

How Private Foundation Sophistication Affects Capital Campaign Grant Decisions

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ABSTRACT: We examine how charity financial information related to efficiency and financial vulnerability is used by private foundations in determining how much they grant to charities during capital campaigns. In general, private foundations are likely to be better able to evaluate charity financial information because they are sophisticated donors. They have the incentive to incur search costs, the ability to judge financial information, and are focused on grant-making. We find no evidence that efficiency measures are used by private foundations in determining capital campaign grant amounts, regardless of foundation sophistication. We interpret this result as being consistent with private foundations focusing on factors related to program accomplishments rather than on reported efficiency. We find evidence that private foundations pay larger grant amounts to less financially vulnerable charities. This effect is concentrated when grants are paid by more sophisticated private foundations (i.e., those that employ a professional staff).

Data Availability: Data are available from the public sources cited in the text.

Keywords: private foundations; public charities; efficiency; program ratio; financial vulnerability; donations; capital campaigns.

I. INTRODUCTION

Charities play a large role in our economy by receiving donations that are used to provide critical services to those in need. In 2017, public charities received an estimated \$410.2 billion in total donations ([Giving USA 2019](#)). Donors are primarily interested in whether charities are effective in providing their program services ([Parsons 2003](#)) and, ideally, donors

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would evaluate effectiveness by comparing program accomplishments to dollars spent. However, due to their complexity and qualitative nature, program accomplishments are difficult to quantify. Most donors lack adequate time, expertise, and detailed information to make a thorough evaluation.

Private foundations differ from other donors in that their core business is evaluating charities and distributing grants. Private foundations are “all assets and no liabilities” (Schramm 2006), meaning they have extensive resources to employ toward grant-making activities. Because private foundations’ activities are focused on grant-making, they have both the incentive to incur search costs and the ability to judge financial information. Many private foundations also formally request charities to apply for grants, which provides access to private charity financial and nonfinancial information that individual donors are unable to obtain. In general, private foundations are sophisticated donors. In 2015, over 79,000 independent U.S. private foundations existed, and combined, they held \$704.0 billion of total assets and paid grants totaling \$44.1 billion (Foundation Center 2019).

Our study is the first to our knowledge to examine how charity financial information is used by private foundations in making charitable grants. We focus on grants for capital campaigns because they involve fundraising efforts by charities to secure significant amounts of financial capital for specific, long-term purposes. Capital campaigns provide a context where private foundations are likely to provide leadership grants to charities. Leadership grants often launch a capital campaign, and therefore are important as a credible signal of grantee charity quality (Andreoni 2006). As a result, private foundations are likely to expend significant resources to gather, evaluate, and communicate information about grantee charities seeking capital campaign funding.

Because most donors are less sophisticated than private foundations, the majority are likely to rely on readily available charity efficiency measures such as the program ratio. Prior research (Weisbrod and Dominguez 1986; Posnett and Sandler 1989; Tinkelman 1999; Okten and Weisbrod 2000) provides consistent evidence of an association between total donations and efficiency measures. However, donors’ reliance on the program ratio has been criticized as being incomplete and inaccurate (e.g., Tinkelman and Donabedian 2007). Administrative and fundraising costs are necessary for charities to achieve their mission. Program ratios disregard organizational strategy and are dependent on charity-specific factors (Baber, Roberts, and Visvanathan 2001; Tinkelman 2006). Failure to adequately plan, evaluate, and coordinate program activities is likely to lead to program costs that are inefficient, even counter-productive, at achieving charity missions. Further, prior research (Tinkelman 1998; Khumawala, Parsons, and Gordon 2005; Jones and Roberts 2006; Krishnan, M. Yetman, and R. Yetman 2006; M. Yetman and R. Yetman 2013) has established that charities often attempt to manipulate their program ratios. Donors’ excessive reliance on the program ratio has the potential to lead to inefficient allocation of charitable capital, such as cutting productive administrative and fundraising costs, as well as other dysfunctional behavior (Kitching, Roberts, and Smith 2012).

We examine how private foundations use program ratios to evaluate whether charities are using donations received efficiently toward program-related activities. Private foundations as more sophisticated donors are likely to place less emphasis on the program ratio relative to individual donors for at least three reasons. First, they formally request charities to apply for grants and have better opportunities to informally request information during the grant process, both of which provide access to private charity financial and nonfinancial information that individual donors are unable to obtain. Second, private foundations have greater expertise and experience to see through any manipulation of the reported program ratio. Most importantly, foundations have greater expertise and resources to evaluate program results. In contrast to prior research, we

expect that grants from a more sophisticated donor group, private foundations, will be less sensitive to program ratios.

We also examine how private foundations evaluate whether charities are financially vulnerable. Financial vulnerability is typically assessed using financial measures such as debt ratio, revenue concentration, profit margin, and working capital (Tuckman and Chang 1991; Greenlee and Trussel 2000; Trussel 2002; Trussel and Greenlee 2004; Hodge and Piccolo 2011; Gordon, Fischer, Greenlee, and Keating 2013; Searing 2018). Parsons and Trussel (2009) find that financial stability (the converse of financial vulnerability) is positively associated with total donations. However, their study does not examine the relationship between financial vulnerability and donations by donor type. All donors are likely to care about financial vulnerability. However, because financial vulnerability is more difficult to assess, not all donors are likely to have the ability to evaluate it. Private foundations as a larger, more sophisticated donor type are at an advantage of assessing financial vulnerability. Again, they have greater access to private financial and nonfinancial information through the grant application process to help evaluate financial vulnerability. They also have more resources to employ professional grant-making personnel with the sophistication to be able to judge financial vulnerability. Furthermore, private foundations are likely to be motivated to evaluate whether charities are vulnerable financially because of the long-term focus of capital campaigns. We expect private foundations to respond negatively to charities that are financially vulnerable.

Finally, sophistication is likely to vary across private foundations. We propose that the extent to which private foundations are sophisticated will impact how they respond to program ratios and financial vulnerability. Some private foundations are created with the intent to operate as stand-alone entities in the formal business of professional grant-making. These are “active” grant makers because they employ professional managers and staff (Sansing and Yetman 2006) to evaluate the likelihood and magnitude to achieve significant social impact through their grant-making (Fleishman 2009). We classify these as “more sophisticated” private foundations. Alternatively, some private foundations are established as extensions of the founder as an individual donor. They donate to express support toward a worthy cause, but do not expect to make a lasting social impact through their grants (Fleishman 2009). As a result, they have little need to employ professional managers or grant-making staff to evaluate potential grantee charities. Sansing and Yetman (2006) identify these as “passive” private foundations. We classify these as “less sophisticated” private foundations.

