



Annual Analysis of Independent School Investment Pool Returns

Fiscal Year 2014

CAMBRIDGE



ASSOCIATES

Annual Analysis of Independent School Investment Pool Returns

Fiscal Year 2014

William Prout | Geoff Bollier

CAMBRIDGE



ASSOCIATES

Copyright © 2015 by Cambridge Associates (“CA”). All rights reserved.

This report may not be displayed, reproduced, distributed, transmitted, or used to create derivative works in any form, in whole or in portion, by any means, without written permission from Cambridge Associates LLC (“CA”). Copying of this publication is a violation of US and global copyright laws (e.g., 17 U.S.C. 101 et seq.). Violators of this copyright may be subject to liability for substantial monetary damages. The information and material published in this report is nontransferable. Therefore, recipients may not disclose any information or material derived from this report to third parties, or use information or material from this report, without prior written authorization. This report is provided for informational purposes only. The information presented is not intended to be investment advice. Any references to specific investments are for illustrative purposes only. The information herein does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction. Some of the data contained herein or on which the research is based is current public information that CA considers reliable, but CA does not represent it as accurate or complete, and it should not be relied on as such. Nothing contained in this report should be construed as the provision of tax or legal advice. Past performance is not indicative of future performance. Any information or opinions provided in this report are as of the date of the report, and CA is under no obligation to update the information or communicate that any updates have been made. Information contained herein may have been provided by third parties, including investment firms providing information on returns and assets under management, and may not have been independently verified.

Cambridge Associates, LLC is a Massachusetts limited liability company with offices in Arlington, VA; Boston, MA; Dallas, TX; and Menlo Park, CA. Cambridge Associates Fiduciary Trust, LLC is a New Hampshire limited liability company chartered to serve as a non-depository trust company, and is a wholly-owned subsidiary of Cambridge Associates, LLC. Cambridge Associates Limited is registered as a limited company in England and Wales No. 06135829 and is authorized and regulated by the Financial Conduct Authority in the conduct of Investment Business. Cambridge Associates Limited, LLC is a Massachusetts limited liability company with a branch office in Sydney, Australia (ARBN 109 366 654). Cambridge Associates Asia Pte Ltd is a Singapore corporation (Registration No. 200101063G). Cambridge Associates Investment Consultancy (Beijing) Ltd is a wholly owned subsidiary of Cambridge Associates, LLC and is registered with the Beijing Administration for Industry and Commerce (Registration No. 110000450174972).

Investment Portfolio Returns

Commentary	1
1 Summary of Long-Term Investment Portfolio Returns	9
2 Long-Term Investment Portfolio Nominal Return Percentiles	10
3 Summary of Long-Term Investment Portfolio Return Percentiles by Asset Size	11
4 Dispersion of Participants' Asset Class Returns	12
5 Analysis of Top and Bottom Performers: Asset Allocation	13
6 Analysis of Top and Bottom Performers: Asset Class Returns	14
7 Performance Reporting Methodologies	15
8 Calculation of Net Returns	16
9 Policy Portfolio Benchmarking	17
10 Frequently Used Components of Policy Portfolio Benchmarks	18
11 Risk/Return and Sharpe Ratio	19

Portfolio Asset Allocation

Commentary	20
12 Asset Allocation Percentiles	24
13 Summary Asset Allocation by Asset Size	25
14 Historical Mean Asset Allocation Trends	26
15 Uncalled Capital Committed to Private Investment Funds	27

Investment Management Structures

Commentary	28
16 Number of External Managers and Investment Vehicles	30
17 Dispersion in Number of Managers for Selected Asset Classes	31
18 Externally Managed Investment Pool Holdings by Strategy	32
19 Portfolio Implementation: Hedge Funds	33
20 Portfolio Implementation: Private Investments	34
21 Portfolio Implementation: Traditional Equities and Bonds	37

Additions to and Withdrawals from the LTIP	
Commentary	39
22 Net Flow Rate Comparison	42
23 Additions to and Withdrawals from the Long-Term Investment Portfolio	43
24 Spending Policy Types	44
25 Target Spending Rates for Market Value–Based Spending Policies	45
26 Changes in Target Spending Rates for Market Value–Based Spending Policies	46
27 Smoothing Periods for Market Value–Based Spending Policies	47
28 Characteristics of Hybrid Spending Policies	48
29 Long-Term Investment Portfolio Support of Operations	49
Detailed Data by Institution Code	
Commentary	50
30 Total Return by Institution Organized by Private Investment Performance Methodology	51
31 Nominal and Real Total Return by Institution	52
32 Nominal and Real Total Return After Spending by Institution	53
33 Nominal Total Return, Standard Deviation, and Sharpe Ratio by Institution	54
34 Calculation of Net Returns by Institution	55
35 Detailed Asset Allocation by Institution	56
36 Target Asset Allocation by Institution	58
37 Net Flow Rate by Institution	59
Notes on the Data	60
Glossary	62
Participating Institutions	65

Fiscal Year 2014 Returns

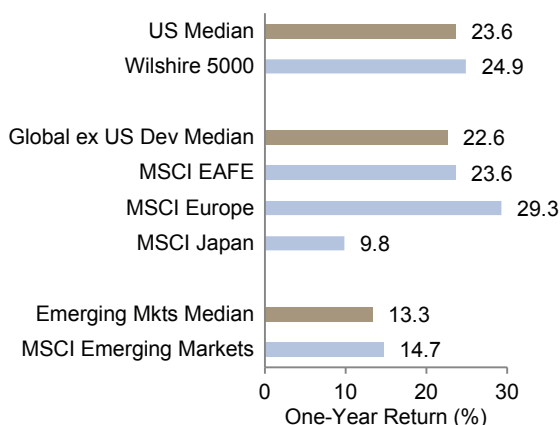
The mean fiscal year 2014 total return for participants in this study was 14.7% (Exhibit 1), the fourth period of double-digit performance in the last five fiscal years. Average returns for endowments of disparate asset sizes varied little. Institutions with assets over \$300 million reported average performance of 15.0% while those with assets under \$100 million reported 14.7% (Exhibit 3). After factoring in inflation of 2.1% in fiscal year 2014 (as measured by the Consumer Price Index), the mean real return for all respondents is adjusted to 12.4%.

In this year's survey, we asked respondents to provide composite returns for the major asset classes in their portfolio. The charts shown in this section provide fiscal year 2014 median performance for the participant group across these asset classes alongside returns for relevant indexes (all index returns in US\$ terms).

Public Equity. Equity-oriented investments continued to drive endowment performance in fiscal year 2014. Returns for public equity indexes were above 20% in most developed

Public Equity: Median Participant Return Versus Index Returns

Trailing One-Year as of June 30, 2014



Sources: Independent schools data as reported to Cambridge Associates LLC. Index data provided by MSCI Inc. and Wilshire Associates. MSCI data provided "as is" without any express or implied warranties.

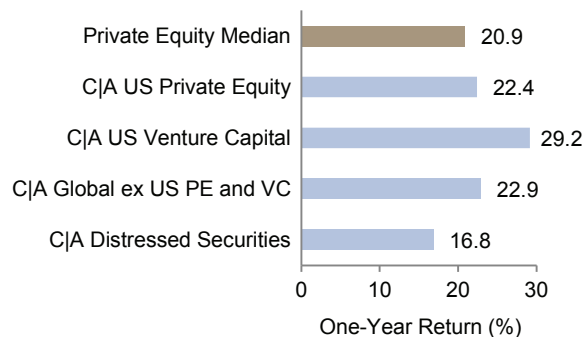
countries. Among participants in this study, median performance for US equities was 23.6%, 1.3 ppts lower than the Wilshire 5000 Index. While index returns in Europe were even higher, lower returns in Japan resulted in global ex US equities underperforming US markets. Median participant performance for global ex US developed equities was 22.6%, lagging the MSCI EAFE Index by 1.0 ppt. Emerging markets equities again lagged developed markets in fiscal year 2014, with the median participant return at 13.3%.

Private Equity. For participants in this study, median performance for private equity was 20.9% in fiscal year 2014.¹ Historically, private equity fund returns have varied considerably more than public equities, underscoring the importance of manager selection within this strategy. Excluding outliers that make up the top and bottom 5% of participants, private equity returns in fiscal year 2014 ranged from 13.4% to 68.1% (Exhibit 4). In contrast, the

¹ Throughout this section of the report, participants' private equity performance statistics also include venture capital and distressed securities that are invested through a private investment vehicle. All private investment return statistics in this study are reported as an internal rate of return (IRR).

Private Equity: Median Participant Return Versus Index Returns

Trailing One-Year as of June 30, 2014



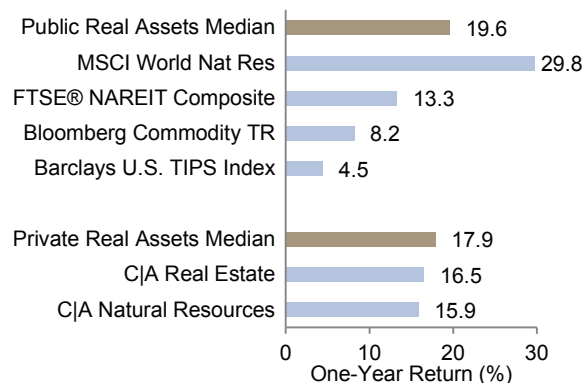
Sources: Cambridge Associates LLC and independent schools data as reported to Cambridge Associates LLC.

range of total public equity returns was 16.6% to 23.8%. In addition to the wide dispersion normally associated with private equity, some of the variance in private equity returns is attributable to the broad range of strategies incorporated in this composite and each institution's custom asset mix across these strategies. The Cambridge Associates US Venture Capital Index® produced the highest return (29.2%) in fiscal year 2014 among the strategies in this composite.

Real Assets. Public real assets consist of a diversified group of investments, including natural resources equities, commodities, public real estate, and inflation-linked bonds. The median participant return for fiscal year 2014 was 19.6%. As a result of the varying asset allocation strategies among participants, reported returns for public real assets varied considerably. Returns ranged from 7.5% to 31.3% excluding outliers in the top and bottom 5% (Exhibit 4). On an index basis, natural resources equities produced the best performance in this category, returning nearly 30%.

Real Assets: Median Participant Return Versus Index Returns

Trailing One-Year as of June 30, 2014



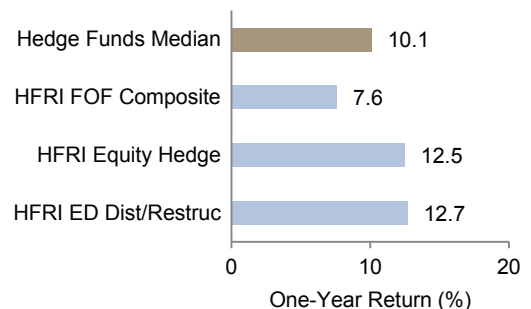
Sources: Independent schools data as reported to Cambridge Associates LLC. Index data are provided by Barclays, Bloomberg L.P., Cambridge Associates LLC, FTSE International Limited, and MSCI Inc. MSCI data provided "as is" without any express or implied warranties.

Median participant performance for private real assets was 17.9%. While the CA Real Estate and CA Natural Resources benchmarks produced similar returns, participants reported a wide range of returns within this category, from -8.0% to 32.0% excluding outliers in the top and bottom 5%.

Hedge Funds. The median participant saw double-digit hedge fund performance (10.1%), though hedge funds underperformed equities in fiscal year 2014. On an index basis, equity-oriented hedge funds outperformed more diversified funds-of-funds over the one-year period. The variation in hedge funds returns was considerably lower than that in private equity and real assets, ranging from 4.3% to 14.4% excluding outliers in the top and bottom 5%.

Hedge Funds: Median Participant Return Versus Index Returns

Trailing One-Year as of June 30, 2014

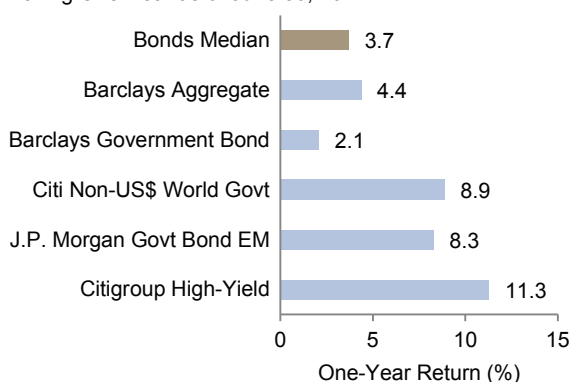


Sources: Independent schools data as reported to Cambridge Associates LLC. Index data are provided by Hedge Fund Research, Inc.

Bonds. Bonds turned in the lowest performance among the major asset classes in fiscal year 2014, with performance for the median participant at just 3.7%. Global sovereign bonds outperformed US sovereigns, while returns for high-yields bonds surpassed 11%.

Bonds: Median Participant Return Versus Index Returns

Trailing One-Year as of June 30, 2014



Sources: Independent schools data as reported to Cambridge Associates LLC. Index data are provided by Barclays, Citigroup Global Markets, and J.P. Morgan Securities, Inc.

Long-Term Returns

The mean average annual compound return (AACR) was 10.6% for the five-year period ending June 30, 2014. As the chart below displays, this represents the third highest return over the last decade, lagging only fiscal years 2007 and 2008 (12.2% and 11.4%, respectively). Similar to those years, this most recent five-year period incorporates a recovery following a recession in which stock markets had significantly declined.

Average returns for the ten-year period were 7.4% on a nominal basis and 4.9% on a real basis (Exhibit 1). For these longer time periods, there was more disparity in returns among endowments of different asset sizes. Institutions with the largest asset sizes tended to outperform by wider margins over the five- and ten-year periods (Exhibit 3).

Rolling Five-Year Average Annual Compound Returns

Years Ended June 30



Source: Independent schools data as reported to Cambridge Associates LLC.

Note: Analysis includes data for 14 institutions that provided returns for the last 15 years.

Analysis of Top and Bottom Performers

Many factors contribute to investor returns, including asset allocation policy, manager selection, and the timing of investments.

A true attribution analysis on peer investment performance would require an extraordinary amount of detailed data. Since that level of granularity is not available for each of the institutions in this study, we cannot perform attribution analysis that attempts to deconstruct returns into precise components. However, our data do allow us to make broader observations that can help illuminate the main drivers of performance for the fiscal year 2014 period. In the following section, we present analysis on some of these main factors that impact peer investment return statistics.

Performance Attribution: Asset Allocation.

Exhibit 5 breaks the participant group down into four quartiles based on fiscal year 2014 investment performance and displays the beginning year average asset allocation of each quartile. Equity-oriented investments continued to produce strong returns in fiscal year 2014. Endowments that entered the year with higher public equity allocations tended to achieve better investment performance. Institutions in the top quartile had the highest average allocation to both US and global ex US equities (20.9% and 23.5%, respectively).

The greatest disparity in allocations was within hedge funds. Institutions that posted a trailing one-year return in the top quartile entered the year with the lowest average allocation to hedge funds (19.5%) while those in the bottom quartile had the highest average allocation (37.9%). Portfolios in the bottom quartile also entered the year with the highest average allocation to cash (9.5%).

Performance Attribution: Asset Class

Performance. In addition to an asset class mix that was better suited for the 2014 return environment, top performers also tended to report better performance in underlying asset classes. Exhibit 6 narrows the peer group down into the same four quartiles based on total portfolio performance for fiscal year 2014 and presents median asset class returns for each quartile. The median return for the top quartile of performers surpassed the median return of the total participant group in all but one of the major asset classes. In contrast, the median return for the bottom quartile of performers trailed the overall median in all but two asset classes. The largest differential of asset class returns was in private real assets, where the median return for top performers was over 700 bps greater than the median return for the total peer group.

Benchmarking

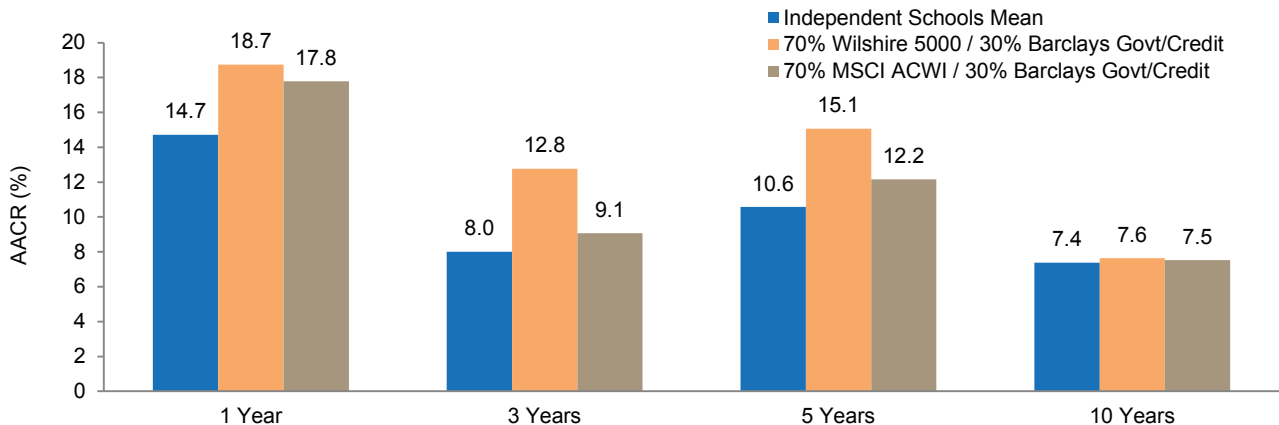
Relative Returns: Simple Portfolio

Benchmark. Since the stock market bottom on March 9, 2009, US equities have been among the top-performing investments. Consequently, diversified endowment portfolios have considerably lagged a simple 70/30 benchmark that uses a US index for the equity component.

While institutions have fared better against a 70/30 benchmark that uses a global equity index, mean returns for the one-, three-, and five-year periods are still significantly lower than the global benchmark. Over the ten-year period, the mean return nearly matched the 70/30 benchmarks, underperforming the domestic and global benchmarks by 20 bps and 10 bps, respectively.

Mean Returns Versus 70/30 Simple Benchmarks

As of June 30, 2014 • Percent (%)



Sources: Independent schools data as reported to Cambridge Associates LLC. Index data provided by Barclays, MSCI Inc., Thomson Reuters Datastream, and Wilshire Associates, Inc. MSCI data provided "as is" without any express or implied warranties.

Note: Number of participants providing returns over the one-, five-, ten-, and 20-year time periods were 27, 27, 26, and 23, respectively.

Relative Returns: Policy Portfolio

Benchmark. Each institution has its own blend of unique characteristics and risk tolerances. Consequently, investment policies will vary, leading to different asset allocation structures for institutions that might otherwise be considered worthy peers. While performance results of peers can be informative, they are not necessarily the most effective benchmark to evaluate an institution's own investment performance. The comparison of an institution's return to its policy portfolio benchmark is the true mark for determining whether an endowment is being successfully managed against its target investment policy.

In this year's study, 23 institutions provided fiscal year 2014 performance for their policy portfolio benchmark. Just over half of these institutions (12 of 23) earned a return that surpassed their policy portfolio benchmark. Excluding outliers at the top and bottom 5% of participants, returns versus the policy portfolio

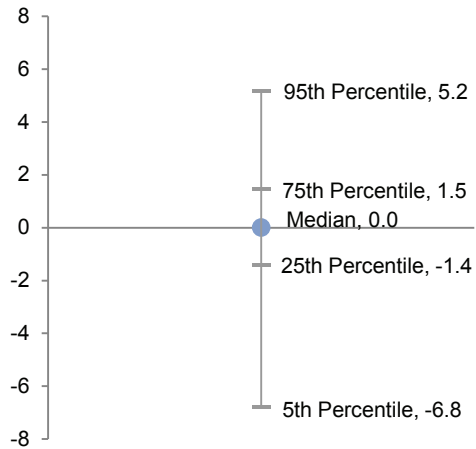
benchmark ranged from outperformance of 520 bps to underperformance of 680 bps. The graph on the top of the next page shows the range of distribution for participants.

Policy Portfolio Benchmark Components.

The majority of all participants (83%) use a detailed, asset class-specific benchmark to evaluate the performance of the total portfolio (Exhibit 9). Exhibit 10 summarizes the most frequently used benchmarks in policy portfolios by asset class/strategy. The most commonly cited benchmark used to evaluate the US equity portion of the portfolio was the Russell 3000® Index. Global ex US equity was most often measured by a blend of the MSCI EAFE and MSCI Emerging Markets indexes. Some institutions prefer to measure their long-only equities against a global index instead of benchmarking the domestic and international equities separately. For these institutions, the MSCI All Country World Index is the most frequently used benchmark. The most frequently used

Range of Out/Underperformance of Total Return Versus Policy Portfolio Benchmark

One-Year Statistics as of June 30, 2014 • Percentage Points



Source: Independent schools data as reported to Cambridge Associates LLC.

Note: Data points represent the difference between the total portfolio return and the policy portfolio benchmark return. Graph displays a range of data for 23 institutions that provided fiscal year 2014 returns for their total portfolio and policy portfolio benchmark.

bond benchmark was the Barclays Aggregate Bond Index, though many institutions use unique index combinations to better reflect their underlying bond exposure.

Most respondents used an HFRI index for hedge funds, with the Fund of Funds Composite index being the most common. Private equity and venture capital were most often measured against the Cambridge Associates LLC Private Equity and Venture Capital indexes. Due to the diverse asset classes and strategies that fall under real assets, the vast majority of respondents use a combination of indexes that is unique to their own portfolio. Just 10% of respondents use the CPI-U plus a premium (e.g., CPI-U + 5%) to broadly benchmark their combined real assets allocation.

Risk-Adjusted Returns

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. Exhibit 11 shows the mean Sharpe ratio of respondents over the trailing five-year period (1.39) was slightly lower than that of a 70/30 portfolio benchmark containing a US equity component (1.40), but significantly higher than a 70/30 portfolio benchmark with a global equity component (1.09).

Post-Fiscal Year 2014 Outlook

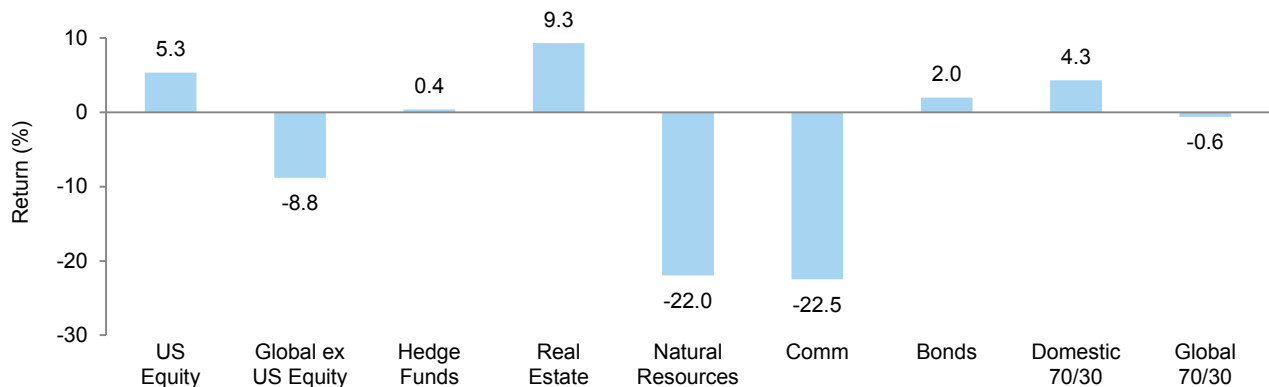
At the time of this publication, we are more than halfway through the fiscal year that ends June 30, 2015. The chart at the top of the next page details returns for the major marketable asset class indexes for the six-month period of July 1, 2014, through December 31, 2014.

