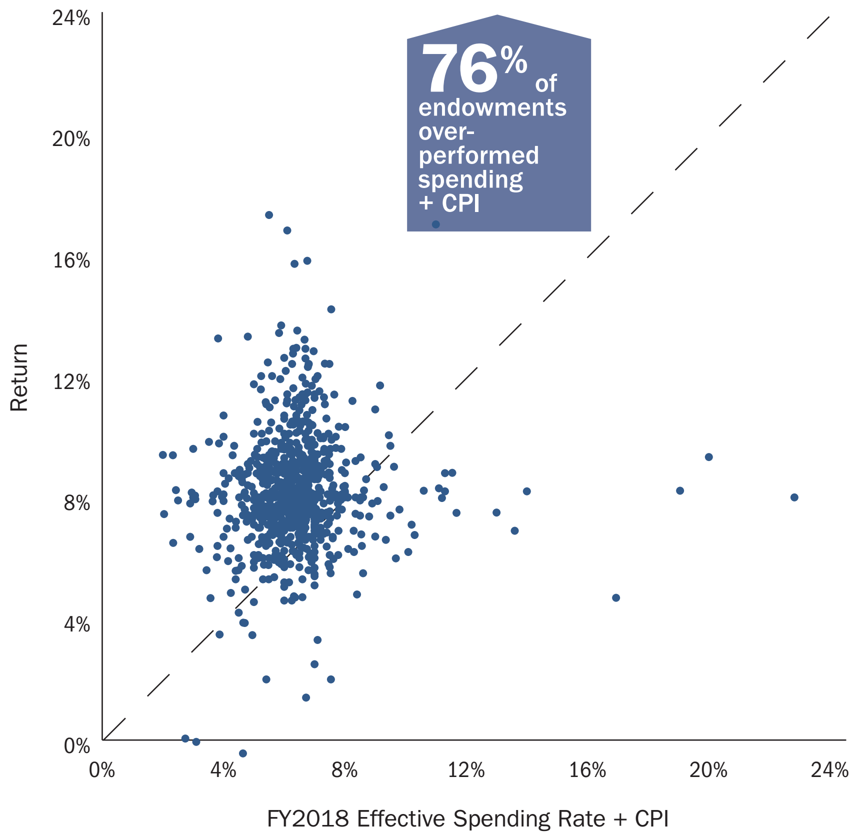
Chapter 4

Endowment spending

The FY2018 average annual effective spending rate[1] reported by participating institutions was 4.4 percent falling mid-way between a range of 4.2 percent to 4.6 percent reported over the last 10 years. Only 22 percent of endowments reported a higher effective spending rate compared to FY2017; the vast majority saw a lower effective rate. Forty-five percent of respondents reported effective spending rates between 4 percent and 5 percent; 81 percent of respondents had effective spending rates between 3 percent and 6 percent. Also, the majority of endowments (75 percent) had an effective spending rate less than 5 percent.

As seen in the chart below, 76 percent of respondents successfully grew the real value of their endowments in FY2018, due to strong portfolio returns that exceeded the sum of their spending plus inflation.