Our final sample consists of 2,872 capital campaign grants made by 530 private foundations to 1,700 charities. Because of data unavailability, we exclude charities that did not receive a private foundation grant.¹ Therefore, our sample consists of charities after the use of efficiency and financial vulnerability measures by foundations to initially screen grant applicants. We find no evidence that efficiency measures are used by private foundations in determining capital campaign grant size to grant-eligible charities, regardless of foundation sophistication. We interpret this result as being consistent with private foundations focusing on factors other than reported efficiency (e.g., program accomplishments). In contrast, we find evidence that private foundations pay larger

¹ We are unable to isolate observations that received no grants from private foundations because our initial sample has so few grants relative to the universe of grants. Ignoring 2011 and 2012, which had significantly fewer observations because of the timing of our data collection, the sum of all capital campaign grants in our initial sample averages about \$1.6 billion per year. For comparison purposes, total grants paid by all private foundations range from \$30.3 billion in 2002 to \$51.8 billion in 2012 (Foundation Center 2019).

grant amounts to grant-eligible charities that are less financially vulnerable, and that this effect is especially pronounced in the grants made by more sophisticated private foundations.

The remainder of the paper is organized as follows. Section II provides the background, theory and develops the hypotheses. Section III describes the research design. Section IV presents the results, and Section V provides conclusions.

II. THEORY DEVELOPMENT AND HYPOTHESES

Charities often request for grants from private foundations when they desire larger-sized donations to start new programs, expand existing programs, and meet other long-term capital needs. Capital campaigns are full-throttle fundraising endeavors where charities seek large donation amounts in a relatively short period of time. Capital campaign grants are typically awarded in one year and then paid by donors over multiple future years. A charity engages in a campaign for a period, and then reverts to normal operations. An example of a capital campaign is a private college organized as a charity that announces a \$100 million capital campaign to improve facilities.

The relative importance of capital campaigns for charities expanding their operations and missions provides a context where charity managers perceive that information provided through the grant request process is going to be used in the donation decision. In addition, private foundations as capital campaign grantors are likely motivated to expend considerable effort in evaluating possible grantee charities. That said, the amount of effort expended likely varies across private foundations and is dependent on whether private foundations are expressive or instrumental givers.

Foundation Sophistication—Expressive versus Instrumental Givers

Yetman and Yetman (2013) define sophistication as the combination of a donor's incentive to incur search costs and the ability to judge financial information in making donation decisions. Tinkelman (1998) argues that there are "different classes of donors" who vary in their motivations and the extent to which they assess charities before donating. Furthermore, Gordon and Khumawala (1999) propose that donor motivations have an impact on whether charity financial information is used in the donation decision process.

Individual donors are generally "expressive givers," defined as those who donate to express support toward a worthy cause or charity, but not expecting a social impact from the specific gift (Fleishman 2009). Andreoni (1990) describes this as "warm-glow" giving. Some private foundations are established as extensions of the founder as an individual donor (McAllister and Allen 2017). These foundations are "not seen as an organization with an agenda and needs of its own, it was only 'a thing we do'" (Gersick 2006, 83). They behave like individual donors and therefore are unlikely to employ professional management or grant-making staff. Sansing and Yetman (2006) describe these foundations as "passive" in terms of having lower levels of employee compensation and professional fees. They are also less likely to separate their governance and operating functions. The boards of trustees for expressive giver foundations often perform day-to-day operating activities and provide oversight simultaneously. In expressive giver foundations, the board of trustees has a strong influence on grant decisions. At the extreme, expressive giver foundations are essentially "check-writers." We use the term "less sophisticated" to refer to expressive giver foundations.

In contrast, "instrumental givers" are described as donating to make a social impact through the donation itself (Fleishman 2009). As a notable example of philanthropic investment, Bill Gates

describes the importance of instrumental giving for the Bill & Melinda Gates Foundation in the following quotation:

I have been sharing my idea of catalytic philanthropy for a while now. It works a lot like the private markets: You invest for big returns. But there's a big difference. In philanthropy, the investor doesn't need to get any of the benefit. You're working in a global economy worth tens of trillions of dollars, so any philanthropic effort is relatively small. If you want to have a big impact, you need a leverage point—a way to put in a dollar of funding or an hour of effort and benefit society by a hundred or a thousand times as much ([Gates 2013](#)).

Some founders create their private foundations to operate as instrumental givers. Instrumental giver foundations are likely to employ professional managers, grant-makers, and/or staff with expertise to assess and evaluate the quality and accountability of grant-seeking charities. [Sansing and Yetman \(2006\)](#) describe these foundations as “active” in terms of having higher levels of employee compensation and professional fees. Oftentimes, instrumental giver foundations separate their governance and operating functions. The boards of trustees provide oversight, but they do not engage in day-to-day operating activities. Operating activities, including identifying and assessing potential grantee charities, are performed by hired professional management and staff. We use the term “more sophisticated” to refer to instrumental giver foundations.

Evaluation of Charity Financial Information—Efficiency and Financial Vulnerability

Charity financial information is useful in determining a charity's inputs spent toward service efforts by reporting program, administrative, and fundraising costs. Efficiency is “the degree to which not-for-profit organizations direct their available resources to an organization's mission” ([Parsons 2003](#)) and is measured using program and administrative expense ratios. Efficiency is easy to calculate, understandable, and readily accessible to donors on charity websites and through charity watchdogs (e.g., Charity Navigator, BBB Wise Giving Alliance, GuideStar). Prior research ([Weisbrod and Dominguez 1986](#); [Posnett and Sandler 1989](#); [Tinkelman 1999](#); [Okten and Weisbrod 2000](#)) provides consistent evidence of an association between total donations and efficiency measures.

Since less sophisticated foundations are unlikely to have the time and professional expertise needed to fully evaluate charities, they are more likely to focus on efficiency to the exclusion of program accomplishments. In contrast, efficiency is likely to be less important to more sophisticated foundations because they have greater incentives, resources, information, and professional expertise to evaluate service accomplishments and social impact. As a result, we expect efficiency to matter less for grants from more sophisticated foundations.