US equities continued to produce positive returns during this period, with the Wilshire 5000 Index increasing by 5.3%. The bull market in US equities continued in part because of the momentum of the US economy and growth rates that exceeded other developed regions. US GDP grew by 4.6% and 5.0% in second and third quarter 2014, respectively.

The US dollar began consistently rising against other major currencies in July and finished the year up strongly against all. Consequently, the second half of calendar year 2014 saw a divergence in returns of US equities and unhedged global ex US equities. The MSCI All Country World ex US Index returned -8.8% in US\$ terms. For the same period, the spread between the return for a domestic 70/30 blended bench-

Marketable Asset Class Returns Through the First Half of Fiscal Year 2015

Returns for July 1, 2014, to December 31, 2014 • Percent (%)



Source: Independent schools data as reported to Cambridge Associates LLC.

Note: Asset classes are represented by the following: Wilshire 5000 Index ("US Equity"), MSCI All Country World ex US Index ("Global ex US Equity"), HFRI Fund Weighted Composite Index ("Hedge Funds"), FTSE® NAREIT Composite Index ("Real Estate"), MSCI World Natural Resources Index ("Natural Resources"), Bloomberg Commodity Index ("Commodities"), Barclays Government/Credit Index ("Bonds"), 70% Wilshire 5000 / 30% Barclays Government/Credit ("Domestic 70/30"), and 70% MSCI All Country World / 30% Barclays Government/Credit ("Global 70/30").

(4.3%) and a global 70/30 benchmark (-0.6%) was nearly 500 bps.²

Returns for inflation-sensitive assets were mixed over the second half of calendar year 2014. Commodities and natural resources equities were dragged down considerably by collapsing oil prices, with representative benchmarks for both asset classes declining by more than 20%. US REITs were the strongest-performing assets among the selected marketable asset class benchmarks, due in part to yield-chasing, with a return of 9.3%.

Asset classes with lower or no equity exposure posted small gains over this same six-month period. The Barclays Government/Credit Bond Index grew by 2.0% as the ten-year Treasury yield declined through the end of 2014. A broad universe of hedge funds represented by

² The mean allocation among participants for the long-only equity portion of the portfolio was split nearly evenly between US and global ex US markets (Exhibit 14), making the 70/30 benchmark that uses the MSCI ACWI as the equity component a more appropriate benchmark for most participants in this study.

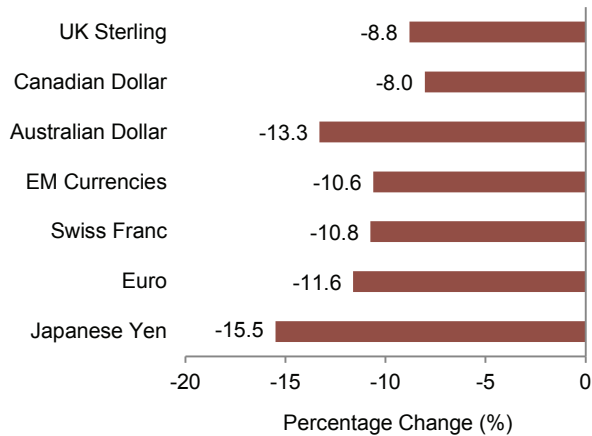
the HFRI Fund Weighted Composite Index increased marginally (0.4%).

The global economic landscape poses many challenges for investors heading into the second half of fiscal year 2015 and beyond. Will US equities continue to outperform global peers? As we discussed in our recent publication *Five Key Questions for 2015*, the prospect is unlikely. Valuations for other developed countries and emerging markets peers look more compelling than for US equities.³ In currency and fixed income markets, investors must manage the effects of diverging global monetary policies. The Federal Reserve concluded its asset purchase program in October 2014. Most market observers expect the Fed to increase the benchmark federal funds rate in 2015, although recent economic data have raised uncertainty around the timing and extent of an increase. Meanwhile, the Bank of Japan dramatically increased its quantitative easing (QE) program

³ On a monthly basis, we provide our views and advice on asset classes and strategies via our *Asset Class Views* publication on our website.

Currency Performance Versus the US Dollar

July 1, 2014 – December 31, 2014



Sources: MSCI Inc. and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Note: EM currencies is an equal-weighted basket of 20 currencies.

in late 2014, and the European Central Bank embarked on its own QE program in March 2015. Finally, other market dynamics and events could disrupt markets in 2015, including further volatility in the price of oil, geopolitical crises in Russia and the Middle East, and a continued slowdown in the growth rate of China's economy. ■

Exhibit 1
Summary of Long-Term Investment Portfolio Returns
 Years Ended June 30, 2014 • Percent (%)

Nominal Total Returns

	Average Annual Compound Nominal Return			
	1 Year	3 Years	5 Years	10 Years
Responding Institutions				
High	18.7	10.7	13.3	9.9
Low	7.9	0.1	5.6	5.6
Mean	14.7	8.0	10.6	7.4
Median	14.7	7.8	10.8	7.5
<i>n</i>	27	27	26	23
Mean After Spending	9.6	3.7	6.4	3.8
<i>n</i>	19	14	12	5
Benchmarks				
70% Wilshire 5000 / 30% Barclays Govt/Credit	18.7	12.8	15.1	7.6
70% MSCI ACWI / 30% Barclays Govt/Credit	17.8	9.1	12.2	7.5
Wilshire 5000	24.9	16.3	19.1	8.3
MSCI ACWI ex US	22.3	6.2	11.6	8.2
Barclays Govt/Credit	4.3	4.1	5.1	4.9
CPI-U	2.1	1.8	2.0	2.3

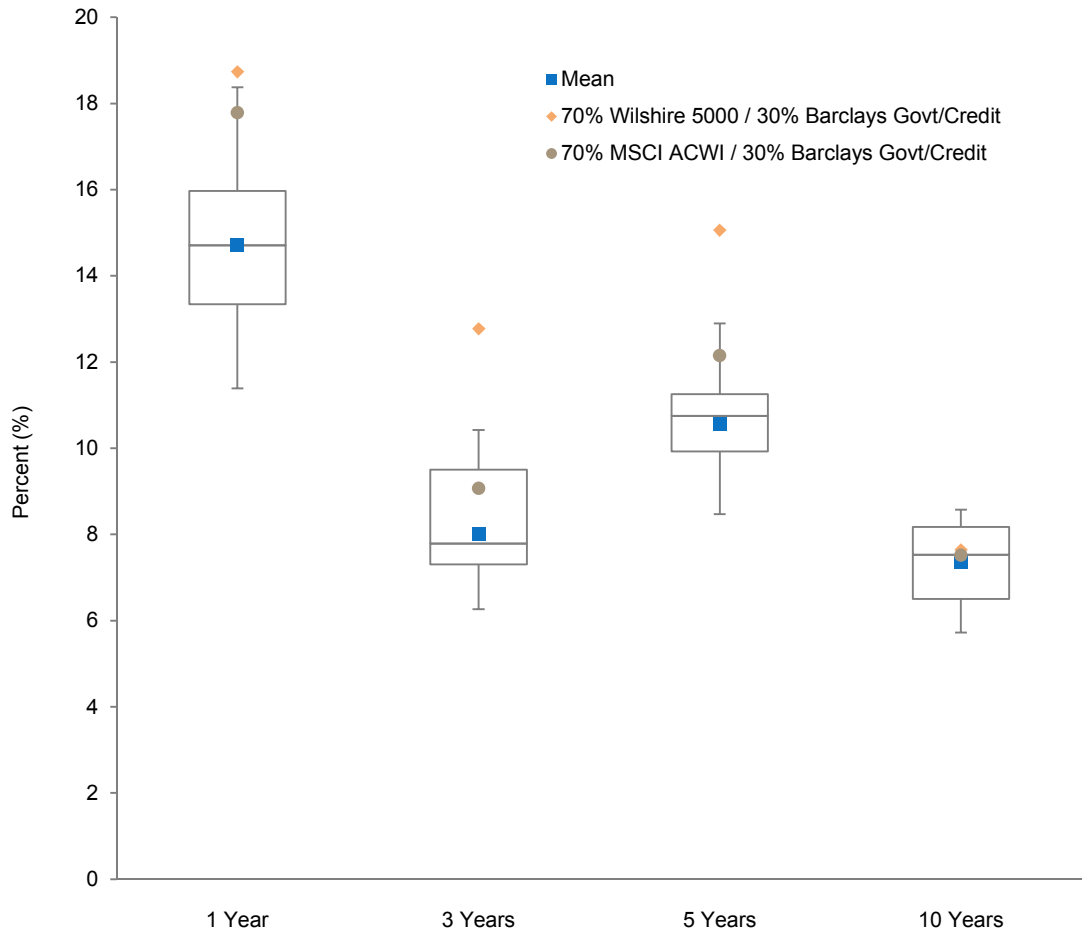
Real Total Returns

	Average Annual Compound Real Return			
	1 Year	3 Years	5 Years	10 Years
Responding Institutions				
High	16.3	8.7	11.1	7.5
Low	5.7	-1.7	3.5	3.2
Mean	12.4	6.1	8.4	4.9
Median	12.4	5.9	8.6	5.1
<i>n</i>	27	27	26	23
Mean After Spending	7.4	1.8	4.3	1.5
<i>n</i>	19	14	12	5
Benchmarks				
70% Wilshire 5000 / 30% Barclays Govt/Credit	16.3	10.7	12.8	5.2
70% MSCI ACWI / 30% Barclays Govt/Credit	15.4	7.1	9.9	5.1
Wilshire 5000	22.4	14.2	16.8	5.8
MSCI ACWI ex US	19.8	4.3	9.4	5.8
Barclays Govt/Credit	2.2	2.2	3.0	2.6

Sources: Independent schools data as reported to Cambridge Associates LLC. Index data provided by Barclays, MSCI Inc., Thomson Reuters Datastream, US Department of Labor - Bureau of Labor Statistics, and Wilshire Associates, Inc. MSCI data provided "as is" without any express or implied warranties.

Note: Real returns are adjusted for inflation as measured by the Consumer Price Index.

Exhibit 2
Long-Term Investment Portfolio Nominal Return Percentiles
 Years Ended June 30, 2014 • Percent (%)



	1 Year	3 Years	5 Years	10 Years
5th Percentile	18.4	10.4	12.9	8.6
25th Percentile	16.0	9.5	11.3	8.2
Median	14.7	7.8	10.8	7.5
75th Percentile	13.3	7.3	9.9	6.5
95th Percentile	11.4	6.3	8.5	5.7
Mean	14.7	8.0	10.6	7.4
<i>n</i>	27	27	26	23
Wilshire 5000/Barclays Govt/Credit ¹	18.7	12.8	15.1	7.6
MSCI ACWI/Barclays Govt/Credit ²	17.8	9.1	12.2	7.5

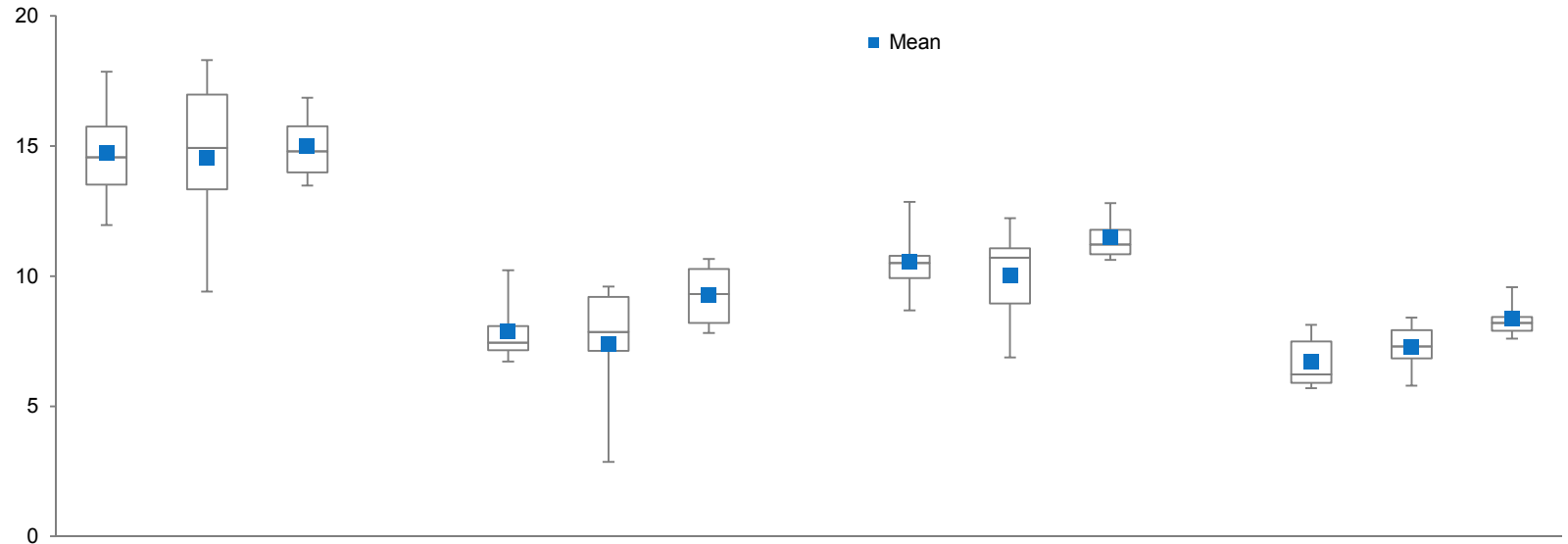
Sources: Independent schools data as reported to Cambridge Associates LLC. Index data provided by Barclays, MSCI Inc., Thomson Reuters Datastream, and Wilshire Associates, Inc. MSCI data provided "as is" without any express or implied warranties.

Note: Three-, five-, and ten-year returns are annualized.

¹ 70% Wilshire 5000 / 30% Barclays Government/Credit Bond Index.

² 70% MSCI ACWI / 30% Barclays Government/Credit Bond Index.

Exhibit 3
Summary of Long-Term Investment Portfolio Return Percentiles by Asset Size
 Years Ended June 30, 2014 • Percent (%)



	1 Year			3 Years			5 Years			10 Years		
	Under \$100 mm	\$100 mm to \$300 mm	Over \$300 mm	Under \$100 mm	\$100 mm to \$300 mm	Over \$300 mm	Under \$100 mm	\$100 mm to \$300 mm	Over \$300 mm	Under \$100 mm	\$100 mm to \$300 mm	Over \$300 mm
5th Percentile	17.9	18.3	16.9	10.2	9.6	10.7	12.8	12.2	12.8	8.1	8.4	9.6
25th Percentile	15.7	17.0	15.8	8.1	9.2	10.3	10.8	11.1	11.8	7.5	7.9	8.4
Median	14.6	14.9	14.8	7.4	7.9	9.3	10.5	10.7	11.2	6.2	7.3	8.2
75th Percentile	13.5	13.3	14.0	7.2	7.1	8.2	9.9	9.0	10.8	5.9	6.8	7.9
95th Percentile	12.0	9.4	13.5	6.7	2.9	7.8	8.7	6.9	10.6	5.7	5.8	7.6
Mean	14.7	14.5	15.0	7.9	7.4	9.3	10.6	10.0	11.5	6.7	7.3	8.4
n	11	10	6	11	10	6	10	10	6	7	10	6

Source: Independent schools data as reported to Cambridge Associates LLC.
 Note: Three-, five-, and ten-year returns are annualized.

Exhibit 4
Dispersion of Participants' Asset Class Returns
 Trailing One-Year as of June 30, 2014 • Percent (%)



Source: Independent schools data as reported to Cambridge Associates LLC.

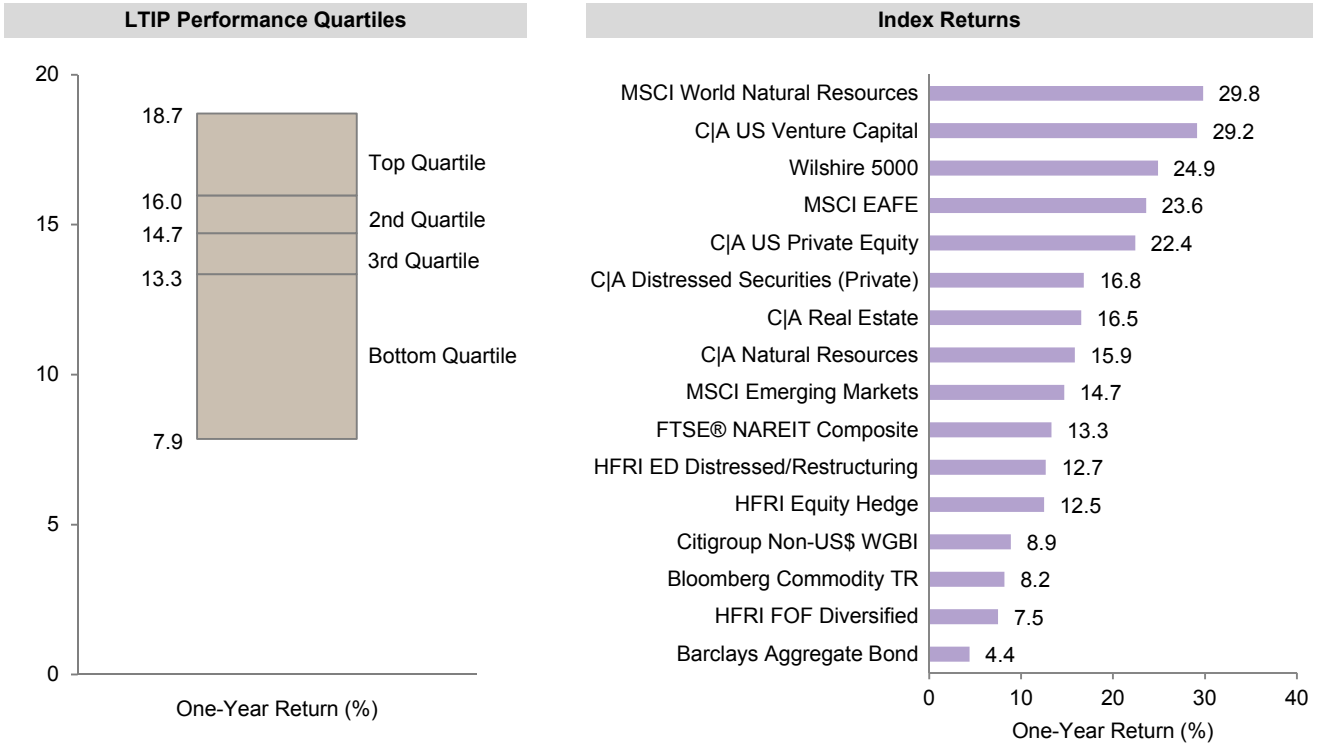
Note: Private equity and private real assets return statistics are reported as internal rates of return (IRRs).

¹ Total public equity is a composite of global equity, US equity, global ex US developed equity, and emerging markets equity.

² Global equity includes only investment vehicles that have a mandate to invest in US and international markets.

³ Private equity also includes venture capital and distressed securities that are invested through a private investment vehicle.

Exhibit 5
Analysis of Top and Bottom Performers: Asset Allocation
 As of June 30, 2014



Mean Asset Allocation by LTIP Quartile (%) as of June 30, 2013

Quartile	US Equity	Global ex US Equity	Bonds	Hedge Funds	Distressed Securities	Priv Equity & Ven Cap	Real Assets & Infr-Linked Bonds	Cash	Other
Top Quartile	20.9	23.5	11.3	19.5	3.7	4.5	12.5	4.1	0.1
2nd Quartile	17.1	20.0	11.8	30.1	1.5	5.3	10.5	3.7	0.0
3rd Quartile	12.3	16.4	9.2	30.7	4.4	7.2	16.2	3.7	0.0
Bottom Quartile	14.6	11.8	7.8	37.9	4.3	5.2	8.9	9.5	0.0
All Independent Schools Mean	16.4	18.0	10.1	29.5	3.4	5.5	11.9	5.3	0.0

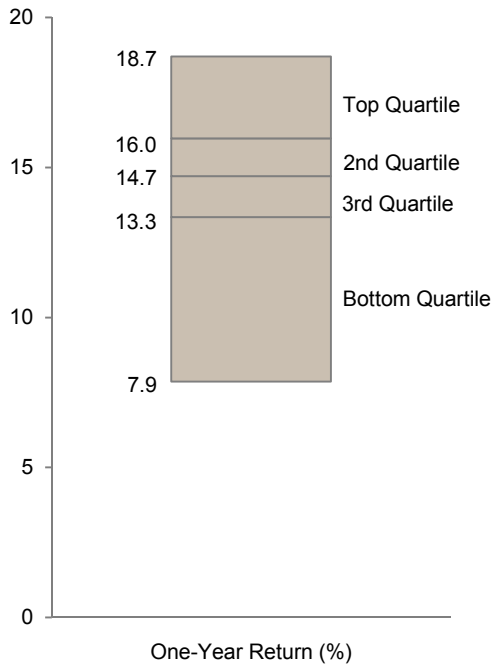
Divergence of Asset Allocation from Mean

Asset Class	Divergence from Mean (%)
US Equity	-2.0
Global ex US Equity	-0.8
Bonds	-0.1
Hedge Funds	+0.8
Distressed Securities	+0.9
Priv Equity & Ven Cap	+0.2
Real Assets & Infr-Linked Bonds	+0.6
Cash	+0.2
Other	+0.0

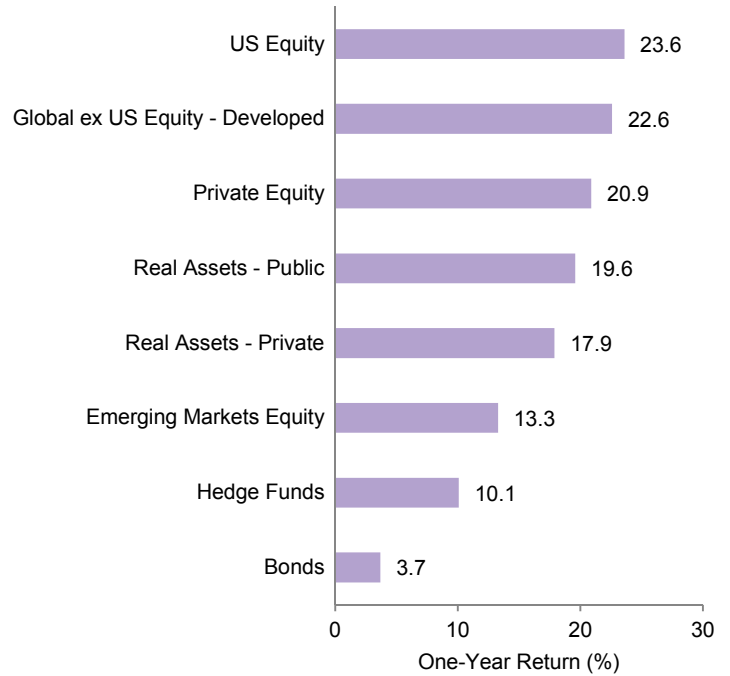
Sources: Independent schools data as reported to Cambridge Associates LLC. Index data are provided by Barclays, Bloomberg L.P., Citigroup Global Markets, FTSE International Limited, Hedge Fund Research, Inc., MSCI Inc., the National Association of Real Estate Investment Trusts, and Wilshire Associates, Inc. MSCI data provided "as is" without any express or implied warranties.
 Note: Performance quartiles are based on the long-term investment portfolio's (LTIP) trailing one-year return as of June 30, 2014.