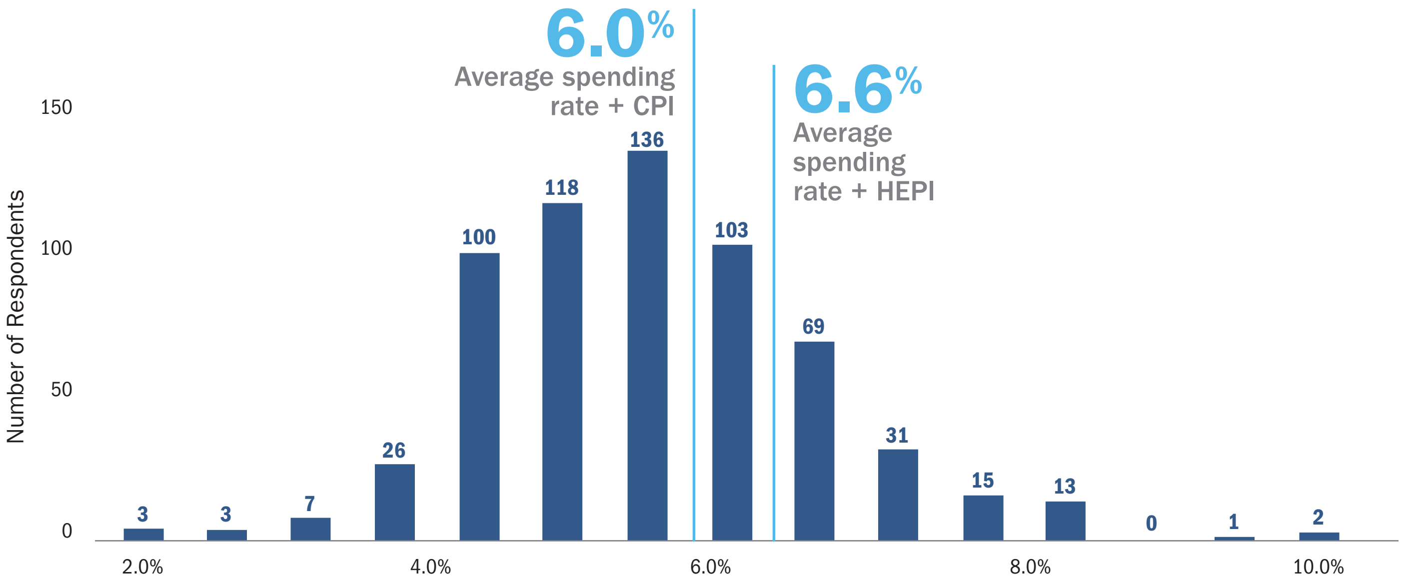
FY2018 return versus spending rate + CPI



1 The effective spending rate should not be confused with the policy spending rate. The effective rate is the actual total dollars spent in the fiscal year divided by the endowment's beginning-of-year market value. The policy spending rate is the rate used in the formula for determining the spending amount for the year.

However, as illustrated below, over the last 10 years (which includes the 2008/2009 financial crisis) most endowments failed to earn a return equal to their annual spending rate plus inflation, as measured by either the Consumer Price Index (CPI) or the Commonfund Higher Education Price Index® (HEPI). Achieving a long-term return greater than spending plus the relevant inflation rate is necessary for an institution to maintain the long-term purchasing power of its endowment.

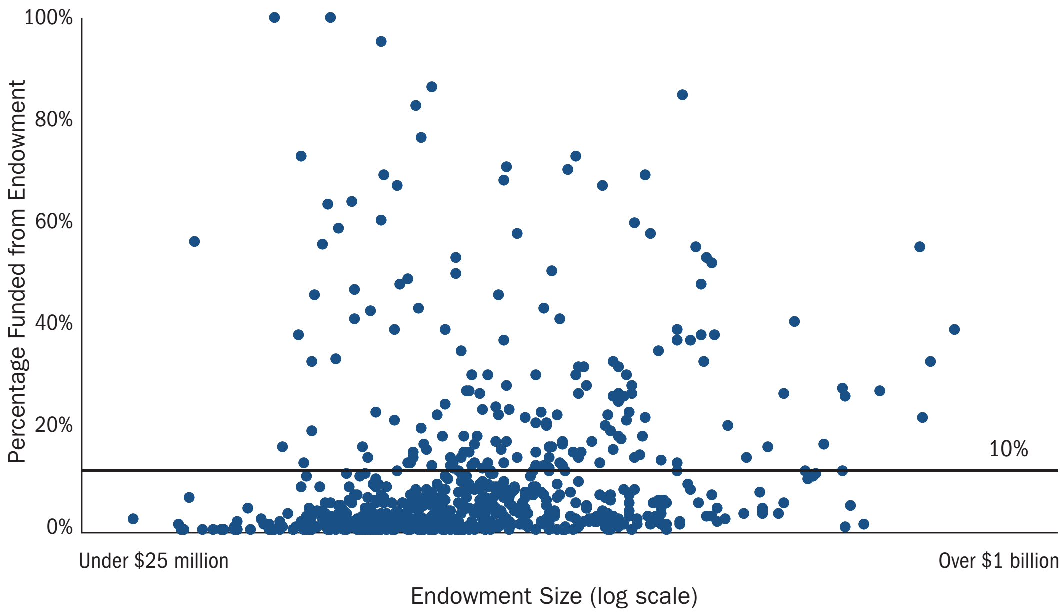
10-year average return versus spending*



*Units in the chart represent increments of 0.6 percentage points, ranging from 2 percent to 10 percent

In FY2018, the spending payout from endowments funded an average 10.3 percent of their institution's operating budget. About 62 percent of respondents reported a number below that mean, lowering the median operating budget funding amount to 4.0 percent. As illustrated in the chart below, it is noteworthy that, with regard to operating budget sensitivity, significant divergences exist regardless of endowment size. There are meaningful outliers in each cohort by size where the endowment is playing a vital role in the annual operation of their institutions.