Charity financial information is also useful to resource providers and others in evaluating a charity's economic resources, obligations, and net resources in order to “assess its ability to continue to render services” ([FASB 2008](#), ¶ 44). As compared to efficiency, financial vulnerability is more difficult to assess. [Gordon et al. \(2013\)](#) capture the difficulty in assessing financial vulnerability. They identify 25 different financial measures and six different models to evaluate it. Additionally, [Zhai, Watson, Gilchrist, and Newby \(2017\)](#) posit that there is not one single specific measure that by itself is predictive of financial vulnerability and, as a result, conclude that developing a composite indicator for financial vulnerability is instead more appropriate. Finally, the issue of whether financial vulnerability is useful to donors is limited to one study. [Parsons and](#)

Trussel (2009) find that financial stability (the converse of financial vulnerability) is positively associated with total donations.

All private foundations are likely to care about financial vulnerability. However, given that financial vulnerability is relatively difficult to assess, more sophisticated foundations are at an advantage of requesting private information about the financial vulnerability of charities. In addition to financial measures, more sophisticated foundations can request *non*financial information via grant applications to evaluate financial vulnerability. For example, the common grant application for the Grantmakers of Western Pennsylvania requires a description of the proposed campaign, purpose and outcomes, need, leadership, regulation, organizational impact, and financial sustainability.² In addition, the application requires charities to provide copies of IRS Form 990, program/project budgets, and audited financial statements. While some of this information is publicly available (e.g., IRS Form 990), most of it is private information.

In summary, more sophisticated foundations have access to more resources and information. Therefore, more sophisticated foundations are more likely to discount efficiency and instead, place greater weight on service accomplishments over service inputs.³ They also are better able to assess financial vulnerability.

III. RESEARCH DESIGN

Data Collection and Sample

We obtain information for capital campaign grants from private foundations to public charities for years 2003 through 2012 from the Foundation Directory Online website. We collect the names and addresses of the private foundation and the charity, the year the grant was authorized for distribution by the private foundation, the amount of the grant, the type of support provided by the grant, and a short description of the grant. Types of support are considered capital in nature if they are labeled specifically as capital campaign grants or are grants for the purpose of acquiring or improving tangible property. Capital campaign grants are collected for the following types of support: building renovation, equipment purchases, capital campaigns, or land acquisition. Our initial sample of capital campaign grants consists of 71,966 individual grants from 1,936 unique private foundations to 32,017 unique charities. Our sample excludes charities that did not receive a private foundation grant.

In order to obtain detailed financial information for each private foundation, we require a federal employer identification number (EIN). We are able to obtain private foundation EINs from the business master file (BMF) obtained from the National Center for Charitable Statistics (NCCS) by matching based on private foundations' names. We obtain additional EINs by a manual search of the NCCS database for slight variations in the private foundation name. We engage in a similar

² Prior research (Zhai et al. 2017) has identified various nonfinancial items that are associated with the causes of financial vulnerability. Nonfinancial items identified in their study include not having good internal controls, no succession planning for board members or executives, poor program management, operating projects that are "too big," and taking on too many short-term contracts.

³ To evaluate our expectations, we interviewed three private foundation managers to ask about the types of information provided by potential grantees that are most useful in making granting decisions. All three stated that charity nonfinancial information (e.g., the leadership characteristics of the public charity) is the primary consideration for any grant request. Interestingly, only one out of the three foundation managers stated that efficiency was an important financial-related factor in making a grant award.

process to obtain the EINs of the charities receiving grants. After requiring EINs for both the private foundation grantor and charity recipient, our sample consists of 37,942 grants.

We are interested in the decision-making process associated with private foundations making an initial capital campaign grant to a charity. Recurring capital campaign grants are likely to be multi-year pledges that result from the same decision-making process; therefore, we only include grants to public charities for the first year in which they receive a grant. We also eliminate all 2003 grants since we do not have information about grants in the previous year, 2002. In addition, we retain grants received in consecutive years from the same private foundation only if the second year's grant is greater than or equal to 200 percent of the first-year grant amount. These grants are likely for different purposes and result from different decision-making processes given the large difference in amounts between the two years. Finally, some charities receive more than one grant from the same private foundation in the same sample year. If a charity receives multiple grants from the same private foundation in the same sample year, the grants are summed and included as one grant from the private foundation.

Next, we require data from the statistics on income (SOI) files provided by the NCCS for grantee charities. The SOI files report the charity and private foundation fiscal year, but the Foundation Directory Online grants dataset only reports the grant year, which made matching the grant year with the appropriate charity and private foundation fiscal-year more difficult. Once again, we are interested in the decision-making process associated with private foundations making an initial capital campaign grant to a charity. Therefore, we use charity data from the year prior to the grant date (year $t-1$) and private foundation data from the grant year (year t) regardless of the charity's or private foundation's fiscal year-end. Accordingly, a 2011 grant date is matched with a 2011 private foundation fiscal year-end and a 2010 charity fiscal year-end.

Each capital campaign grant in our sample requires two years (year $t-1$ to year t) for our main tests. Our final sample consists of 2,872 grants made to 1,700 unique charities from 530 unique private foundations.

Models and Variables

Efficiency

Prior research ([Weisbrod and Dominguez 1986](#); [Posnett and Sandler 1989](#); [Tinkelman 1999](#); [Okten and Weisbrod 2000](#)) supports the idea that financial information regarding efficiency is useful in making donation decisions. The program ratio is commonly used in prior research as an efficiency measure ([M. Yetman and R. Yetman 2012](#); [Connolly, Hyndman, and McConville 2013](#); [Harris, Petrovits, and Yetman 2015](#); [Desai and Yetman 2015](#); [Gaver, Harris, and Im 2016](#)). *PROGRAM RATIO* is the efficiency measure used in our paper and is defined as program expenses divided by total expenses.

Financial Vulnerability

[Tuckman and Chang \(1991, 445\)](#) define financial vulnerability as occurring when a charity "is likely to cut back on its program services immediately when it experiences a financial shock." Prior research uses either decreases in program expenses over three consecutive years ([Greenlee and Trussel 2000](#)) or significant decreases (20 percent and/or 50 percent) in fund balance/net assets ([Trussel 2002](#); [Trussel and Greenlee 2004](#)) over a three-year period to define a financially vulnerable charity. We combine these and define a charity as financially vulnerable (*VULNERABILITY*) if it experiences a 20 percent decrease in net assets over a three-year period *and* a decrease in its program expenses over the same three-year period. We choose the more

restrictive definition because a decline in net assets without a decline in expenses could indicate the expectation that future revenue increases will cover the current shortfall. A decline in expenses without a decline in net assets seems to indicate that a charity can respond to reductions in revenues with corresponding reductions in expenses. The results are substantively similar whether financial vulnerability is defined as a sustained reduction in net assets, a sustained reduction in program expenses, or the more restrictive definition reported in the paper.

