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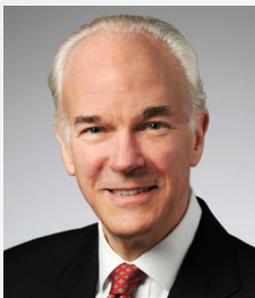
Spending practices for perpetual funds

by William F. Jarvis, Managing Director

GOVERNING INTELLIGENCE

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It is often said that endowed nonprofit institutions desire to receive a constant, and ideally constantly growing, stream of financial support from the endowment for their operating budget. Yet this simple formulation leaves unstated a host of important qualifications and considerations, not least among which are the purpose of the endowment, its role in supporting the mission of the institution, and the amount of support that is sustainable over the long term.

In this paper, we describe the nature of endowment distributions and argue for the adoption of spending policies that make possible budgetary consistency and a dependable flow of funds to the institution's mission. We then review the most widely used spending methodologies and outline their key characteristics. Finally, we provide guidance for fiduciaries who may be considering a change from one spending method to another.

The strategic nature of endowment distributions

Spending and intergenerational equity: Viewed from a purely tactical level, endowment spending can seem simple: An institution's fiduciaries determine the amount to be withdrawn from the endowment for a given year, and the staff or financial advisors proceed to implement that decision. But the policies, formulas and methodologies that permeate the endowment spending decision bear on issues that are highly strategic for the institution, its stakeholders (including beneficiaries, donors and the broader community) and its long-term sustainability.

Consideration of endowment spending begins with the purpose of the endowment itself. While private foundations are generally formed from one or a series of gifts from a single donor or family intended to support a specific set of charitable goals or purposes, most other types of nonprofit endowment comprise numerous individual funds given by different donors at different times to support what can be a wide variety of mission-related goals. In the majority of cases, these gifts are intended by their donors to be perpetual—that is, they are not to be spent in their entirety but are instead to be invested and a portion spent for the charitable purpose for which the donor created

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the fund. In those relatively uncommon cases where a donor has created an endowed fund without restrictions, withdrawals are nevertheless required to be used for purposes related to the mission of the institution.

Unless the donor has specifically stated in a written instrument that the gift may be spent in its entirety, the law governing donor-restricted endowments voices a strong presumption that the fiduciaries who oversee the endowment will, in addition to making distributions that accord with the donor's intentions, use their reasonable best efforts to preserve the purchasing power of the fund after spending, inflation and costs over multiple market cycles. The commentary to the Uniform Prudent Management of Institutional Funds Act (UPMIFA), which governs investing, spending and delegation of fiduciary duty for most types of endowment fund in 49 states, the District of Columbia and the U.S. Virgin Islands,¹ specifically contemplates that

the charity will act to preserve "principal" (i.e., to maintain the purchasing power of the amounts contributed to the fund) while spending "income" (i.e., making a distribution each year that represents a reasonable spending rate, given investment performance and general economic conditions).²

Thus, the fiduciaries must find a principled way to balance the mission-related needs of the present with the equally valid needs of the unknowable future. This is the purpose to which most spending rules and formulas aspire: to maintain equity among generations.³

Spending and volatility: It is unavoidable that investment returns, even for well-diversified endowments, will vary from year to year. Should the endowment distribution mirror that volatility, or should the spending formula make some attempt to mitigate it? For institutions where the endowment distribution constitutes only a small portion of the operating budget—buying things that are "nice to have" but not important or essential—it may be easier simply to pass on the volatility of the endowment's investment returns, taking a set percentage of the asset value each year. It may even be deemed desirable, for these institutions, to forego a distribution in years when the endowment returns are negative.

On the other hand, institutions where the endowment is an important contributor to the operating budget, or that have multiyear, mission-related commitments to consider, will desire a less-volatile distribution pattern. Examples of such commitments might be foundation grants that extend over a period of years, long-term research budgets for academic departments, or the fixed costs of operating an arts organization or museum. Here, a number of alternatives present themselves, depending on whether the fiduciaries determine that the primary burden of volatility should be borne by the operating budget or by the endowment itself.

As we turn now to an examination of the major spending rules in current use, we will see that they exhibit a range of characteristics along this spectrum.

