	10.6	5.7
2021	52.3	10.4	8.6	0.4	18.9	5.5	2.3
$100M–$300M (n = 21)							
2011	41.5	6.8	20.6	NA	14.6	11.4	3.7
2021	45.5	19.1	15.9	1.9	9.2	5.0	3.1
$300M–$1B (n = 12)							
2011	41.4	3.7	20.8	NA	17.3	12.5	4.0
2021	46.7	17.7	12.1	1.2	11.3	6.7	3.5
More Than $1B (n = 25)							
2011	33.2	17.8	22.4	NA	9.2	13.9	3.4
2021	35.5	29.2	14.8	2.1	6.0	7.4	4.7



Source: Foundation data as reported to Cambridge Associates LLC.

Notes: Analysis only includes respondents that provided data for 2011 and 2021. Private credit was not a part of our asset allocation framework in 2011. Analysis does not include allocations to the "Other" asset class category.

TARGET ASSET ALLOCATION

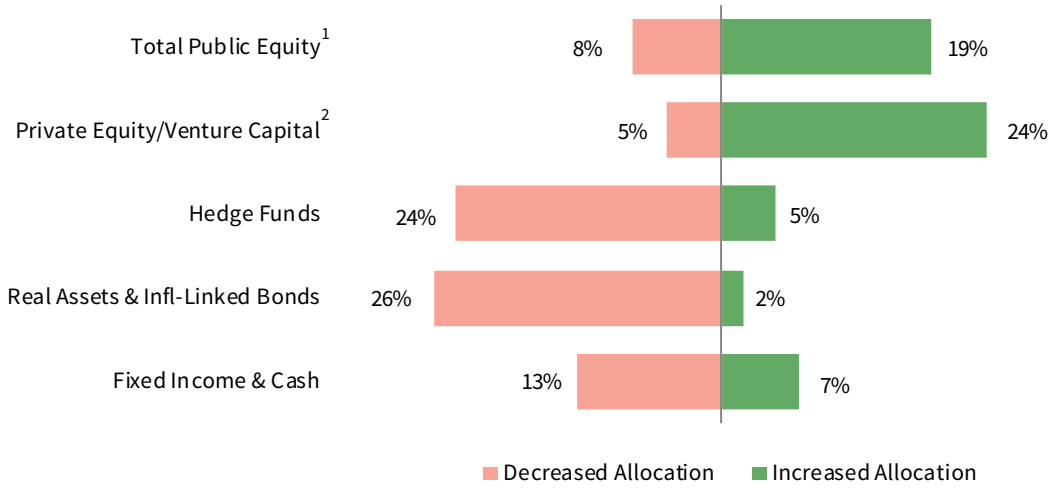
Target asset allocation data can be insightful for evaluating whether institutions are altering their long-term asset allocation policies going forward. Our survey requests that participants provide their asset allocation policy exactly as stated in their investment policy statements. While there are differences in how policy frameworks are structured across institutions, we are able to make some general observations as to where foundations are tilting toward increasing or decreasing their allocations in the future.

The trend in target asset allocations for 2021 was very similar to the recent trends in actual allocations that we just reviewed. In general, more institutions increased policy allocations to equities than those that reported a decrease. The contrast was most striking with PE/VC, where 24% of foundations reported an increase in the target allocation and just 5% reported a decrease (Figure 37). For public equity, the percentage of respondents that increased (19%) their target over the past year was more than double the percentage that reported a decrease (8%).

Meanwhile, 26% of foundations reported that they lowered their target allocation to real assets, while just 2% increased their target. The results were similar for hedge funds, where 24% of respondents decreased their target compared to 5% that reported an increase. The percentages were closer for fixed income, although the percentage reporting an increase (7%) was still less than the percentage that reported a decrease (13%).

FIGURE 37 CHANGES IN TARGET ASSET ALLOCATION

December 31, 2020 – December 31, 2021 • Percentage of Institutions Increasing or Decreasing Targets



Source: Foundation data as reported to Cambridge Associates LLC.

[1] Total public equity excludes institutions that combine public equity together with PE/VC in a single equity category.

[2] Private equity/venture capital includes institutions that include PE/VC together with other private investments in a single category.

PRIVATE INVESTMENTS AND UNCALLED CAPITAL COMMITMENTS

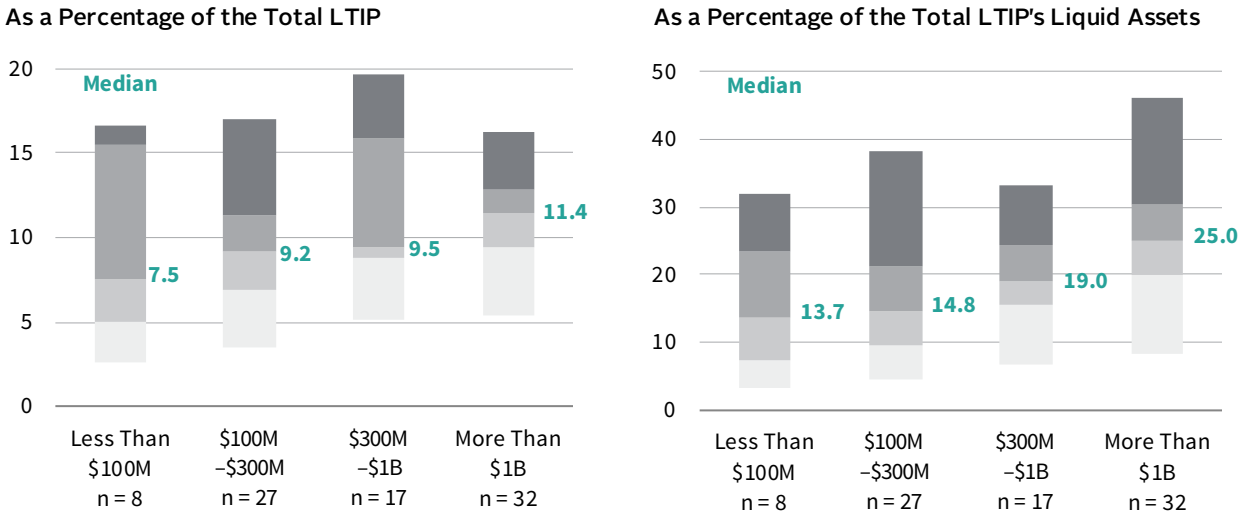
One of the core principles of the endowment model is the use of private investments that, in part due to their illiquid nature, offer the potential for higher long-term returns than those of public or marketable assets. As our analysis in this section has shown, foundations have been allocating an increasingly significant portion of their portfolios to private investments. As of the end of 2021, the average total private investment allocation for the overall participant group was nearly 25%. For foundations greater than $1 billion, the average allocation was even larger at 36%.

Uncalled capital commitments represent the amount of capital that institutions have agreed to pay into private investment funds in the future. While annual spending distributions have traditionally made up the biggest liquidity need for foundations, growing allocations to private assets have resulted in uncalled capital becoming an important piece of the liquidity picture as well. Whether a foundation is ramping up private allocations or simply maintaining an already high allocation, the amount of uncalled capital is significant when measured versus the total value of the portfolio for most participants in this study.

Uncalled capital commitments as a percentage of the total LTIP tend to be highest for the largest foundations. This should not be surprising, given the substantial differential in private allocations between the largest and smallest foundations in this study. The median ratio for foundations greater than $1 billion was 11.4%, which was higher than all of the other asset size cohorts (Figure 38). This asset size group also had the highest median ratio of uncalled capital commitments as a percentage of the portfolio's liquid assets, which excludes hedge funds and private investments, at 25.0%.

FIGURE 38 UNCALLED CAPITAL COMMITTED TO PRIVATE INVESTMENT FUNDS

As of December 31, 2021 • Percent (%) • By Percentile Ranking

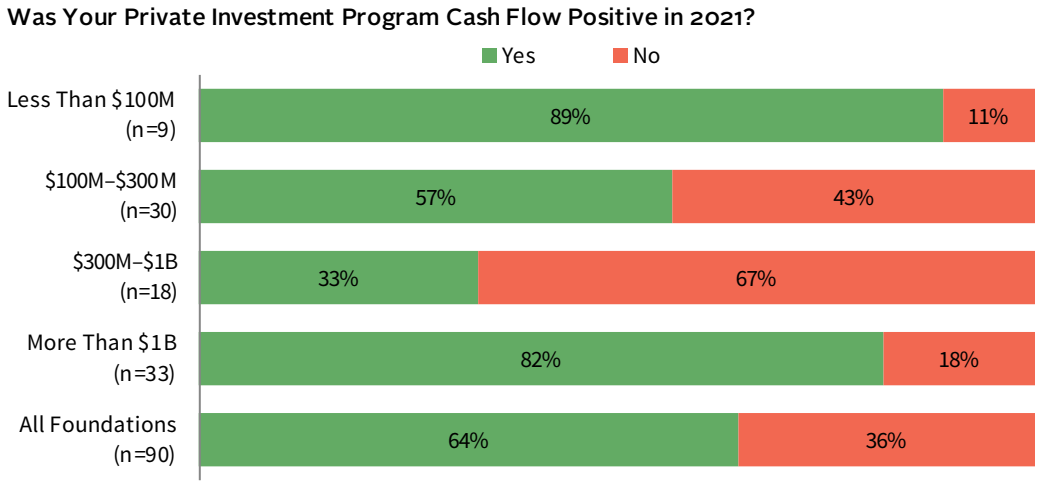


Source: Foundation data as reported to Cambridge Associates LLC.

Note: For more information, see page 61 in the Appendix.

A majority of respondents (64%) reported their private investment program was cash flow positive, meaning that the amount of distributions from private funds exceeded the amount of new capital paid in. The experience of the smallest foundations was actually very similar to that of the largest foundations, with more than 80% of both cohorts reporting that their programs were cash flow positive. The breakdown for each of the asset size subgroups are shown in Figure 39.

FIGURE 39 PRIVATE INVESTMENT PROGRAM CASH FLOW BY ASSET SIZE



Source: Foundation data as reported to Cambridge Associates LLC.

Note: Private investment fund programs were considered cash flow positive if fund distributions were higher than paid-in capital calls in calendar year 2021.

Section 4: Investment Manager Structures

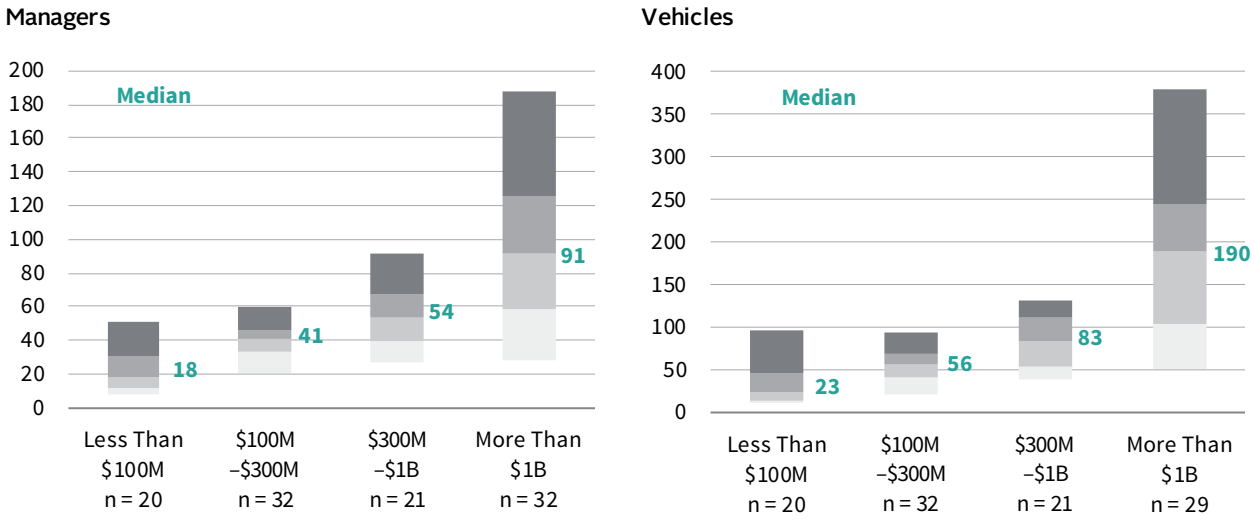
NUMBER OF EXTERNAL MANAGERS

Most of the assets under management at foundations are invested via external investment managers. There are multiple factors that contribute to the number of managers employed within a portfolio. The scale of total assets under management is the primary factor, as larger foundations generally spread their assets across a greater number of managers compared to smaller foundations. Among foundations greater than $1 billion, the median number of investment managers was 91 (Figure 40). At the opposite end of the asset size spectrum, the median for foundations less than $100 million was just 18 managers.

Our survey also asked about the number of vehicles invested in by foundations. For the purposes of our analysis, an investment vehicle represents a fund, product, or separate account that is managed by an investment manager. Foundations often invest in multiple investment vehicles of the same manager, particularly when it comes to private investment funds. Therefore, the number of vehicles foundations are invested in is much higher than the number of managers. The median number of vehicles ranged dramatically from 190 for foundations greater than $1 billion to 23 for foundations less than $100 million.