We create a set of models using previously identified specific accounting measures to predict financial vulnerability. We run separate models by NTEE single-digit major group because the relative weight of these specific measures varies by industry (de Andrés-Alonso, Garcia-Rodriguez, Romero-Merino 2015). There are eight NTEE single-digit major groups, so there are eight total models. The set of financial vulnerability prediction models is based on the following:

$$\begin{aligned} VULNERABILITY_{it} = & \alpha + \beta_1 \ln(DEBT_{it-3}) + \beta_2 \ln(CONCENTRATION_{it-3}) + \beta_3 (MARGIN_{it-3}) \\ & + \beta_4 (NEGATIVE MARGIN_{it-3}) + \beta_5 \ln(WORKING CAPITAL_{it-3}) \\ & + \beta_6 \ln(SIZE_{it-3}) + \varepsilon_{it} \end{aligned} \quad (1)$$

For these models, we take the natural log for all independent variables except for *MARGIN* and *NEGATIVE MARGIN*.⁴ In addition, the continuous variables are winsorized at 1 and 99 percent. In the grant models used for our main tests, the predicted value for *VULNERABILITY* is included as a lagged independent variable ($t-1$). Table 1 presents all variable descriptions.

Prior research has shown that charities with a lower equity ratio (Trussel and Greenlee 2004) or higher debt ratio (Trussel 2002) are more likely to be more financially vulnerable. The equity and debt ratios are similar measures and are highly correlated (-0.64). We include only the debt ratio in our analysis because prior research has generally been more supportive of its ability to predict vulnerability.⁵ The debt ratio (*DEBT*) is defined as total liabilities divided by total assets. Charities with higher debt ratios are less likely to have adequate financial reserves to prevent financial distress in the event of a temporary decline in revenues. Therefore, charities with higher debt ratios are considered more financially vulnerable.

Revenue concentration (*CONCENTRATION*) is another important proxy for financial vulnerability. Revenue concentration captures the extent to which a charity is reliant on only a few sources of revenue. Prior studies (Greenlee and Trussel 2000; Trussel 2002) have found that charities deriving their revenue from more sources are less likely to encounter financial distress, while charities with less diverse revenue sources are more likely to be severely affected by the decline in any one particular source. Similar to prior research, we define revenue concentration as the sum of the squared proportion that each revenue source contributes to total revenue. Revenue sources included in the calculation include contributions, program service revenue, investment income, special event revenue, gross profit on inventory sales, and other income. Charities with higher revenue concentration are considered more financially vulnerable.

Charities with lower operating margins (*MARGIN*) or negative operating margins (*NEGATIVE MARGIN*) have less flexibility to absorb revenue declines without experiencing financial distress.

⁴ Skewness would have been increased rather than decreased by taking the log of *MARGIN* and *NEGATIVE MARGIN*.

⁵ The equity ratio (net assets/total revenue) used in Greenlee and Trussel's (2000) financial vulnerability model was not statistically significant. Gaver et al. (2016) found that debt ratio was significant in predicting an alternative measure of financial vulnerability, bond ratings. Furthermore, our results are substantially similar when debt ratio is replaced with equity ratio.

TABLE 1
Variable Descriptions

Variable Name	Description
Financial Vulnerability Prediction Model Variable Descriptions	
<i>VULNERABILITY</i>	<i>VULNERABILITY</i> is coded 1 if a public charity has a 20 percent decrease in net assets over a three-year period and a decrease in program expenses over the same three-year period. Net assets are reported by the public charity on IRS Form 990, Part X, and program expenses are reported on IRS Form 990, Part IX.
<i>DEBT</i>	<i>DEBT</i> is equal to total liabilities divided by total assets. Liabilities and assets are reported by the public charity on IRS Form 990, Part X.
<i>CONCENTRATION</i>	<i>CONCENTRATION</i> is equal to the sum of the squared portion of each significant source of total revenue. Significant sources include contributions, program service revenue, investment income, special event revenue, gross profit on inventory sales, and other income. Revenues are reported by the public charity on IRS Form 990, Part VIII.
<i>MARGIN</i>	<i>MARGIN</i> is equal to total revenue minus total expense, scaled by total revenue. Revenues are reported by the public charity on IRS Form 990, Part VIII. Expenses are reported by the public charity on IRS Form 990, Part IX.
<i>NEGATIVE MARGIN</i>	<i>NEGATIVE MARGIN</i> is coded 1 if profit margin (<i>MARGIN</i>) is negative, and 0 otherwise.
<i>WORKING CAPITAL</i>	<i>WORKING CAPITAL</i> is equal to current assets minus current liabilities, scaled by the larger of current assets or current liabilities, if current assets are greater than current liabilities. Otherwise, <i>WORKING CAPITAL</i> is coded 0. Current assets and liabilities are reported by the public charity on IRS Form 990, Part X.
<i>SIZE</i>	<i>SIZE</i> is the amount of total assets as reported by the public charity on IRS Form 990, Part X.
Grant Model Variable Descriptions	
<i>GRANT</i>	<i>GRANT</i> is the amount of the capital campaign grant received from a private foundation as collected from the Foundation Directory Online website.
<i>PROGRAM RATIO</i>	<i>PROGRAM RATIO</i> is equal to program expenses divided by total expenses. Expenses are reported by the public charity on IRS Form 990, Part IX.
<i>PRED VULNERABILITY</i>	<i>PRED VULNERABILITY</i> is equal to the predicted probability calculated from the coefficients in the financial vulnerability prediction model.
<i>AGE</i>	<i>AGE</i> is the number of years the public charity has operated as reported in the IRS Business Master File Extract of Exempt Organizations.
<i>FUNDRAISING</i>	<i>FUNDRAISING</i> is the amount of total fundraising expenses as reported by the public charity on IRS Form 990, Part IX.
<i>SIZE</i>	<i>SIZE</i> is the amount of total assets as reported by the public charity on IRS Form 990, Part X.