Analysis of spending rules

Basic rules: The four rules described in this section are easy to use; the amount that they make available for distribution will, however, vary from year to year. The following table provides data from recent surveys indicating the percentage of colleges and universities, private foundations and community foundations that use each method.

Spend all current income: This rule embodies the spending concept that was once the universal rule for trusts, namely that "income," generally defined as interest, dividends, rents and royalties, constituted the funds available for distribution to beneficiaries. As the table shows, it is still used by between 0% and 3% of institutions overall. Viewed in more detail in the full report, however, it appears that there is some variation within that average, particularly for educational institutions, where 6% of smaller college and university endowments with assets under \$25 million use this rule.⁴ Implied in the use of the income rule is the traditional trust assumption that the original nominal amount donated—the "principal" or "corpus"—should not be spent. In the present interest rate environment, this rule is likely to lead to a spending rate of between 3% and 4% each year, depending on the securities held—a rate somewhat lower, as we shall see, than that achieved by other spending methodologies. The amount available for distribution will also, obviously, vary depending on the payments received.

Use of four basic spending rules by colleges and universities, private foundations and community foundations

Numbers in percent (%)	Colleges and Universities	Private Foundations	Community Foundations
Total institutions	809	143	81
Spend all current income	3	1	2
Decide on appropriate rate each year	9	24	4
Spend pre-specified percentage of beginning market value	2	4	6
Average pre-specified percentage spent	4.6	4.8	4.3
Meet IRS minimum of five percent	**	73	4

Source: 2017 NACUBO-Commonfund Study of Endowments (colleges and universities); 2017 Council on Foundations-Commonfund Study of Investments for Private and Community Foundations (private foundations, community foundations). Fiscal years for colleges and universities typically run from July 1–June 30; fiscal years for foundations typically run from January 1–December 31.

**Sample size too small to analyze.

Decide on an appropriate rate each year: This rule is used by fewer than one in 10 educational institutions and one in 20 community foundations overall, but by nearly one-quarter of private foundations. Within these groups, however, its use varies considerably. The full reports show that among colleges and universities, just 2% of those with assets between \$501 million and \$1 billion use this rule, but usage by institutions with assets under \$100 million is higher, at between 10%–12%. Among community foundations, a similar pattern obtains, with no use of this rule reported by larger community foundations with assets over \$500 million but 8% of community foundations with assets between \$101 million and \$500 million using it.⁵

Among private foundations, on the other hand, it is relatively common to decide on an appropriate spending rate each year, with 20%–22% of private foundations with assets over \$101 million using it and fully 32% of private foundations with assets under \$101 million using this rule.⁶

From this pattern, we may infer that, like the income spending method, this rule is primarily used by institutions that do not require consistent spending in dollar terms from year to year. In particular, smaller private foundations, which may perhaps have been established and managed by a single family, may

prefer to see what the market delivers and then spend what the Board deems to be an appropriate amount—consistent, of course, with meeting the 5% average minimum spending required by Internal Revenue Service regulations.

Spend a pre-specified percentage of beginning market value: Under this rule, the institution takes the market value of the endowment at the beginning of the fiscal year in question and applies a policy spending percentage to that amount. This method is used by a negligible 2% of educational institutions overall, but by 6% of those with assets between \$25 million and \$50 million, where the average policy rate is 4.5%.⁷ Among foundations, this method is used by 4% of private foundations and 6% of community foundations overall, but for foundations with assets under \$101 million, its use is somewhat higher, at 5% of private foundations and 9% of community foundations.⁸ Again, the amount spent will vary from year to year depending on the market value of the endowment.

Meet IRS minimum of 5%: As might be expected, this rule is cited by an overwhelming 73% of private foundations but by virtually no other type of nonprofit.⁹ Its use must be viewed in combination with the moving-average rule, which, as we discuss in the next section, is used by a significant percentage of nonprofits, including private foundations.

For those private foundations that do not use a method such as the moving-average rule to smooth the amount distributed from year to year, the 5% minimum may be a starting point from which they can decide to spend more, depending on the market environment or the needs of their beneficiaries. For others, it may be a simple rule that they honor each year without attempting to spend more, perhaps recognizing the difficulty over the long term of maintaining the purchasing power of their endowments in the absence of new cash inflows.