Percentage of operating budget funded from endowment versus size



While the average percent of the **operating budget funded by endowments** is **10%** there is significant dispersion among reporting institutions.

The reliance of the operating budget on endowment spending should potentially be an important factor in determining the overall risk profile of the endowment and its exposures to public and private equities as these asset classes are generally the largest contributors to portfolio risk. Although there are some notable exceptions, especially among the largest endowments, institutions whose endowment payout is a relatively small percentage of the operating budget (e.g., 10 percent or less) can generally take on more equity risk as a severe short- to medium-term decline is less likely to disproportionately impact the institution's operating budget. Conversely, institutions that have a higher percentage of their operating budget funded from the endowment should carefully consider the aggregate amount of portfolio risk they can afford to take on in order to protect against large cuts in the operating budget due to severe declines in equity markets.

While the percentage of the operating budget represented by the endowment payout is one of the key variables fiduciaries should consider when determining how much aggregate portfolio risk is appropriate, there are other critical factors, such as the spending policy, the level of and fluctuations in gifts, the reliance on government grants, the sensitivity of the institution's credit rating to changes in the endowment value, the aggregate amount of debt the institution maintains, and expected capital expenditures, among other considerations. All of these factors, plus the investment committee's comfort with risk and illiquidity, must be carefully considered when determining the optimal asset allocation.

Endowment spending policies

Investment committees generally attempt to target a spending rate that allows the corpus of the endowment to remain intact on an inflation-adjusted basis over long periods of time. This approach balances the need to provide current dollars for today's beneficiaries and inflation-adjusted dollars for future beneficiaries. In order to maintain the inflation-adjusted value of the endowment over long periods of time, spending should not exceed the endowment's nominal returns less experienced inflation. In order to achieve their targeted nominal returns, most institutions must allocate a significant amount of their endowment portfolios to higher returning equity asset classes. The volatility of these equity asset classes inevitably leads to fluctuations in endowment spending levels from year to year. The methodology for calculating spending can help mitigate the impact of equity market fluctuations on spending and therefore on the operating budget. Broadly speaking, there are three main approaches to calculating endowment spending:

- Percentage of a moving average of the endowment's market value
- Fixed dollar amount that is adjusted each year by an inflation rate but bounded by upper and lower bands that are calculated as a percentage of the endowment's market value
- Hybrid approach that combines elements of the first two approaches

75% of endowments employ a **moving average** spending rate methodology.

20% of larger institutions use **a hybrid approach**.

Spending policy* for fiscal year 2018

	Total institutions	Over $1 billion	$501 million-$1 billion	$251-$500 million	$101-$250 million	$51-$100 million	$25-$50 million	Under $25 million
Total institutions	802	104	85	88	195	154	103	73
Spend all current income	2.0%	1.0%	1.0%	2.0%	2.0%	2.0%	2.0%	7.0%
Spend a percentage of a moving average of the endowment's market value	75.0%	51.0%	60.0%	75.0%	83.0%	85.0%	84.0%	67.0%
Average percentage	4.6%	4.6%	4.6%	4.5%	4.7%	4.7%	4.6%	4.7%
Spend a pre-specified percentage of beginning year market value	2.0%	0.0%	1.0%	1.0%	2.0%	5.0%	0.0%	8.0%
Average pre-specified percentage spent	4.5%	N/A	5.0%	5.0%	4.1%	4.5%	N/A	4.5%
Grow last year's spending amount at a predetermined rate with upper and lower bands	4.0%	11.0%	12.0%	3.0%	2.0%	2.0%	0.0%	1.0%
Use a weighted-average or hybrid method	9.0%	21.0%	20.0%	8.0%	9.0%	3.0%	6.0%	1.0%
Decide on an appropriate rate or dollar amount each year	7.0%	5.0%	5.0%	6.0%	5.0%	8.0%	11.0%	11.0%
Other	10.0%	16.0%	11.0%	14.0%	7.0%	7.0%	7.0%	14.0%

*multiple responses allowed

The moving average approach continues to be the dominant method for calculating spending across all size cohorts. This year, 75 percent of respondents used a moving average of the endowment's market value with the vast majority using an averaging period of either 12 quarters or three years. The moving average approach seeks to soften the impact of volatile markets on each year's spending by averaging the endowment's market value over time.