(continued on next page)

TABLE 1 (continued)

Variable Name	Description
<i>FOUNDATION SOPHISTICATION1</i>	<i>FOUNDATION SOPHISTICATION1</i> is a measure of foundation sophistication and is coded 1 if the private foundation reports compensation expense for non-officers, and 0 otherwise. Compensation expense is reported by the private foundation on IRS Form 990PF, Part I.
<i>FOUNDATION SOPHISTICATION2</i>	<i>FOUNDATION SOPHISTICATION2</i> is a measure of foundation sophistication and is coded 1 if the private foundation reports pension and employee benefits expense, and 0 otherwise. Pension and employee benefits expense is reported by the private foundation on IRS Form 990PF, Part I.
<i>NTEE INDICATORS</i>	<i>NTEE INDICATORS</i> is coded 1 if the public charity belongs to one of eight single-digit major groups based on the National Taxonomy of Exempt Entities, and 0 otherwise.

Consistent with this notion, prior research found that charities with lower operating margins are more likely to become financially distressed (Greenlee and Trussel 2000; Trussel 2002; Trussel and Greenlee 2004). In addition, the factor analysis by Trussel and Parsons (2007) provides evidence that operating margin is a significant contributor to financial vulnerability. Charities with low or negative operating margins are more likely to be financially vulnerable.

Working capital is also a potential indicator of a charity's financial vulnerability. Gordon et al. (2013) borrow from the for-profit bankruptcy literature (Altman 1968; Ohlson 1980) and provide evidence that working capital measures (working capital divided by total assets, total liabilities divided by total assets) are significant indicators of financial distress in charities. We define working capital (*WORKING CAPITAL*) as current assets minus current liabilities, scaled by the larger of current assets or current liabilities, as long as current assets are greater than current liabilities. Otherwise, working capital is equal to 0. Charities with lower working capital are considered more financially vulnerable.

Finally, Trussel (2002) and Trussel and Greenlee (2004) find that smaller charities are more likely to be financially vulnerable. Therefore, we include total assets (*SIZE*) as a measure of financial vulnerability. Some prior research (Tuckman and Chang 1991; Trussel and Greenlee 2004) also considered administrative costs (administrative expenses/total expenses) when measuring financial vulnerability. We exclude administrative costs in our financial vulnerability prediction models because a similar construct, program ratio, is used in our grant model for our main tests.

Grant Models for Main Tests

Our base grant model tests the association between capital campaign grants from private foundations (*GRANT*) and charity efficiency/financial vulnerability. *GRANT* is equal to the natural log of the amount of the capital campaign grant received from a private foundation as collected from the Foundation Directory Online website. The model is constructed as follows:

$$\begin{aligned} \ln(\text{GRANT})_{it} = & \alpha + \beta_1(\text{PROGRAM RATIO}_{it-1}) + \beta_2(\text{PRED VULNERABILITY}_{it-1}) \\ & + \beta_3 \ln(\text{AGE}_{it-1}) + \beta_4 \ln(\text{FUNDRAISING}_{it-1}) + \beta_5 \ln(\text{SIZE})_{it-1} \\ & + \sum \alpha_i(\text{NTEE INDICATORS})_i + \sum \alpha_t(\text{YEAR INDICATORS})_t + \varepsilon_{it} \end{aligned} \quad (2)$$

We also test the impact of foundation sophistication on the association between capital campaign grants from private foundations and charity efficiency/financial vulnerability by adding foundation sophistication variables and their interactions with *PROGRAM RATIO* and *PRED VULNERABILITY* to the above grant model. We construct two variables to capture foundation sophistication: *FOUNDATION SOPHISTICATION1* and *FOUNDATION SOPHISTICATION2*. *FOUNDATION SOPHISTICATION1* is an indicator variable based on the presence of non-officer compensation expense. *FOUNDATION SOPHISTICATION2* is an indicator variable for the presence of pension and employee benefits expense. The second grant model is as follows:

$$\begin{aligned} \ln(\text{GRANT})_{it} = & \alpha + \beta_1(\text{PROGRAM RATIO}_{it-1}) + \beta_2(\text{PRED VULNERABILITY}_{it-1}) \\ & + \beta_3(\text{FOUNDATION SOPHISTICATION}_{it}) \\ & + \beta_4(\text{PROGRAM RATIO}_{it-1} \times (\text{FOUNDATION SOPHISTICATION}_{it})) \\ & + \beta_5(\text{PRED VULNERABILITY}_{it-1} \times (\text{FOUNDATION SOPHISTICATION}_{it})) \\ & + \beta_6 \ln(\text{AGE}_{it-1}) + \beta_7 \ln(\text{FUNDRAISING}_{it-1}) + \beta_8 \ln(\text{SIZE}_{it-1}) \\ & + \sum \alpha_i (\text{NTEE INDICATORS})_{it} + \sum \alpha_t (\text{YEAR INDICATORS})_t + \varepsilon_{it} \end{aligned} \quad (3)$$

For all grant models, we take the natural log for all independent variables except for *PROGRAM RATIO*, *PRED VULNERABILITY*, and, in the case of the second model, the various foundation sophistication variables. All independent variables, except for the foundation sophistication variables⁶ in Model 3, are lagged by one year. *PRED VULNERABILITY* is equal to the predicted probability calculated from the coefficients of the financial vulnerability prediction models. All continuous variables are winsorized at 1 and 99 percent. Variable descriptions are presented in Table 1.

We attempt to control for characteristics other than charity efficiency and financial vulnerability that may influence a private foundation's grant-making decision by using variables found in the donations demand model used in prior research (Tinkelman 2004; Tinkelman and Mankaney 2007; Petrovits, Shakespeare, and Shih 2011; Harris et al. 2015). Three characteristics common to the donations demand model are charity age (*AGE*), fundraising expenses (*FUNDRAISING*), and size (*SIZE*). Fundraising expenses are a particularly important control since a portion of a charity's fundraising expense may be aimed toward acquiring capital campaign grants from private foundations. As a result, age, fundraising expense, and charity size are control variables in our grant models.

IV. RESULTS

Financial Vulnerability Prediction Models

Descriptive Statistics

Table 2, Panel A reports raw descriptive statistics for the variables used in the financial vulnerability prediction models ($n = 67,956$). A charity is defined as financially vulnerable (*VULNERABILITY*) if it experiences a 20 percent decrease in net assets over a three-year period and a decrease in program expenses over the same three-year period. About 19.91 percent of our

⁶ The foundation sophistication variables are measured in the same period that the capital campaign grant was authorized for distribution by the private foundation. Therefore, these variables are unlagged in the grant models.