These four basic methods have in common two characteristics: They do not seek to provide equal funding to multiyear obligations, and they are highly sensitive to interest rates, dividend levels and annual market returns, among other factors. For this reason, as we have noted, they tend to be used more by institutions such as colleges and universities with smaller endowments that may be less dependent on endowment distributions for support of their operating budgets and by foundations for which year-to-year consistency in dollar distributions may not be a priority.

Moving-average rule

This rule attempts to dampen the year-to-year volatility in dollar distributions that characterizes the four basic rules we have just analyzed. It is in very wide use, with nearly three-quarters of educational institutions and 78% of community foundations employing it in some form. Even among private foundations, as we have noted, it is used by over one-third of institutions, in coordination with the IRS 5% minimum spending requirement.¹⁰

In its most widely used form, the rule works by taking an average of the market value of the endowment at the ending of the last three years or 12 quarters. To this value is applied the policy spending rate, which averages 4.7% for educational institutions and 4.6% for community foundations, but 5.2% (i.e., above the IRS minimum) for those private foundations that use this rule.¹¹ Anecdotally, the three-year/12-quarter period appears to be the one used most frequently, by around two-thirds of institutions that employ this rule. Less frequently, the averaging period is five years or 20 quarters. A much smaller group of institutions use seven years, and a few use 10 years or some other custom-designed time period.

Use of the moving-average spending rule by colleges and universities, private foundations and community foundations

Numbers in percent (%)	Colleges and Universities	Private Foundations	Community Foundations
Total institutions	809	143	81
Percentage of a moving average	73	36	78
Average percentage	4.7	5.2	4.6

Source: 2017 NACUBO-Commonfund Study of Endowments (colleges and universities); 2017 Council on Foundations-Commonfund Study of Investments for Private and Community Foundations (private foundations, community foundations). Fiscal years for colleges and universities typically run from July 1 – June 30; fiscal years for foundations typically run from January 1 – December 31.

Percentage of a moving average:

Amount to be spent in Year Y = $pr\% \times (\text{average } (Y_1, Y_2, Y_3))$

Where:

$pr\%$ = the policy spending rate to be applied and
 $(\text{average } (Y_1, Y_2, Y_3))$ = the arithmetic average of the market values of the endowment at the beginning of the three most recent fiscal years

The advantages of a smoothing method can readily be appreciated, but when shorter averaging periods are used, the rule may not be particularly effective in dampening volatility in the amount appropriated each year. The use of longer smoothing periods such as five or even 10 years does impart greater stability; counterbalancing this benefit, however, is the fact that, by definition, annual market returns remain in the averaging formula for a longer period. Thus, for example, the high returns associated with a market peak will remain in the calculation longer, possibly leading to unsustainably high spending in subsequent years. Similarly, the low returns or losses associated with a market decline may depress spending even though a robust recovery may be under way.

This contrary set of results, as may be imagined, can lead to strains in the policy and governance process for those endowments that use this method. Anecdotal evidence suggests that, when adherence to the rule demands cuts in dollar spending, many fiduciaries choose not to follow it. This can be the case, in particular, when a market decline has been accompanied by an economic recession that creates greater need in the constituencies served by the institution.

It is for these reasons that institutions that cannot tolerate volatility in endowment spending from year to year do not use the moving-average method with the same frequency as those that are less reliant on endowment support. The rules to which we now turn are designed to provide the more-reliable spending stream that these institutions seek.

Inflation-based and hybrid rules

The remaining three rules in general use aim for a higher degree of stability in the amount of budgetary support provided by the endowment each year. To achieve this goal, they take a different approach to the calculation of the spending amount than the other rules we have examined. For the inflation-based and hybrid rules, the market value of the endowment is not the primary element considered in calculating the amount to be distributed. Instead, these rules look first to the dollars spent in the previous year and then make an adjustment to account for inflation (or, in rare cases, deflation), in order to ensure that the distribution can provide the same support to the institution's mission from year to year. The inflation measure used is generally either the Consumer Price Index (CPI) or the Higher Education Price Index (HEPI), a specialized inflation measure that parallels more closely the cost structure of colleges and universities—and, indeed, of many other types of nonprofits as well. Less often, a specific proxy inflation rate (e.g., 4%) may be chosen, or a moving average of several year's inflation indices may be used.