Spending policy percentage of moving average time period for fiscal year 2018

	Total institutions	Over $1 billion	$501 million-$1 billion	$251-$500 million	$101-$250 million	$51-$100 million	$25-$50 million	Under $25 million
Responding institutions	599	53	51	66	162	131	87	49
12 quarters	44%	38%	35%	41%	49%	50%	40%	39%
16 quarters	3%	2%	2%	4%	2%	3%	0%	6%
20 quarters	11%	13%	8%	17%	10%	9%	9%	10%
3 years	29%	17%	35%	18%	30%	26%	38%	37%
5 years	7%	11%	14%	12%	3%	8%	6%	6%
Other	6%	17%	6%	8%	5%	4%	6%	2%
No answer	0%	2%	0%	0%	1%	0%	1%	0%

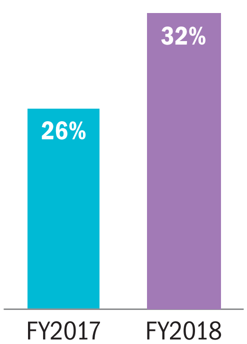
Spending based on an adjusted fixed amount that grows over time at a rate tied to inflation within upper and lower bands was used by only 4 percent of respondents, although it is used more frequently among institutions in the two largest cohorts. An example of this approach would be to take a beginning spending dollar amount, grow it annually by the CPI, and then adjust the amount down annually if it exceeds 6 percent of the endowment's average market value; or adjust the amount annually if it falls below 3 percent of the endowment's average market value. The merit of this approach is that it tends to produce a more stable dollar payout over time as the spending does not directly fluctuate with the performance of volatile markets. In addition, during periods of strong markets, it can effectively transition an institution's spending rate to a lower percentage of the endowment's value, which results in a more sustainable payout level in the event of lower future capital market returns. Because the payout amount translates into a smaller payout rate over long periods of time, it can also lead to a higher inflation-adjusted value of the endowment which translates into higher payout amounts. In contrast, during extended bull markets, the moving average approach translates into higher spending as the endowment value grows with the market—albeit on a lagged basis. When markets fall, however, the absolute level of spending is then more vulnerable to large declines, which can be disruptive to institutions' operating budgets.

The hybrid approach, which calculates spending based on a combination of the moving-average approach and the adjusted fixed amount approach, was used by only 9 percent of respondents. Again, the two largest cohorts by asset size make greater use of this spending method. The adjusted fixed amount approach and the hybrid approach are used by 13 percent of all respondents and 32 percent of the $1 billion-plus cohort. Institutions using the moving average approach might want to investigate whether either of these two alternative spending approaches would be a better fit for their needs, especially if lower absolute levels of endowment spending caused by extended declines in equity markets would be disruptive to their operating budgets.

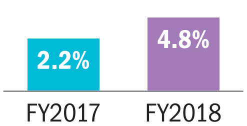
Special appropriations

During FY2018 material increases were reported in both the number of institutions using special appropriations and the actual expenditures.

Made special appropriations



Percentage above spending rate



Noteworthy this year is the increase in the number of institutions making special appropriations from their endowments. Special appropriations, or those withdrawals which were drawn for extraordinary needs in excess of the endowment draw, are used for a range of purposes. For FY2018, 32 percent of respondents made special appropriations versus 26 percent in FY2017. The percentage above the spending rate represented by the special appropriations more than doubled to 4.8 percent this year from 2.2 percent in FY2017. Over time, there has been a significant increase in the proportion of Study participants making special appropriations; just 18 percent of respondents made special appropriations in FY2009. The increases observed since 2009 were reported across sized cohorts.