Exhibit 6
Analysis of Top and Bottom Performers: Asset Class Returns
 As of June 30, 2014

LTIP Performance Quartiles

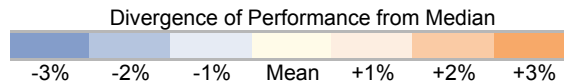


Median Participant Asset Class Returns



Median One-Year Participant Asset Class Return by LTIP Performance Quartile

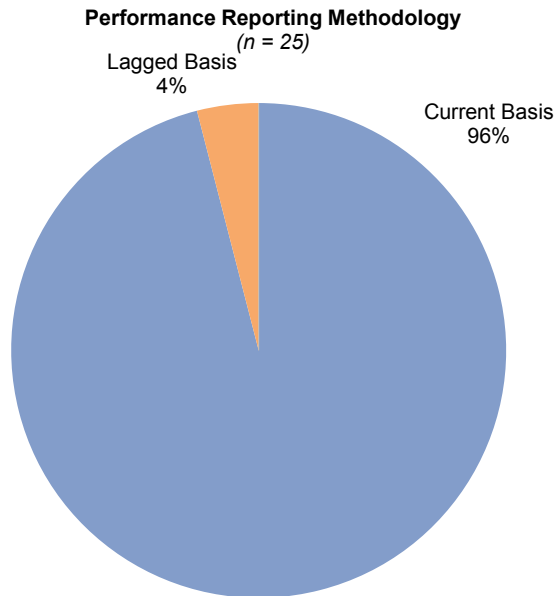
Quartile	US Equity	Global ex US Developed Equity	Emerging Markets Equity	Bonds	Hedge Funds	Private Equity	Real Assets - Public	Real Assets - Private
Top Quartile	26.8	21.8	16.0	5.1	11.5	21.2	20.8	25.3
2nd Quartile	24.9	24.0	8.9	3.7	10.1	20.9	16.3	13.9
3rd Quartile	21.3	21.1	12.9	3.7	10.7	18.9	25.5	16.1
Bottom Quartile	20.4	22.9	8.9	2.1	5.3	21.1	14.4	15.3
All Independent Schools Median	23.6	22.6	13.3	3.7	10.1	20.9	19.6	17.9



Source: Independent schools data as reported to Cambridge Associates LLC.
 Notes: Performance quartiles are based on the long-term investment portfolio's (LTIP) trailing one-year return as of June 30, 2014. Returns for private equity and private real assets are reported as an internal rate of return (IRR) and include only those institutions that report on a current basis. Private equity also includes venture capital and distressed securities that are invested through a private investment vehicle.

Exhibit 7
Performance Reporting Methodologies

As of June 30, 2014 • Methods Commonly Used to Account for Performance of Private Investments



By Asset Size

	Current Basis	Lagged Basis
Under \$100 Million	100% (n = 10)	0% (n = 0)
\$100 Million to \$300 Million	100% (n = 9)	0% (n = 0)
Over \$300 Million	83% (n = 5)	17% (n = 1)

Current Basis

Total investment pool return for 2014 includes marketable asset and private investment performance for July 1, 2013, to June 30, 2014. All 24 institutions using this methodology used confirmed private investment valuations.

Marketable Assets			
3Q13	4Q13	1Q14	2Q14
Private Investments			

Lagged Basis

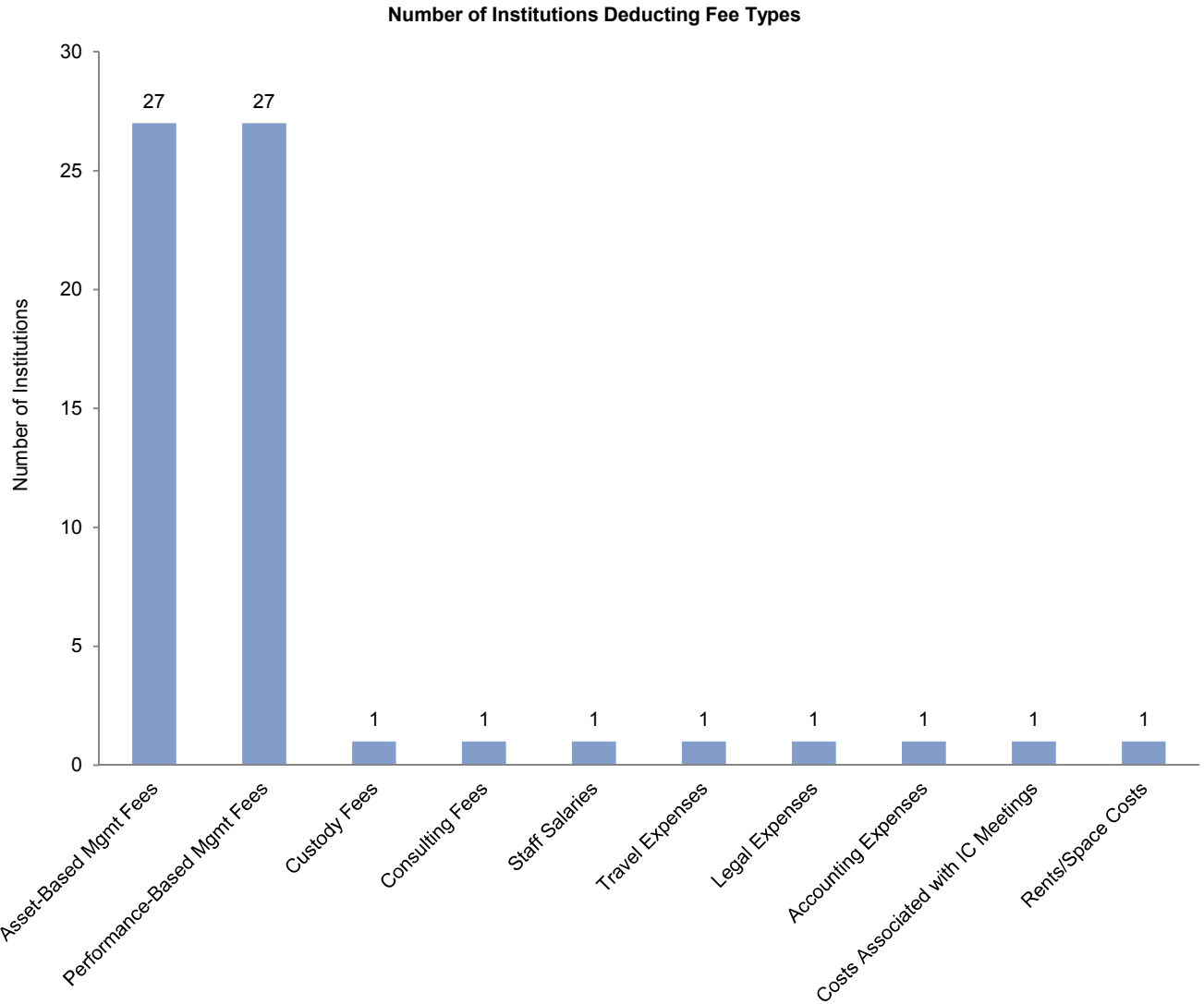
Total investment pool return for 2014 includes marketable asset performance for July 1, 2013, to June 30, 2014, and private investment performance for April 1, 2013, to March 31, 2014.

Marketable Assets				
2Q13	3Q13	4Q13	1Q14	2Q14
Private Investments				

Source: Independent schools data as reported to Cambridge Associates LLC.

Notes: Private investments include non-venture private equity, venture capital, distressed securities (private equity structure), private oil & gas/natural resources, timber, private real estate, and other private investments. Two independent schools have no significant private investment allocations (<1% of their total investment portfolios) and are excluded from this exhibit.

Exhibit 8
Calculation of Net Returns
 Fiscal Year 2014



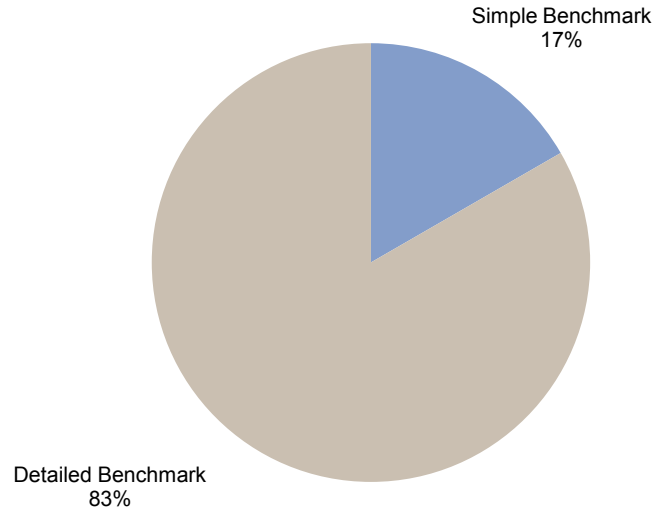
Combination of Fees Deducted

Asset-Based Mgmt Fees	Perf-Based Mgmt Fees	Custody Fees	Consulting Fees	Staff Salaries	Travel Expenses	Legal Expenses	Accounting Expenses	Costs Assoc with IC Meetings	Rents/Space Costs	Number of Institutions	%
x	x									26	96
x	x	x	x	x	x	x	x	x	x	1	4

Source: Independent schools data as reported to Cambridge Associates LLC.

Exhibit 9
Policy Portfolio Benchmarking
 As of June 30, 2014

Proportion of Institutions Using Simple Policy Portfolio Benchmarks Versus Detailed Benchmarks (n = 24)



Breakdown by Investment Pool Size

	Simple Benchmark	Detailed Benchmark
Under \$100 Million	11% (n = 1)	89% (n = 8)
\$100 Million to \$300 Million	11% (n = 1)	89% (n = 8)
Over \$300 Million	33% (n = 2)	67% (n = 4)

Description of Policy Portfolio Benchmark Types

Simple Benchmark: The use of broad market indexes to benchmark the performance of the total portfolio. Typically, an equity/fixed income blend is used (e.g., 70% MSCI ACWI / 30% Barclays Aggregate Bond Index), with the equity weighting used as a rough approximation of the portfolio's allocation to equities and equity-like investments.

Detailed Benchmark: The use of asset class-specific benchmarks, with weights typically reflective of policy portfolio targets, to benchmark the performance of the total portfolio.

Source: Independent schools data as reported to Cambridge Associates LLC.

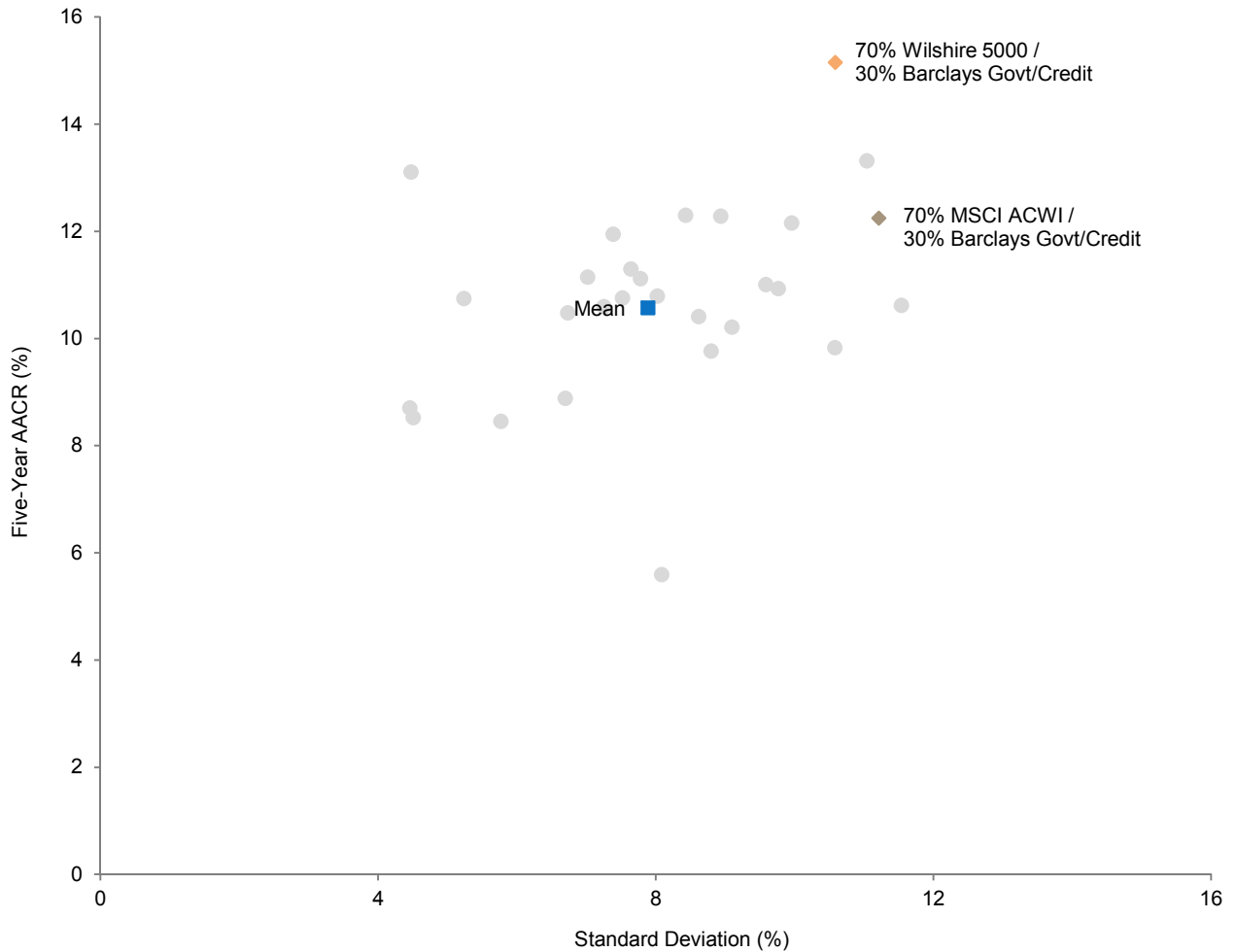
Exhibit 10
Frequently Used Components of Policy Portfolio Benchmarks
 As of June 30, 2014

Simple Policy Benchmarks		
	Benchmark Description	Percent (%) of Institutions
Simple Benchmark Combinations (<i>n</i> =4)	MSCI World Index	25
	Combination: S&P 500 and Barclays Government/Credit Bond indexes	25
	Combination: MSCI All Country World and Citigroup World Government Bond indexes	25
	1 Other Unique Benchmark/Combination	25
Detailed Policy Benchmarks		
Asset Class/ Strategy	Benchmark Description	Percent (%) of Institutions
Global Equity (<i>n</i> = 6)	MSCI All Country World Index	83
	MSCI World Index	17
US Equity (<i>n</i> = 13)	Russell 3000® Index	62
	S&P 500 Index	31
	Combination: S&P 500 and Wilshire 5000 indexes	8
Global ex US Equity (<i>n</i> = 11)	Combination: MSCI EAFE and MSCI Emerging Markets indexes	36
	MSCI All Country World ex US Index	27
	MSCI Emerging Markets Index	27
	1 Other Unique Benchmarks/Combination	9
Bonds (<i>n</i> = 20)	Barclays Aggregate Bond Index	30
	Barclays Government/Credit Bond Index	10
	Combination: Barclays Aggregate and Barclays Government/Credit Bond indexes	10
	9 Other Unique Benchmarks/Combinations	50
Hedge Funds (<i>n</i> = 20)	HFRI Fund of Funds Composite Index	50
	HFRI Fund of Funds Diversified Index	25
	HFRI Fund Weighted Composite Index	5
	4 Other Unique Benchmarks/Combinations	20
Private Investments (<i>n</i> = 11)	Cambridge Associates LLC Private Equity® and/or Venture Capital® indexes	36
	S&P 500 Index + prespecified percentage	27
	Russell 3000® Index + prespecified percentage	9
	3 Other Unique Benchmarks/Combinations	27

Source: Independent schools data as reported to Cambridge Associates LLC.

Note: The percent of institutions calculation only includes those with a benchmark to the specific asset class/strategy.

Exhibit 11
Risk/Return and Sharpe Ratio
 Five Years Ended June 30, 2014



	Five-Year AACR (%)	Standard Deviation (%)	Sharpe Ratio
5th Percentile	12.9	10.9	1.96
25th Percentile	11.3	9.1	1.50
75th Percentile	9.9	6.8	1.15
95th Percentile	8.5	4.5	0.93
Mean	10.6	7.9	1.39
Median	10.8	7.9	1.37
<i>n</i> = 26			
70% Wilshire 5000 / 30% Barclays Govt/Credit	15.2	10.6	1.40
70% MSCI ACWI / 30% Barclays Govt/Credit	12.2	11.2	1.09

Sources: Independent schools data as reported to Cambridge Associates LLC. Index data are provided by Barclays, BofA Merrill Lynch, MSCI Inc., and Wilshire Associates, Inc. MSCI data provided "as is" without any express or implied warranties.

Note: Analysis includes only institutions that provided underlying quarterly returns, and excludes those that only provided annual returns.

Fiscal Year 2014 Asset Allocation

Just under 40% of the average long-term investment portfolio consisted of public equities in fiscal year 2014 (Exhibit 12). On average, allocations to global ex US equities (19.8%) were higher than those to US equities (18.6%). Portfolios had robust exposure to alternative assets, with 27.6% allocated to hedge funds and 5.4% allocated to private equity/venture capital, on average. Another 3.3% was allocated to distressed securities, which are invested through either a hedge fund or private equity-type investment vehicle. Real assets, which consist of a diversified group of public and private assets, made up 11.3% of portfolios, on average. Average allocations to bonds and cash were 9.2% and 4.8%, respectively.

As Exhibit 12 shows, allocations to these broad asset classes vary considerably. A key factor in the variation of asset allocations continues to be the total value of assets under management. Smaller portfolios continue to maintain higher allocations to US equities and global ex US equities, in part because smaller asset sizes may preclude a meaningful degree of diversification into alternative assets (particularly private investments). The average allocation to both hedge funds and private equity/venture capital is highest for institutions with assets over \$300 million (Exhibit 13).

Historical Asset Allocation

Average asset allocations at the end of fiscal year 2014 look considerably different than those reported a decade ago. In general, allocations to US equities and bonds decreased while allocations to global ex US equities, hedge funds, private investments, and real assets increased. However, the greatest extent of these changes occurred over the first half of the decade. Exhibit 14 displays the average asset

allocation for the constant group of participants that provided data over the last ten years.

Changes in portfolio allocations were generally more modest over the latter part of the decade, and in some cases a reverse of the longer-term trends. Despite a decrease in US equity allocations over the full ten-year period, average allocations have increased by 8 ppts since 2009. Conversely, average real asset allocations, which rose substantially for much of the decade, have declined over the last two years.

Target Asset Allocation

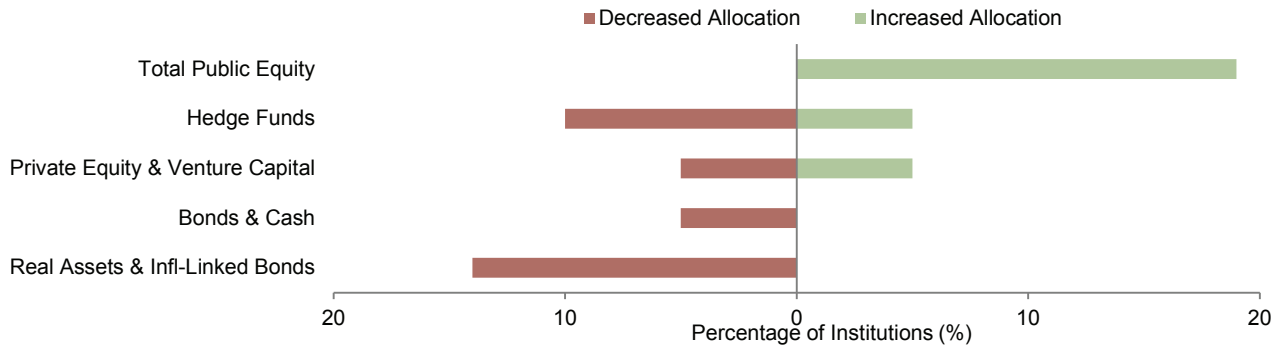
While long-term asset allocation trends clearly show how investment policies have evolved over time, one-year changes in actual allocations can be influenced by factors such as asset returns and rebalancing flows. Using shorter-term data can be misleading in determining whether institutions are altering their long-term asset allocation policies. An analysis of target asset allocations is more suitable for such an evaluation. The vast majority of survey participants (21 of 27) provided target asset allocation data. Over three-quarters of these 21 institutions (76%) kept their targets unchanged from fiscal year 2013. The largest portfolios were most likely to make changes to their policy targets (50%), followed by the smallest portfolios (25%) and midsized portfolios (11%).

As the chart at the top of the next page shows, nearly 20% of participating institutions increased their targets to public equities in fiscal year 2014.

Among other broad asset allocation categories, institutions were more likely to decrease their target allocation to hedge funds than increase it. No participants reported an increase to their bonds and real assets targets.

Changes in Target Asset Allocation

June 30, 2013 to June 30, 2014 • Percentage of Institutions Increasing or Decreasing Targets (%)



Source: Independent schools data as reported to Cambridge Associates LLC.

Notes: Exhibit represents data for 21 independent schools that provided target asset allocation data for 2013 and 2014. Real assets includes targets to both public and private assets.

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 equities. Participating institutions, particularly those with larger asset sizes, continue to allocate a higher portion of their portfolios to private investments.¹ The average allocation to private investments for all participants was 11.7%, while those with portfolios greater than \$300 million had an average allocation of 22.7%.

One issue that investors should be mindful of is the global capital overhang in the private equity industry. The capital overhang represents unexpired, uncalled capital commitments and is essentially the industry's dry powder. A recent research note from our Private Investment Series commented on this global overhang

and its implications.² With capital appearing to be deployed at a slower pace than historically, the overhang is larger than expected. Too much overhang and the pressure to put capital to work before it expires could amplify competition and place upward pressure on transaction values, impacting returns.

Investors would be wise to note exactly where their uncalled capital commitments exist, as overhang amounts will vary by geography, strategy, and fund size. While the total industry overhang value appears large, localized overhang amounts are much more relevant for investors, and may be the cause for more or less concern, depending on the geography or strategy.

The capital overhang also has implications on portfolio liquidity, as uncalled capital represents a commitment of capital to be funded in the future. Acceleration in the pace of capital deployments could increase liquidity requirements for portfolios. While annual

¹ Private investments include private equity, venture capital, private distressed securities, private real estate, private oil & gas/natural resources, and timber.

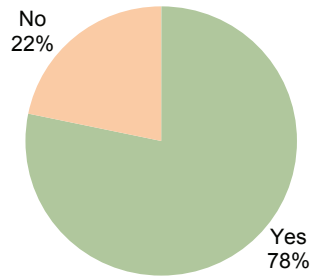
² Please see Andrea Auerbach et al., "The Global Overhang (According to Goldilocks): Too Much, Too Little, or Just Right?," Cambridge Associates Research Note, May 2014.

Private Investment Program Cash Flow

Fiscal Year 2014 • Data for 23 Independent Schools

Was Your Private Investment Program Cash Flow Positive in Fiscal Year 2014?

By Percentage of Institutions



By Asset Size

	Yes	No
Under \$100 Million	75% (n = 6)	25% (n = 2)
\$100 Million to \$300 Million	67% (n = 6)	33% (n = 3)
Over \$300 Million	100% (n = 6)	0% (n = 0)

Source: Independent schools 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 fiscal year 2014.

spending distributions usually represent the biggest liquidity need of a portfolio, institutions with private investment programs must also consider the potential impact of uncalled capital commitments.