FIGURE 40 NUMBER OF EXTERNAL MANAGERS AND INVESTMENT VEHICLES

As of December 31, 2021 • Percent (%) • By Percentile Ranking



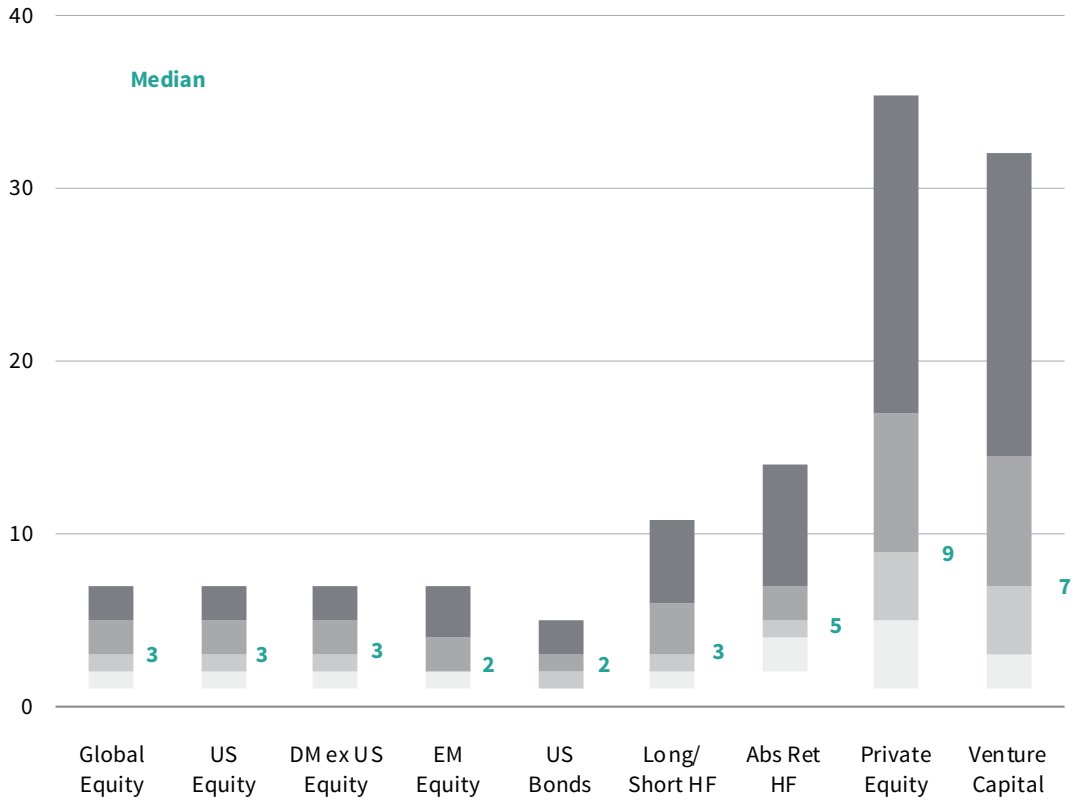
Source: Foundation data as reported to Cambridge Associates LLC.

Note: For more information, see page 62 in the Appendix.

Even within the broad asset size groups, the range of managers employed can be wide. Among the smallest foundations, the number of managers employed at the 25th percentile (31) is more than double the number used at the 75th percentile (12). For portfolios greater than $1 billion, 187 managers are employed at the 5th percentile compared to just 28 at the 95th percentile. Much of the variation can be attributed to the management of alternative asset classes. Figure 41 shows the range in number of

managers across foundations for a several asset classes. The dispersion in the number of alternative asset managers employed, particularly within private investments, is much wider than that of the more traditional equity and bond asset classes. Further detail on these and other asset classes is provided for the four broad asset size groups in the table on the next page.

FIGURE 41 DISPERSION IN NUMBER OF MANAGERS FOR SELECTED ASSET CLASSES
As of December 31, 2021 • By Percentile Ranking



Source: Foundation data as reported to Cambridge Associates LLC.
Notes: Only those institutions with an allocation to the specific asset class have been included. Funds-of-funds are counted as one manager. For more information, see page 62 in the Appendix.

ASSET CLASS IMPLEMENTATION

HEDGE FUNDS. There are two primary types of investment vehicles that institutions use when implementing their hedge funds allocations: a single manager fund and a fund-of-funds. With a single manager fund, the investment manager makes the decisions for the securities and assets held within the fund. In contrast, with fund-of-funds, the investment manager invests in a collection of other investment funds. More than three-quarters of responding foundations rely solely on single manager funds to implement their hedge fund allocations.

PRIVATE INVESTMENTS. Foundations also have single manager funds and fund-of-funds at their disposal when implementing private investment allocations. In addition, some foundations make direct investments in private strategies. Direct investments can take the form of co-investments that are made alongside a general partner or solo investments that are originated by the foundation itself.

TABLE EXTERNAL MANAGERS AND VEHICLES BY STRATEGY

As of December 31, 2021

Strategy	Median Number of Managers				Median Number of Vehicles			
	Less Than $100M	$100M –$300M	$300M –$1B	More Than $1B	Less Than $100M	$100M –$300M	$300M –$1B	More Than $1B
Traditional Equity								
Global Equity	2	3	3	4	2	3	3	4
US Equity	2	3	4	5	2	3	4	5
Developed ex US Equity	3	3	3	5	3	3	3	4
Emerging Markets Equity	2	2	2	4	2	2	2	4
Traditional Bonds								
Global Bonds	1	1	1	1	1	1	1	2
US Bonds	2	2	3	2	2	3	3	2
Global ex US Bonds	1	--	--	1	1	--	--	1
High-Yield Bonds	1	1	1	3	1	1	1	4
Hedge Funds								
Long/Short Hedge Funds	2	3	3	6	2	3	3	6
Absolute Return	3	5	5	7	3	5	5	9
Distressed Securities	1	1	2	2	1	1	2	2
Private Credit								
Distressed - Control Oriented	1	2	2	2	1	2	2	3
Private Credit ex Distressed	2	2	3	5	2	2	3	9
Private Equity								
Non-Venture Private Equity	6	6	9	20	7	8	15	40
Venture Capital	3	5	6	18	7	8	10	58
Other Private Investments	3	3	3	3	6	7	6	5
Real Assets & ILBs								
Private Real Estate	3	1	5	8	6	2	6	16
Public Real Estate	1	1	1	1	1	1	1	1
Commodities	1	1	1	1	1	1	1	1
Inflation-Linked Bonds (TIPS)	1	1	1	1	1	1	1	1
Private Oil & Gas/Nat Res	2	2	5	10	3	4	7	18
Public Energy/Nat Res	1	1	1	1	1	1	1	1
Cash	1	1	1	1	1	1	2	1
Other	1	1	1	1	1	1	1	1

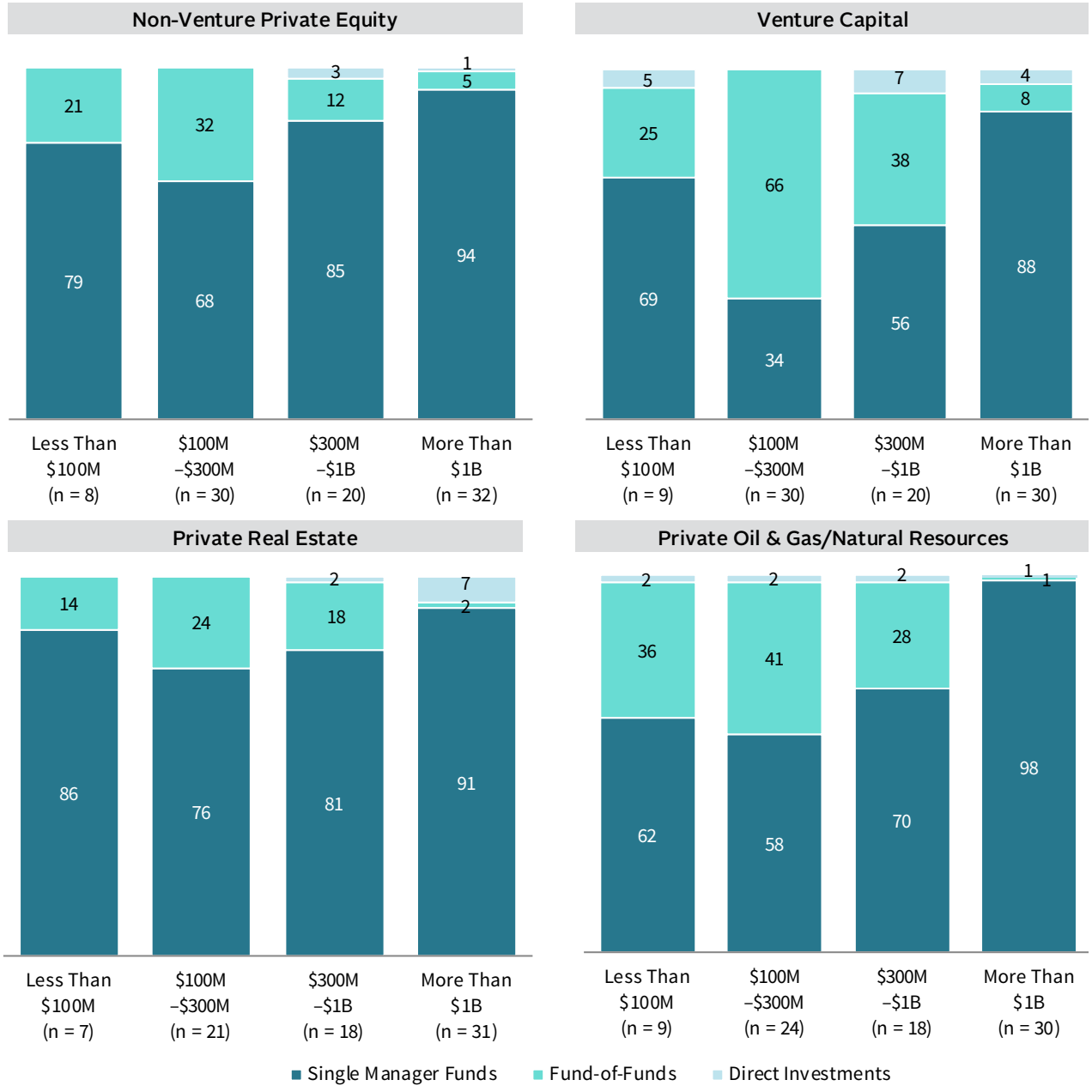
Source: Foundation data as reported to Cambridge Associates LLC.

Notes: Only those institutions with an allocation to the specific asset class are included in each category. As a result, the sum of the individual asset classes should not be assumed to equal the total number of managers or vehicles.

Compared to hedge funds, implementation practices are more varied across private investment asset classes. This is most evident in venture capital, where fund-of-funds are more common among smaller foundations than they are for larger foundations. On average, 66% of the venture capital allocation for foundations between $100 million and $300 million is implemented via fund-of-funds. In contrast, fund-of-funds make up just 8% of the average venture capital allocation for foundations greater than $1 billion. Figure 42 shows the average breakdown of allocations by implementation category for other private strategies.