TABLE 2
Descriptive Statistics and Goodness-of-Fit Tests for the Financial Vulnerability Prediction Models
n = 67,956

Panel A: Descriptive Statistics

	Mean	Standard Deviation	1st Percentile	1st Quartile	Median	3rd Quartile	99th Percentile
VULNERABILITY	0.1991	0.3994	0.0000	0.0000	0.0000	0.0000	1.0000
DEBT	0.4192	0.3479	0.0016	0.1332	0.3455	0.6168	1.5485
CONCENTRATION	0.7387	0.2110	0.3029	0.5474	0.7907	0.9303	1.0480
MARGIN	0.0619	0.2176	-0.8752	-0.0083	0.0438	0.1286	0.7567
NEGATIVE MARGIN	0.3530	0.4779	0.0000	0.0000	0.0000	1.0000	1.0000
WORKING CAPITAL	0.5426	0.3334	0.0000	0.2723	0.6142	0.8264	1.0000
SIZE (000,000)	110.1	222.3	0.1	7.9	34.9	102.2	1,500.2

This panel presents the raw data descriptive statistics for the variables included in the set of financial vulnerability prediction models. See Table 1 for a description of the variables.

Panel B: Goodness-of-Fit Tests, by NTEE Major Group

	Humanities	Education	Environment and Animals	Health	Human Services	International and Foreign Affairs	Public and Societal Benefit	Religious Related
Sample Size	4,522	13,176	1,806	22,977	21,089	716	2,862	808
Pseudo R ²	0.1292	0.1380	0.1185	0.1813	0.2706	0.1192	0.1535	0.1242
Likelihood Ratio	625.68***	1957.37***	227.75***	4597.07***	6653.32***	90.86***	476.99***	107.17***
Percent Concordant	76.4	82.1	77.6	79.4	83.5	74.3	77.2	74.4

***, **, * Indicate significance at the 0.01, 0.05, and 0.10 levels, respectively. The goodness-of-fit test results reflect the following logistic model: $VULNERABILITY_{it} = \alpha + \beta_1 Ln(DEBT_{it-3}) + \beta_2 Ln(CONCENTRATION_{it-3}) + \beta_3(MARGIN_{it-3}) + \beta_4(NEGATIVE MARGIN_{it-3}) + \beta_5 Ln(WORKING CAPITAL_{it-3}) + \beta_6 Ln(SIZE_{it-3}) + \epsilon_{it}$. See Table 1 for a description of all variables.

sample is defined as financially vulnerable, similar to the 18.2 percent rate of financial vulnerability reported by [Trussel \(2002\)](#) but higher than the 7.4 percent and 10.6 percent rates reported by [Greenlee and Trussel \(2000\)](#) and [Trussel and Greenlee \(2004\)](#), respectively.⁷

Mean (median) *DEBT* is 0.4192 (0.3455), which is consistent with the percentage reported in [Greenlee and Trussel \(2000\)](#). The means reported for *CONCENTRATION* (0.7387) and *MARGIN* (0.0619) are also both consistent with prior research ([Greenlee and Trussel 2000](#); [Trussel and Greenlee 2004](#)). The first quartile for *MARGIN* is negative and the mean for *NEGATIVE MARGIN* is 0.3530. This indicates that more than one-third of sample charities report a negative change in net assets. Mean (median) *WORKING CAPITAL* is 0.5426 (0.6142). Finally, sample charities have significant total assets. *SIZE* has a mean and median of \$110.1 million and \$34.9 million, respectively. The sample also includes very large and very small charities, given the 1st and 99th percentiles for *SIZE* are \$100,000 and \$1,500,200,000, respectively.

Goodness-of-Fit Tests

Table 2, Panel B reports the sample sizes and goodness-of-fit tests for the eight financial vulnerability prediction models.⁸ The sample sizes of the models span from 716 observations for International and Foreign Affairs to 22,977 for Health. The pseudo R^2 s for the models range from 0.1185 (Environment and Animals) to 0.2706 (Human Services), and all Likelihood Ratios are statistically significant. The concordance percentages vary from between 74.3 percent (International and Foreign Affairs) to 83.5 percent (Human Services).

Grant Models

Descriptive Statistics

Table 3 reports raw descriptive statistics for the variables in the grant model. The mean (median) for *GRANT* is \$552,700 (\$152,400), which indicates that the distribution is right-skewed and that grant amounts in the sample are substantial. *GRANT* exhibits substantial variation, given the 1st percentile is \$3,500 and the 99th percentile is \$9,388,900.

Other charity characteristics exhibit significant variation. *PROGRAM RATIO* has a mean (median) of 81.20 percent (82.91 percent), with the 25th (75th) percentile at 76.66 percent (88.45 percent). The program ratios for charities in our sample are consistent with those reported in [Yetman and Yetman \(2013\)](#). *FUNDRAISING* has a mean (median) of \$2,386,400 (\$683,600), with the 25th (75th) percentile at \$145,800 (\$1,765,100). Mean and median total assets (*SIZE*) are \$392.2 million and \$73.7 million, respectively. The mean and median age of the total sample are 45.7 and 47.0 years, respectively. Our sample charities are larger, older, and report higher fundraising expenses than the sample charities from [Yetman and Yetman \(2013\)](#). A possible explanation for this is that our sample charities are involved in fundraising endeavors related to financially significant projects such as building renovations, equipment purchases, capital

⁷ [Trussel \(2002\)](#) reports a much larger sample size of financially vulnerable and not-vulnerable charities ($n = 94,002$) than either [Greenlee and Trussel \(2000\)](#) or [Trussel and Greenlee \(2004\)](#). [Greenlee and Trussel \(2000\)](#) report a sample size of 5,918 charities and [Trussel and Greenlee \(2004\)](#) report a sample size of 6,795 charities.

⁸ In untabulated results, most (32/48) of the financial vulnerability model variables are statistically significant at the 0.10 level. The *CONCENTRATION* variable is significant in one model only (Public and Societal Benefit) and the *WORKING CAPITAL* variable is significant in three models only (Education, Health, and Public and Societal Benefit).