For participants with private investment programs, uncalled capital commitments as a percentage of the total long-term investment portfolio (LTIP) value averaged 4.0% at the end of fiscal year 2014. Predictably, institutions with larger asset sizes tend to have a higher ratio of uncalled capital commitments to the total long-term investment portfolio value. For those with asset sizes greater than \$300 million, uncalled capital commitments represented an average of 6.4% of their total LTIP value (ranging from 3.8% to 9.7%, excluding outliers).

Larger institutions also tend to have a higher ratio of uncalled capital commitments to the LTIP's total liquid assets, which exclude hedge funds and private investments. For institutions with asset sizes greater than \$300 million, uncalled capital commitments represented an average of 16.9% of their total liquid assets. For

institutions with asset sizes under \$100 million, the ratio was just 5.2% (Exhibit 15).

Institutions can use a variety of sources to fund capital calls, including private investment fund distributions, cash reserves, and proceeds from sales of other investment assets. In fiscal year 2014, private investment programs for most participants were cash flow positive, meaning the amount of fund distributions was higher than paid-in capital calls.

Mission-Related Investing

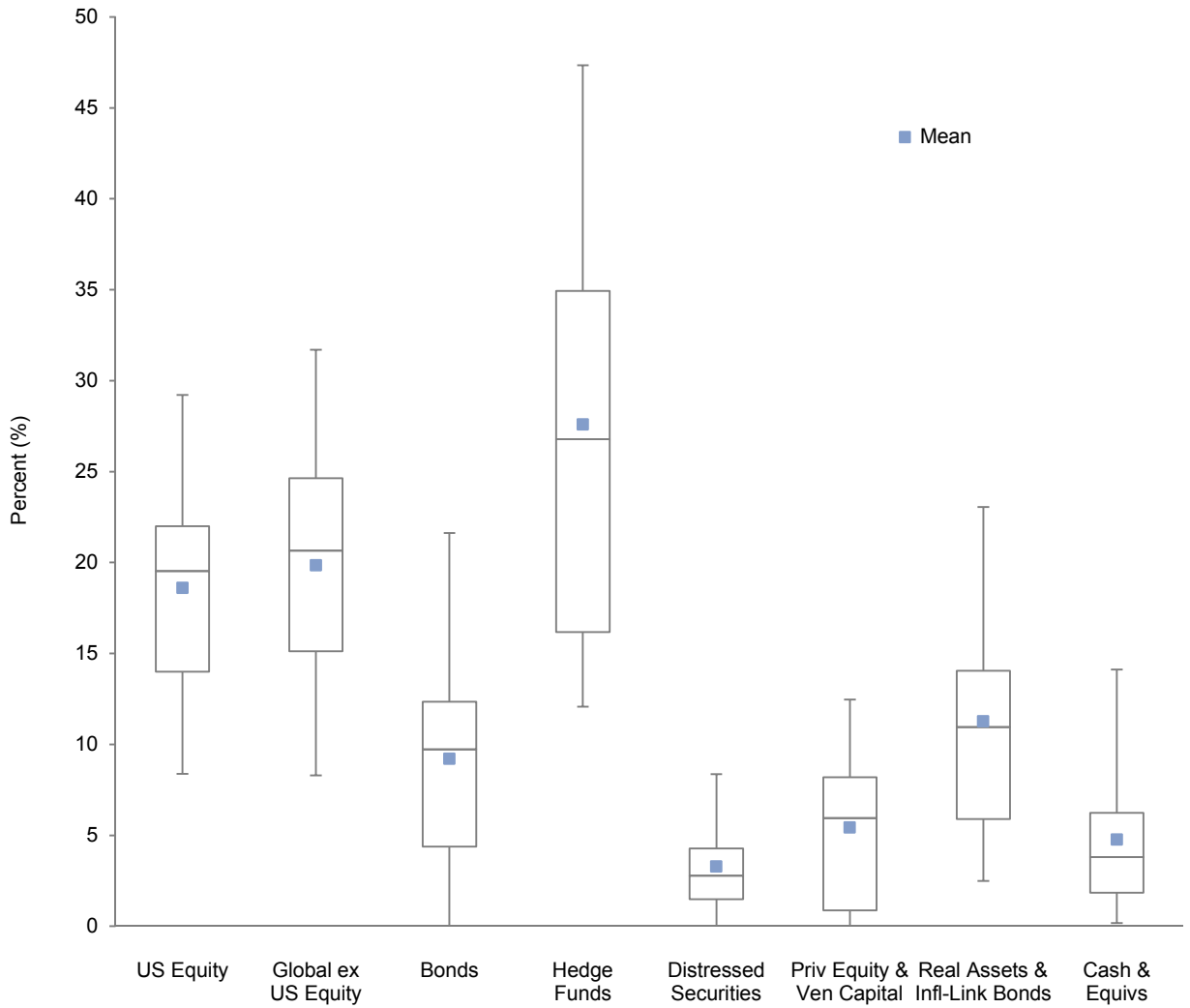
Mission-related investing (MRI) generally refers to the incorporation of environmental and social considerations into the investment decision-making process. MRI can encompass a variety of strategies and approaches, including, but not limited to: environmental, social, and governance (ESG) investing, impact investing, and socially responsible investing (SRI).

MRI has been gaining traction in the nonprofit industry in recent years, with a particular focus on addressing climate change concerns. This trend is in part due to a growing movement on many college campuses, where student-led campaigns are urging higher education endowments to divest from fossil fuels. Our recent research note on fossil fuel divestment³ provides a framework for institutional deliberations of divestment and highlights some practical considerations. Despite the increased attention on these issues, only one institution in this study reported some type of MRI activity. Institutions that pursue MRI do so for a variety of reasons, including social motivations, to address concerns of constituents, and to enhance investment returns. ■

³ Please see Jessica Matthews and Tom Mitchell et al., “The Fossil Fuel Divestment Discussion,” Cambridge Associates Research Note, June 2014.

Exhibit 12
Asset Allocation Percentiles
 As of June 30, 2014

Asset Allocation Distribution by Asset Class (n = 27)



	US Equity	Global ex US Equity	Bonds	Hedge Funds	Distressed Securities	Priv Equity & Ven Capital	Real Assets & Infl-Link Bonds	Cash & Equivs
5th Percentile	29.2	31.7	21.6	47.4	8.4	12.5	23.1	14.1
25th Percentile	22.0	24.6	12.3	34.9	4.3	8.2	14.1	6.2
Median	19.5	20.7	9.7	26.8	2.8	5.9	10.9	3.8
75th Percentile	14.0	15.1	4.4	16.2	1.5	0.9	5.9	1.8
95th Percentile	8.4	8.3	0.0	12.1	0.0	0.0	2.5	0.2
Mean	18.6	19.8	9.2	27.6	3.3	5.4	11.3	4.8

Source: Independent schools data as reported to Cambridge Associates LLC.

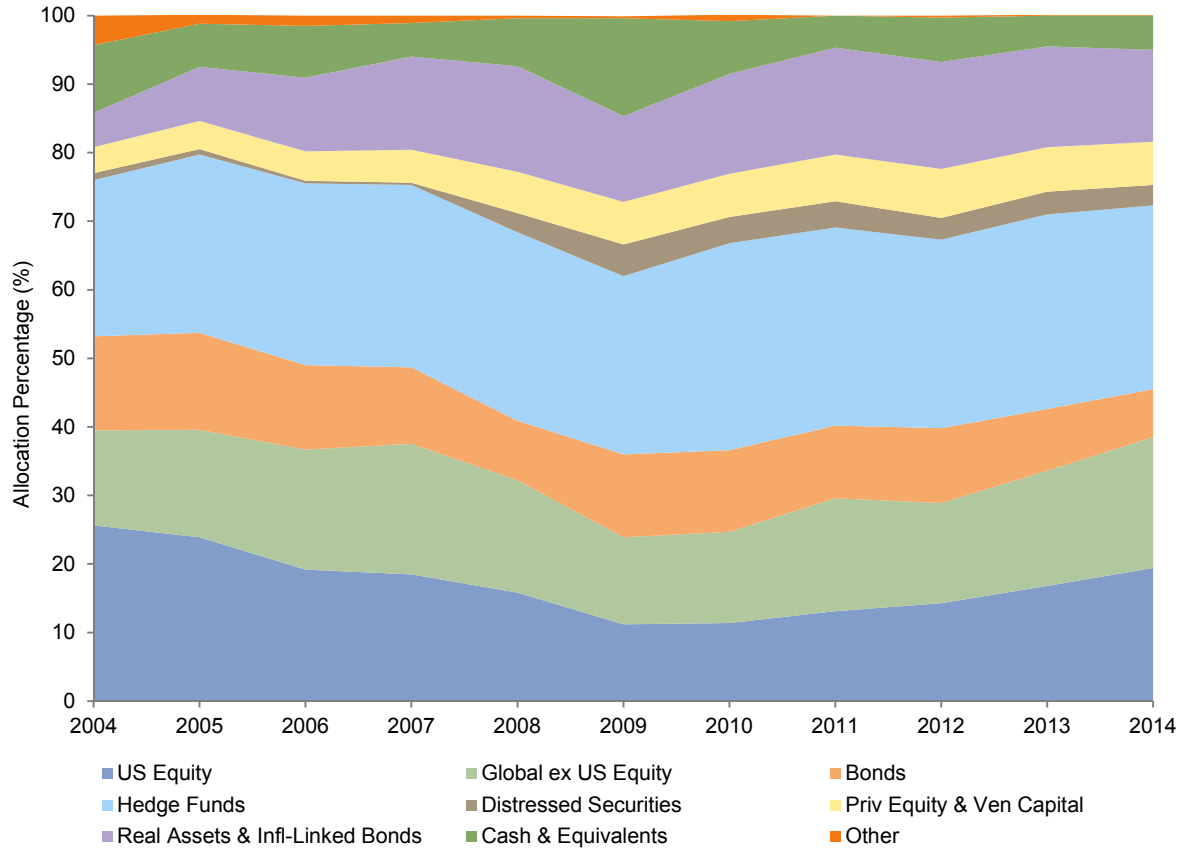
Exhibit 13
Summary Asset Allocation by Asset Size

As of June 30, 2014 • Percent (%)

	Under \$100 mm (n=11)		From \$100 mm to \$300 mm (n=10)		Over \$300 mm (n=6)	
	Mean	Median	Mean	Median	Mean	Median
US Equity	21.3	21.5	17.3	19.7	15.8	15.3
Global ex US Equity	20.3	20.8	21.4	23.9	16.4	16.4
Developed Markets	14.4	16.0	15.5	16.3	10.7	10.7
Emerging Markets	5.9	5.9	5.9	6.3	5.7	5.6
Bonds	11.2	10.4	10.8	11.3	3.0	3.4
US Bonds	9.3	9.3	8.3	8.7	1.8	1.9
Global ex US Bonds (Developed)	1.0	0.5	0.7	0.1	1.0	0.0
Global ex US Bonds (Emerging)	0.8	0.6	0.4	0.0	0.2	0.0
High-Yield Bonds	0.1	0.0	1.3	0.0	0.0	0.0
Hedge Funds	26.8	26.8	25.5	20.6	32.5	30.5
Long/Short Hedge Funds	13.4	12.1	11.8	7.5	13.9	12.2
Absolute Return (ex Distressed)	13.4	8.3	13.8	12.1	18.6	19.6
Distressed Securities	3.4	3.1	2.9	2.1	3.6	3.3
Hedge Fund Structure	1.5	1.5	1.5	1.1	2.5	2.6
Private Equity Structure	2.0	1.9	1.4	0.7	1.1	0.7
Private Equity & Venture Capital	3.2	1.5	5.6	6.2	9.1	9.5
Venture Capital	0.6	1.0	1.1	0.7	3.1	2.2
Non-Venture Private Equity	1.0	0.0	3.7	2.5	5.4	5.1
Other Private Investments	1.6	0.0	0.8	0.2	0.5	0.3
Real Assets & Infl-Linked Bonds	8.7	9.4	11.0	9.8	16.4	13.8
Private Real Estate	0.3	0.0	0.5	0.1	7.7	4.6
Public Real Estate	0.5	0.0	0.3	0.0	0.0	0.0
Commodities	1.3	1.1	1.7	1.8	1.0	1.0
Inflation-Linked Bonds	0.2	0.0	0.4	0.0	1.2	0.0
Private Oil & Gas/Natural Resources	1.6	1.3	2.6	0.6	3.8	3.3
Timber	0.0	0.0	0.0	0.0	0.9	0.8
Public Energy/Natural Resources	4.9	5.0	5.3	3.9	1.7	1.0
Cash & Equivalents	5.1	3.9	5.5	4.4	3.0	1.9
Other	0.0	0.0	0.0	0.0	0.1	0.0

Source: Independent schools data as reported to Cambridge Associates LLC.

Exhibit 14
Historical Mean Asset Allocation Trends
 Years Ended June 30 • Percent (%)

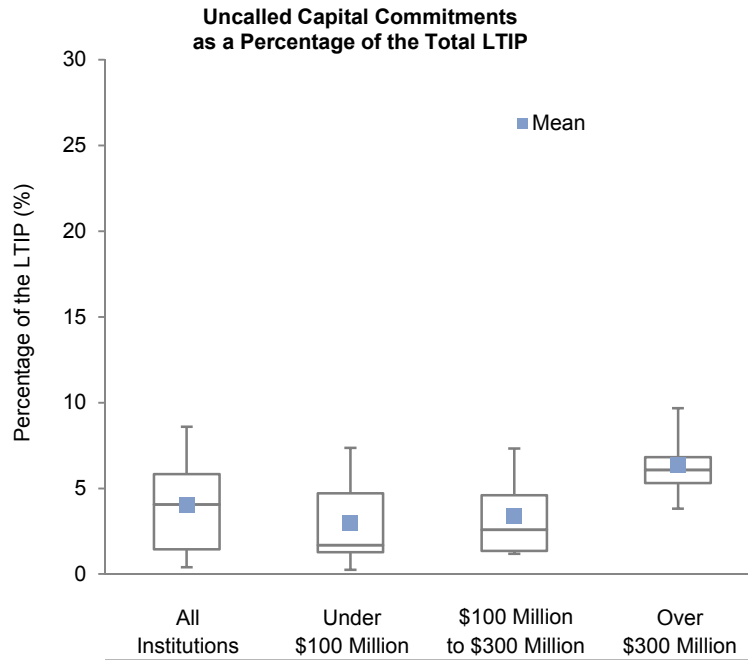


	Constant Universe											All Inst
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2014
US Equity	25.6	23.9	19.2	18.5	15.8	11.2	11.4	13.1	14.3	16.8	19.4	18.6
Global ex US Equity	13.9	15.7	17.5	19.0	16.4	12.7	13.3	16.5	14.6	16.8	19.1	19.8
<i>Developed Markets</i>	11.5	12.6	13.8	14.9	12.3	9.4	9.3	11.2	9.7	12.0	13.6	14.0
<i>Emerging Markets</i>	2.3	3.1	3.7	4.1	4.2	3.3	4.0	5.2	4.9	4.8	5.5	5.9
Bonds	13.7	14.1	12.3	11.2	8.7	12.1	11.9	10.6	10.9	9.0	7.0	9.2
Hedge Funds	22.8	26.0	26.5	26.6	27.5	26.0	30.2	28.9	27.5	28.4	26.8	27.6
Distressed Securities	1.0	0.8	0.4	0.3	2.8	4.6	3.8	3.8	3.2	3.3	3.0	3.3
Priv Equity & Ven Capital	3.8	4.1	4.3	4.8	6.0	6.2	6.3	6.8	7.1	6.5	6.3	5.4
Real Assets & Infl-Linked Bonds	5.0	7.9	10.7	13.6	15.4	12.5	14.6	15.6	15.6	14.7	13.4	11.3
Cash & Equivalents	9.9	6.3	7.6	4.9	7.0	14.3	7.7	4.7	6.5	4.5	5.0	4.8
Other	4.3	1.3	1.5	1.1	0.4	0.3	0.9	0.0	0.3	0.1	0.1	0.0

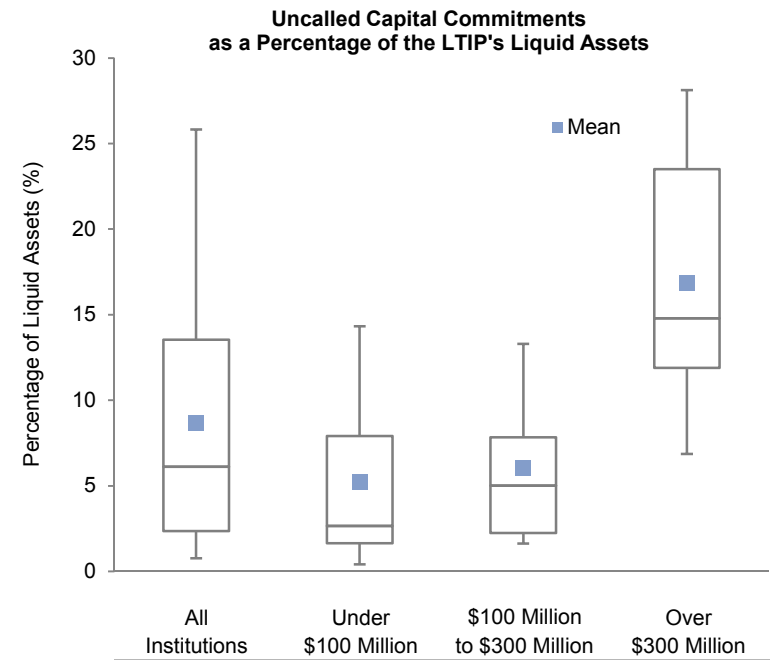
Source: Independent schools data as reported to Cambridge Associates LLC.

Notes: Constant universe represents 13 institutions that provided asset allocation data for each year from 2004 to 2014. All institutions represents 27 institutions that provided 2014 data.

Exhibit 15
Uncalled Capital Committed to Private Investment Funds
 As of June 30, 2014 • Percent (%)



	All Institutions	Under \$100 Million	\$100 Million to \$300 Million	Over \$300 Million
5th Percentile	8.6	7.4	7.3	9.7
25th Percentile	5.8	4.7	4.6	6.8
Median	4.1	1.7	2.6	6.1
75th Percentile	1.5	1.3	1.3	5.3
95th Percentile	0.4	0.3	1.2	3.8
Mean	4.0	3.0	3.4	6.4
<i>n</i>	22	8	8	6



	All Institutions	Under \$100 Million	\$100 Million to \$300 Million	Over \$300 Million
5th Percentile	25.8	14.3	13.3	28.1
25th Percentile	13.5	7.9	7.8	23.5
Median	6.1	2.7	5.0	14.8
75th Percentile	2.4	1.6	2.2	11.9
95th Percentile	0.8	0.4	1.6	6.9
Mean	8.7	5.2	6.0	16.9
<i>n</i>	22	8	8	6

Source: Independent schools 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. Private investments include non-venture private equity, venture capital, distressed securities (private equity structure), private oil & gas/natural resources, private real estate, and timber.

Number of External Managers

Many factors contribute to the number of managers employed within an investment portfolio. As the figure below shows, the scale of total assets under management often is a primary factor, as portfolios with more assets generally spread their assets across a greater number of managers. On average, institutions with assets over \$300 million employed 72 external investment managers in fiscal year 2014 (Exhibit 16). In contrast, mid-sized portfolios had an average of 29 managers while smaller portfolios reported even fewer (22). The number of investment vehicles is even higher for each peer group, mainly because of the allocation of capital across multiple funds of the same investment manager in private investment asset classes.

Even within the broad asset size groups, the range of managers employed can be wide. Within the smallest portfolios, the number of managers employed at the 5th percentile (32) is substantially higher than the number

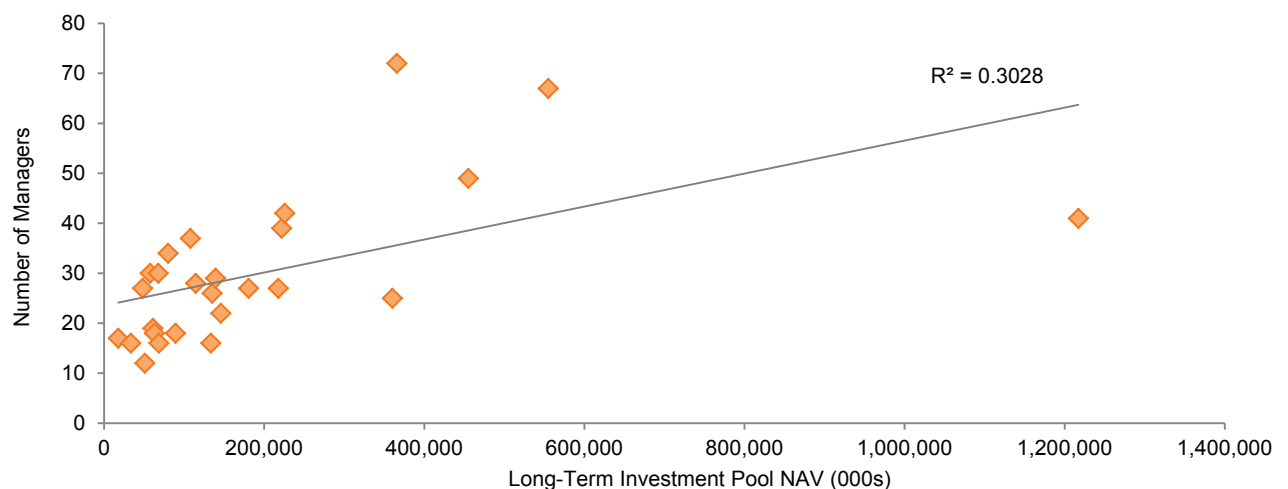
used at the 95th percentile (14). The disparity between the number of managers employed at the 5th and 95th percentiles is even wider for midsized portfolios (41 and 19, respectively) and those with assets over \$300 million (151 and 29, respectively).¹ Much of the variation can be attributed to the management of alternative asset classes.

As Exhibit 17 shows, the dispersion in the number of alternative assets managers employed, particularly within hedge funds and private investments, is wider than that of the more traditional equity and bond asset classes. Further detail on these and other asset classes are provided for the three broad asset size groups in Exhibit 18.

¹ One institution with an asset size over \$300 million that reported manager data is excluded from the below chart due to its position as an extreme outlier. This institution accounts for the wide variance in the number of managers employed in the portfolio.

Number of External Managers Versus LTIP Market Value

As of June 30, 2014 • Data for 26 Independent Schools



Source: Independent schools data as provided to Cambridge Associates LLC.

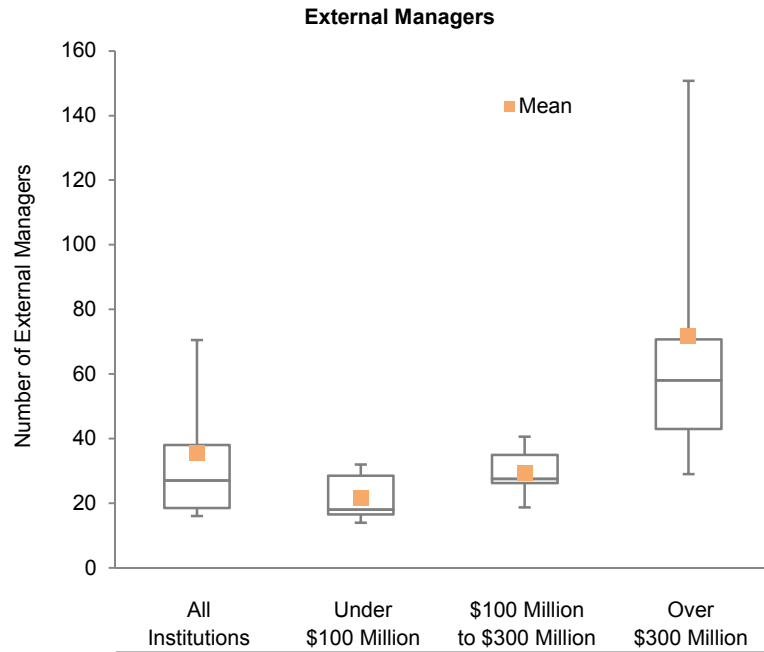
Note: One institution that provided data is excluded from this analysis as an extreme outlier.