FIGURE 42 PORTFOLIO IMPLEMENTATION: PRIVATE INVESTMENTS

As of December 31, 2021 • Equal-Weighted Means (%)



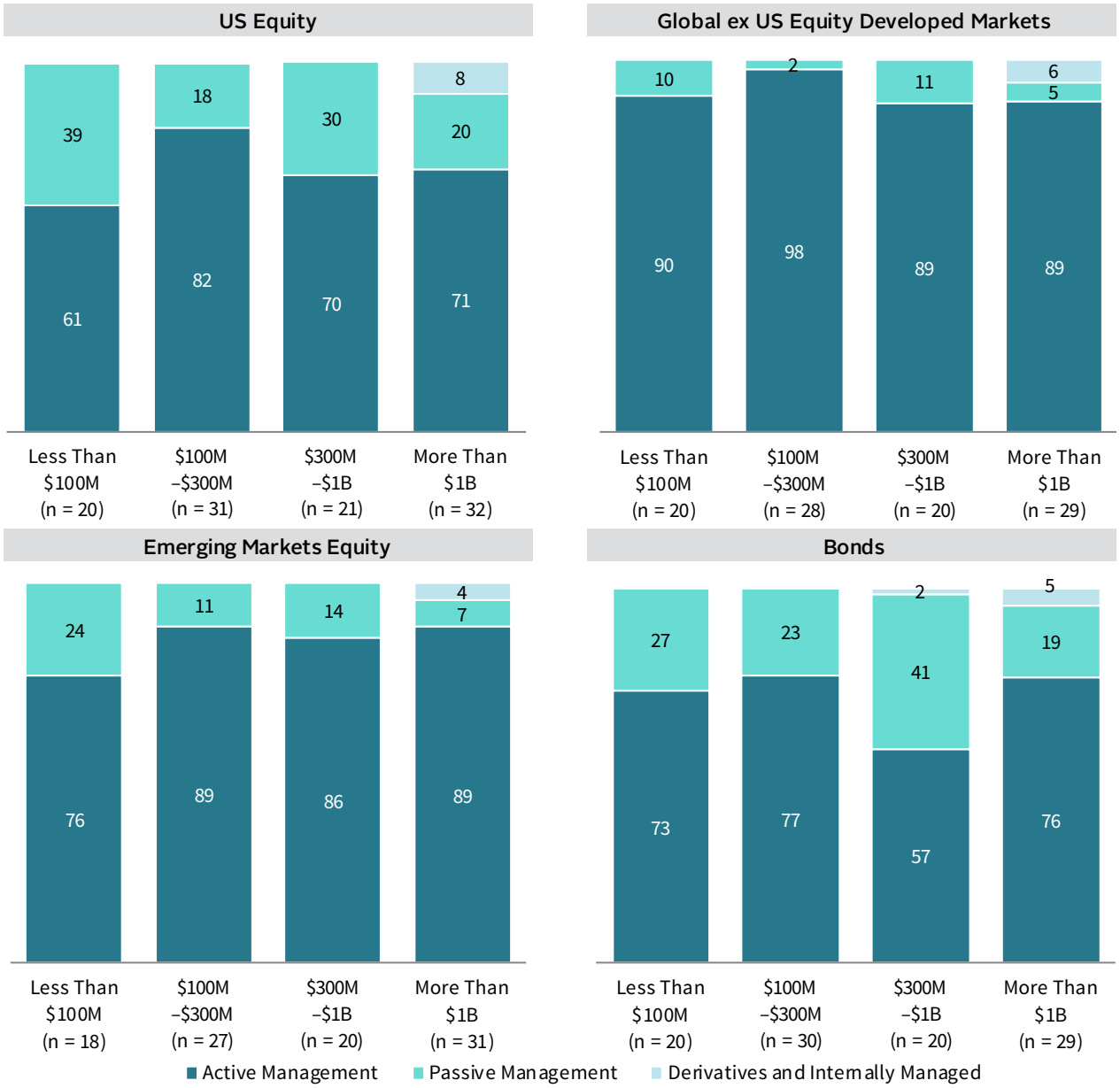
Source: Foundation data as reported to Cambridge Associates LLC.

Note: Analysis shows the average allocation of assets across the implementation categories for each peer group.

PUBLIC EQUITIES AND BONDS. For traditional bonds and equities, foundations primarily use external managers to implement their allocations. These assets are invested either through active or passively managed investment vehicles. Some foundations also manage assets internally or use derivatives to achieve desired exposures. The use of these implementation methods is most common among the largest portfolios (Figure 43).

FIGURE 43 PORTFOLIO IMPLEMENTATION: TRADITIONAL EQUITIES AND BONDS

As of December 31, 2021 • Equal-Weighted Means (%)



Source: Foundation data as reported to Cambridge Associates LLC.

Note: Analysis shows the average allocation of assets across the implementation categories for each peer group.

Section 5: Payout From the Long-Term Investment Portfolio

SPENDING REQUIREMENTS

While all foundations are charitable organizations, specific characteristics and objectives help to distinguish foundations into three broad classification types.

Private foundations, which generally receive funding from a single donor, are defined by the IRS as one of two types: operating or non-operating. Though both must meet an annual spending requirement, each is subject to different conditions that determine the minimum spending amount.

PRIVATE NON-OPERATING FOUNDATIONS. Private non-operating foundations, which make up the majority of participants in this study, are required to make qualifying distributions that amount to approximately 5% of their asset value every year. They function primarily as grant-making organizations, providing funding and support to other charitable organizations.

PRIVATE OPERATING FOUNDATIONS. In contrast, private operating foundations are not established with the intention to fund grants to outside organizations, but to provide funding and support to the foundation's own programs and activities. Bound by an annual spending requirement, private operating foundations are subject to specific guidelines that determine their minimum amount.

COMMUNITY FOUNDATIONS. Community foundations are a type of public charity, deriving funds from many donors rather than a single source. They mainly function as grant-making organizations, funding charitable support in the immediate region or locality where they are located. Community foundations are not subject to a minimum spending requirement.

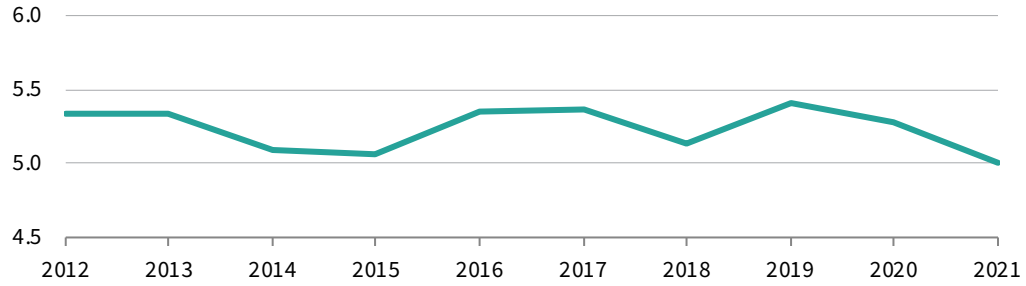
PAYOUT RATES

Annual spending distributions are withdrawn from investment assets to fund grants, direct charitable programs, program-related investments, and administrative expenses related to charitable purposes. The payout rate in this study is calculated as the total spending from the LTIP for the year as a percentage of the portfolio's beginning year market value.

For the 41 private non-operating foundations that provided data in 2021, the median payout rate was 5.1%. When looking at a constant universe of 20 foundations that provided data from 2012 to 2021, the median payout for 2021 was the lowest of from this past decade (Figure 44).

FIGURE 44 TREND IN MEDIAN ANNUAL PAYOUT RATE

2012–21 • Percent (%)

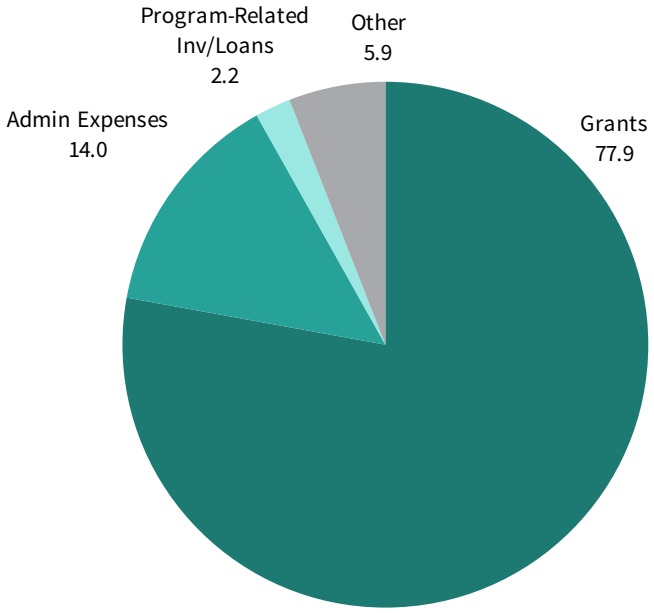


Source: Foundation data as reported to Cambridge Associates LLC.
Note: Data represent the average of 20 private non-operating foundations that provided payout rates for each year from 2012 to 2021.

COMPONENTS OF PAYOUT. Figure 45 takes a detailed look at the different components that comprise the annual payout distribution for private non-operating foundations. Grants are the single largest component of annual payout, making up an average of 78%. Administrative expenses were the next largest component, representing about 14% of total payout.

FIGURE 45 COMPONENTS OF PAYOUT DISTRIBUTION

2021 • Percent (%) of Total Payout



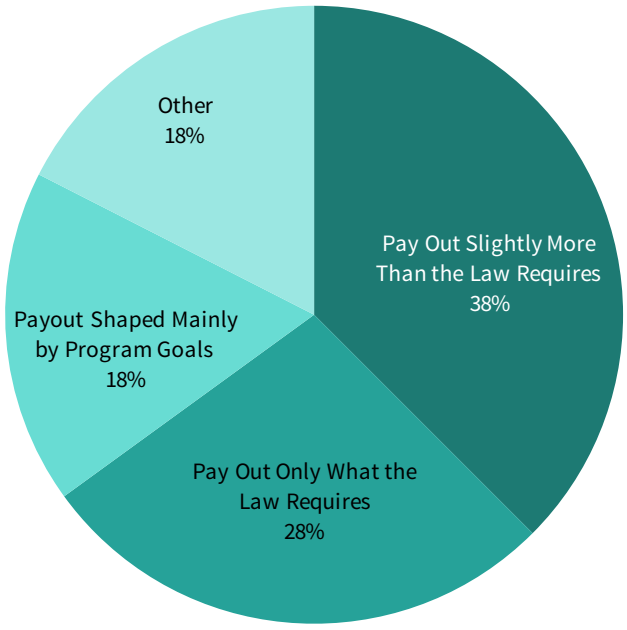
Source: Foundation data as reported to Cambridge Associates LLC.
Note: Analysis included data for 33 private non-operating foundations.

PAYOUT OBJECTIVES

Of the 40 private non-operating foundations that provided information about their payout objective, 38% indicated that their objective is to pay out slightly more than the law requires while 28% aim for the 5% requirement. Another 18% had an objective shaped mainly by program goals while a similar percentage reported their objective was something other or a combination of the aforementioned objectives (Figure 46).

FIGURE 46 PAYOUT POLICY OBJECTIVES FOR PRIVATE NON-OPERATING FOUNDATIONS

2021 • n = 40



Source: Foundation data as reported to Cambridge Associates LLC.

Section 6: Investment Office Staffing and Governance

In this section, we provide a snapshot of foundation management in 2021. Forty-two foundations responded to this section of our survey including 23 foundations with assets greater than $1 billion and 19 with assets less than $1 billion. Some foundations chose not to respond to every question within this section or the question was not applicable to them. The universe size for each analysis is noted in the subsequent figures.

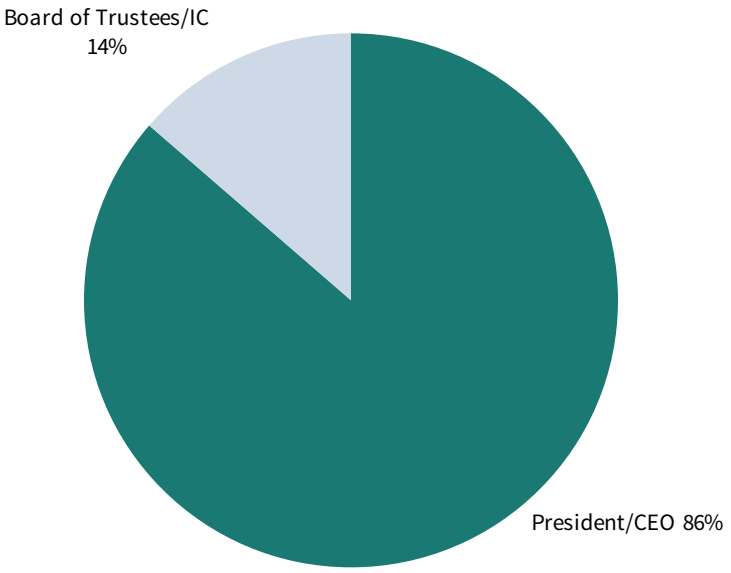
INVESTMENT OFFICE STAFFING AND OUTSIDE RESOURCES

The primary mission of an investment office is to assume day-to-day responsibility for the foundation's investment assets. This mission will be defined by the set of functions that internal investment office staff will carry out or oversee. Since both the investment philosophy and the demands on the office will vary among foundations, each office will have its own unique profile. Therefore, when evaluating the current structure or anticipated growth of an investment office, it is important to consider not only the size of the asset base, but also the portfolio's complexity, the use of outside consultants or advisors, and the level of involvement by boards and committees. Both the number of internal professional investment staff and the depth of specialization required to successfully manage the asset base will fluctuate based on these characteristics.

CHIEF INVESTMENT OFFICER. The presence of a dedicated Chief Investment Officer (CIO) correlates with asset size and is most common at larger foundations. Most respondents with assets greater than $1 billion have a full-time CIO leading the investment program. Foundations under $1 billion tend to rely heavily on outside advisors for portfolio management duties. Where there is a CIO, it is most common for the position to report directly to the CEO or President of the foundation (Figure 47).

FIGURE 47 CHIEF INVESTMENT OFFICER REPORTING LINES

Calendar Year 2021 • n = 22



Source: Foundation data as reported to Cambridge Associates LLC.

Foundations with smaller asset sizes rely more heavily on outside advisors or a chief financial officer to oversee investment assets. In these cases, the chief financial officer might work closely with external investment advisors to develop an investment strategy and monitor investment managers. It is also becoming more commonplace for foundations of this size to outsource some or the entire portfolio to an OCIO.