TABLE 3

Descriptive Statistics for the Grant Models Association between Capital Campaign Grants and Efficiency or Financial Vulnerability

n = 2,872

	Mean	Standard Deviation	1st Percentile	1st Quartile	Median	3rd Quartile	99th Percentile
GRANT (000)	552.7	1,227.8	3.5	50.8	152.4	552.7	9,388.9
PROGRAM RATIO	0.8120	0.1059	0.3708	0.7666	0.8291	0.8845	0.9789
PRED VULNERABILITY	0.1123	0.1395	0.0096	0.0272	0.0474	0.1292	0.6445
AGE	45.7	21.3	3.9	28.3	47.0	64.4	84.4
FUNDRAISING (000)	2,386.4	7,049.0	0.0000	145.8	683.6	1,765.1	36,872.5
SIZE (000,000)	392.2	1,230.1	1.1	22.0	73.7	199.1	9,340.9
FOUNDATION SOPHISTICATION1	0.7490	0.4337					
FOUNDATION SOPHISTICATION2	0.6884	0.4632					

This table presents the raw data descriptive statistics for the variables included in the grant models. See Table 1 for a description of the variables.

campaigns, or land acquisitions. This is likely to weight our sample toward larger and more established charities.

FOUNDATION SOPHISTICATION1 and *FOUNDATION SOPHISTICATION2* are private foundation-specific indicator variables that are based on the presence of other employee compensation and pension or other employee benefits expense, respectively. About 74.90 percent of private foundations report other employee compensation, and about 68.84 percent of private foundations report pension or other employee benefits expense.⁹ These findings suggest that most private foundations in our sample are sophisticated.¹⁰

Association between Capital Campaign Grants and Efficiency/Financial Vulnerability

Table 4 reports the results of the tests for the association between efficiency/financial vulnerability for grant-eligible charities and capital campaign grants from private foundations. Column A omits the foundation sophistication variables.

In Column A, the coefficient for *PROGRAM RATIO* (coefficient = -0.1930; p-value = 0.5129) is statistically insignificant.¹¹ Our results provide no evidence that program ratios are used by private foundations in determining the size of their capital campaign grants. In addition, past

⁹ The statistics reported are based on the 2,872 foundation-charity years. For the 530 foundations, 60.00 percent report other employee compensation and 56.04 percent report pension benefits.

¹⁰ In further support of this, most foundations in our sample are large. In untabulated results, the mean (median) total assets reported by private foundations is \$641.7 million (\$187.2 million).

¹¹ In an untabulated model where *GRANT* is replaced with total donations and the independent variables are the same as in Column A, the coefficient (0.9559) for *PROGRAM RATIO* is positive and significant (p-value = < 0.0001). This finding is consistent with prior research (e.g., Yetman and Yetman 2013; Harris et al. 2015; Gaver et al. 2016). In addition, the coefficient (-0.9233) for *PRED VULNERABILITY* is negative and statistically significant (p-value = < 0.0001). This finding indicates that total donations are lower for charities that are financially vulnerable.

TABLE 4
Multivariate Results for the Grant Models Association between Capital Campaign Grants and Efficiency or Financial Vulnerability
n = 2,872

	Exp. Sign	Column A Base Model		Column B <i>FOUNDATION</i> <i>SOPHISTICATION1</i>		Column C <i>FOUNDATION</i> <i>SOPHISTICATION2</i>	
		Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Intercept	?	7.2481***	0.5158	7.1680***	0.5669	6.4282***	0.5829
<i>PROGRAM RATIO</i>	+	-0.1930	0.2947	-0.8990	0.5437	-0.1995	0.4330
<i>PRED VULNERABILITY</i>	-	-0.8266***	0.3038	0.1124	0.3954	0.1810	0.2957
<i>FOUNDATION</i>	+			-0.0710	0.5258	0.8971*	0.4735
<i>FOUNDATION</i> <i>SOPHISTICATION</i>							
<i>PROGRAM RATIO</i> × <i>FOUNDATION</i> <i>SOPHISTICATION</i>	-			0.9941	0.6104	0.0332	0.5270
<i>PRED VULNERABILITY</i> × <i>FOUNDATION</i> <i>SOPHISTICATION</i>	-			-1.1861**	0.5482	-1.3530***	0.4854
<i>Ln(AGE)</i>	?	-0.1475**	0.0641	-0.1452**	0.0629	-0.1300**	0.0616
<i>Ln(FUNDRAISING)</i>	+	-0.0041	0.0093	-0.0027	0.0093	-0.0034	0.0091
<i>Ln(SIZE)</i>	?	0.3092***	0.0270	0.3126***	0.0261	0.3101***	0.0252
F-Statistic (Model)		15.47***		14.97***		15.25***	
Adjusted R ²		0.1399		0.1611		0.1824	
∑ <i>PROGRAM RATIO</i> and <i>PROGRAM RATIO</i> × <i>FOUNDATION</i> <i>SOPHISTICATION</i>	?			0.0951	0.3635	-0.1663	0.3402
∑ <i>PRED VULNERABILITY</i> and <i>PRED</i> <i>VULNERABILITY</i> × <i>FOUNDATION</i> <i>SOPHISTICATION</i>	-			-1.0737***	0.3635	-1.1720***	0.3814

***, **, * Indicate significance at the 0.01, 0.05, and 0.10 levels, respectively.

The dependent variable is *Ln(GRANT)*. The independent variables are lagged by one year, except for the *FOUNDATION SOPHISTICATION* variables, which are unlagged. NTEE major group and year indicator variables are included in the model but are not reported.

See Table 1 for a description of the variables.

research has provided little evidence on whether the positive association between higher program ratios and total donations is driven primarily by a larger number of donations or larger individual donations. Our results suggest that one important donor type, private foundations, does not provide larger grants for charities with higher program ratios.

Alternatively, the estimated coefficient for *PRED VULNERABILITY* (coefficient = -0.8266; p-value = 0.0067) is negative and statistically significant, which indicates that capital campaign grants are larger for charities that are less financially vulnerable. Our results are consistent with

private foundations assessing whether charities have adequate financial resources to maintain their current program service offerings. Our combined results provide evidence that financial vulnerability, but not efficiency, relates to the size of capital campaign grants from private foundations to charities.

Impact of Foundation Sophistication

Columns B and C of Table 4 present the results using two alternative forms of foundation sophistication.¹² Private foundations that have either compensated employees beyond the top management (*FOUNDATION SOPHISTICATION1*) or have provided pension benefits (*FOUNDATION SOPHISTICATION2*) are presumed to be more sophisticated. The adjusted R^2 s for the two models are 0.1611 and 0.1824, respectively.