Asset Class Implementation

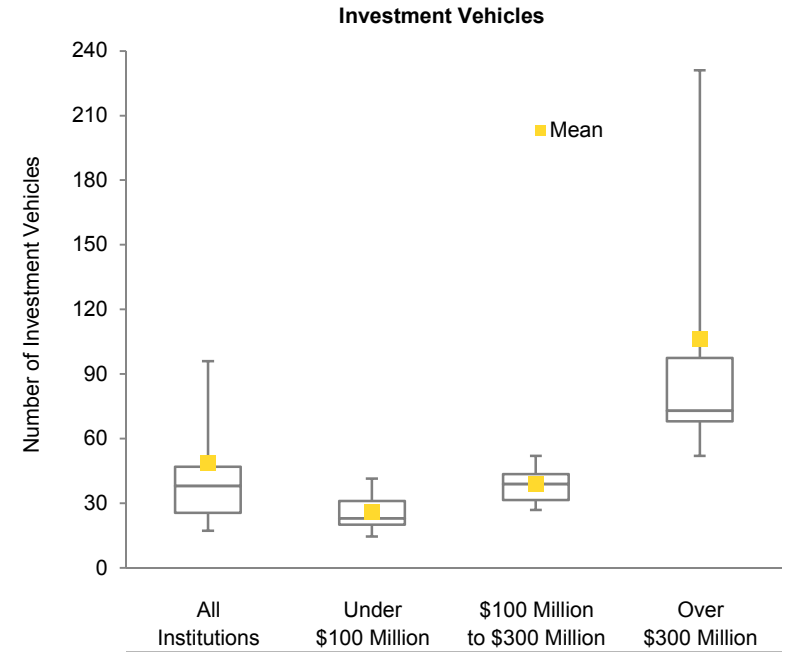
Alternative Assets. Over half of participants (59%) have constructed a hedge fund program that solely uses single manager funds while another 8% rely only on funds-of-funds. The remaining institutions employ a combination of single manager funds and funds-of-funds. Implementation practices also vary across private investment asset classes. Half of all institutions rely on a combination of single-manager funds and funds-of-funds to implement their private equity portfolios. For venture capital, 60% of participants used only funds-of-funds. A sole reliance upon single manager funds is more prevalent in private real estate (77%) than in private energy/natural resources (50%). Smaller portfolios generally use funds-of-funds managers more than the largest portfolios in all alternative asset classes. Exhibits 19 and 20 display implementation data by asset size, including the mean allocation of assets for institutions that use a combination of strategies to implement their alternative asset programs.

Public Equities and Bonds. Of the institutions that provided data on their portfolio implementation, two-thirds (67%) used active managers for all of their US equity allocation. The proportion was higher for global ex US equity allocations, where developed markets and emerging markets allocations were achieved solely through active managers for 78% and 80% of respondents, respectively. For bonds, a majority of respondents used active managers only for their total allocation to US markets (70%). All respondents used active managers only for their global ex US developed markets and emerging markets bond portfolios. Exhibit 21 shows further detail on these practices for the various asset size bands. ■

Exhibit 16
Number of External Managers and Investment Vehicles
 As of June 30, 2014



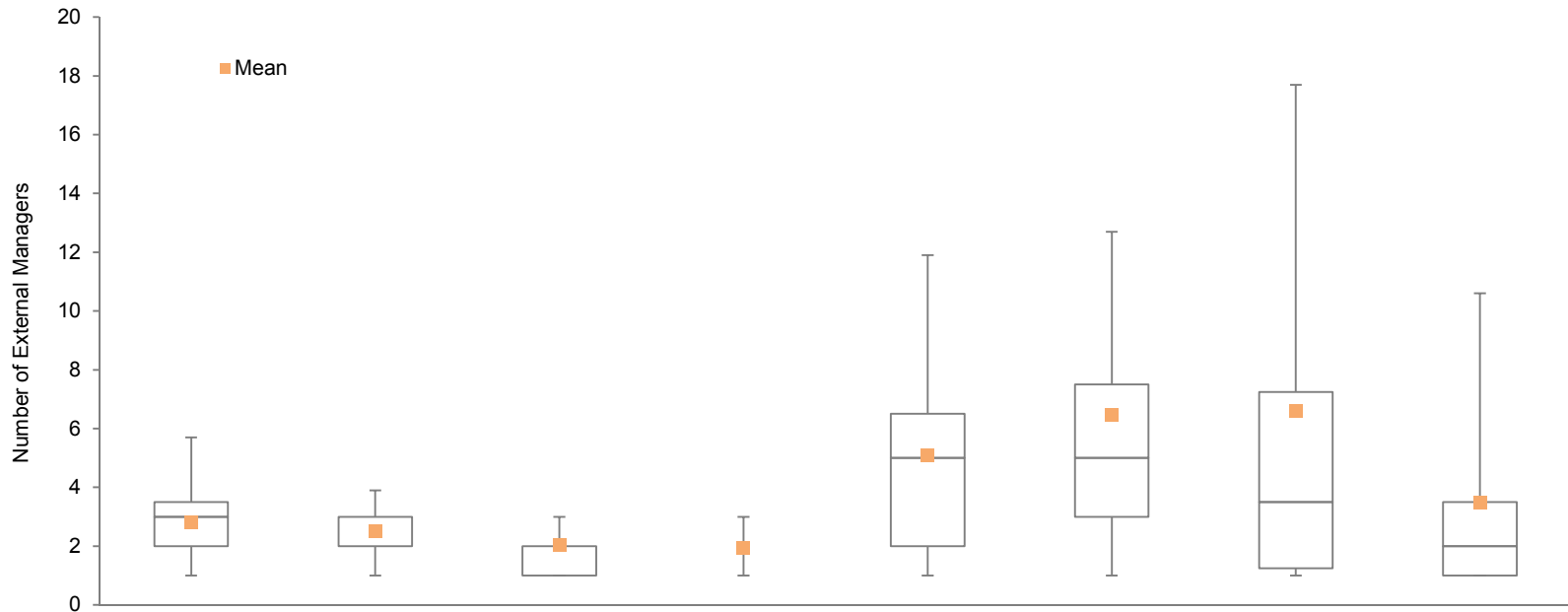
	All Institutions	Under \$100 Million	\$100 Million to \$300 Million	Over \$300 Million
5th Percentile	71	32	41	151
25th Percentile	38	29	35	71
Median	27	18	28	58
75th Percentile	19	17	26	43
95th Percentile	16	14	19	29
Mean	36	22	29	72
<i>n</i>	27	11	10	6



	All Institutions	Under \$100 Million	\$100 Million to \$300 Million	Over \$300 Million
5th Percentile	96	42	52	231
25th Percentile	47	31	44	98
Median	38	23	39	73
75th Percentile	26	20	32	68
95th Percentile	17	15	27	52
Mean	48	26	39	106
<i>n</i>	27	11	10	6

Source: Independent schools data as reported to Cambridge Associates LLC.
 Note: Funds-of-funds are counted as one separate investment manager and investment vehicle.

Exhibit 17
Dispersion in Number of Managers for Selected Asset Classes
 As of June 30, 2014



	US Equity	Global ex US Dev Equity	Emerging Markets Equity	US Bonds	Long/Short Hedge Funds	Absolute Return Hedge Funds	Private Equity	Venture Capital
5th Percentile	6	4	3	3	12	13	18	11
25th Percentile	4	3	2	2	7	8	7	4
Median	3	2	2	2	5	5	4	2
75th Percentile	2	2	1	2	2	3	1	1
95th Percentile	1	1	1	1	1	1	1	1
Mean	3	3	2	2	5	6	7	3
<i>n</i>	27	23	25	19	23	27	18	15

Source: Independent schools 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.

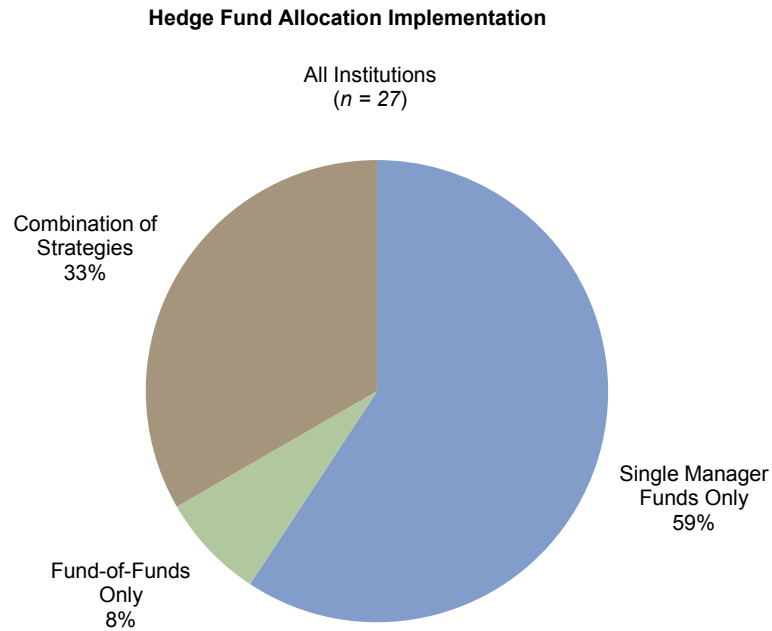
Exhibit 18
Externally Managed Investment Pool Holdings by Strategy
As of June 30, 2014

Strategy	Under \$100 Million			\$100 Million to \$300 Million			Over \$300 Million		
	Average Number of			Average Number of			Average Number of		
	Managers	Vehicles	<i>n</i>	Managers	Vehicles	<i>n</i>	Managers	Vehicles	<i>n</i>
Traditional Equity									
Global Equity	2	2	4	2	2	8	3	3	5
US Equity	2	2	11	3	3	10	3	3	6
Global ex US Equity - Developed	2	2	10	3	3	7	3	3	6
Global ex US Equity - Emerging	2	2	10	2	2	9	3	3	6
Traditional Bonds									
Global Bonds	1	1	5	1	1	5	3	3	1
US Bonds	2	2	8	2	2	8	1	2	3
Global ex US Bonds - Developed	—	—	0	—	—	0	2	2	1
Global ex US Bonds - Emerging	1	1	1	—	—	0	—	—	0
High-Yield Bonds	1	1	1	1	1	4	—	—	0
Hedge Funds									
Long/Short Hedge Funds	4	4	8	5	5	9	8	8	6
Absolute Return (ex Distressed Securities)	3	3	11	6	6	10	13	13	6
Distressed Securities									
Distressed (Hedge Fund Structure)	1	1	3	2	2	5	3	3	5
Distressed (Private Equity Structure)	3	3	7	2	2	6	4	8	4
Private Investments									
Non-Venture Private Equity	3	4	4	2	5	8	15	24	6
Venture Capital	2	4	3	2	4	6	6	14	6
Other Private Investments	1	2	5	2	2	6	3	4	3
Real Assets & Inflation-Linked Bonds									
Private Real Estate	1	2	2	1	2	6	4	9	4
Public Real Estate	1	1	1	1	1	2	—	—	0
Commodities	1	1	5	1	1	5	2	2	3
Inflation-Linked Bonds (TIPS)	—	—	0	1	1	1	—	—	0
Private Oil & Gas/Natural Resources	2	2	7	2	3	7	5	12	6
Timber	—	—	0	—	—	0	1	2	4
Public Energy/Natural Resources	2	2	8	1	1	8	4	4	3
Diversified (Multi-Strategy) Real Assets	1	1	1	1	1	3	1	1	1
Cash (Dedicated Cash Managers Only)	1	1	10	1	2	9	2	2	5
Tactical Asset Allocation	2	2	2	—	—	0	1	1	1
Other	—	—	0	—	—	0	1	1	1

Source: Independent schools data as reported to Cambridge Associates LLC.

Notes: *n* indicates the number of institutions that are included in the average number of managers and average number of vehicles. 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 will not equal the true total average of managers and vehicles. Please reference Exhibit 16 for that information.

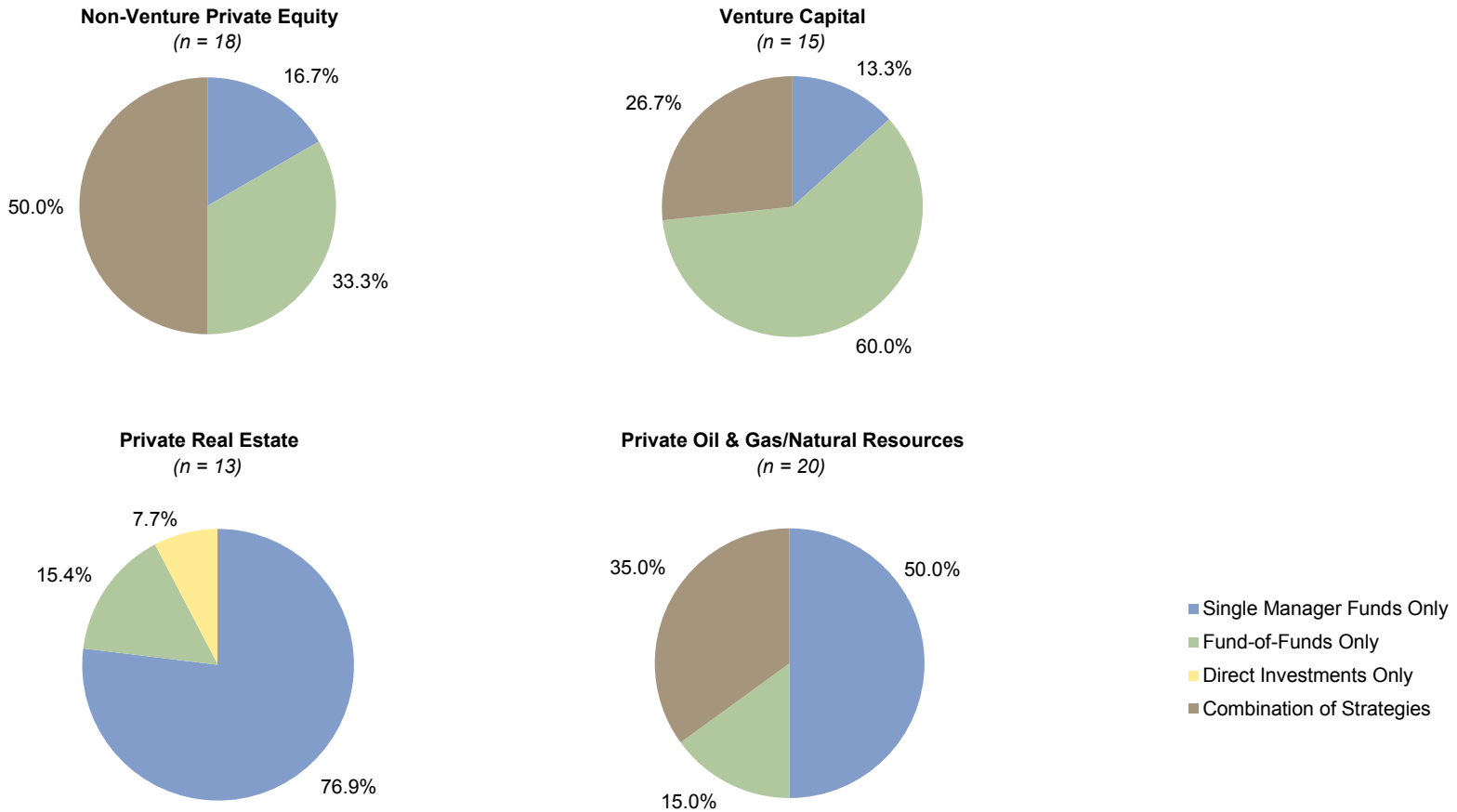
Exhibit 19
Portfolio Implementation: Hedge Funds
 As of June 30, 2014



	Percentage (%) of Respondents			Mean Allocation of Assets for Respondents Using Combination of Strategies	
	Single Manager Funds Only	Fund-of-Funds Only	Combination of Strategies	Single Manager Funds	Fund-of-Funds
Under \$100 Million (n = 11)	36.4%	18.2%	45.5%	40.5%	59.5%
\$100 Million to \$300 Million (n = 10)	70.0%	0.0%	30.0%	57.1%	42.9%
Over \$300 Million (n = 6)	83.3%	0.0%	16.7%	88.0%	12.0%

Source: College and university data as reported to Cambridge Associates LLC.

Exhibit 20
Portfolio Implementation: Private Investments
 As of June 30, 2014



Source: Independent schools data as reported to Cambridge Associates LLC.

Note: *n* represents the number of institutions that provided the portfolio implementation for each asset class.

Exhibit 20 (continued)
Portfolio Implementation: Private Investments
As of June 30, 2014

	Percentage (%) of Respondents					Mean Allocation of Assets for Respondents Using Combination of Strategies			
	Fund Commitments		Direct Investments			Single Manager Funds	Fund-of- Funds	Direct Co- Investments	Direct Solo Investments
	Single Manager Funds Only	Fund-of- Funds Only	Direct Co- Investments Only	Direct Solo Investments Only	Combination of Strategies				
Non-Venture Private Equity									
Under \$100 Million (n = 4)	25.0%	25.0%	0.0%	0.0%	50.0%	40.8%	11.2%	0.0%	48.0%
\$100 to \$300 Million (n = 8)	12.5%	50.0%	0.0%	0.0%	37.5%	68.1%	31.9%	0.0%	0.0%
Over \$300 Million (n = 6)	16.7%	16.7%	0.0%	0.0%	66.6%	85.1%	12.2%	0.3%	2.4%
Venture Capital									
Under \$100 Million (n = 3)	0.0%	66.7%	0.0%	0.0%	33.3%	80.6%	19.4%	0.0%	0.0%
\$100 to \$300 Million (n = 6)	0.0%	83.3%	0.0%	0.0%	16.7%	33.4%	66.6%	0.0%	0.0%
Over \$300 Million (n = 6)	33.3%	33.3%	0.0%	0.0%	33.3%	62.5%	37.8%	0.0%	0.0%
Private Real Estate									
Under \$100 Million (n = 2)	100.0%	0.0%	0.0%	0.0%	0.0%	—	—	—	—
\$100 to \$300 Million (n = 7)	57.1%	28.6%	0.0%	14.3%	0.0%	—	—	—	—
Over \$300 Million (n = 4)	100.0%	0.0%	0.0%	0.0%	0.0%	—	—	—	—

Source: Independent schools data as reported to Cambridge Associates LLC.

Notes: Co-investments are direct investments made into a company alongside a general partner that originates the transaction. Solo investments are direct investments made into a company in which the institutional investor originates and invests in a transaction, which is not associated with a manager in the investor's portfolio.

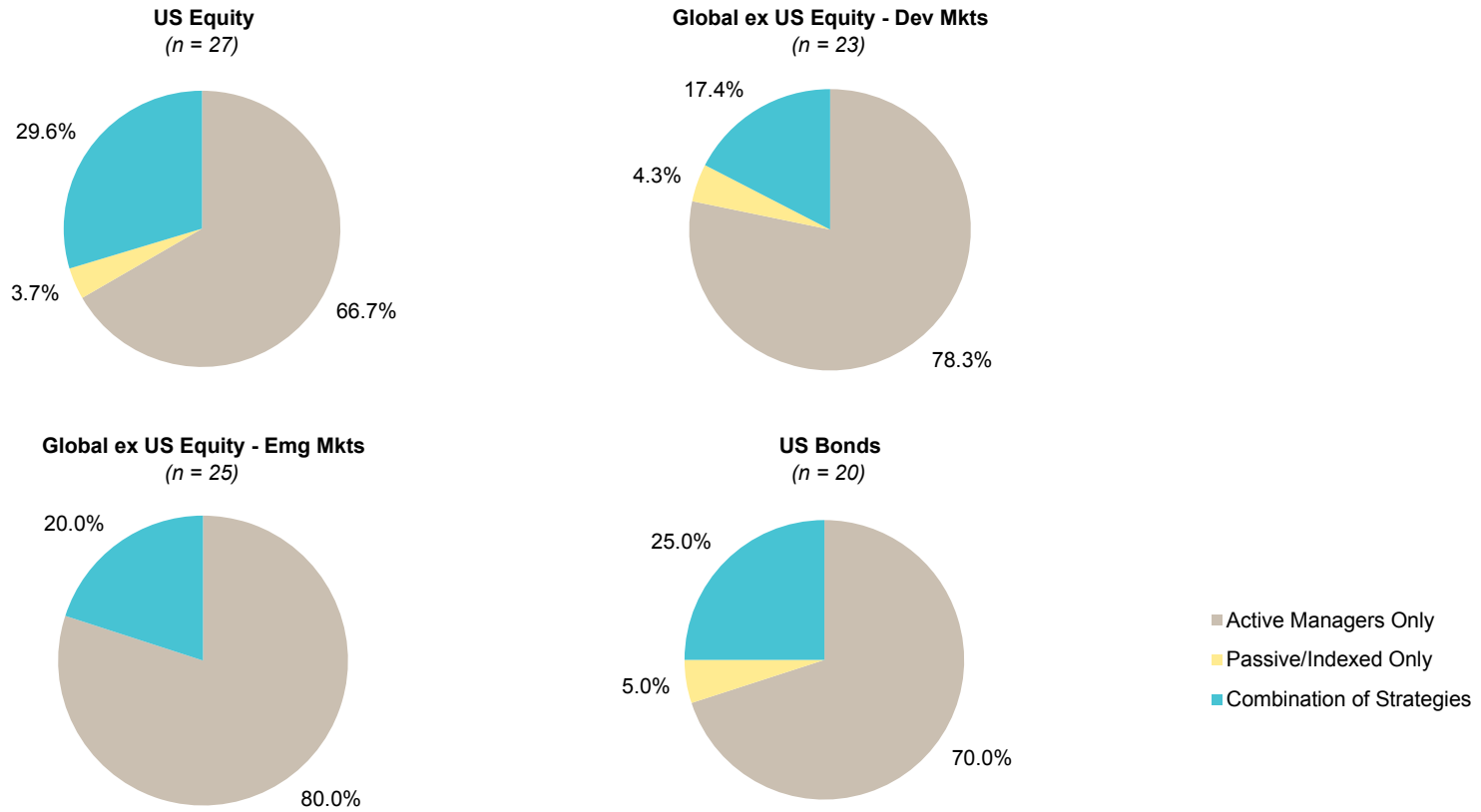
Exhibit 20 (continued)
Portfolio Implementation: Private Investments
 As of June 30, 2014

	Percentage (%) of Respondents					Mean Allocation of Assets for Respondents Using Combination of Strategies			
	Fund Commitments		Direct Investments			Single Manager Funds	Fund-of- Funds	Direct Co- Investments	Direct Solo Investments
	Single Manager Funds Only	Fund-of- Funds Only	Direct Co- Investments Only	Direct Solo Investments Only	Combination of Strategies				
Private Oil & Gas/Natural Resources									
Under \$100 Million (n = 7)	42.9%	14.3%	0.0%	0.0%	42.8%	54.8%	45.2%	0.0%	0.0%
\$100 to \$300 Million (n = 7)	42.9%	28.6%	0.0%	0.0%	28.5%	69.8%	30.2%	0.0%	0.0%
Over \$300 Million (n = 6)	66.7%	0.0%	0.0%	0.0%	33.3%	62.8%	37.2%	0.0%	0.0%

Source: Independent schools data as reported to Cambridge Associates LLC.