STAFFING LEVELS. Investment office personnel are typically divided into investment management and investment operations. Investment management staff is responsible for implementing the investment policy of the committee and can include: a chief investment officer, risk officer(s), investment director(s), investment officer(s), portfolio manager(s), and analyst(s). Investment operations staff is responsible for the management of custodian and broker relationships, transaction processing, capital call management, accounting, performance measurement, and, in some cases, conducting operational due diligence on investment managers.

Our survey results show that investment office staffing typically correlates with asset size. This is perhaps not surprising as larger portfolios tend to invest with more fund managers and favor a more active investment approach, which can require more resources. On average, foundations that oversee more than $1 billion in assets employ a total of 9.2 full-time equivalent (FTE) split between investment management and investment operations, while foundations less than $1 billion have much smaller in-house investment resources (if any) and use outside professionals to manage or assist in managing the investment portfolio. Foundations with assets under $1 billion are at 1.5 total FTEs, on average (Figure 48).

FIGURE 48 AVERAGE STAFFING LEVELS
Calendar Year 2021 • Number of FTEs

Source: Foundation data as reported to Cambridge Associates LLC.

Personnel consisted of a mixture of senior-, mid-, and junior-level positions. Senior investment professionals typically carry the title of Investment Director or Managing Director and have more than ten years of professional experience. Mid-level professionals can hold the titles of Investment Officer or Associate and bring five to ten years of experience. Junior-level positions are usually recent graduates or those with a few years of experience. Junior positions usually carry the title of Investment Analyst or Associate. Figure 49 provides the average FTEs for those offices that manage more than $1 billion and have investment staff.

FIGURE 49 AVERAGE INVESTMENT STAFF BY FUNCTION

Calendar Year 2021 • Number of FTEs

	Investment Management			Investment Operations		
	Senior	Mid	Junior	Senior	Mid	Junior
More Than $1B	3.4	1.8	2.7	0.8	1.2	1.6
n	*17*	*9*	*17*	*5*	*13*	*10*

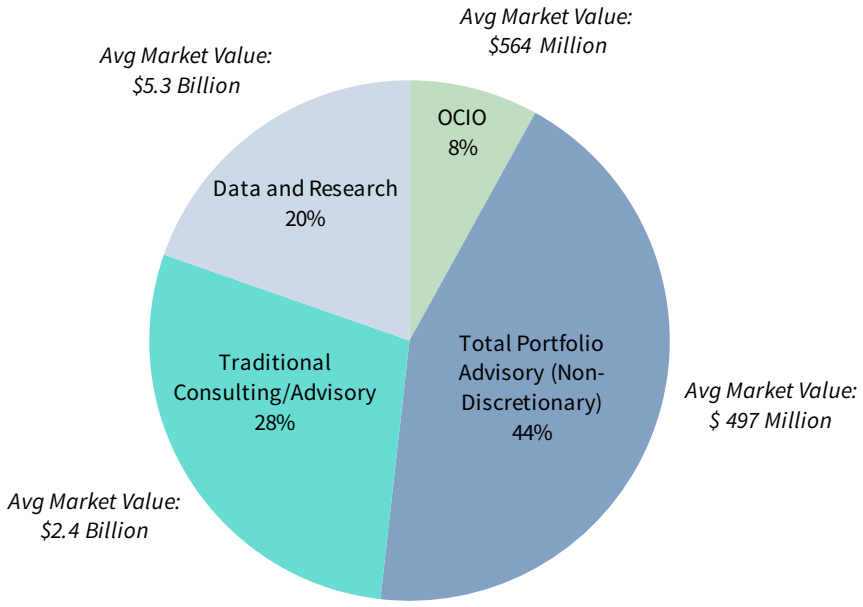
Source: Foundation data as reported to Cambridge Associates LLC.

Notes: Office leadership positions (CFO/CIO), IT, and Legal support are not included in the analysis. Only institutions with personnel at the specific staffing level are included in each category. Therefore, the sum of the personnel across each category will not equal the total investment office FTEs.

RELIANCE ON OUTSIDE ADVISORS AND CONSULTANTS. Foundations engage external advisors and consultants in varying degrees and across a wide variety of functions. Based on survey responses and our understanding of how each survey participant engages with CA, Figure 50 broadly illustrates how the 112 participants in this study work with outside advisors or consultants. Foundations with assets less than $1 billion rely more heavily on external advisors to manage, or help manage, their investment portfolios, while larger foundations will seek outside support in the form of research, data, or asset class specialization.

FIGURE 50 USE OF EXTERNAL ADVISORS AND CONSULTANTS

Calendar Year 2021 • n = 112



Source: Foundation data as reported to Cambridge Associates LLC and CA's service contract records.

Of the foundations in this study, 8% use CA for discretionary portfolio management services. Also known as OCIO, this management model allows a foundation to fully delegate portfolio management decision making to an outside firm. These firms are accountable for portfolio strategy, implementation, day-to-day management, and operations. Managing the portfolio within agreed upon policy guidelines, the outsourced investment team makes manager selection, manager termination, tactical asset allocation, and portfolio rebalancing decisions.

Another 44% of foundations in our study use advisors for non-discretionary portfolio management services for the total foundation. These foundations work with an outside team of investment professionals who provide day-to-day oversight of their portfolios, while retaining final decision making on portfolio investments. This model provides resources and expertise to contribute to portfolio management alongside foundation's staff.

Approximately 28% of survey participants use external resources for a range of traditional consulting services, including asset allocation reviews, manger searches, alternative assets management, ESG/MRI consulting, and performance reporting. The remaining 20% of participants use outside support for research, manager, peer, and benchmarking data. These foundations tend to be larger and have built their own internal investment teams to manage their portfolios. The average market value of foundations utilizing consultants for data and research is $5.3 billion.

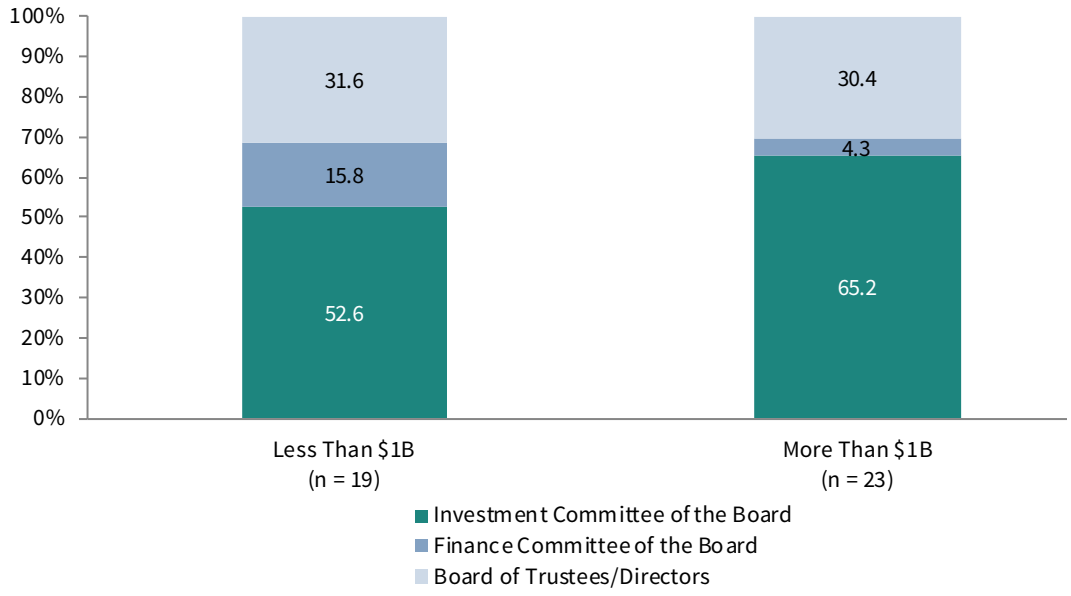
GOVERNANCE

Good governance is one key factor to a successful investment program. To create the conditions for good governance, foundations should assess whether they have in place the appropriate model for portfolio oversight and management, are upholding their fiduciary responsibilities, and are learning about peer best practices in committee structure, process, and policies.

GOVERNING BODY/OVERSIGHT COMMITTEE. Regardless of the foundation's size, an investment committee of the board most often has oversight over the investment office and/or outside advisors who manage the portfolio. In much smaller numbers, other governing bodies cited by respondents were a finance committee of the board and the board of trustees/directors (Figure 51).

FIGURE 51 GOVERNING BODY OF OVERSIGHT COMMITTEE BY ORGANIZATION TYPE

Calendar Year 2021 • Percent of Institutions (%)



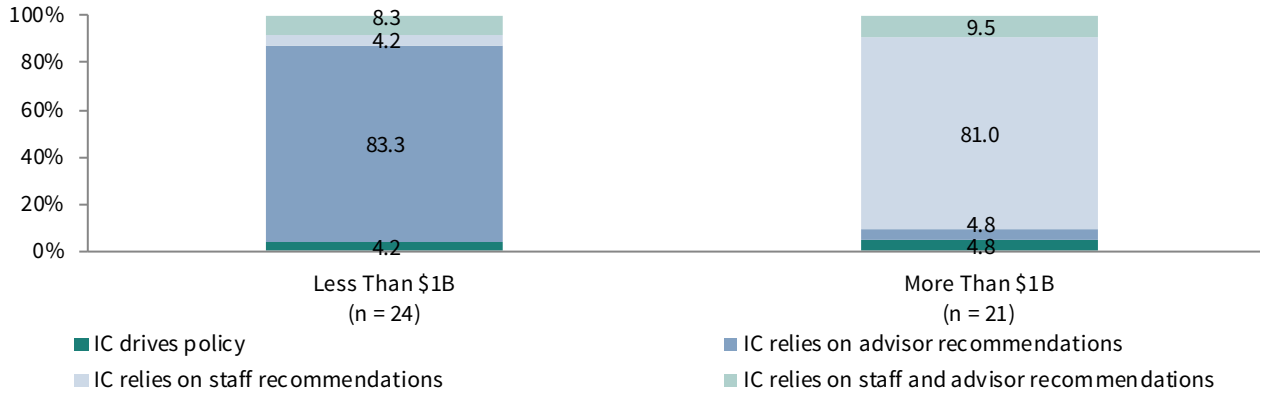
Source: Foundation data as reported to Cambridge Associates LLC.

DECISION-MAKING RESPONSIBILITY. To help quantify the dynamic between the governing body (hereafter referred to as investment committee) and those managing the foundation (internal investment office or outside advisor), we asked who possessed decision-making responsibility for four integral investment functions: asset allocation policy development, portfolio rebalancing, manager selection, and manager termination. The resulting data show certain trends in the balance of authority between investment committees, staff, and advisors.

For foundations over $1 billion, the majority of asset allocation policy is developed by committees acting on staff recommendations, while foundations less than $1 billion depend far more on the recommendations of outside advisors (Figure 52). A very similar trend is observed when looking at who is responsible for rebalancing the portfolio (Figure 53).

FIGURE 52 DECISION-MAKING AND IMPLEMENTATION RESPONSIBILITY FOR KEY INVESTMENT FUNCTIONS: ASSET ALLOCATION POLICY DEVELOPMENT

Calendar Year 2021 • Percent of Institutions (%)

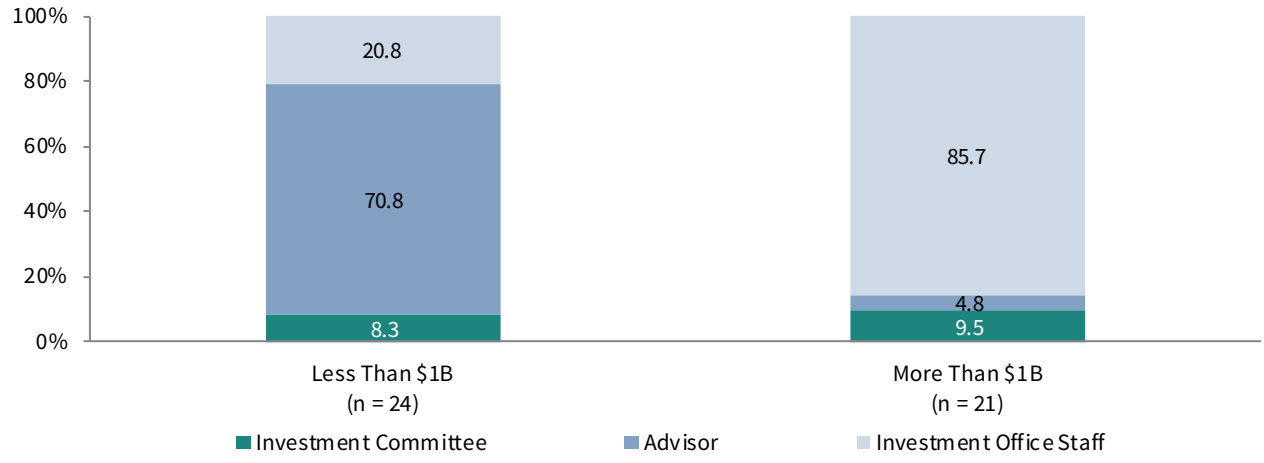


Source: Foundation data as reported to Cambridge Associates LLC.