Of the 32 percent reporting FY2018 special appropriations, the major purposes noted were:

- 45 percent in support of the operating budget
- 15 percent to capital campaign costs
- 15 percent applied to campus improvements
- 11 percent to administrative fees
- 9 percent allocated for student aid
- 8 percent to debt service
- 22 percent allocated across various other areas

Importantly, the primary uses of the special appropriations have shifted over time. In FY2009, respondents noted that the majority of the additional funding was used for capital campaign costs or to support operating budgets.

Special appropriations to spending in fiscal year 2018

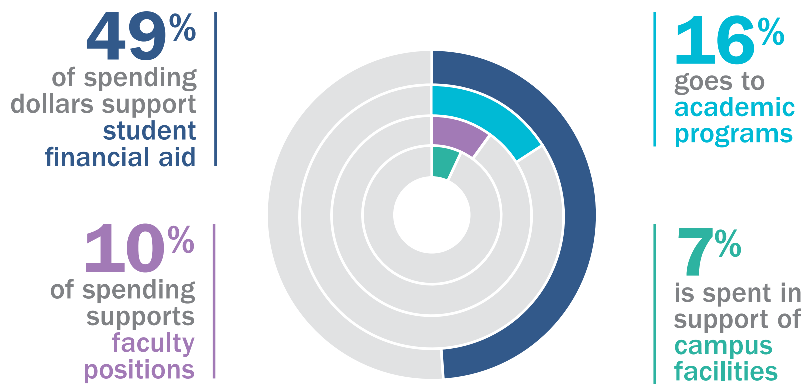
	Total institutions	Over $1 billion	$501 million-$1 billion	$251-$500 million	$101-$250 million	$51-$100 million	$25-$50 million	Under $25 million
Total institutions	802	104	85	88	195	154	103	73
Made special appropriations	32.0%	37.0%	26.0%	38.0%	36.0%	32.0%	27.0%	15.0%
Percentage above spending rate represented by special appropriations	4.8%	1.8%	6.1%	3.9%	5.4%	4.1%	4.2%	14.8%
Where special appropriations were made*								
Capital campaign costs	15.0%	34.0%	9.0%	30.0%	4.0%	16.0%	7.0%	0.0%
Campus or facility improvements	15.0%	13.0%	23.0%	15.0%	24.0%	8.0%	4.0%	0.0%
Debt service	8.0%	5.0%	9.0%	12.0%	10.0%	8.0%	4.0%	9.0%
Financial aid	9.0%	11.0%	5.0%	9.0%	11.0%	6.0%	14.0%	0.0%
Support operating budget	45.0%	32.0%	50.0%	45.0%	49.0%	46.0%	43.0%	64.0%
Administration and other fees	11.0%	21.0%	9.0%	12.0%	4.0%	16.0%	7.0%	18.0%
Other	22.0%	26.0%	23.0%	21.0%	23.0%	14.0%	32.0%	9.0%

*multiple responses allowed

Where endowment dollars go

The distribution of spending clearly demonstrates the overwhelming commitment institutions have to using endowments to support their students. Nearly two-thirds of endowment dollars are spent for the benefit of students. Student financial aid is by far the largest beneficiary making up 49 percent of overall spending, with an additional 16 percent spent in support of academic programs.

In addition to these major spending categories, about 18 percent of endowment dollars are used to fund a wide variety of other functions, such as hospital operations and patient health care, community and public services, etc.



Spending distribution by function

	Total institutions	Over $1 billion	$501 million-$1 billion	$251-$500 million	$101-$250 million	$51-$100 million	$25-$50 million	Under $25 million
Responding institutions	595	54	52	65	158	123	85	58
Student financial aid	49%	30%	34%	40%	49%	50%	64%	65%
Endowment faculty positions	10%	19%	14%	13%	11%	8%	5%	5%
Operation and maintenance of campus facilities	7%	5%	7%	6%	7%	11%	6%	5%
Academic programs	16%	22%	17%	17%	16%	16%	12%	12%
All other purposes	18%	24%	28%	24%	17%	15%	13%	13%

As seen in the table above, institutions with larger endowments spend a somewhat lower percentage of their total endowment dollars on student financial aid than those with smaller endowments. This occurs because large endowed institutions tend to have a greater number of endowments devoted to hospitals/health care, faculty research, and other mission-critical operations.