Notes: Co-investments are direct investments made into a company alongside a general partner that originates the transaction. Solo investments are direct investments made into a company in which the institutional investor originates and invests in a transaction, which is not associated with a manager in the investor's portfolio.

Exhibit 21
Portfolio Implementation: Traditional Equities and Bonds
 As of June 30, 2014



Source: Independent schools data as reported to Cambridge Associates LLC.

Note: *n* represents the number of institutions that provided the portfolio implementation for each asset class.

Exhibit 21 (continued)
Portfolio Implementation: Traditional Equities and Bonds
 As of June 30, 2014

	Percentage (%) of Respondents					Mean Allocation of Assets for Respondents Using Combination of Strategies			
	Active Managers Only	Passive/ Indexed Only	Derivatives Only	Internally Managed Only	Combination of Strategies	Active Managers	Passive/ Indexed	Derivatives	Internally Managed
US Equity									
Under \$100 Million (n = 11)	54.5%	0.0%	0.0%	0.0%	45.5%	51.0%	49.0%	0.0%	0.0%
\$100 to \$300 Million (n = 10)	80.0%	10.0%	0.0%	0.0%	10.0%	85.1%	14.9%	0.0%	0.0%
Over \$300 Million (n = 6)	66.7%	0.0%	0.0%	0.0%	33.3%	88.2%	10.6%	1.2%	0.0%
Global ex US Equity - Dev Mkts									
Under \$100 Million (n = 10)	80.0%	10.0%	0.0%	0.0%	10.0%	56.0%	44.0%	0.0%	0.0%
\$100 to \$300 Million (n = 7)	71.4%	0.0%	0.0%	0.0%	28.6%	64.9%	35.1%	0.0%	0.0%
Over \$300 Million (n = 6)	83.3%	0.0%	0.0%	0.0%	16.7%	94.7%	0.0%	5.3%	0.0%
Global ex US Equity - Emg Mkts									
Under \$100 Million (n = 10)	90.0%	0.0%	0.0%	0.0%	10.0%	48.1%	51.9%	0.0%	0.0%
\$100 to \$300 Million (n = 9)	88.9%	0.0%	0.0%	0.0%	11.1%	17.3%	82.7%	0.0%	0.0%
Over \$300 Million (n = 6)	50.0%	0.0%	0.0%	0.0%	50.0%	64.8%	33.4%	1.8%	0.0%
US Bonds									
Under \$100 Million (n = 8)	87.5%	0.0%	0.0%	0.0%	12.5%	42.0%	58.0%	0.0%	0.0%
\$100 to \$300 Million (n = 8)	75.0%	0.0%	0.0%	0.0%	25.0%	23.6%	41.8%	0.0%	34.6%
Over \$300 Million (n = 4)	25.0%	25.0%	0.0%	0.0%	50.0%	29.1%	65.3%	5.4%	0.2%

Source: Independent schools data as reported to Cambridge Associates LLC.

Net Flow Rate

Traditionally, endowment health has been evaluated in terms of investment performance and endowment spending or payout rate. A key objective has been to achieve real investment returns that exceed the average annual payout rate over the long term. In the example below, mean data is displayed for a group of 11 participants that provided returns, long-term investment portfolio (LTIP) market values, and spending rates over the last five years. Using mean investment performance and starting with an initial investment of \$100 in 2009, the portfolio would have grown to \$154 in real dollars by the end of fiscal year 2014. After deducting the annual endowment spending policy distribution from real investment performance, the investment would have grown to just \$124. If the LTIP market value tracked this path, its purchasing power would have increased by 24% from five years prior. This approach omits an important part of the picture: the LTIP is also driven by inflows that come in as gifts, and other funds designated for long-term investment. The combination of

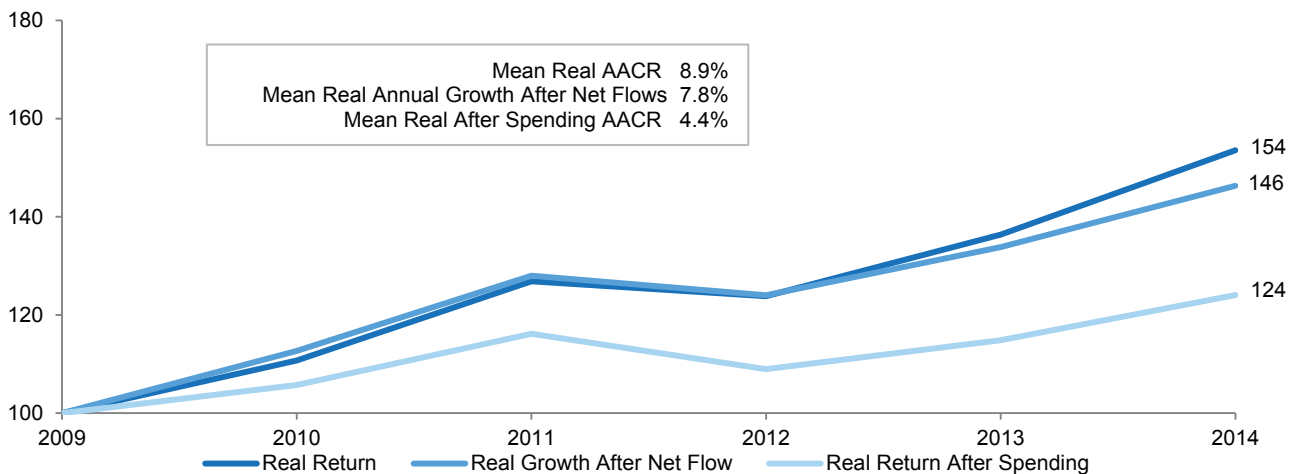
the total inflows and outflows for the LTIP constitutes the net flow rate. In the same chart below, the actual value of the investment, which incorporates both real investment performance and net flows, is tracked by the middle line and grew by 46% over the five-year period. Because of the steady inflow from gifts and other additions that most institutions experienced, the actual growth in the portfolio was substantially higher than growth based on returns after spending only. Since maintaining the purchasing power of existing endowment gifts is a key objective in endowment management, the traditional return after spending statistic should not be dismissed. However, this statistic can understate the actual extent of asset growth.

By incorporating real investment performance with the overall net flow rate, an institution can better evaluate the trajectory of the LTIP's role in the institution's business model.¹

¹ For a more in-depth discussion on this topic please see Ann Bennett Spence et al., "The Missing Metric for Endowment Growth: Net Flow Rate," Cambridge Associates Research Note, November 2014.

Cumulative Dollar Growth After Inflation, Net Flows, and Spending

Years Ended June 30 • Base Year 2009 = \$100 • Data for 11 Independent Schools



Source: Independent schools data as provided to Cambridge Associates LLC.

Note: The mean real annual growth after net flows represents the actual growth in the long-term investment portfolio's market value adjusted for inflation.

For the 13 participants that provided both additions to and withdrawals from their portfolio in fiscal year 2014, the mean net flow rate was negative (-2.0%), meaning the amount of withdrawals from the portfolio surpassed the amount of additions for the majority of respondents (Exhibit 22). However, mean real investment performance for these 13 participants (12.8%) was more than high enough to offset the net flow rate in fiscal year 2014. Each participant reported real investment performance that surpassed their net flow rate, resulting in real net asset growth for the LTIP.

Inflows

The average gift flow rate for institutions in this study was 2.2% in fiscal year 2014. After accounting for other types of inflows,² total additions to the long-term investment portfolio (LTIP) averaged 2.4%, indicating that gifts accounted for nearly all additions to the portfolio (Exhibit 23). An institution's gift flow rate is a relative number and should not be confused with the absolute dollar value of the gifts it receives. For the ten institutions that provided data for both years, only three reported an increase in gifts dollars for fiscal year 2014 over the previous year's level.

Outflows

Total withdrawals as a percentage of the beginning market value of the LTIP averaged 4.4% for all institutions (Exhibit 23). The majority of withdrawals consisted of distributions determined by the endowment spending rule. The average effective spending rate was 4.1%. Beyond the endowment spending rule distributions, some institutions report recurring annual appropriations and/or one-time appropriations

to cover administrative costs, investment oversight costs, and other types of expenses. Thus, average recurring annual appropriations and one-time appropriations were 0.3% and 0.1%, respectively.

Spending Policies

Most responding institutions (71%) continue to use a market value-based policy, which dictates spending a percentage of a moving average of endowment market values (Exhibit 24). The majority of institutions (88%) citing this rule type use a prespecified target rate while the remaining institutions allow some discretion by setting a prespecified percentage range within which the target spending rate may fall. For the purposes of analyzing target spending rates, the midpoint is used for institutions that specified a discretionary range.

A target spending rate of 5% was used by 41% of institutions with a market value-based policy. The remaining institutions used a rate below 5% (Exhibit 25). Compared to 2009, three of nine institutions have lowered their target spending rate (Exhibit 26).

Institutions employ a variety of smoothing periods to determine the average endowment market value used in the spending calculation. Smoothing periods range from two to five years, and the time interval (i.e., monthly, quarterly, or annual market values) can vary (Exhibit 27). The most common unit of time measurement is 12 quarters (used by 50% of those with a market value-based policy).

Despite the smoothed average market value component, there is a risk that the policy calculation would dictate a spending cut during prolonged periods of endowment value declines. Cutting endowment spending can be difficult during market downturns, as they often coincide with an economic environ-

² Other types of inflows can include reinvested operating surpluses, capital campaign funds, proceeds from non-portfolio asset sales, and other various types of additions.

ment where other revenue sources of the institution are at risk of weakening. This may be particularly problematic for institutions with high fixed costs. A floor that prevents spending from falling below the prior year's dollar amount would ease budgetary concerns during these periods, but at the cost of reducing the likelihood that purchasing power will be preserved over the long term. Using a cap along with a floor, however, can better balance the impact on future generations by limiting spending increases when endowment growth is particularly strong. However, no institutions that reported a market value–based policy use a floor and/or a cap to further contain spending during volatile periods. Two institutions are allowed to set a rate within a discretionary range of percentages, providing some flexibility to maintain the level of spending in down markets and contain spending increases when endowment growth rates are high.

Hybrid spending policies are used by five institutions. This policy type blends the predictable spending element of a constant growth policy with the asset preservation principle of a market value–based policy and allows an institution to set the appropriate mix that best meets its needs. Hybrid spending policies essentially have the effect of spending a prespecified percentage of an exponentially weighted average market value. The rule is expressed as a weighted average of a constant growth rule and a percentage-of-market-value (or average market value over a period of time) rule, with the greater weighting usually applied to the constant growth component. For the five institutions using a hybrid spending rule, the weighting assigned to the constant growth portion ranges from 60% to 70%. Inputs to the calculation of both the constant growth and market value–based components are shown in Exhibit 28.

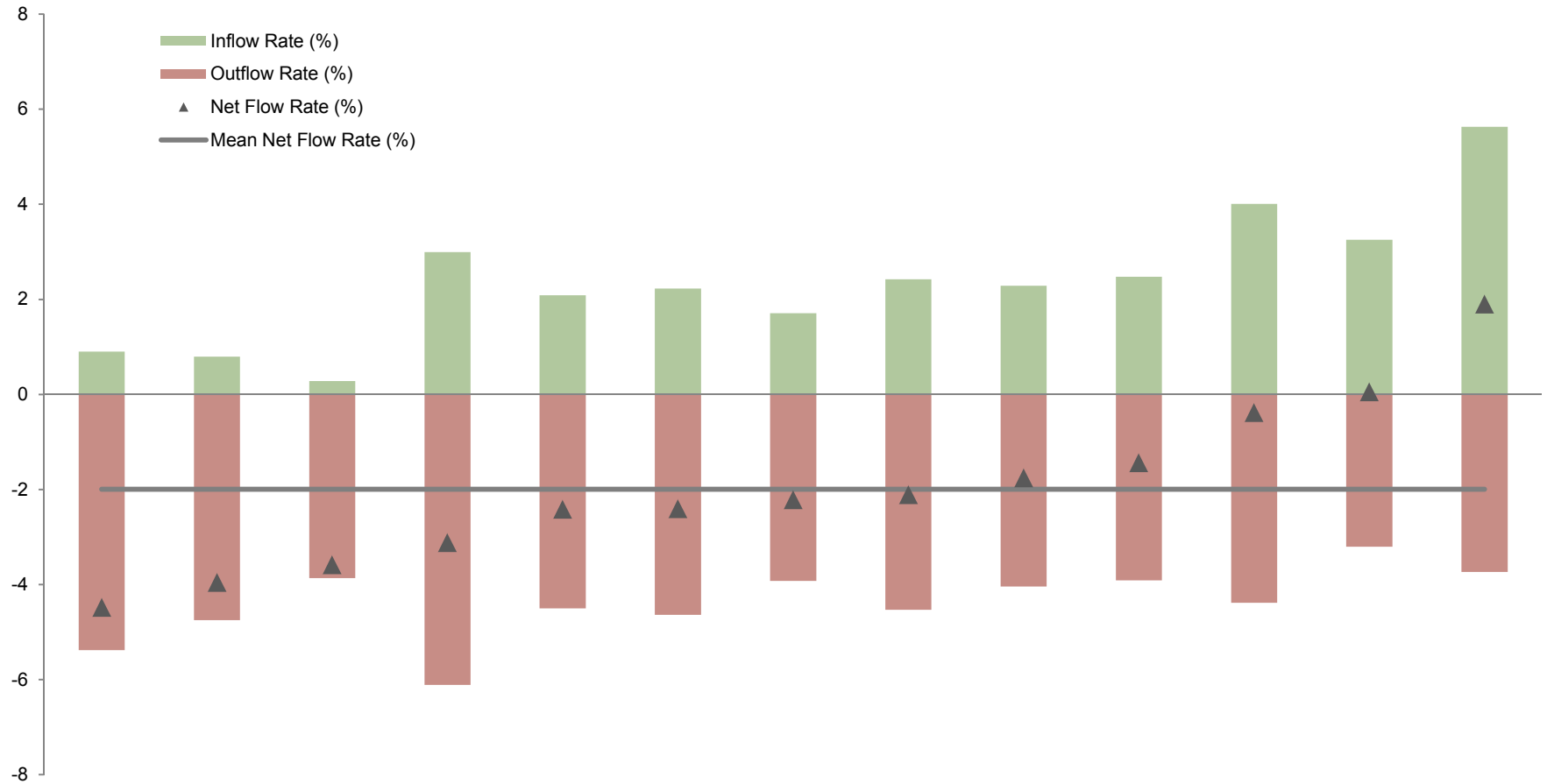
Three institutions indicated that they are considering making changes to their spending rule for fiscal year 2015. Two institutions that use a market-value based spending rule are considering lowering their target rate. One institution that uses a hybrid spending policy is considering increasing the weighting to the constant growth component and lowering the weighting to the hybrid component of their spending rule.

LTIP Support of Operations

For the 19 institutions that provided data, support from the LTIP as a percentage of the organization's total operating expenses averaged 23.8% in fiscal year 2014 (Exhibit 29). The extent of support varied widely, from one institution relying on the investment portfolio to cover just over 2% of expenses to another institution at the other end of the spectrum that relies almost fully (98%) on the portfolio payout. ■

Exhibit 22
Net Flow Rate Comparison

Fiscal Year 2014 • Net Flow Rate for 13 Independent Schools



Source: Independent schools data as reported to Cambridge Associates LLC.
Note: See Exhibit 37 for a listing of the net flow rates for these 13 institutions.

Exhibit 23
Additions to and Withdrawals from the Long-Term Investment Portfolio
 Fiscal Year 2014

Additions (n = 13)

Responding Institutions	Endowment Gifts			Other Additions	Total Additions
	Restricted	Unrestricted	Total Gifts		
Mean	1.7	0.6	2.2	0.2	2.4
5th Percentile	3.2	2.1	4.7	0.8	4.7
25th Percentile	2.6	0.7	3.0	0.0	3.0
Median	1.6	0.2	2.2	0.0	2.3
75th Percentile	0.7	0.0	0.8	0.0	1.7
95th Percentile	0.4	0.0	0.5	0.0	0.6

Withdrawals (n = 13)

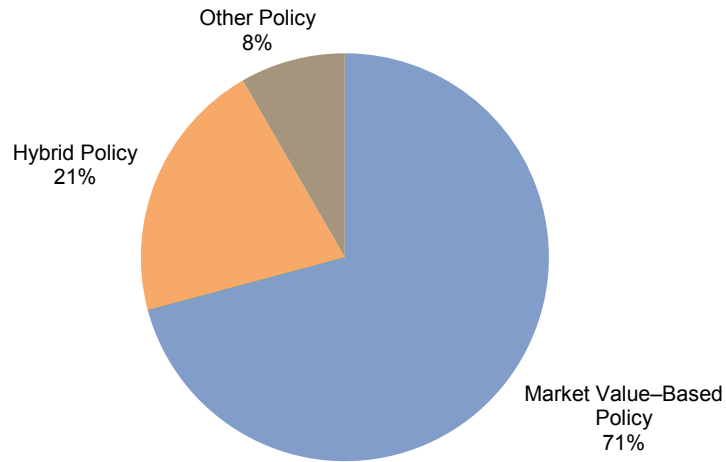
Responding Institutions	Endowment Spending Policy Distribution	Withdrawals Not Included in Endowment Spending Distribution		Total Withdrawals
		Recurring Annual Appropriations	Special / One-Time Appropriations	
Mean	4.1	0.3	0.1	4.4
5th Percentile	4.8	1.1	0.3	5.7
25th Percentile	4.4	0.4	0.0	4.6
Median	4.0	0.0	0.0	4.4
75th Percentile	3.9	0.0	0.0	3.9
95th Percentile	3.1	0.0	0.0	3.5

Source: Independent schools data as reported to Cambridge Associates LLC.

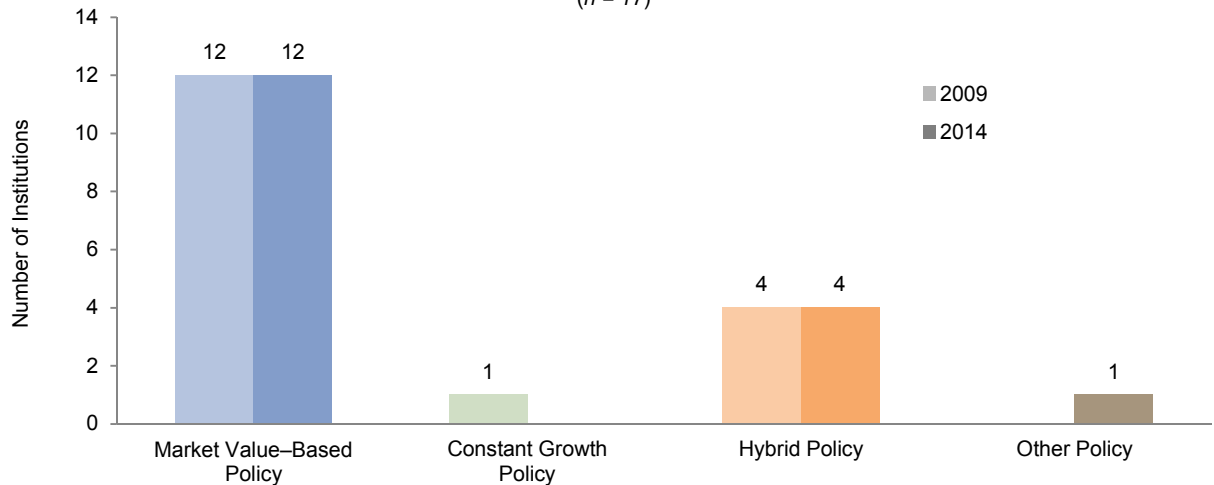
Notes: Figures are calculated as a percentage of the beginning fiscal year market value of the long-term investment portfolio (LTIP). Investment manager fees are not included in the withdrawals section.

Exhibit 24
Spending Policy Types
 Fiscal Year 2014

Spending Policy Types: Fiscal Year 2014
 (n = 24)



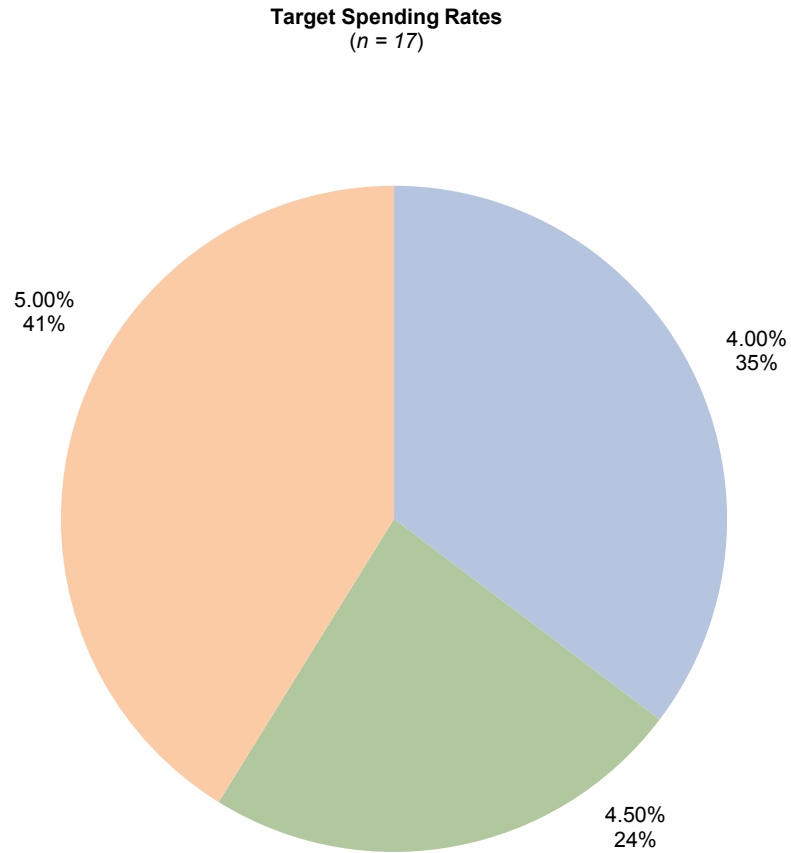
Spending Policy Types: 2009 vs 2014
 (n = 17)



Source: Independent schools data as reported to Cambridge Associates LLC.

Notes: Pie chart represents the 24 institutions that provided a spending policy in 2014. Bar graph represents the 17 institutions that provided a spending policy in both 2009 and 2014. Market value-based spending policies base spending on a prespecified percentage of a moving average of market values. Constant growth policies increase prior year's spending by a prespecified percentage. Hybrid policies are those that incorporate a weighted average of a constant growth rule and a percentage of market value rule. "Other" policies are those that cannot be classified as market value-based, constant growth, or hybrid policies.