Note: Investment committee (IC) is shorthand for governing body.

FIGURE 53 DECISION-MAKING AND IMPLEMENTATION RESPONSIBILITY FOR KEY INVESTMENT FUNCTIONS: PORTFOLIO REBALANCING

Calendar Year 2021 • Percent of Institutions (%)



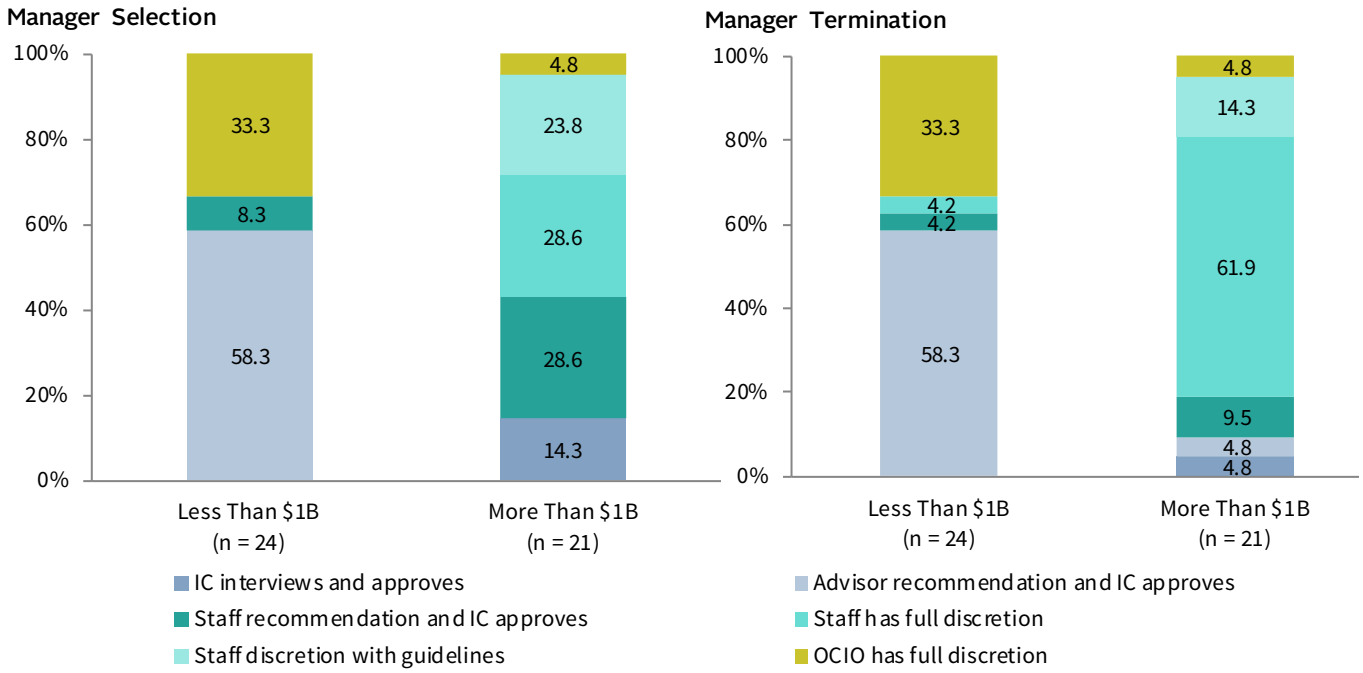
Source: Foundation data as reported to Cambridge Associates LLC.

Note: Investment committee (IC) is shorthand for governing body.

The process of manager selection and termination also involves committees, advisors, and staff, but with different degrees of discretion (Figure 54). Advisors play a significant role in both selection and termination of investment managers at foundations less than $1 billion. Among the investment committees involved in manager selection, the predominant role is to approve managers, but not interview them. Staff recommendations are increasingly relied upon at foundations greater than $1 billion accounting for most of the decision-making.

FIGURE 54 DECISION–MAKING AND IMPLEMENTATION RESPONSIBILITY FOR KEY INVESTMENT FUNCTIONS: MANAGER SELECTION AND TERMINATION

Calendar Year 2021 • Percent of Institutions (%)



Source: Foundation data as reported to Cambridge Associates LLC.

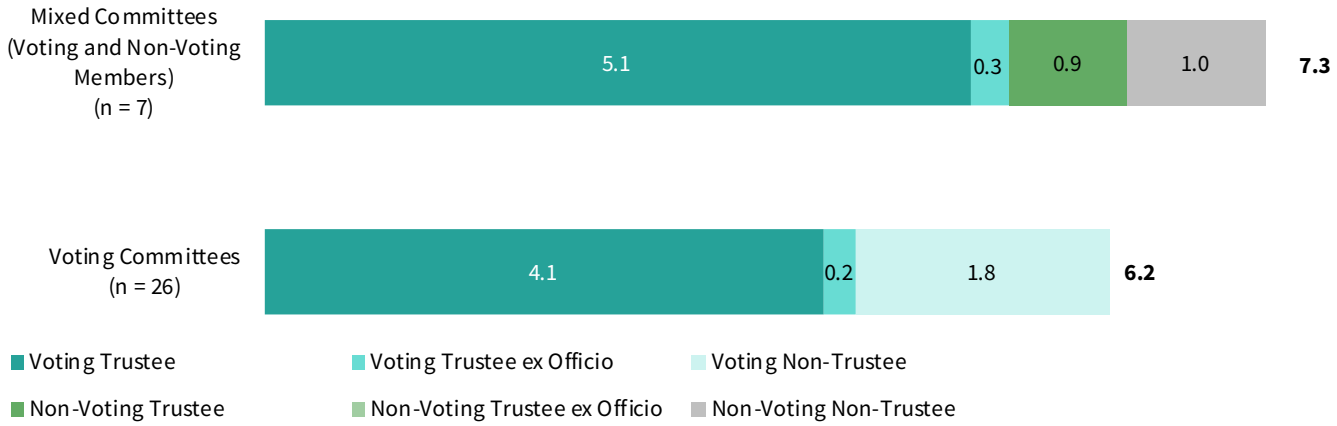
Notes: Investment committee (IC) is shorthand for governing body. "Other" includes IC approval based on staff and advisor recommendations.

In some cases, CIOs or advisors will have guidelines in place that allow them to independently make hire/fire decisions without formal approval from the investment committee. Guidelines are usually based around a percentage of market value or dollar amount. Guidelines can vary by asset type, e.g., marketable versus private investments. Another broad-based guideline is based around "negative consent." In these cases, the management team can hire and fire managers at their discretion but must inform the investment committee of their intentions prior to implementation. There is usually a short period (a few days to a week) to allow the investment committee to raise objections or concerns.

INVESTMENT COMMITTEE COMPOSITION. Two types of committees emerged from our survey data. We found that most investment committees (26 of 33) are fully composed of voting members, while seven investment committees also include non-voting members. While mandatory voting encourages accountability, there can be good reasons to include non-voting members. Organizations should weigh the benefit of these advisory members against the prospects of an oversized committee.

The average size of voting committees is 6.2 members, which on average consist of 4.1 trustees, 1.8 non-trustees, and 0.2 ex officio members. Examples of ex officio committee members include the president of the foundation or head of program management. Committees including non-voting members averaged 7.3 people (Figure 55).

FIGURE 55 PROFILE OF INVESTMENT COMMITTEE MEMBERS
Calendar Year 2021



Source: Foundation data as reported to Cambridge Associates LLC.
Note: Investment Committee is shorthand for governing body.

Investment committee members can bring a diverse set of experiences to assist in overseeing institutional investment assets. At least some committee members should have professional, institutional investment experience—not just experience managing their own money—and if the organization lacks sufficient trustees with such qualifications, many times the committee includes non-trustee members with investment expertise to fulfill this role.

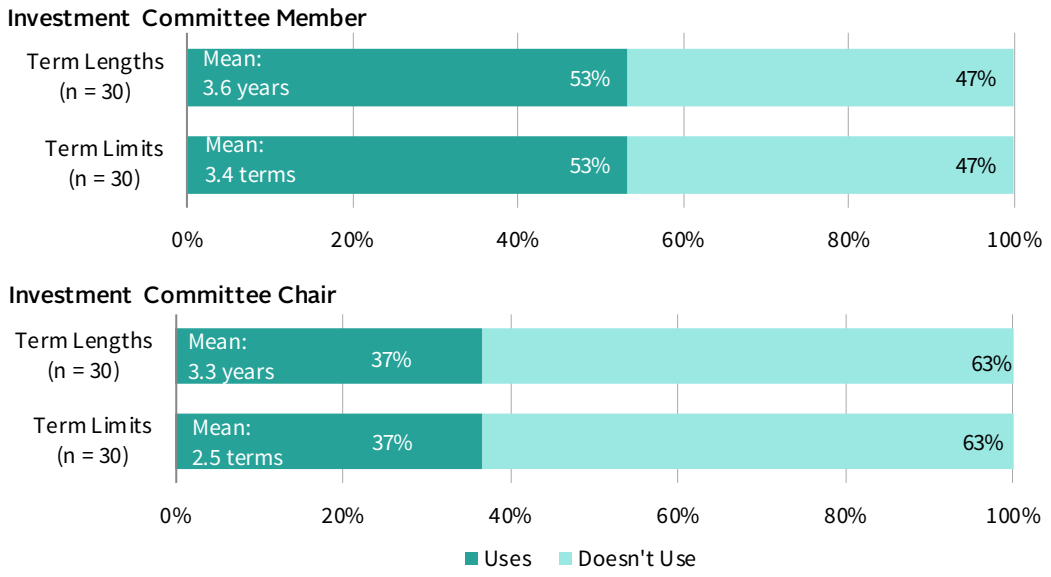
On average, respondents indicated that 48.4% of their committee members have investment experience. This composition does change slightly when viewed by asset size, with larger foundations having a higher percentage of members with investment experience (Figure 56).

FIGURE 56 PERCENT OF INVESTMENT COMMITTEE WHO ARE INVESTMENT PROFESSIONALS
Calendar Year 2021 • Percent of Institutions (%)

Source: Foundation data as reported to Cambridge Associates LLC.

COMMITTEE TERM LENGTH AND LIMITS. Setting guidelines for terms can help manage member turnover and mitigate committee stagnation. Responses regarding term length and limit policy indicated that guidelines are generally more common for committee members than chairs: for committee members, term lengths (an average of 3.6 years) were specified by 53% of foundations, while term limits (an average of 3.4 terms) were mandated by the same percentage of respondents (Figure 57). Term length and limit policies were not applied as frequently for committee chairmanship. The lack of policies around term limits and lengths at some foundations could suggest that these foundations value the stability of a long-standing committee and view turnover as disruptive to long-term investment policy.

FIGURE 57 INVESTMENT COMMITTEE TERM LENGTHS AND LIMITS
As of December 31, 2021



Source: Foundation data as reported to Cambridge Associates LLC.

INVESTMENT COMMITTEE MEETINGS. Our survey responses show that most foundations (85%) hold quarterly meetings. Other foundations cited meeting three or six times per year with ad hoc conference calls in between formal meetings. Regular attendance of investment committee members is critical to proper oversight. Participants indicated that average attendance was strong, at 97%.

REIMBURSEMENT AND CONFLICT OF INTEREST POLICY. 85% of respondents provide committee members with expense reimbursement, which generally includes travel-related and other out-of-pocket expenses. A majority (65%) of respondents offer their committee members some sort of compensation other than expense reimbursement. This compensation most often comes in the form of charitable gifts and honorariums.

All participants have a conflict-of-interest policy for investment committee members. These policies can require disclosure, recusal, or both disclosure and recusal. Policies may differ by asset class, with foundations requiring disclosure for long-only equity conflicts and recusal for private equity conflicts, for example. Most foundations (88%) also have a conflict-of-interest policy in place for investment staff.

Notes on the Data

The notation of *n* denotes the number of institutions included in each analysis.

Returns for periods greater than one-year are annualized.

The simple portfolio benchmark consisting of 70% MSCI ACWI Index/30% Bloomberg Aggregate Bond Index is 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.

Private indexes are pooled horizon IRRs, net of fees, expenses, and carried interest.

PROFILE OF RESPONDENTS

This report includes data for 112 foundations. Most participants are private foundations, with 98 being private non-operating foundations and four being private operating foundations. The remaining ten participants are community foundations. All participants provided investment pool data as of December 31, 2021.

The 112 participants in this study reported long-term investment portfolio (LTIP) assets as of December 31, 2021, totaling $224 billion. The mean LTIP size was $2.2 billion and the median was $367 million. 20 participants have an LTIP size less than $100 million, while 37 have an asset size more than $1 billion. The remaining 55 participants have an LTIP size between $100 million and $1 billion. The participants with LTIP sizes greater than $1 billion controlled 91% of the aggregate LTIP assets.