Grow distribution at a predetermined inflation rate:

The mechanics for this rule are straightforward: The amount spent in the previous year is increased by the chosen inflation measure to determine the distribution for the current year. This rule has the benefit of simplicity, but it does leave the institution open to the risk that, in a high-inflation environment, the endowment's investment returns might be lower than the inflation rate. In this situation, the endowment could, while satisfying its goal of maintaining budgetary support, fail in the equally important goal of maintaining its real or even nominal value over time. This simple version of the inflation-based rule thus exposes the endowment to the possibility of a longer-term loss of purchasing power that could, in time, imperil its ability to support the institutional budget to the degree desired.

Grow distribution at a predetermined inflation rate:

Amount to be spent in Year Y = Dollar amount spent in year $Y_{-1} \times (1 + \text{inflation rate for year } Y_{-1})$

Last year's spending plus inflation with upper and lower bands: This "banded inflation" rule addresses the risks of the simpler inflation rule by imposing a cap and a floor on the amount to be spent. For this rule, spending is calculated by adjusting the previous year's spending for inflation, as above, but the rule also limits the amount spent, for example, to no less than 3% nor more than 6% of the endowment's market value at the beginning of the year (or a moving average of that value).

Last year's spending plus inflation with upper and lower bands ("banded inflation"):

Amount to be spent in Year Y = Dollar amount spent in year $Y_{-1} \times (1 + \text{inflation rate for year } Y_{-1})$, where:

Dollar amount spent in year $Y_{-1} \times (1 + \text{inflation rate for year } Y_{-1})$

$\geq 3\% \times (\text{market value of the endowment at the beginning of Year } Y_{-1})$ and

$\leq 6\% \times (\text{market value of the endowment at the beginning of Year } Y_{-1})$

Weighted average or hybrid method (Yale/Stanford rule):

This rule combines the characteristics of the banded inflation and moving average methods, imparting much of the stability that is a main benefit of the inflation-based rules while honoring the fact that market values can indeed matter to an endowment, at least over the medium term. A typical calculation of this rule might be to give a 70% weighting to the banded inflation method and a 30% weighting to the moving average method.

Weighted average or hybrid method (Yale/Stanford rule):

Amount to be spent in Year Y =

$.7 \times [\text{Dollar amount spent in year } Y_{-1} \times (1 + \text{inflation rate for year } Y_{-1})] +$

$.3 \times [\text{pr}\% \times \text{market value of the endowment at the beginning of the most recent fiscal year}]$, where

pr% = the policy spending rate to be applied

Application and characteristics of the banded inflation and hybrid rules: As the table below shows, inflation-based rules are employed more frequently by colleges and universities and community foundations than by private foundations. Even among these institutions, however, only a total of 15% of colleges and universities and 11% of community foundations use one of the inflation-based rules.

Among community foundations, there is no clear usage pattern of inflation-based spending rules when viewed by foundation size. When we examine the college and university group more closely, however, it becomes apparent that the main users of these rules are larger institutions—those with assets over \$500 million—that are also more dependent upon distributions from their endowments to balance their operating budgets. Among these institutions, around one-third use one of the inflation-based methods.

The reason for this preference is not difficult to discern. The main benefit that the inflation-based methods confer is greater year-to-year stability in the dollar amount withdrawn from the endowment to support the operating budget. Unlike the other methods discussed in this paper, the inflation-based methods tend to sever—or at least to attenuate—the relationship between the market value of the endowment and the amount withdrawn for spending. Properly implemented, these rules can support stronger expense control and facilitate multiyear planning and budgeting. In large research institutions of higher learning, where projects can require a long trajectory of investment before bearing fruit, this type of spending rule can be very supportive of the institution's need to avoid volatility in the dollar amount provided to these important activities from year to year.

An important caveat to the banded inflation and hybrid methods is that the cap and floor—the maximum and minimum asset value that must be spent in each year—must be sufficiently widely spread that they will be only rarely invoked. A cap of 6% and a floor of 3% of asset values—sometimes adjusted by one of the smoothing rules—are commonly used. The floor would be used in a situation where the market value of the endowment rises much faster than inflation for a sustained period. This is unlikely to occur, but if it does, the floor at least guarantees that the endowment will participate in some of the endowment's capital appreciation.

As for the cap, it is invoked in the opposite situation—one in which the endowment’s market value declines sharply over a multiyear period. In this situation, although absolute spending appropriations may decline from year to year, at least spending as a percentage of the endowment remains relatively robust.