Exhibit 25
Target Spending Rates for Market Value–Based Spending Policies
Fiscal Year 2014

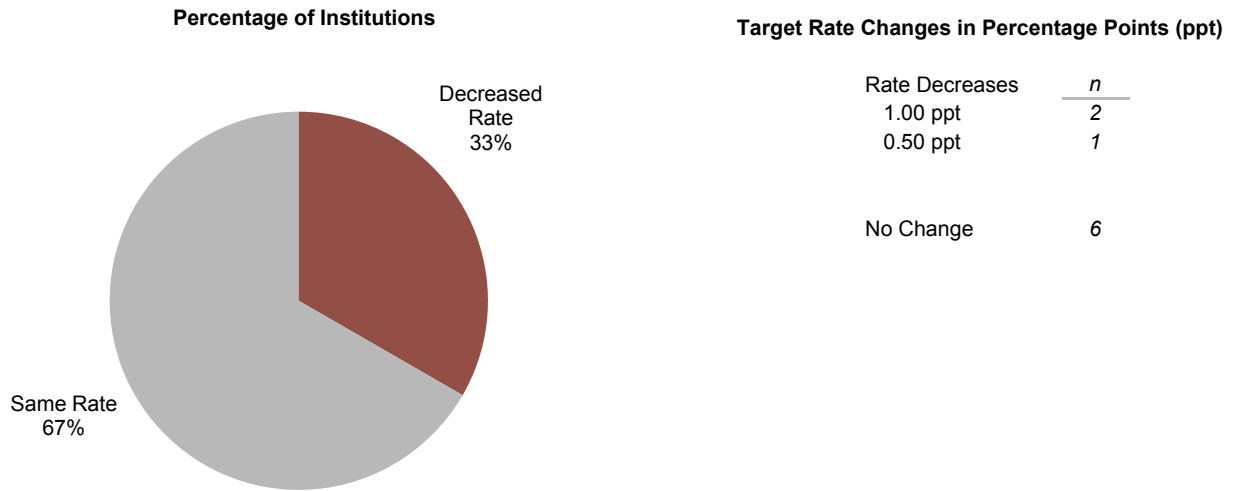


Source: Independent schools data as reported to Cambridge Associates LLC.

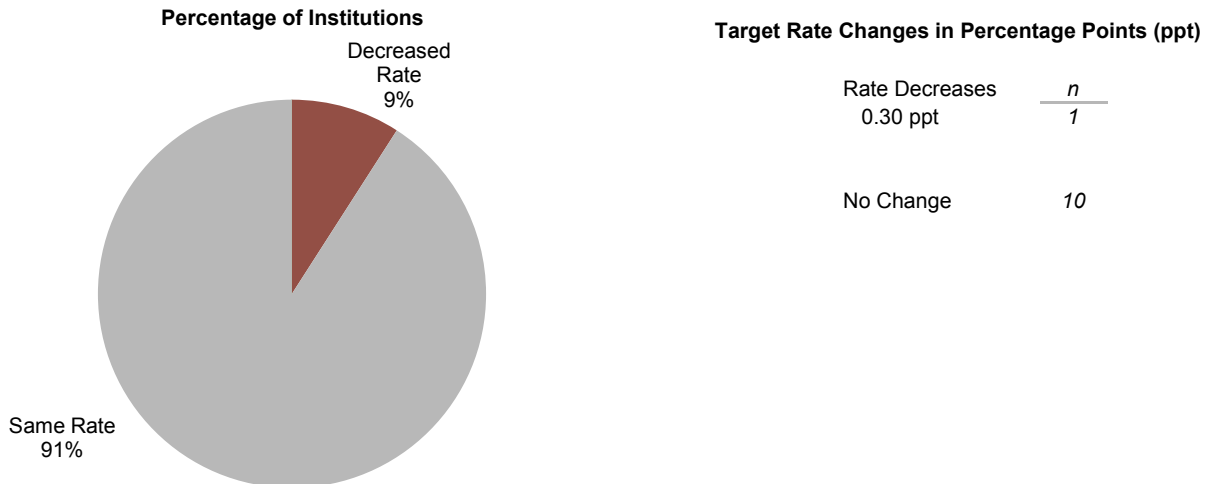
Notes: Market value–based spending policies base spending on a prespecified percentage of a moving average of market values. Graph reflects data for the 17 institutions that provided detailed data on their target spending rate. If a range was provided, the target spending rate was calculated using the midpoint of the range.

Exhibit 26
Changes in Target Spending Rates for Market Value–Based Spending Policies
 Fiscal Year 2014 Versus Fiscal Years 2009 and 2013

How Many Institutions Have Different Target Spending Rates in 2014 Compared to 2009?
 (n = 9)



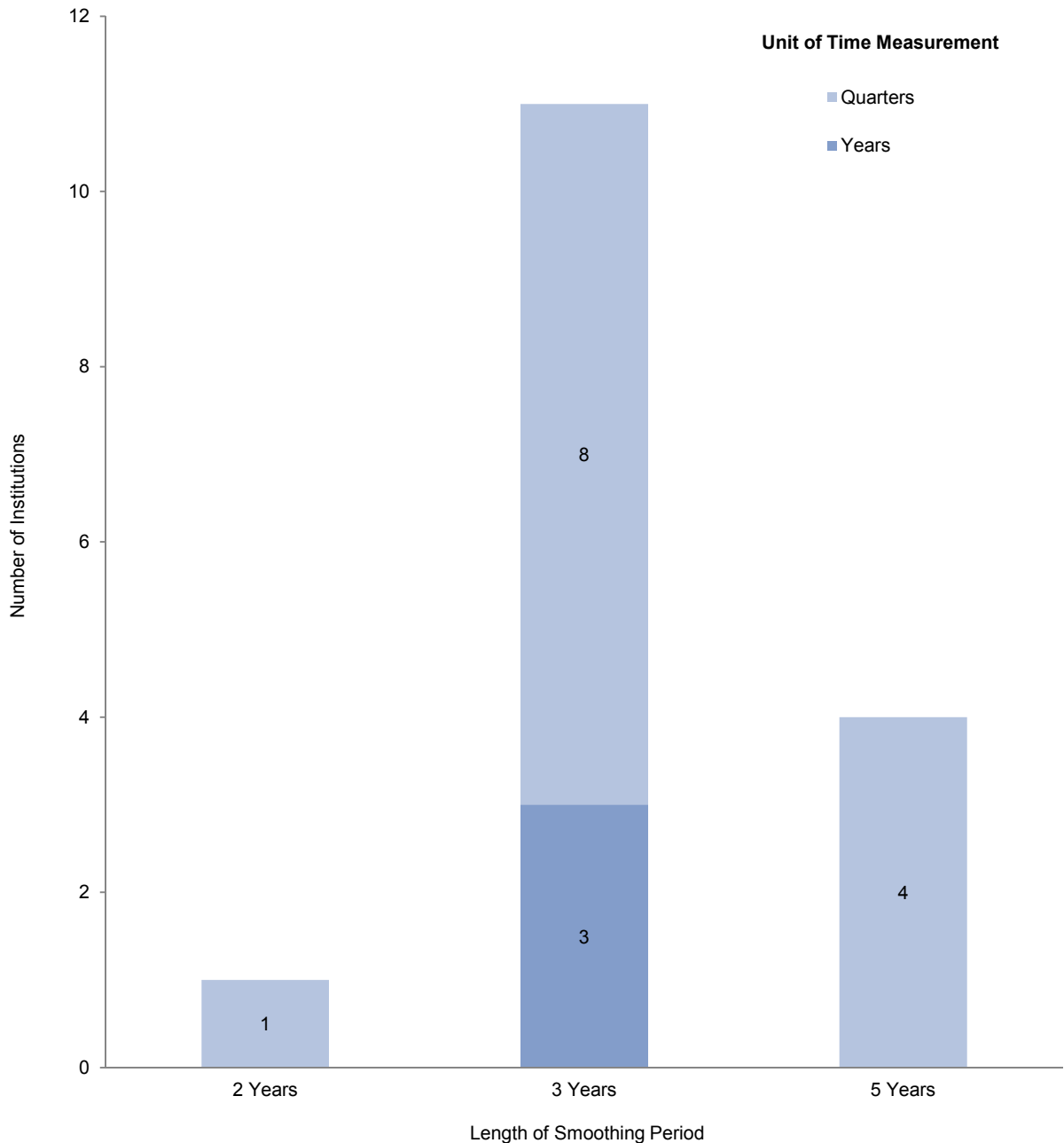
How Many Institutions Have Different Target Spending Rates in 2014 compared to 2013?
 (n = 11)



Source: Independent schools data as reported to Cambridge Associates LLC.

Notes: Market value–based spending policies base spending on a prespecified percentage of a moving average of market values. Graphs reflect data for the institutions using a market value–based spending policy that provided the target rate used in their spending calculation for fiscal year 2009 or 2013. If a range was provided, the target spending rate was calculated using the midpoint of the range.

Exhibit 27
Smoothing Periods for Market Value–Based Spending Policies
Fiscal Year 2014



Source: Independent schools data as reported to Cambridge Associates LLC.

Notes: Market value–based spending policies base spending on a prespecified percentage of a moving average of market values. Unit of time measurement indicates whether spending is calculated using monthly, quarterly, or yearly market values. Graph reflects data for the 16 institutions using a market value–based spending policy that provided the unit of time measurement in their spending calculation.

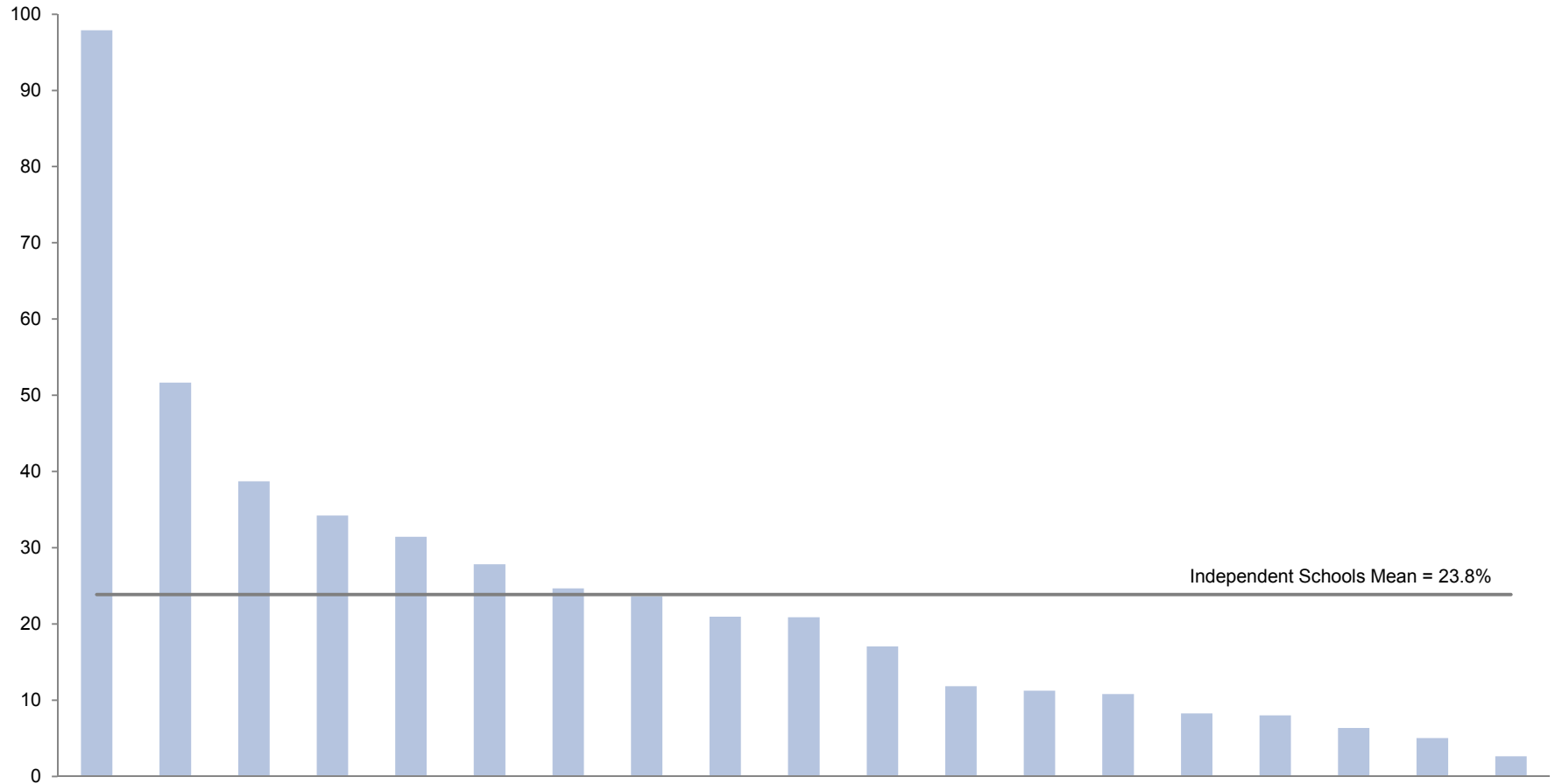
Exhibit 28
Characteristics of Hybrid Spending Policies
 Fiscal Year 2014

Institution	Weighting	Constant Growth Component	Market Value–Based Component	Collars, Caps & Floors
A	70%: Constant Growth 30%: Market Value–Based	CPI-U: Elementary & High School Tuition & Fees	3.0% of 4-quarter average MV	—
B	60%: Constant Growth 40%: Market Value–Based	13-quarter average CPI-U + 1%	5.0% of 13-quarter average MV	—
C	70%: Constant Growth 30%: Market Value–Based	CPI-U + 1.5%	5.0% of 4-quarter average MV	—
D	70%: Constant Growth 30%: Market Value–Based	CPI-U	4.75% of 12/31 MV	—
E	70%: Constant Growth 30%: Market Value–Based	CPI-U + 1.0%	5.0% of 4-quarter average MV	4.0%–6.0% of 12-quarter average MV

Source: Independent schools data as reported to Cambridge Associates LLC.

Notes: Constant growth policies increase prior year's spending by a prespecified percentage. Hybrid policies essentially have the effect of spending a prespecified percentage of an exponentially weighted average market value (MV). The rule is expressed as a weighted average of a constant growth policy and a percentage of market value policy. Data for this exhibit are provided on a blind-coded basis.

Exhibit 29
Long-Term Investment Portfolio (LTIP) Support of Operations
 Fiscal Year 2014 • LTIP Support Ratio for 19 Independent Schools



Source: Independent schools data as reported to Cambridge Associates LLC.
 Note: LTIP support of operations is the proportion of the operating budget that is funded from LTIP payout.

The following eight exhibits show data on total return, asset allocation, and net flow rate by institution code. Aggregate data on these topics was presented in the earlier sections Investment Portfolio Returns, Portfolio Asset Allocation, and Additions to and Withdrawals from the LTIP. ■

Exhibit 30**Total Return by Institution Organized by Private Investment Performance Methodology**

12 Months Ended June 30, 2014 • Percent (%)

Code	Private Investment Allocation	Nominal	Real	Nominal After Spending	Real After Spending
<i>Current Basis</i>					
1	2.4	18.6	16.2	—	—
2	14.2	14.6	12.2	9.9	7.7
3	2.5	13.0	10.7	8.8	6.6
4	12.2	15.3	12.9	—	—
5	7.8	14.7	12.4	—	—
6	10.4	14.0	11.7	9.5	7.3
7	14.2	15.5	13.1	10.3	8.1
8	7.1	11.3	9.0	—	—
9	10.6	11.6	9.4	6.6	4.4
11	23.9	17.2	14.8	12.1	9.8
12	12.9	7.9	5.7	2.6	0.5
13	11.1	17.1	14.7	—	—
14	1.7	14.5	12.2	10.2	8.0
15	7.5	12.3	10.0	7.5	5.3
16	2.9	16.0	13.7	—	—
17	20.3	14.3	12.0	10.8	8.5
18	10.3	15.2	12.8	9.3	7.1
19	5.3	18.7	16.3	14.4	12.1
20	4.2	13.3	11.0	8.6	6.4
21	19.9	17.4	15.0	12.9	10.6
22	23.8	13.3	11.0	6.8	4.6
23	10.7	17.8	15.4	13.4	11.1
24	21.8	15.9	13.6	10.9	8.7
25	18.9	13.9	11.6	8.9	6.7
<i>Lagged Basis</i>					
26	39.0	13.4	11.0	8.6	6.4
<i>Private Investment Allocation Less Than 1.0%</i>					
10	0.0	15.7	13.4	—	—
27	0.2	14.8	12.4	—	—
<i>All Institutions</i>					
High	39.0	18.7	16.3	14.4	12.1
Low	0.0	7.9	5.7	2.6	0.5
Mean	11.7	14.7	12.4	9.6	7.4
Median	10.6	14.7	12.4	9.5	7.3
n	27	27	27	19	19

Source: Independent schools data as reported to Cambridge Associates LLC.

Notes: Please see Exhibit 7, Performance Reporting Methodologies, for more information on these reporting methodologies. Private investment allocation includes total allocation to non-venture private equity, venture capital, distressed securities (private equity structure), private oil & gas/natural resources, timber, private real estate, and other private investments. Real returns are adjusted for inflation as measured by the Consumer Price Index. After-spending returns use the effective spending rates in the calculation. Effective spending rates are fiscal year 2014 spending as a percentage of beginning (July 1, 2013) market value.

Exhibit 31**Nominal and Real Total Return by Institution**

Average Annual Compound Returns for Periods Ended June 30, 2014 • Percent (%)

Code	1 Year		3 Years		5 Years		10 Years	
	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real
1	18.6	16.2	10.3	8.3	12.3	10.1	8.1	5.6
2	14.6	12.2	7.5	5.6	10.4	8.2	6.2	3.8
3	13.0	10.7	6.4	4.5	10.6	8.4	—	—
4	15.3	12.9	7.8	5.8	10.6	8.4	7.8	5.4
5	14.7	12.4	9.5	7.5	10.5	8.3	7.9	5.4
6	14.0	11.7	7.8	5.8	10.8	8.6	—	—
7	15.5	13.1	8.4	6.4	10.8	8.6	6.9	4.5
8	11.3	9.0	7.8	5.9	8.5	6.3	6.8	4.4
9	11.6	9.4	7.1	5.2	8.9	6.7	5.6	3.2
10	15.7	13.4	7.7	5.8	11.0	8.8	7.4	5.0
11	17.2	14.8	9.6	7.7	11.1	8.9	7.5	5.1
12	7.9	5.7	0.1	-1.7	5.6	3.5	7.0	4.6
13	17.1	14.7	7.0	5.1	—	—	—	—
14	14.5	12.2	7.2	5.3	10.2	8.0	5.9	3.6
15	12.3	10.0	7.4	5.5	8.5	6.4	8.2	5.7
16	16.0	13.7	10.2	8.2	13.3	11.1	—	—
17	14.3	12.0	9.0	7.0	11.3	9.1	8.2	5.8
18	15.2	12.8	8.4	6.5	11.1	8.9	7.9	5.5
19	18.7	16.3	9.6	7.6	12.2	9.9	5.9	3.5
20	13.3	11.0	6.2	4.3	9.8	7.6	5.7	3.3
21	17.4	15.0	9.6	7.7	12.3	10.1	8.6	6.1
22	13.3	11.0	6.9	5.0	8.7	6.5	7.2	4.8
23	17.8	15.4	7.9	6.0	10.9	8.7	8.2	5.7
24	15.9	13.6	10.7	8.7	10.7	8.6	8.5	6.1
25	13.9	11.6	7.9	6.0	11.9	9.7	8.2	5.8
26	13.4	11.0	10.5	8.5	13.1	10.9	9.9	7.5
27	14.8	12.4	7.4	5.5	9.8	7.7	5.9	3.5

Mean	14.7	12.4	8.0	6.1	10.6	8.4	7.4	4.9
Median	14.7	12.4	7.8	5.9	10.8	8.6	7.5	5.1
<i>n</i>	27	27	27	27	26	26	23	23

Source: Independent schools data as reported to Cambridge Associates LLC.

Note: Real returns are adjusted for inflation as measured by the Consumer Price Index.

Exhibit 32**Nominal and Real Total Return After Spending by Institution**

Average Annual Compound Returns for Periods Ended June 30, 2014 • Percent (%)

Code	1 Year		3 Years		5 Years		10 Years	
	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real
1	—	—	—	—	—	—	—	—
2	9.9	7.7	2.7	0.8	5.1	3.0	—	—
3	8.8	6.6	2.2	0.4	6.0	3.9	—	—
4	—	—	—	—	—	—	—	—
5	—	—	—	—	—	—	—	—
6	9.5	7.3	3.5	1.6	6.1	4.0	—	—
7	10.3	8.1	3.6	1.8	6.0	3.9	2.6	0.2
8	—	—	—	—	—	—	—	—
9	6.6	4.4	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—
11	12.1	9.8	4.7	2.8	6.3	4.2	—	—
12	2.6	0.5	—	—	—	—	—	—
13	—	—	—	—	—	—	—	—
14	10.2	8.0	3.5	1.7	6.2	4.1	—	—
15	7.5	5.3	2.5	0.7	—	—	—	—
16	—	—	—	—	—	—	—	—
17	10.8	8.5	5.3	3.4	7.5	5.4	—	—
18	9.3	7.1	2.9	1.1	5.6	3.5	—	—
19	14.4	12.1	—	—	—	—	—	—
20	8.6	6.4	1.7	-0.1	—	—	—	—
21	12.9	10.6	—	—	—	—	—	—
22	6.8	4.6	—	—	—	—	—	—
23	13.4	11.1	4.0	2.1	7.0	4.9	4.6	2.3
24	10.9	8.7	5.8	3.9	5.7	3.6	3.9	1.5
25	8.9	6.7	2.7	0.9	6.2	4.1	2.2	-0.1
26	8.6	6.4	6.5	4.6	8.9	6.8	6.0	3.6
27	—	—	—	—	—	—	—	—

Mean	9.6	7.4	3.7	1.8	6.4	4.3	3.8	1.5
Median	9.5	7.3	3.5	1.6	6.1	4.0	3.9	1.5
<i>n</i>	19	19	14	14	12	12	5	5

Source: Independent schools data as reported to Cambridge Associates LLC.

Note: Real returns are adjusted for inflation as measured by the Consumer Price Index.

Exhibit 33**Nominal Total Return, Standard Deviation, and Sharpe Ratio by Institution**

Years Ended June 30, 2014

Code	5 Years (n=26)			10 Years (n=23)		
	AACR (%)	Standard Dev (%)	Sharpe Ratio	AACR (%)	Standard Dev (%)	Sharpe Ratio
1	12.3	8.9	1.35	8.1	10.3	0.66
2	10.4	8.6	1.19	6.2	10.2	0.49
3	10.6	11.5	0.93	—	—	—
4	10.6	7.3	1.42	7.8	9.1	0.70
5	10.5	6.7	1.51	7.9	8.2	0.77
6	10.8	7.5	1.40	—	—	—
7	10.8	8.0	1.32	6.9	9.7	0.58
8	8.5	5.8	1.43	6.8	6.6	0.79
9	8.9	6.7	1.30	5.6	9.0	0.48
10	11.0	9.6	1.14	7.4	10.5	0.58
11	11.1	7.0	1.54	7.5	9.0	0.68
12	5.6	8.1	0.70	7.0	9.7	0.58
13	—	—	—	—	—	—
14	10.2	9.1	1.11	5.9	10.1	0.46
15	8.5	4.5	1.83	8.2	7.1	0.92
16	13.3	11.0	1.19	—	—	—
17	11.3	7.6	1.44	8.2	9.9	0.69
18	11.1	7.8	1.40	8.0	9.5	0.69
19	12.2	10.0	1.21	5.9	12.2	0.40
20	9.8	8.8	1.10	5.7	11.6	0.40
21	12.3	8.4	1.42	8.6	9.9	0.72
22	8.7	4.5	1.89	7.2	7.0	0.80
23	10.9	9.8	1.11	8.2	10.7	0.64
24	10.7	5.2	1.98	8.5	7.6	0.91
25	11.9	7.4	1.57	8.2	9.3	0.73
26	13.1	4.5	2.79	9.9	8.3	1.00
27	9.8	10.6	0.94	5.9	12.5	0.39
5th Percentile	12.9	10.9	1.96	8.6	12.1	0.92
25th Percentile	11.3	9.1	1.50	8.2	10.2	0.75
75th Percentile	9.9	6.8	1.15	6.5	8.6	0.53
95th Percentile	8.5	4.5	0.93	5.7	7.0	0.40
Mean	10.6	7.9	1.39	7.4	9.5	0.65
Median	10.8	7.9	1.37	7.5	9.7	0.68
70% Wilshire 5000 / 30% Barclays Govt/Credit	15.2	10.6	1.40	7.7	11.5	0.56
70% MSCI ACWI / 30% Barclays Govt/Credit	12.2	11.2	1.09	7.5	12.6	0.51

Sources: Independent schools data as reported to Cambridge Associates LLC. Index data provided by Barclays, MSCI Inc., Thomson Reuters Datastream, and Wilshire Associates, Inc. MSCI data provided "as is" without any express or implied warranties.