CALCULATION OF THE SHARPE RATIO

The Sharpe ratio shows how much return above the risk-free rate (T-bills) the investor has earned per unit of risk (defined as standard deviation of returns). The higher the Sharpe ratio, the more the investor has been compensated for each unit of risk taken. The ratio is a measure of reward relative to total volatility. The formula is:

$$\frac{R_p - R_f}{S_p} = \text{Sharpe Ratio}$$

Where:

R_p is the arithmetic average of composite quarterly returns,

R_f is the arithmetic average of T-bill (risk-free) quarterly returns, and

S_p is the quarterly standard deviation of composite quarterly returns.

MODIFIED PUBLIC MARKET EQUIVALENT (MPME) INDEXES

Under Cambridge Associates' mPME methodology, the public index's shares are purchased and sold according to the private fund cash flow schedule, with distributions calculated in the same proportion as the private fund and mPME NAV is a function of mPME cash flows. The mPME analysis evaluates what return would have been earned had the dollars invested in private investments been invested in the public market instead. ■

Appendix: Investment Portfolio Returns

CALENDAR YEAR 2021 TOTAL RETURN PERCENTILES

Trailing 1-Yr as of December 31, 2021 • Percent (%) • By Percentile Ranking

	All Foundations	Less Than $100M	$100M–$300M	$300M–$1B	More Than $1B
5th %ile	28.8	19.7	24.0	22.5	31.2
25th %ile	20.6	16.2	18.2	20.3	22.9
Median	17.3	12.7	16.0	17.7	19.7
75th %ile	14.3	10.3	14.4	14.6	17.0
95th %ile	9.0	8.3	11.5	11.5	12.9
Mean	17.7	13.4	16.8	17.3	21.0
n	*112*	*20*	*33*	*22*	*37*

Source: Foundation data as reported to Cambridge Associates LLC.

1-YR ATTRIBUTION ANALYSIS: ALL FOUNDATION MEAN

As of December 31, 2021 • Percent (%) • n = 107

	Breakdown of Return from Asset Allocation			
Asset Class	Beginning Year Mean Asset Allocation	Asset Class Benchmark Return	Contribution to Asset Class Return	Index
US Equity	24.9	25.7	6.4	Russell 3000
Venture Capital	8.3	54.1	4.9	CA US Venture Capital
Non-Venture Private Equity	6.0	41.1	2.6	CA US Private Equity
Global ex US Equity-Developed Mkts	14.7	11.3	1.7	MSCI EAFE (N)
Other Private Investments	2.1	44.7	1.0	CA US PE/VC
Long/Short Hedge Funds	5.4	11.7	0.6	HFRI Equity Hedge
Private Oil & Gas/Natural Resources	1.8	31.1	0.5	CA Natural Resources
Private Real Estate	2.1	25.3	0.5	CA Real Estate
Absolute Return (ex Distressed)	7.8	5.9	0.5	HFRI FOF Diversified
Distressed-Private Equity Structure	1.5	29.5	0.4	CA Distressed Securities
Public Energy/Natural Resources	0.8	30.2	0.2	MSCI World Nat Res (N)
Distressed-Hedge Fund Structure	0.8	15.6	0.1	HFRI ED: Dist/Rest
Public Real Estate	0.4	27.2	0.1	FTSE NAREIT Composite
Commodities	0.4	27.1	0.1	Bloomberg Commodity
Other	0.4	12.5	0.1	70% Global Eq / 30% Bond
Inflation-Linked Bonds	0.5	6.0	0.0	BBG Barc US TIPS
High-Yield Bonds	0.4	5.3	0.0	BBG High Yield
Cash & Equivalents	3.8	0.0	0.0	91-Day T-Bill
Global ex US Bonds	0.3	-9.7	0.0	FTSE Non-US$ WGBI
US Bonds	10.3	-1.5	-0.2	BBG Agg Bond
Global ex US Equity-Emerging Mkts	7.5	-2.5	-0.2	MSCI Emg Mkts (N)
Return From Asset Allocation (Sum of Contributions)			*19.4*	
+/- Return From Other Factors			*-1.7*	
Mean Total Portfolio Return			**17.7**	

Sources: Foundation data as reported to Cambridge Associates LLC. Index data provided by Bloomberg Index Services Limited, BofA Merrill Lynch, Cambridge Associates LLC, Frank Russell Company, FTSE Fixed Income LLC, FTSE International Limited, Hedge Fund Research, Inc., J.P. Morgan Securities, Inc., MSCI Inc., National Association of Real Estate Investment Trusts, and the National Council of Real Estate Investment Fiduciaries. MSCI data provided "as is" without any express or implied warranties.

Notes: To be consistent with the methodology in which private investment returns are incorporated into the total portfolio composite calculation, private investment benchmark returns are linked quarterly horizon returns. For foundations using the lagged reporting method for private investments, the analysis adjusts the privte benchmarks so that the mesurment period is aligned with that method (i.e., October 1, 2020, to September 30, 2021).

DISPERSION OF PARTICIPANTS' 1-YR ASSET CLASS IRRs: PRIVATE INVESTMENTS

Trailing 1-Yr as of December 31, 2021 • Percent (%)

	Total Private Equity	Non-Venture Private Equity	Venture Capital	Private Distressed Securities	Private Credit	Total Private Real Assets	Private Real Estate	Private Natural Resources
All Foundations								
5th %ile	81.6	63.8	113.0	70.6	36.4	86.0	47.0	90.9
25th %ile	58.3	50.3	81.4	38.8	25.4	37.8	28.9	47.8
Median	49.1	40.6	58.9	28.5	18.2	26.4	19.5	30.4
75th %ile	39.5	35.5	41.6	14.0	11.5	18.5	13.8	20.8
95th %ile	3.6	16.7	3.6	-10.9	-1.8	1.7	-5.1	-6.1
Mean	49.3	41.8	58.7	27.6	19.7	31.1	21.8	35.9
n	*79*	*78*	*73*	*35*	*59*	*70*	*63*	*71*
Median by Asset Size								
Less Than $100M	43.7	45.0	41.5	14.4	14.6	24.8	18.8	41.6
n	*10*	*10*	*9*	*4*	*4*	*10*	*7*	*9*
$100M–$300M	48.4	40.4	63.5	23.2	18.8	25.6	14.0	27.8
n	*29*	*28*	*26*	*12*	*24*	*25*	*17*	*23*
$300M–$1B	51.6	45.3	62.0	26.0	21.5	31.0	27.3	28.9
n	*17*	*17*	*17*	*8*	*15*	*16*	*16*	*16*
More Than $1B	50.3	38.9	65.2	32.8	18.2	25.2	19.0	33.6
n	*22*	*22*	*20*	*11*	*15*	*18*	*22*	*22*
Median by Total Performance Quartile								
Top Quartile	52.7	44.3	63.9	32.3	19.2	32.4	25.0	40.4
n	*21*	*22*	*22*	*13*	*20*	*20*	*20*	*22*
2nd Quartile	50.3	40.4	58.9	37.8	18.2	22.5	18.3	27.7
n	*22*	*21*	*21*	*10*	*16*	*19*	*18*	*21*
3rd Quartile	48.8	44.7	65.3	18.1	14.8	29.9	18.1	30.1
n	*20*	*19*	*16*	*6*	*12*	*17*	*11*	*15*
Bottom Quartile	36.4	36.8	31.7	28.0	15.6	25.0	17.7	27.8
n	*16*	*16*	*14*	*6*	*11*	*14*	*14*	*13*

Source: Foundation data as reported to Cambridge Associates LLC.

Notes: Institutions are assigned to performance quartiles based on their calendar year 2021 total portfolio return. The Top Performers subset is based on institutions that were in the top quartile for total portfolio performance for the calendar year 2021 period. Private investment return statistics are reported as horizon IRRs.

PARTICIPANTS' 1-YR ASSET CLASS RETURNS: MARKETABLE INVESTMENTS

Trailing 1-Yr as of December 31, 2021 • Percent (%)

	Total Public Equity	Global Equity Managers	US Equity	Dev Mkts ex US Equity	Emg Mkts Equity	Bonds	Hedge Funds	Commodities and Natural Resources	Public Real Estate
All Foundations									
5th %ile	21.4	24.5	29.5	17.9	11.0	1.8	14.5	40.6	48.0
25th %ile	17.9	19.8	26.7	12.5	5.8	0.0	9.2	30.9	41.0
Median	15.9	16.5	24.6	10.1	2.3	-1.0	6.4	25.5	40.4
75th %ile	13.8	12.8	21.7	7.4	-0.4	-1.8	3.1	20.9	27.4
95th %ile	8.8	-3.9	9.5	2.4	-4.6	-3.4	-4.8	-4.1	15.9
Mean	15.7	15.0	23.2	10.5	2.9	-0.9	6.0	23.2	33.2
n	*96*	*74*	*96*	*88*	*90*	*98*	*92*	*37*	*19*
Median by Asset Size									
Less Than $100M	15.7	15.8	25.4	9.6	1.6	-0.9	6.5	25.0	40.4
n	*20*	*14*	*20*	*19*	*18*	*20*	*15*	*8*	*4*
$100M–$300M	17.3	18.1	24.9	10.4	2.0	-1.2	6.3	23.1	27.4
n	*31*	*29*	*30*	*27*	*28*	*29*	*31*	*12*	*3*
$300M–$1B	16.8	14.2	24.4	9.5	5.2	-1.4	5.6	28.3	40.4
n	*19*	*13*	*20*	*20*	*19*	*20*	*19*	*10*	*7*
More Than $1B	14.7	18.3	22.0	10.5	3.3	-0.3	6.7	31.5	27.4
n	*25*	*17*	*26*	*22*	*24*	*29*	*27*	*7*	*5*
Median by Total Performance Quartile									
Top Quartile	17.4	20.0	24.5	10.7	4.4	-0.7	7.8	25.0	27.4
n	*22*	*14*	*21*	*19*	*19*	*24*	*22*	*7*	*7*
2nd Quartile	15.9	16.5	25.1	10.5	2.8	-1.3	6.7	29.3	35.8
n	*25*	*19*	*26*	*23*	*24*	*26*	*27*	*8*	*2*
3rd Quartile	15.3	16.1	24.3	10.4	1.8	-1.1	5.3	28.1	27.4
n	*24*	*21*	*24*	*23*	*23*	*24*	*22*	*13*	*5*
Bottom Quartile	15.1	15.8	24.7	8.3	1.6	-0.9	3.4	20.9	40.4
n	*25*	*20*	*25*	*23*	*24*	*24*	*21*	*9*	*5*

Source: Foundation data as reported to Cambridge Associates LLC.

Notes: Institutions are assigned to performance quartiles based on their calendar year 2021 total portfolio return. The Top Performers subset is based on institutions that were in the top quartile for total portfolio performance for the calendar year 2021 period.

TOTAL RETURNS SUMMARY: TRAILING 3-, 5-, 10-, AND 20-YR

Years Ended December 31, 2021 • Percent (%) • By Percentile Ranking

	Nominal AACRs			
	3-Yr	5-Yr	10-Yr	20-Yr
All Foundations				
5th %ile	22.0	15.7	12.8	10.0
25th %ile	18.5	13.2	10.6	8.7
Median	16.4	11.7	9.5	7.8
75th %ile	14.9	10.8	8.7	7.0
95th %ile	12.5	9.1	7.6	5.7
Mean	16.7	12.1	9.7	7.9
n	*112*	*108*	*99*	*67*
Less Than $100M				
5th Percentile	17.8	12.0	9.6	8.3
25th Percentile	16.2	11.5	9.2	7.3
Median	14.9	10.8	8.3	6.1
75th Percentile	13.4	9.3	7.2	5.9
95th Percentile	10.5	7.8	6.5	5.4
Mean	14.7	10.4	8.2	6.6
n	*20*	*19*	*14*	*8*
$100M–$300M				
5th Percentile	20.1	13.3	10.1	8.7
25th Percentile	17.2	12.3	9.6	8.4
Median	16.5	11.7	8.9	7.4
75th Percentile	14.9	10.8	8.6	6.3
95th Percentile	12.6	9.4	8.2	5.8
Mean	16.6	11.6	9.1	7.4
n	*33*	*31*	*30*	*18*
$300M–$1B				
5th Percentile	19.9	14.2	10.8	8.8
25th Percentile	17.8	12.7	10.3	7.7
Median	16.3	11.6	9.4	7.5
75th Percentile	15.4	11.0	8.9	6.6
95th Percentile	14.0	10.3	8.1	5.8
Mean	16.6	11.8	9.4	7.3
n	*22*	*22*	*21*	*13*
More Than $1B				
5th Percentile	22.8	17.6	13.0	10.8
25th Percentile	19.8	14.8	11.9	9.7
Median	18.4	13.5	10.8	8.7
75th Percentile	15.4	11.7	9.9	8.1
95th Percentile	13.0	10.0	9.0	7.4
Mean	18.0	13.5	11.0	8.9
n	*37*	*36*	*34*	*28*

Source: Foundation data as reported to Cambridge Associates LLC.