A key consideration for institutions contemplating a change to one of the inflation-based methods is that of setting an initial dollar spending amount that is sustainable. This is particularly important for an institution that has been using a three-year or 12-quarter moving-average method in a period of rising

asset values where, as we have noted, the compounding of unspent amounts into the base used for calculating the following year’s spending may lead to unsustainably high distributions. If the institution begins using the banded inflation or hybrid method at this point, it exposes itself to the risk that, when market returns decline, it may find itself with an effective spending rate¹² that is unsustainably high. For this reason, an initial distribution rate on the low side—around 4% of asset values—may prove to be more sustainable over time, although some initial adjustments to spending may be required to reach that level.

Use of inflation-based and hybrid spending rules by colleges and universities, private foundations and community foundations

Numbers in percent (%)	Colleges and Universities	Private Foundations	Community Foundations
Total institutions	809	143	81
Grow distribution at predetermined inflation rate	1	0	0
Last year’s spending plus inflation with upper and lower bands	5	1	2
Weighted average or hybrid method (Yale/Stanford rule)	9	0	9

Source: 2017 NACUBO-Commonfund Study of Endowments (colleges and universities); 2017 Council on Foundations-Commonfund Study of Investments for Private and Community Foundations (private foundations, community foundations). Fiscal years for colleges and universities typically run from July 1 – June 30; fiscal years for foundations typically run from January 1 – December 31.

Endowment dependence and use of inflation-based and hybrid spending rules by colleges and universities

Numbers in percent (%)	Total Institutions	Over \$1 Billion	\$500 Million – \$1 Billion	\$101 – \$500 Million	\$51 – \$100 Million	\$25 – \$50 Million	Under \$25 Million
Total Institutions	809	97	82	275	157	113	85
Average percentage of operating budget funded by endowment	7.9	12.1	11.1	8.0	6.2	7.3	3.5
Grow distribution at predetermined inflation rate	1	0	4	**	0	1	0
Last year’s spending plus inflation with upper and lower bands	5	12	15	3	2	0	4
Weighted average or hybrid method (Yale/Stanford rule)	9	21	13	9	4	5	4

Source: 2017 NACUBO-Commonfund Study of Endowments. Fiscal years for colleges and universities typically run from July 1 – June 30.

** Sample size too small to analyze.

Spending Methodologies and Governance

From our review of the principal spending methodologies, it can readily be seen that spending is intimately involved with the governance of the institution. In fact, not infrequently crises of over- or underspending, or of investment returns that are perceived as insufficient to support a desired level of spending, can be traced to inadequacies or failures of governance at the institutional level.

Contemporary law governing investments for perpetual donor-restricted funds, including the Uniform Prudent Investor Act, the Uniform Prudent Management of Institutional Funds Act and modern interpretations of trust law, requires that fiduciaries undertake to balance the pressing needs of current beneficiaries with the equally valid needs of those future beneficiaries who have no voice or are yet unborn. Choosing and maintaining a spending rate and methodology that support these twin goals is one of the first duties of fiduciaries, inseparable from equally important considerations of risk, desired return and the liquidity of the investment portfolio.

With this in mind, we propose that the following issues be considered when choosing a spending methodology:

- **How important are distributions from the endowment to the institution's operating budget?** For institutions where income from sources such as tuition, membership and other fees, grants and annual gifts forms a large proportion of revenue, the contribution from the endowment may be viewed as relatively negligible. In this case, where the endowment distribution purchases items that are beneficial but not necessary to the operation of the institution, and where volatility in the amount of the distribution from year to year is accepted by the fiduciaries, one of the basic rules may be sufficient. As reliance on the endowment increases, the institution's ability to tolerate volatility in the distribution may decrease, requiring consideration of one of the moving-average, inflation-based or hybrid methods.
- **How important is it to grow the endowment from within rather than from external gifts?** For some institutions, endowment giving can be a major source of growth, supplementing or, in the case of major capital campaigns, sometimes even surpassing growth from

investment returns. For others, however, the goal of maintaining the purchasing power of the endowment into perpetuity must be met mainly or completely from investment returns. Here, a lower overall spending rate may assist in achieving this goal, enabling a sufficient amount to be retained each year to promote compounding of value in the endowment.