Note: Analysis includes only institutions that provided underlying quarterly returns, and excludes those that only provided annual returns.

Exhibit 34
Calculation of Net Returns by Institution
 As of June 30, 2014

Code	Asset-Based Mgmt Fees	Performance-Based Mgmt Fees	Custody Fees	Consulting Fees	Staff Salaries	Travel Expenses	Legal Expenses	Accounting Expenses	Costs Associated with IC Meetings	Rents/Space Costs	Other
1	x	x									
2	x	x									
3	x	x									
4	x	x									
5	x	x									
6	x	x									
7	x	x									
8	x	x									
9	x	x									
10	x	x									
11	x	x									
12	x	x									
13	x	x									
14	x	x									
15	x	x									
16	x	x									
17	x	x									
18	x	x									
19	x	x									
20	x	x									
21	x	x									
22	x	x									
23	x	x									
24	x	x									
25	x	x									
26	x	x	x	x	x	x	x	x	x	x	
27	x	x									

Source: Independent schools data as reported to Cambridge Associates LLC.

Exhibit 35
Detailed Asset Allocation by Institution

As of June 30, 2014 • Percent (%)

Code	Traditional Equity			Bonds				Hedge Funds		Distressed Securities	
	US	Global ex US		US	Global ex US		HY	Long/ Short	Abs Ret (ex Distr)	HF Structure	Priv Eq Structure
		Dev Mkt	Emg Mkt		Dev Mkt	Emg Mkt					
1	31.1	5.9	3.5	0.1	0.4	1.3	0.0	1.4	32.4	2.0	2.4
2	18.8	16.0	4.8	6.7	3.2	0.9	0.0	8.2	3.7	1.3	0.0
3	21.5	16.3	3.0	10.3	0.0	0.0	0.0	4.2	26.3	1.2	2.5
4	29.5	15.8	7.0	0.0	0.0	0.0	0.0	3.7	21.8	0.0	0.0
5	22.4	17.8	6.9	4.3	0.8	0.3	0.0	17.6	13.0	1.1	0.0
6	12.7	11.4	10.4	8.3	0.5	0.2	0.0	11.8	22.8	0.0	3.1
7	12.8	10.5	6.7	9.7	0.0	0.0	0.0	28.6	8.3	0.0	3.6
8	14.0	7.7	0.1	9.5	0.0	0.0	0.0	31.5	11.4	1.8	0.6
9	28.5	8.4	4.5	7.4	2.1	0.9	0.0	20.2	6.6	3.4	1.9
10	19.5	26.0	5.8	13.3	2.8	2.5	3.8	5.3	7.8	0.0	0.0
11	18.1	12.4	5.7	3.0	0.0	0.0	0.0	14.3	13.3	2.5	0.0
12	7.8	1.8	2.9	0.0	0.0	0.0	0.0	30.3	28.2	5.8	0.0
13	14.7	16.3	5.9	9.3	0.7	0.6	0.0	13.0	12.4	2.5	6.6
14	20.2	16.8	8.3	12.2	2.1	2.3	0.8	12.1	5.7	1.5	0.0
15	26.1	14.1	3.5	0.0	0.0	0.0	0.0	23.7	18.5	0.0	1.8
16	25.9	25.4	6.2	22.9	0.0	0.0	0.3	7.5	5.8	2.8	0.0
17	16.6	8.3	5.5	3.2	0.8	1.1	0.0	10.1	23.3	4.6	2.7
18	14.0	16.1	4.5	8.8	1.7	0.4	0.0	9.4	26.0	0.0	1.0
19	20.9	17.8	10.5	7.6	1.3	1.2	3.2	2.1	10.4	1.0	0.9
20	19.9	16.6	8.0	9.9	0.0	0.0	3.5	13.8	12.8	0.0	4.2
21	20.0	15.4	7.9	13.1	0.0	0.0	0.0	5.6	8.9	1.2	2.6
22	12.3	12.6	2.9	8.0	0.0	0.0	0.0	0.0	14.1	4.1	4.7
23	21.8	23.1	9.6	8.6	0.3	0.0	2.8	2.0	5.0	0.0	0.0
24	8.3	6.3	3.7	0.0	0.1	0.0	0.0	28.7	20.6	2.2	0.5
25	14.1	11.1	8.0	3.7	0.0	0.0	0.0	18.9	18.7	3.0	0.9
26	8.5	10.2	4.5	0.8	5.3	0.0	0.0	7.8	13.9	2.6	2.6
27	22.2	17.1	8.0	15.3	2.1	2.5	0.0	16.6	4.9	1.5	0.0

High	31.1	26.0	10.5	22.9	5.3	2.5	3.8	31.5	32.4	5.8	6.6
Mean	18.6	14.0	5.9	7.3	0.9	0.5	0.5	12.9	14.7	1.7	1.6
Median	19.5	15.4	5.8	8.0	0.3	0.0	0.0	11.8	13.0	1.5	0.9
Low	7.8	1.8	0.1	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0
n = 27											

Source: Independent schools data as reported to Cambridge Associates LLC.

Exhibit 35 (continued)
Detailed Asset Allocation by Institution

As of June 30, 2014 • Percent (%)

Code	Priv Equity & Venture Cap			Real Assets & Inflation-Linked Bonds							Cash & Equiv	Other
	Non-Ven	Ven	Other	Real Estate		Inf-Link	Private	Public				
	Priv Eq	Cap	Priv Inv	Private	Public	Comm	Bonds	O&G/NR	Timber	Engy/NR		
1	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	3.8	14.4	0.0
2	0.0	0.0	14.2	0.0	0.0	1.8	0.0	0.0	0.0	5.0	15.4	0.0
3	0.0	0.0	0.0	0.0	5.3	2.3	0.0	0.0	0.0	3.4	3.9	0.0
4	2.0	5.3	1.4	0.0	0.0	2.5	7.4	3.6	0.0	0.0	0.1	0.0
5	5.3	2.3	0.2	0.0	0.0	3.1	0.0	0.0	0.0	0.0	4.9	0.0
6	0.0	0.0	0.2	2.4	0.0	0.0	0.0	4.7	0.0	7.0	4.5	0.0
7	3.6	3.4	0.0	0.0	0.0	0.0	0.0	3.6	0.0	9.0	0.2	0.0
8	6.4	0.0	0.0	0.0	0.0	3.3	0.0	0.1	0.0	0.0	13.5	0.0
9	2.1	2.0	1.8	0.5	0.0	1.0	0.7	2.3	0.0	0.0	5.8	0.0
10	0.0	0.0	0.0	0.0	0.0	1.6	1.3	0.0	0.0	7.1	3.3	0.0
11	8.5	2.1	0.0	4.1	0.0	1.7	0.0	7.9	1.3	0.0	4.4	0.7
12	11.7	0.5	0.2	0.4	0.0	0.0	0.0	0.1	0.0	0.4	9.9	0.0
13	1.7	1.4	0.0	0.0	0.0	3.8	0.0	1.3	0.0	7.0	2.8	0.0
14	0.0	0.0	1.5	0.0	0.0	3.0	0.1	0.1	0.0	11.3	1.9	0.0
15	3.4	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	6.7	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.2	0.0
17	9.0	0.9	0.5	5.1	0.0	0.0	0.0	0.1	1.9	3.9	2.4	0.0
18	2.2	1.6	2.1	0.1	0.0	1.2	0.8	3.3	0.0	4.0	2.8	0.0
19	1.7	0.0	0.2	1.6	1.1	0.0	0.0	1.0	0.0	15.2	2.4	0.0
20	0.0	0.0	0.0	0.0	2.4	3.2	0.0	0.0	0.0	3.9	1.8	0.0
21	1.8	2.6	2.9	1.9	0.0	0.0	0.0	8.1	0.0	2.8	5.2	0.0
22	5.3	0.8	3.0	0.0	0.0	2.0	0.0	10.0	0.0	12.9	7.3	0.0
23	2.8	2.7	0.0	1.3	0.0	3.0	2.3	3.8	0.0	7.2	3.8	0.0
24	5.8	1.5	0.0	6.2	0.0	0.0	0.0	5.8	2.1	0.0	8.4	0.0
25	4.5	6.7	1.3	2.5	0.0	0.3	0.0	3.0	0.0	1.9	1.3	0.0
26	3.0	2.2	0.0	28.3	0.0	1.7	0.0	2.6	0.2	4.5	1.2	0.0
27	0.0	0.0	0.2	0.0	0.0	1.2	1.0	0.0	0.0	7.1	0.1	0.0

High	11.7	6.7	14.2	28.3	5.3	3.8	7.4	10.0	2.1	15.2	15.4	0.7
Mean	3.0	1.3	1.1	2.0	0.3	1.4	0.5	2.5	0.2	4.3	4.8	0.0
Median	2.1	0.8	0.2	0.0	0.0	1.2	0.0	2.3	0.0	3.9	3.8	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
<i>n</i> = 27												

Source: Independent schools data as reported to Cambridge Associates LLC.

Exhibit 36
Target Asset Allocation by Institution

As of June 30, 2014 • Percent (%)

Code	Traditional Equity				Hedge Funds	Priv Equity & Ven Cap	Bonds & Cash	Real Assets & Infl-Link Bonds	Other
	Total	US	Global ex US						
			Dev Mkts	Emg Mkts					
1	—	—	—	—	—	—	—	—	
2	43.0	—	—	—	20.0	12.0	15.0	10.0	0.0
3	40.0	—	—	—	30.0	5.0	15.0	10.0	0.0
4	—	—	—	—	—	—	—	—	—
5	37.0	15.0	15.0	7.0	35.0	10.0	13.0	5.0	0.0
6	30.0	10.0	10.0	10.0	30.0	10.0	15.0	15.0	0.0
7	25.0	10.0	10.0	5.0	35.0	15.0	15.0	10.0	0.0
8	10.0	—	—	—	55.0	5.0	25.0	5.0	0.0
9	—	—	—	—	—	—	—	—	—
10	45.0	20.0	20.0	5.0	15.0	0.0	30.0	10.0	0.0
11	35.0	—	—	—	32.0	10.0	0.0	16.0	7.0
12	—	—	—	—	—	—	—	—	—
13	35.0	14.0	15.0	6.0	25.0	0.0	15.0	13.0	12.0
14	41.0	19.0	15.0	7.0	20.0	0.0	20.0	15.0	4.0
15	—	—	—	—	—	—	—	—	—
16	60.0	30.0	20.0	10.0	20.0	0.0	15.0	5.0	0.0
17	—	—	—	—	—	—	—	—	—
18	40.0	—	—	—	30.0	5.0	15.0	10.0	0.0
19	47.0	15.0	10.0	7.0	11.0	4.0	20.0	18.0	0.0
20	43.0	20.0	15.0	8.0	10.0	0.0	10.0	12.0	25.0
21	42.5	20.0	15.0	7.5	17.5	10.0	15.0	15.0	0.0
22	35.0	17.5	—	—	15.0	10.0	15.0	10.0	15.0
23	43.0	18.0	18.0	7.0	7.0	10.0	20.0	20.0	0.0
24	20.0	—	—	—	60.0	7.5	0.0	12.5	0.0
25	30.0	—	—	—	36.5	10.0	10.5	13.0	0.0
26	28.0	—	—	7.0	32.0	12.0	15.0	13.0	0.0
27	48.0	22.0	18.0	8.0	22.0	0.0	20.0	10.0	0.0

All Institutions

High	60.0	—	—	—	60.0	15.0	30.0	20.0	25.0
Mean	37.0	—	—	—	26.6	6.5	15.2	11.8	3.0
Median	40.0	—	—	—	25.0	7.5	15.0	12.0	0.0
Low	10.0	—	—	—	7.0	0.0	0.0	5.0	0.0

n = 21

Institutions with Policy Target to Category

Mean	37.0	17.7	15.1	7.3	26.6	9.0	16.8	11.8	12.6
<i>n</i>	21	13	12	13	21	15	19	21	5

Source: Independent schools data as reported to Cambridge Associates LLC.

Notes: Real assets category includes targets to both public and private assets. Other category includes target allocations to distressed securities, opportunistic investing, tactical asset allocation, and other special situations.

Exhibit 37
Net Flow Rate by Institution
 Fiscal Year 2014

Code	Total Inflows	Total Outflows	Net Flow Rate
3	2.5	-3.9	-1.4
6	2.3	-4.0	-1.8
7	2.2	-4.6	-2.4
11	2.1	-4.5	-2.4
14	1.7	-3.9	-2.2
17	3.3	-3.2	0.1
18	0.9	-5.4	-4.5
19	5.6	-3.7	1.9
20	4.0	-4.4	-0.4
22	3.0	-6.1	-3.1
23	0.3	-3.9	-3.6
24	0.8	-4.7	-4.0
25	2.4	-4.5	-2.1

Mean	2.4	-4.4	-2.0
Median	2.3	-4.4	-2.2
<i>n</i>	13	13	13

Source: Independent schools data as reported to Cambridge Associates LLC.

Note: Net flow rate is the difference between the total additions to and withdrawals from the long-term investment portfolio for the fiscal year and is expressed as a percentage of the beginning fiscal year market value.

Data Collection and Results

This report includes data for 27 independent schools. All participants provided investment pool data as of June 30. The notation of n denotes the number of institutions included in each analysis. Total asset allocation figures may not sum to 100% due to rounding.

In Exhibits 4, 5, and 6, bonds include US bonds, global ex US bonds, and high-yield bonds; hedge funds include long/short hedge funds, absolute return hedge funds, and distressed securities invested through a hedge fund vehicle; private equity includes venture capital, multi-strategy private investment funds-of-funds, and distressed securities invested through a private investment vehicle; public real assets include public real estate, commodities, inflation-linked bonds, and public energy/natural resources; and private real assets include private real estate, private oil & gas/natural resources, and timber.

In Exhibits 12, 14, and 36, bonds include US bonds, global ex US bonds, and high-yield bonds; hedge funds include long/short hedge funds and absolute return hedge funds (ex distressed securities); private equity and venture capital also includes multi-strategy private investment funds-of-funds; and real assets and inflation-linked bonds include public and private real estate, commodities, inflation-linked bonds, private oil & gas/natural resources, timber, and public energy/natural resources.

In Exhibit 19, hedge funds include long/short hedge funds, absolute return hedge funds (ex distressed securities).

Calculation of the Real Rate of Return

The real, or inflation-adjusted, rate of return for a given investment is calculated by dividing the nominal total return by the appropriate deflator for the same time period. Throughout the report, the measure used for this purpose is the Consumer Price Index (CPI-U). Note that simply subtracting the CPI-U from the nominal total return does not result in an accurate computation of real total return. The formula is:

$$\frac{1 + \text{Nominal Total Return}}{1 + \text{CPI-U}} - 1 = \text{Real Total Return}$$

Calculation of the Return After Spending

The rate of return after spending for a given investment is calculated by dividing the total return by the spending rate for the time period. The spending rate is the dollar amount of spending for a fiscal year as a percentage of the beginning market value of assets. Note that simply subtracting the spending rate from the total return does not result in an accurate computation of total return after spending. The formula is:

$$\frac{1 + \text{Total Return}}{1 + \text{Spending Rate}} - 1 = \text{Total Return After Spending}$$

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.

Blended Portfolio Benchmarks

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

Data Sources

Index data are provided by Barclays, Bloomberg L.P., BofA Merrill Lynch, Cambridge Associates, Citigroup Global Markets, FTSE International Limited, Hedge Fund Research, Inc., J.P. Morgan Securities, Inc., MSCI Inc., the National Association of Real Estate Investment Trusts, the National Council of Real Estate Investment Fiduciaries, Standard & Poor's, Thomson Reuters Datastream, U.S. Department of Labor - Bureau of Labor Statistics, and Wilshire Associates, Inc. MSCI data provided "as is" without any express or implied warranties. ■

Absolute Return: The use of different strategies (e.g., global macro, market neutral, open mandate) to produce a positive return regardless of the direction and fluctuation of capital markets. Common techniques include using arbitrage, derivatives, futures, leverage, options, short selling, and unconventional assets.

Bonds (Fixed Income): Includes long-term promissory notes that cannot be exchanged for other assets, government bonds, preferred stocks, structured debt, and derivatives where bonds are the underlying assets. Generally earn interest paid semiannually and are repaid at the principal (par) value. Does not include mortgage real estate.

Cash & Equivalents: Highly liquid, virtually risk-free assets with maturities of less than one year (e.g., certificates of deposit, commercial paper, nonconvertible bonds, and Treasury bills).

Co-Investments: A direct investment made into a company alongside a general partner that originates the transaction.

Commodities: Diversified baskets of fully collateralized, long-only, commodity futures contracts.

Developed Markets: Markets within countries that have an established economic infrastructure.

Distressed Securities: Securities of companies that are currently in default, bankruptcy, financial distress, or a turnaround situation.

Effective Spending Rate: The dollar amount of spending as a percentage of the beginning market value of assets. Spending amount includes the endowment spending policy distribution and other annual appropriations. It does not include investment management fees that are netted out of returns.

Emerging Markets: Typically includes countries that have an underdeveloped or developing infrastructure with significant potential for economic growth and increased capital markets participation by foreign investors. These countries generally possess some of the following characteristics: per capita GNP less than \$9,000, recent economic liberalization, debt ratings below investment grade, recent liberalization of the political system, and non-membership in the OECD.

Emerging Markets Debt: Debt instruments of emerging market countries and issuers, including US\$-denominated and local currency bonds.

Emerging Markets Equity: Equity securities of emerging markets countries; considered emerging even if the equity market is fully functional and well regulated.

Endowment (as defined in FASB SFAS No. 117): A fund of cash, securities, or other assets established to provide income for the maintenance of a not-for-profit organization. The use of the assets of the fund may be permanently restricted, temporarily restricted, or unrestricted. Donor-restricted gifts and bequests to provide a permanent endowment, which is to provide a permanent source of income, or a term endowment, which is to provide income for a specified period, generally establish endowment funds. The principal of a permanent endowment must be maintained permanently—not used up, expended, or otherwise exhausted—and is classified as permanently restricted net assets. The principal of a term endowment must be maintained for a specified term and is classified as temporarily restricted net assets. An organization's governing board may earmark a portion of its unrestricted net assets as a board-designated endowment (sometimes referred to as funds

functioning as endowment or quasi-endowment funds) to be invested to provide income for a long but unspecified period. The principal of a board-designated endowment, which results from internal designation, is not donor restricted and is classified as unrestricted net assets.

Equities: Ownership positions in companies that can be traded in public markets. Often produce current income, which is paid in the form of quarterly dividends. The holders' claims are subordinate to the claims of preferred stock-holders and bondholders. Includes convertible bonds if they are held as an opportunistic means of eventually acquiring a company's stock. Also includes futures, options, rights, and warrants where the underlying assets are equities.

Externally Managed Assets: Assets, including pooled assets, managed by individuals or firms outside an institution.

Faculty Mortgages: Homeownership loans issued by an institution to faculty or staff. Classified as other assets.

Fund-of-Funds: A fund that invests in a collection of underlying funds.

High-Yield Bonds: Bonds regarded, on balance, as predominantly speculative with respect to capacity to pay interest and repay principal in accordance with the terms of the obligation. Typically, these bonds have a credit rating of BB or lower and pay higher yields because they are more risky than investment-grade bonds. Also includes collateralized bond obligations (CBOs).

Inflation-Linked Bonds: Fixed coupon bonds that earn interest paid semi-annually on inflation-adjusted principal.

Long/Short Hedge Funds: Portfolios with long positions in undervalued companies and

short positions in overvalued companies, to capture the disparity in prospective returns, while maintaining a low level of overall market risk.

Long-Term Investment Portfolio: The group of assets that an institution deems best represents its investment policies and endowment asset allocation and returns. These assets should be subject to frequent market valuation and may include operating funds. Pooled income funds and charitable remainder trusts should be excluded if the investment strategy varies from the institution's asset allocation policy. Assets that cannot be fairly valued such as artwork, copyrights, and patents should also be excluded.

Non-Venture Private Equity: Through negotiation or tender offer, a takeover of a majority percentage of a company's equity with the purpose of acquiring its assets and operations. Includes leveraged buyouts (LBOs).

Other Assets: Should only include assets that cannot be classified as one or more of the other asset classes.

Other Private Investments: Includes funds that are invested across multiple private investments and cannot be allocated to a single asset class. Includes multi-strategy funds-of-funds and secondary market private investments.

Permanently Restricted Endowment: Endowments established with donor-imposed restrictions that must be followed in perpetuity. Relevant to private institutions reporting under FASB standards.

Private Oil & Gas/Natural Resources: Funds created to invest in the exploration or development of energy-related reserves and natural resources.

Private Real Estate: Includes ownership positions in land and buildings as well as private operating companies. May also include equity-like investments in mortgages or land leases that include substantial participation in revenues and capital appreciation. Does not include equity mortgages such as collateralized mortgage obligations (CMOs), mortgage-backed securities, publicly traded REITs, or other public real estate.

Public Energy/Natural Resources: Includes marketable energy funds and natural resources.

Public Real Estate: Includes REITs and other public real estate equity such as umbrella partnership REITs (UPREITs), and other public operating companies (REOCs).

Single Manager Fund: A fund in which the fund manager makes the investment decisions for the assets/securities/companies held within the fund.

Solo Investments: A direct investment made into a company in which the institutional investor originates and invests in a transaction, which is not associated with a manager in the investor's portfolio.

Spending Rule: The guideline an institution uses to determine annual distributions from its endowment (e.g., spend all income, spend 5% of three-year moving average market value, increase spending by 5% each year).

Temporarily Restricted Endowment: Endowments established with donor-imposed restrictions that expire after a specific period of time or when some other condition is met. Relevant to private institutions reporting under FASB standards.

Timber: Funds created to invest in timber-related business. Usually limited partnerships.

Total Return: The sum of income earned and appreciation, both realized and unrealized, for a specified period of time. Preferred method of calculation uses time-weighted rates of return.

Traditional Assets: Includes US equities, non-US equities (including emerging markets), US investment-grade bonds, non-dollar bonds, high-yield bonds, emerging markets debt, and all cash and cash equivalents.

Unrestricted Endowment: Funds that do not have restrictions by donors or other parties.

Venture Capital: Investments in private securities of new companies or companies considered to be in the early stages of growth; these investments may have high risk and the potential for high return. ■

Auditory Learning Foundation
Boston College High School
The Brearley School
Brunswick School
Buckingham Browne & Nichols School
The Colburn School
Episcopal School of Dallas
Groton School
Hockaday School
The Hotchkiss School
Kamehameha Schools
Lakeside School
The Lawrenceville School
The Loomis Institute
The Madeira School
Park Tudor Trust
Phillips Exeter Academy
Pingry School
Punahou School
The Roxbury Latin School
Salisbury School
Shady Hill School
St. Paul's School
The Webb Schools
Western Reserve Academy
The Winsor School
Xaverian Brothers High School