DISPERSION OF PARTICIPANTS' 3-YR ASSET CLASS IRRs: PRIVATE INVESTMENTS

Trailing 3-Yr as of December 31, 2021 • Percent (%)

	Total Private Equity	Non-Venture Private Equity	Venture Capital	Private Distressed Securities	Private Credit	Total Private Real Assets	Private Real Estate	Private Natural Resources
All Foundations								
5th %ile	49.4	45.4	63.2	39.2	21.1	15.2	20.2	14.7
25th %ile	39.4	33.8	49.1	18.5	15.8	11.4	13.0	7.0
Median	34.2	26.8	41.8	11.7	12.1	5.8	9.8	2.9
75th %ile	28.9	22.5	34.9	-2.9	7.3	0.6	2.8	-1.0
95th %ile	18.9	14.9	6.4	-12.3	-2.2	-5.2	-13.5	-7.5
Mean	34.1	27.5	40.6	11.0	11.5	5.7	6.5	3.1
n	*76*	*74*	*69*	*31*	*53*	*63*	*59*	*66*
Median by Asset Size								
Less Than $100M	28.3	27.4	24.9	-0.4	11.8	2.2	8.0	0.4
n	*9*	*9*	*9*	*4*	*4*	*8*	*6*	*7*
$100M–$300M	34.1	26.9	42.2	16.4	15.4	3.1	4.1	2.3
n	*27*	*27*	*24*	*10*	*20*	*22*	*15*	*21*
$300M–$1B	36.1	26.2	44.1	11.7	11.8	9.5	12.4	3.8
n	*18*	*17*	*17*	*7*	*14*	*17*	*16*	*17*
More Than $1B	34.6	28.1	39.6	12.1	10.0	4.9	10.0	2.4
n	*22*	*21*	*19*	*10*	*15*	*16*	*22*	*21*

Source: Foundation data as reported to Cambridge Associates LLC.

Note: Private investment return statistics are reported as horizon IRRs.

DISPERSION OF PARTICIPANTS' 5-YR ASSET CLASS IRRs: PRIVATE INVESTMENTS

Trailing 5-Yr as of December 31, 2021 • Percent (%)

	Total Private Equity	Non-Venture Private Equity	Venture Capital	Private Distressed Securities	Private Credit	Total Private Real Assets	Private Real Estate	Private Natural Resources
All Foundations								
5th %ile	35.0	35.2	45.7	18.8	34.8	13.0	17.0	12.9
25th %ile	29.9	26.7	34.1	12.2	14.9	9.5	12.0	6.5
Median	26.6	21.7	29.9	9.4	10.7	4.7	9.4	3.5
75th %ile	21.3	19.2	23.7	1.5	7.7	2.2	5.2	-0.1
95th %ile	17.1	14.0	9.5	-6.7	2.1	-3.0	-4.2	-4.0
Mean	26.2	23.0	28.9	7.7	19.1	5.5	8.0	3.5
n	*69*	*65*	*60*	*23*	*42*	*60*	*56*	*62*
Median by Asset Size								
Less Than $100M	24.7	24.8	22.1	--	9.7	4.3	7.8	1.5
n	*9*	*7*	*8*	*--*	*3*	*8*	*6*	*7*
$100M–$300M	27.4	21.2	31.9	9.8	11.3	3.4	5.9	2.8
n	*23*	*22*	*19*	*6*	*13*	*20*	*14*	*20*
$300M–$1B	27.5	23.0	32.9	0.0	11.0	9.1	11.7	5.7
n	*16*	*16*	*16*	*5*	*12*	*17*	*15*	*16*
More Than $1B	26.8	21.3	29.0	11.1	9.1	4.6	9.2	3.5
n	*21*	*20*	*17*	*8*	*14*	*15*	*21*	*19*

Source: Foundation data as reported to Cambridge Associates LLC.

Note: Private investment return statistics are reported as horizon IRRs.

DISPERSION OF PARTICIPANTS' 10-YR ASSET CLASS IRRs: PRIVATE INVESTMENTS

Trailing 10-Yr as of December 31, 2021 • Percent (%)

	Total Private Equity	Non-Venture Private Equity	Venture Capital	Private Distressed Securities	Private Credit	Total Private Real Assets	Private Real Estate	Private Natural Resources
All Foundations								
5th %ile	25.7	21.9	32.6	19.5	70.4	12.1	15.1	8.0
25th %ile	22.2	17.9	26.8	12.2	28.0	8.2	12.9	3.7
Median	19.0	16.3	22.4	9.8	11.4	4.7	9.7	0.8
75th %ile	16.3	14.1	18.1	7.3	9.9	2.5	5.9	-0.5
95th %ile	12.6	11.7	3.7	-1.0	4.8	-1.0	0.0	-3.3
Mean	19.1	16.4	21.3	9.4	23.5	4.9	8.5	1.5
n	*56*	*54*	*48*	*16*	*27*	*48*	*47*	*48*
Median by Asset Size								
Less Than $100M	16.4	15.2	13.4	*10*	38.2	4.1	9.6	-0.2
n	*7*	*6*	*5*	*2*	*2*	*7*	*5*	*7*
$100M–$300M	18.5	15.2	21.9	6.0	31.4	3.4	9.8	2.2
n	*18*	*17*	*14*	*4*	*8*	*15*	*12*	*14*
$300M–$1B	19.4	16.9	23.2	12.4	12.6	7.5	12.4	1.7
n	*15*	*14*	*14*	*3*	*9*	*13*	*13*	*10*
More Than $1B	19.4	15.9	24.5	10.4	10.5	3.8	9.2	0.2
n	*16*	*17*	*15*	*7*	*8*	*13*	*17*	*17*
Median by Total Performance Quartile								
Top Quartile	21.8	15.7	26.7	7.5	9.9	7.2	10.5	0.7
n	*11*	*11*	*11*	*3*	*6*	*10*	*11*	*12*
2nd Quartile	18.5	15.9	20.9	11.1	10.6	3.8	9.0	1.7
n	*18*	*17*	*16*	*7*	*12*	*15*	*16*	*15*
3rd Quartile	19.3	16.8	23.1	10.6	21.1	5.7	9.7	0.1
n	*16*	*17*	*13*	*6*	*7*	*13*	*14*	*12*
Bottom Quartile	15.5	14.4	18.2	--	43.6	3.1	9.2	1.0
n	*8*	*7*	*6*	*0*	*2*	*8*	*5*	*7*

Source: Foundation data as reported to Cambridge Associates LLC.

Notes: Institutions are assigned to performance quartiles based on their trailing ten-year total portfolio return. The Top Performers subset is based on institutions that were in the top quartile for total portfolio performance for the trailing ten-year period. Private investment return statistics are reported as horizon IRRs.

PARTICIPANTS' 3-YR ASSET CLASS RETURNS: MARKETABLE INVESTMENTS

Trailing 3-Yr as of December 31, 2021 • Percent (%)

	Total Public Equity	Global Equity Managers	US Equity	Dev Mkts ex US Equity	Emg Mkts Equity	Bonds	Hedge Funds	Commodities and Natural Resources	Public Real Estate
All Foundations									
5th %ile	23.1	29.2	28.7	18.8	21.9	7.2	15.3	21.4	21.3
25th %ile	20.9	22.4	26.1	16.1	14.5	4.8	10.2	12.2	12.8
Median	19.3	18.2	24.7	14.5	12.0	4.1	8.5	10.2	11.5
75th %ile	18.2	14.7	23.4	13.3	9.2	3.4	7.1	6.0	9.5
95th %ile	16.1	10.9	17.6	10.7	5.2	1.6	4.4	1.8	8.0
Mean	19.4	18.9	24.2	14.7	12.3	4.2	8.9	9.7	12.6
n	*96*	*63*	*94*	*85*	*87*	*96*	*87*	*35*	*11*
Median by Asset Size									
Less Than $100M	18.3	14.2	24.3	15.5	10.2	4.1	9.2	12.0	--
n	*20*	*12*	*20*	*19*	*18*	*20*	*13*	*8*	*0*
$100M–$300M	19.9	20.3	25.4	14.4	12.1	4.2	8.4	8.8	12.8
n	*31*	*24*	*28*	*27*	*26*	*28*	*31*	*11*	*3*
$300M–$1B	19.5	18.1	25.6	14.3	11.6	4.1	7.9	9.5	12.1
n	*20*	*12*	*20*	*18*	*20*	*20*	*18*	*9*	*4*
More Than $1B	19.4	18.1	24.3	15.3	12.8	4.0	9.8	11.6	10.5
n	*25*	*15*	*26*	*21*	*23*	*28*	*25*	*7*	*4*

Source: Foundation data as reported to Cambridge Associates LLC.

PARTICIPANTS' 5-YR ASSET CLASS RETURNS: MARKETABLE INVESTMENTS

Trailing 5-Yr as of December 31, 2021 • Percent (%)

	Total Public Equity	Global Equity Managers	US Equity	Dev Mkts ex US Equity	Emg Mkts Equity	Bonds	Hedge Funds	Commodities and Natural Resources	Public Real Estate
All Foundations									
5th %ile	16.4	24.2	20.2	13.2	16.8	5.5	8.8	8.3	11.9
25th %ile	14.8	16.3	18.7	11.4	11.3	3.8	7.0	4.4	8.9
Median	13.9	13.0	17.5	10.4	10.0	3.2	6.2	3.3	8.7
75th %ile	13.1	11.1	16.3	9.6	8.3	2.7	5.1	-0.2	7.9
95th %ile	11.5	6.1	12.7	7.5	5.8	1.6	3.4	-2.9	-1.9
Mean	13.9	13.9	17.2	10.5	10.1	3.3	6.2	2.6	7.2
n	*93*	*57*	*89*	*80*	*82*	*93*	*81*	*32*	*11*
Median by Asset Size									
Less Than $100M	13.3	11.1	17.1	11.0	9.0	3.2	6.4	4.3	--
n	*19*	*11*	*19*	*18*	*17*	*19*	*11*	*7*	*0*
$100M–$300M	14.3	13.7	18.1	10.3	10.0	3.3	5.6	2.6	8.7
n	*30*	*21*	*27*	*26*	*25*	*28*	*29*	*11*	*3*
$300M–$1B	14.0	13.5	18.2	10.4	9.7	3.3	5.9	-0.5	8.6
n	*19*	*10*	*19*	*17*	*19*	*19*	*16*	*8*	*4*
More Than $1B	14.2	13.2	17.2	11.1	10.8	3.2	6.7	3.3	8.5
n	*25*	*15*	*24*	*19*	*21*	*27*	*25*	*6*	*4*

Source: Foundation data as reported to Cambridge Associates LLC.

PARTICIPANTS' 10-YR ASSET CLASS RETURNS: MARKETABLE INVESTMENTS

Trailing 10-Yr as of December 31, 2021 • Percent (%)

	Total Public Equity	Global Equity Managers	US Equity	Dev Mkts ex US Equity	Emg Mkts Equity	Bonds	Hedge Funds	Commodities and Natural Resources	Public Real Estate
All Foundations									
5th %ile	14.0	16.6	18.0	12.0	9.6	4.6	8.2	3.8	11.8
25th %ile	12.7	14.0	16.7	9.4	7.0	3.6	6.6	1.2	10.7
Median	11.8	12.2	16.0	8.9	5.9	2.9	5.8	-1.0	9.6
75th %ile	11.2	10.6	14.8	8.4	5.1	2.4	4.9	-2.6	6.7
95th %ile	10.0	6.6	12.7	7.5	3.6	1.6	3.6	-5.4	1.6
Mean	11.9	11.8	15.7	9.1	6.4	3.1	5.8	-0.8	7.9
n	*83*	*31*	*77*	*70*	*67*	*81*	*69*	*25*	*4*
Median by Asset Size									
Less Than $100M	11.2	9.7	15.5	8.5	5.3	2.9	5.9	0.1	--
n	*14*	*4*	*13*	*14*	*12*	*15*	*8*	*5*	*0*
$100M–$300M	11.9	12.6	16.0	8.7	5.8	2.9	5.3	-1.0	--
n	*29*	*12*	*26*	*24*	*21*	*27*	*26*	*9*	*0*
$300M–$1B	11.9	12.3	16.3	8.8	6.5	3.0	5.4	-3.2	10.4
n	*18*	*4*	*17*	*16*	*15*	*15*	*15*	*7*	*2*
More Than $1B	12.4	12.6	16.0	9.5	6.9	2.5	6.5	0.2	5.3
n	*22*	*11*	*21*	*16*	*19*	*24*	*20*	*4*	*2*
Median by Total Performance Quartile									
Top Quartile	12.7	12.9	16.0	9.6	7.4	2.5	6.7	3.4	10.3
n	*17*	*8*	*15*	*12*	*13*	*19*	*16*	*1*	*3*
2nd Quartile	11.8	12.2	16.3	8.8	5.7	3.1	5.6	-1.3	8.9
n	*23*	*10*	*21*	*19*	*19*	*21*	*19*	*9*	*1*
3rd Quartile	11.6	12.4	15.8	8.6	6.2	2.9	5.8	0.0	--
n	*21*	*6*	*20*	*20*	*18*	*19*	*18*	*8*	*0*
Bottom Quartile	11.6	10.7	15.7	8.8	5.7	2.7	4.8	0.1	--
n	*22*	*7*	*21*	*19*	*17*	*21*	*16*	*7*	*0*

Source: Foundation data as reported to Cambridge Associates LLC.