In this regard, private foundations, which typically do not raise additional funds from outside sources, are a special case, required as they are to distribute an average of 5% of their assets each year in addition to paying an excise tax. Here, maintaining the purchasing power of the endowment may be extremely challenging. Use of a smoothing rule, while observing the 5% minimum, may at least enable the private foundation to keep withdrawals relatively level and mitigate some of the impact on the endowment's value, compared with a simple rule in which volatility is ignored.

- **What is the institution's desired level of liquidity for the portfolio?** For many institutions, a high degree of portfolio liquidity—the ability to sell assets in listed markets at or near the posted market price—is a strong preference. For these traditional and relatively undiversified portfolios, the accompanying additional volatility in investment returns is balanced by the assumption that assets can be turned into cash with relative ease. These institutions may correspondingly also be able to tolerate volatility in the amount distributed from the endowment from year to year, since an increased level of withdrawal should not—in normal markets—require extraordinary measures.

For institutions that seek the potential for excess return and a dampening of volatility through portfolio diversification, including the use of less-liquid investment strategies, volatility in the annual withdrawal from the endowment may be highly undesirable or impractical, since for some of these strategies there is only a limited secondary market (if any) and early liquidation, when it is possible, can come with a significant discount from the price at which the asset is held on the books of the institution. These institutions may want to use a moving-average rule with a longer smoothing period or an inflation-based or hybrid rule in order to achieve a greater degree of predictability and avoid a conflict between the distributions required by the spending formula and the liquidity profile of the endowment.

Conclusion

Spending stands at the intersection between investment policy and institutional sustainability, and to a large measure governs the success of both. Unlike investment results, spending can in some measure be controlled, even for private foundations where the 5% minimum represents an average and smoothing methods are available and widely used. In the investment environment that prevailed from 2009 through 2016, prudent spending practices had the potential to make the difference between continued mission support and required retrenchment, as some institutions found that overspending in the recession made it very difficult to recoup endowment value in the low-return investment regime that followed. For this reason, spending policy is strategic rather than tactical, and deserves annual review and a place in the written investment policy statement.

Investment regimes come and go, but endowments need to be designed and run for perpetuity. A strong and appropriately considered spending policy can increase the likelihood of success in this important part of an institution's mission.

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¹ Pennsylvania's treatment of endowments is based on its State Law 141 and the standards set forth in the Uniform Prudent Investor Act (UPIA), which has been interpreted by courts to support the concept of maintenance of purchasing power. Puerto Rico's Trust Act of 2012 also incorporates the UPIA language and standards. For endowment funds in trust form where the trustee is not itself a charity (e.g., trusts with a corporate trustee), UPMIFA by its terms does not apply and UPIA is the governing law.

² Uniform Prudent Management of Institutional Funds Act, § 4 Comment, p. 21. http://www.uniformlaws.org/shared/docs/prudent%20mgt%20of%20institutional%20funds/upmifa_final_06.pdf.

³ This concept of intergenerational equity was most memorably stated by the Nobel Prize-winning Yale economist James Tobin: "The trustees of an endowed institution are the guardians of the future against the claims of the present. Their task is to preserve equity among generations." Tobin, "What is Permanent Endowment Income?", *The American Economic Review*, Vol. 64, No. 2 (May, 1974), pp. 427-432.

⁴ 2017 NACUBO-Commonfund Study of Endowments, Fig. 5.4.

⁵ 2017 Council on Foundations-Commonfund Study of Investments for Private and Community Foundations, Fig. 5.4.

⁶ *Ibid.*

⁷ 2017 NACUBO-Commonfund Study of Endowments, Fig. 5.4.

⁸ 2017 Council on Foundations-Commonfund Study of Investments for Private and Community Foundations, Fig. 5.4.

⁹ 2017 NACUBO-Commonfund Study of Endowments, Fig. 5.4; 2017 Council on Foundations-Commonfund Study of Investments for Private and Community Foundations, Fig. 5.4.

¹⁰ *Ibid.*

¹¹ *Ibid.*

¹² The effective spending rate is calculated by dividing the dollar amount spent in a given year by the endowment value at the beginning of that year. For example, an institution that has a beginning endowment value of \$100mm and spends \$5mm has a spending rate of 5/100, or five percent.

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