Insight

Enterprise approach to endowment management

Managing and overseeing an endowment is a complex task. Too often, endowments are managed solely with the objective of maximizing long-term real return with all of the focus on asset allocation, manager selection and spending policy. While these tasks are critical, they do not take into consideration the institution's key strategic goals and financial metrics. Important factors such as the institution's reliance on endowment spending, the overall health of its balance sheet, expected capital spending, and future fundraising tend not to be integrated into the analysis, creating a potential disconnect between the management of the endowment and critical institutional objectives.

Helping to ensure the sustainability of your institution

In higher education today, it is important for institutions to adopt an integrated, total enterprise approach to endowment management that closely aligns the investment strategy of the endowment with the institution's financial and operating profile.

Adopting an enterprise approach to endowment management can drive financial sustainability and help an institution achieve its long-term goals by ensuring optimal management of the endowment. This approach involves not only understanding the economic and financial operating profile of the institution, but also incorporating key strategic and financial metrics into the analytical process.

Key questions for managing your endowment on an integrated basis

The following questions are important to consider when framing an integrated analysis:

- What are your institution's long-term strategic goals and objectives?
- What is the make-up of your institution's operating profile and what are the primary sources of annual income and expenses?
- How flexible is the annual budget?
- What percentage of the institution's total annual income comes from endowment spending?
- What impact would an extended decline in your endowment's value have on your institution's credit ratings and long-term debt costs?
- How did your institution and your endowment portfolio fare during the 2008 downturn?
- How reliant is the operating budget on net tuition revenue?
- How reliant is the operating budget on annual donations and is there a capital campaign in progress or planned?
- How consistent are your fundraising efforts? Can you rely on existing fundraising projections?
- Have portfolio volatility, drawdowns, or liquidity challenges impacted your investment processes, spending, asset allocation, or other endowment policies?

Your institution's revenue profile and endowment

When quantifying the risks associated with the endowment, it is important to consider the institution's overall operating results, including all sources and uses of funds. While the institution's endowment spending is often the primary focus of the investment committee and finance staff, other sources of revenue are potentially a more important factor in assessing risk. Net tuition, room and board, and associated fees typically represent the largest revenue source, and naturally attract a great deal of focus. There are other important sources of revenue over which the institution has less control including government grants, donations and gifts, and income from sales or services. The endowment, and the income it provides, can help mitigate potential shortfalls and volatility in these other revenue streams.

In an ideal situation, universities benefit from stable to rising enrollment and predictable increases in tuition that are both affordable to students and sufficient to cover rising operating costs. When this is not the case, short- and long-term risk to the institution's financial health increases. In addition, reliance on gifts as an essential source of revenue is usually adversely affected during equity market corrections. Gifts also tend to lag during market recoveries, placing greater pressure on other revenue sources including the endowment. Institutions with properly structured and invested endowments should be in a better place to weather volatility in their other sources of revenue.

Most endowment spending policy analyses focus on the absolute level of income that the endowment will generate for a given level of return and risk; however, this represents only part of the equation. The first step is to determine how much of the institution's annual revenue comes from the endowment.

Your institution's balance sheet profile and endowment

Assessing risk also requires understanding an institution's assets and liabilities. As with the revenue analysis, the value of the endowment as a percentage of the university's balance sheet can be an important risk factor. It is also important to consider the overall debt level, the weighted-average interest rate, and the potential trend in the institution's debt and interest rate burden. More leverage coupled with higher interest rates could result in a negative impact to the university's credit rating and debt covenants should there be a downturn in revenues supporting the debt.

Enterprise approach to endowment management: the benefits

The preceding revenue and balance sheet metrics represent just two areas of focus. In order to fully understand the institution's total risk, planned capital spending, fundraising efforts and capital campaigns, refinancing opportunities, and revenue and expenses should all be factored into the integrated analysis. The potential benefits of this approach to the endowment and the institution it supports include:

- Ensuring that the endowment is being used in the most productive way for the benefit of the institution
- Quantifying the risks to the institution's financial profile that result from the endowment's investment strategy
- Providing a framework for managing the endowment that optimizes the long-term sustainability of the institution

Today, it is important for trustees, chief business officers, investment committee members and finance staff to have a clear picture of whether the endowment is taking on too much risk or not enough—and to fully understand the implications to the institution of their choices. As institutional leaders, they have an opportunity and an obligation to engage with stakeholders to ensure the long-term sustainability of the institution.