Notes: The Top Performers subset is based on institutions that were in the top quartile for total portfolio performance for the trailing ten-year period. Institutions are assigned to performance quartiles based on their trailing ten-year return.

REAL RETURNS AFTER SPENDING: TRAILING 3-, 5-, AND 10-Yr

Years Ended December 31, 2021 • Percent (%) • By Percentile Ranking

	3-Yr	5-Yr	10-Yr
All Foundations			
5th %ile	11.9	7.1	5.4
25th %ile	9.6	5.0	3.2
Median	7.5	3.6	2.6
75th %ile	6.1	2.5	1.7
95th %ile	3.7	1.4	1.0
Mean	7.7	3.8	2.7
n	*33*	*27*	*22*

Source: Foundation data as reported to Cambridge Associates LLC.

Appendix: Portfolio Asset Allocation

SUMMARY ASSET ALLOCATION DISTRIBUTION

As of December 31, 2021 • Percent (%) • n = 112 • By Percentile Ranking

	Public Equity	PE/VC	Hedge Funds	Real Assets & ILBs	Fixed Income	Private Credit	Cash	Other
5th %ile	67.9	41.0	25.6	13.9	20.2	5.9	9.2	4.2
25th %ile	55.2	27.3	17.5	8.0	12.6	2.4	4.9	0.0
Median	45.7	19.7	13.2	5.3	10.2	0.9	2.6	0.0
75th %ile	33.9	8.5	9.1	2.4	6.1	0.0	1.3	0.0
95th %ile	22.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0
Mean	45.1	19.2	13.4	6.0	10.2	1.7	3.8	0.6

Source: Foundation data as reported to Cambridge Associates LLC.

MEAN ASSET ALLOCATION BY ASSET SIZE

As of December 31, 2021 • Percent (%)

		Asset Size			
	All Foundations	Less Than $100M	$100M –$300M	$300M –$1B	More Than $1B
	(n = 112)	*(n = 20)*	*(n = 33)*	*(n = 22)*	*(n = 37)*
Public Equity	**45.1**	**54.0**	**45.9**	**48.0**	**37.7**
Global	10.6	11.6	13.1	7.3	9.8
US	19.5	22.9	19.7	24.8	14.3
Global ex US Developed	10.0	14.0	8.9	10.9	8.2
Emerging Markets	5.0	5.5	4.3	5.0	5.5
PE/VC	**19.2**	**9.4**	**17.1**	**16.6**	**28.0**
Non-Venture Private Equity	6.7	2.0	4.9	6.2	11.0
Venture Capital	9.8	4.0	7.6	8.1	16.0
Other Private Investments	2.7	3.4	4.6	2.3	0.9
Hedge Funds	**13.4**	**10.0**	**15.9**	**12.0**	**13.8**
Long/Short	5.1	3.3	6.9	3.7	5.3
Absolute Return	7.5	6.5	8.6	7.0	7.6
Distressed	0.7	0.2	0.4	1.3	0.9
Private Credit	**1.7**	**0.5**	**2.0**	**1.7**	**2.0**
Distressed - Control Oriented	0.5	0.2	0.5	0.6	0.7
Private Credit ex Distressed	1.2	0.3	1.6	1.1	1.4
Fixed Income	**10.2**	**16.4**	**10.4**	**11.4**	**6.0**
Global	0.5	1.4	0.2	0.2	0.4
US	9.4	14.9	9.5	11.0	5.3
Global ex US	0.1	0.0	0.0	0.0	0.2
High-Yield Bonds	0.3	0.1	0.7	0.3	0.1
Real Assets & ILBs	**6.0**	**5.5**	**4.1**	**6.5**	**7.6**
Private Real Estate	2.0	0.8	0.6	2.3	3.8
Public Real Estate	0.4	0.5	0.2	0.6	0.4
Commodities	0.3	0.2	0.4	0.1	0.4
Inflation Linked-Bonds	0.6	0.9	0.6	0.5	0.3
Private O&G/Nat Resources	1.9	0.8	1.7	2.1	2.5
Public Energy/Nat Resources	0.8	2.3	0.6	0.9	0.2
Cash & Equivalents	**3.8**	**3.1**	**3.8**	**3.2**	**4.5**
Other Assets	**0.6**	**1.2**	**0.7**	**0.5**	**0.3**

Source: Foundation data as reported to Cambridge Associates LLC.

HISTORICAL MEAN ASSET ALLOCATION TRENDS

Years Ended December 31 • Percent (%)

	Constant Universe (n = 71)							
	Public Equity	PE/VC	Hedge Funds	Private Credit	Fixed Income	Real Assets & ILBs	Cash	Other
2011	38.4	10.0	20.9	--	13.7	12.3	4.0	0.6
2012	39.9	9.7	19.3	1.6	12.9	12.0	4.0	0.6
2013	42.9	9.4	19.6	1.5	11.0	11.0	4.1	0.5
2014	43.3	9.7	20.3	1.5	10.4	10.0	4.6	0.2
2015	43.3	10.7	20.4	1.4	10.8	8.9	4.2	0.2
2016	43.9	10.7	19.0	1.4	10.5	9.7	4.5	0.4
2017	47.5	10.9	17.2	1.2	10.5	8.8	3.4	0.5
2018	43.4	13.4	16.7	1.5	12.2	8.4	3.8	0.5
2019	46.5	14.1	14.8	1.5	12.0	7.2	3.7	0.3
2020	45.9	17.4	14.3	1.6	11.0	5.9	3.7	0.3
2021	43.4	20.8	13.5	1.6	10.2	6.2	3.6	0.6

Source: Foundation data as reported to Cambridge Associates LLC.

Note: Analysis is based on a constant universe that includes 71 institutions that provided asset allocation data for each year from 2011 to 2021.

UNCALLED CAPITAL COMMITTED TO PRIVATE INVESTMENT FUNDS

As of December 31, 2021 • Percent (%) • By Percentile Ranking

Uncalled Capital Commitments as a Percentage of the Total LTIP

	Less Than $100M	$100M–$300M	$300M–$1B	More Than $1B
5th %ile	16.7	17.0	19.7	16.3
25th %ile	15.5	11.3	15.9	12.8
Median	7.5	9.2	9.5	11.4
75th %ile	5.0	6.9	8.8	9.4
95th %ile	2.6	3.4	5.2	5.3
Mean	9.3	9.3	12.1	11.2
n	*8*	*27*	*17*	*32*

Uncalled Capital Commitments as a Percentage of the LTIP's Liquid Assets

	Less Than $100M	$100M–$300M	$300M–$1B	More Than $1B
5th %ile	32.0	38.4	33.2	46.2
25th %ile	23.4	21.2	24.4	30.4
Median	13.7	14.8	19.0	25.0
75th %ile	7.3	9.6	15.5	20.0
95th %ile	3.2	4.5	6.6	8.2
Mean	15.9	17.0	19.9	25.6
n	*8*	*27*	*17*	*32*

Source: Foundation data as reported to Cambridge Associates LLC.

Notes: Uncalled capital is the amount committed, but not yet paid in, to private investment funds. Liquid assets consist of all LTIP assets excluding hedge funds and private investments.

Appendix: Investment Manager Structures

NUMBER OF EXTERNAL MANAGERS AND INVESTMENT VEHICLES

As of December 31, 2021 • Percent (%) • By Percentile Ranking

Number of External Managers

	Less Than $100M	$100M–$300M	$300M–$1B	More Than $1B
5th %ile	51	59	91	187
25th %ile	31	46	68	125
Median	18	41	54	91
75th %ile	12	33	40	58
95th %ile	8	20	27	28
Mean	25	40	55	98
n	*20*	*32*	*21*	*32*

Number of Investment Vehicles

	Less Than $100M	$100M–$300M	$300M–$1B	More Than $1B
5th %ile	97	93	132	379
25th %ile	45	69	111	244
Median	23	56	83	190
75th %ile	15	41	54	105
95th %ile	10	22	38	52
Mean	40	57	81	189
n	*20*	*32*	*21*	*29*

Source: Foundation data as reported to Cambridge Associates LLC.

DISPERSION IN NUMBER OF MANAGERS FOR SELECTED ASSET CLASSES

As of December 31, 2021 • By Percentile Ranking

	Global Equity	US Equity	DM ex US Equity	EM Equity	US Bonds	Long/Short Hedge Funds	Ab Return Hedge Funds	Private Equity	Venture Capital
5th %ile	7	7	7	7	5	11	14	35	32
25th %ile	5	5	5	4	3	6	7	17	15
Median	3	3	3	2	2	3	5	9	7
75th %ile	2	2	2	2	1	2	4	5	3
95th %ile	1	1	1	1	1	1	2	1	1
Mean	4	4	3	3	2	5	6	13	11
n	*88*	*102*	*97*	*95*	*100*	*85*	*91*	*92*	*91*

Source: Foundation data as reported to Cambridge Associates LLC.

Notes: Only those institutions with an allocation to the specific asset class have been included. Funds-of-funds are counted as one manager.

PARTICIPANTS

Access Strategies Fund
Albany Foundation
Archstone Foundation
Arkansas Community Foundation
Atherton Family Foundation
Marion and Henry Bloch Family Foundation
The Herb Block Foundation
Buena Vista Foundation
The California Endowment
California Wellness Foundation
Carnegie Corporation of New York
The Annie E. Casey Foundation
The Clarence T.C. Ching Foundation
Community Funds, Inc.
Connecticut Health Foundation, Inc.
The Dana Foundation
De Beaumont Foundation
Dogwood Health Trust
Gaylord and Dorothy Donnelley Foundation
Doris Duke Charitable Foundation
The Duke Endowment
Alfred I. duPont Testamentary Trust
Emily Hall Tremaine Foundation
The Enfranchisement Foundation
The Erie Community Foundation
Sherman Fairchild Foundation
Fetzer Institute
Five Rings Family Foundation
The Flinn Foundation
The Ford Family Foundation
Franklin Southampton Charities
Bill and Melinda Gates Foundation Trust
The Gerber Foundation
GHR Foundation
Gidwitz Memorial Foundation
Eugene & Marilyn Glick Family Foundation
John T. Gorman Foundation
The Florence Gould Foundation
Grantham Foundation for the Protection of the Environment
William Caspar Graustein Memorial Fund
The Heinz Endowments
Clarence E. Heller Charitable Foundation
The Highland Street Foundation
Conrad N. Hilton Foundation
The H & R Block Foundation
The Hyams Foundation
Inasmuch Foundation
InFaith Community Foundation
The Robert Wood Johnson Foundation
The Fletcher Jones Foundation
The Joyce Foundation
Ewing Marion Kauffman Foundation
Anna-Maria and Stephen Kellen Foundation
W.K. Kellogg Foundation Trust
John S. and James L. Knight Foundation
The Kresge Foundation
Leaves of Grass Foundation
John and Catherine MacArthur Foundation
The Alexander M. and June L. Maisin Foundation
Mathile Family Foundation
The Marshall L. and Perrine D. McCune Charitable Foundation
McGregor Fund
The Andrew W. Mellon Foundation
Eugene and Agnes E. Meyer Foundation
Meyer Memorial Trust
Milbank Memorial Fund
Montana Community Foundation
The Gordon & Betty Moore Foundation
Moorings Capital LLC
Mother Cabrini Health Foundation
Charles Stewart Mott Foundation
The Mt. Cuba Center Inc.
The Dan Murphy Foundation
National Endowment for Financial Education
New Hampshire Charitable Foundation
Greater New Orleans Foundation
New York State Health Foundation
Orange County Community Foundation
The Oregon Community Foundation
The David and Lucile Packard Foundation
The Ralph M. Parsons Foundation
Virginia G. Piper Charitable Trust
Pohlad Family Foundation
Public Welfare Foundation
Nina Mason Pulliam Charitable Trust
The Queen Lili'uokalani Trust
Rainwater Charitable Foundation
Regenstrief Foundation
The Rockefeller Foundation
Rocky Road Foundations
Saint Luke's Foundation
The Scherman Foundation Inc.
Caroline & Sigmund Schott Fund
The Skoll Foundation
Alfred P. Sloan Foundation
The Sontag Foundation
Square One Foundation
The Starr Foundation
The Steelcase Foundation
Steele Foundation
W. Clement & Jessie Stone Foundation
Surdna Foundation Inc.
The Mamoru and Aiko Takitani Foundation
Communities Foundation of Texas
The Wallace Foundation
The Harry and Jeanette Weinberg Foundation, Inc.
Weingart Foundation
Welborn Baptist Foundation
The Robert A. Welch Foundation
Wenner-Gren Foundation
Winthrop Rockefeller Foundation
Zellerbach Family Foundation