Program ratio. The coefficient on *PROGRAM RATIO* is the estimated effect for less sophisticated foundations. The coefficient on the interaction between *PROGRAM RATIO* and foundation sophistication is the estimated *difference* in the effect between more and less sophisticated foundations, and the *sum* of the two coefficients is the estimated effect for more sophisticated foundations. In both models, the *PROGRAM RATIO* coefficient is negative and, therefore, does not provide support for the expectation that less sophisticated foundations provide larger capital campaign grants to charities with higher program ratios. In addition, the coefficients on the interaction between the program ratio and foundation sophistication along with the *sum* of the program ratio and interaction coefficients are statistically insignificant. In summary, our results provide no evidence that foundations give larger capital campaign grants to grant-eligible charities with higher program ratios, regardless of foundation sophistication. These results contrast with prior research, which has generally found a positive association between program ratios and total donations.

Predicted vulnerability. In both models, the coefficients on *PRED VULNERABILITY* (0.1124 and 0.1810) are not statistically significant. Our results do not provide evidence that less sophisticated foundations provide smaller grants to grant-eligible charities that are more financially vulnerable.

The estimated effect for more sophisticated foundations is the *sum* of the coefficients on *PRED VULNERABILITY* and the interaction between *PRED VULNERABILITY* and each foundation sophistication variable. The estimated effects for sophisticated foundations (−1.0737 and −1.1720) are negative and statistically significant. These results provide evidence that more sophisticated foundations provide smaller grants to more financially vulnerable charities.

The coefficient on the interaction between *PRED VULNERABILITY* and foundation sophistication is the estimated *difference* in the effect between more and less sophisticated foundations. The coefficients on *PRED VULNERABILITY* × *FOUNDATION SOPHISTICATION1* (−1.1861) and *FOUNDATION SOPHISTICATION2* (−1.3530) are statistically significant. Our results provide evidence that more sophisticated foundations make smaller grants to grant-eligible charities that are more financially vulnerable, but that evidence is lacking for less sophisticated foundations. The results also show that sophisticated foundations consider financial vulnerability to a greater extent than less sophisticated foundations.

¹² Our results are substantially the same when foundation sophistication is defined in the following alternative ways: (1) equal to 1 when either compensation expense for non-officers or pension/employee benefits expense is > \$0, and 0 otherwise; (2) equal to 1 when the sum of compensation expense for non-officers and pension/employee benefits expense > \$25,000, and 0 otherwise; and (3) equal to 1 when the sum of compensation expense for non-officers and pension/employee benefits expense > \$40,000, and 0 otherwise.

V. IMPLICATIONS AND CONCLUSIONS

We examine how charity financial information, specifically efficiency and financial vulnerability measures, is used by private foundations in making capital campaign grants. In contrast to prior research ([Weisbrod and Dominguez 1986](#); [Posnett and Sandler 1989](#); [Tinkelman 1999](#); [Okten and Weisbrod 2000](#)), we find that grant size from private foundations is not positively related to charity program ratios. The result holds for all private foundations, regardless of sophistication level. Since our sample includes only grant-eligible charities, we are unable to provide evidence about whether foundations use efficiency measures to screen applicants. However, for grant-eligible charities, our evidence is consistent with private foundations focusing on factors other than reported efficiency in their grant-making process. In contrast, we find that private foundations provide larger capital campaign grants to grant-eligible charities that are less vulnerable financially. Finally, we provide evidence that this effect is greater for more sophisticated foundations, implying that they are more capable of evaluating financial vulnerability, possibly due to their access to private information.

Our findings have implications for donors, charity watchdog groups, charity managers, and regulators. First, we recommend that capital campaign grants made by private foundations should be publicized more broadly by charity watchdog groups and charity managers. Our results are supportive of [Andreoni \(2006\)](#), who argues that large leadership grants potentially provide a credible signal to other donors about the potential for charities to accomplish their program objectives. Private foundations have the resources, incentives, and expertise to evaluate program accomplishments as well as the ability of charities to continue to provide services (i.e., financial vulnerability). Therefore, information about the existence and size of private foundation grants is likely to be useful to donors who lack these resources. Charities have incentives to publicize the receipt of such grants because it is a credible signal of quality.

Relatedly, publicizing private foundation grants has the potential to play a role in reducing managers' incentives to be excessively focused on reported efficiency. Efficiency measures such as the program ratio are positively linked to total donations and managerial compensation. Since program ratios are well publicized by charity watchdog groups, donors are likely to over-rely on the program ratio resulting in unintended consequences, such as cutting productive administrative and fundraising costs, as well as other dysfunctional behavior ([Kitcing, Roberts, and Smith 2012](#)). Managers have fewer incentives to manipulate the program ratio to the extent that private foundations use other information in their grant decisions. This effect would be magnified if other donors rely on the signal of quality provided by private foundation grants.

Donors and charity watchdog groups also should consider that foundation sophistication is different across foundations and, therefore, the usefulness of the private foundation grant signal likely varies. We find no relationship between grant size and reported efficiency for all foundations, regardless of sophistication. However, we find a relationship between grant size and financial vulnerability for more sophisticated foundations. As a result, donors should be particularly sensitive to foundation sophistication when they are concerned about the ability of the charity to continue to provide the current level of services. Relatedly, less sophisticated foundations should consider using grants made by more sophisticated private foundations as a credible signal of financial stability.

Our findings also have implications for regulators. Private foundations are criticized for enjoying generous tax breaks and for stingy grant-making ([Reich 2013](#); [Galle 2016](#); [Daniels 2017](#)). The primary reason private foundations are created is to provide tax advantages for their

founders (Gersick 2006). These tax advantages are substantial—in excess of \$12.7 billion annually.¹³ Our findings suggest that private foundations contribute positively to the allocation of philanthropic capital between donors and charities. In addition, our study provides evidence that operational and governance mechanisms vary across private foundations, which implies that regulatory demands placed on private foundations should also differ. We believe that any future regulations proposed for private foundations should consider the role of foundation sophistication.

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¹³ In 2015, charitable contributions to independent private foundations totaled \$32.0 billion (Foundation Center 2019). Based on a 39.6 percent marginal tax rate (with the assumption that most donors are wealthy and therefore are subject to the highest tax rate), donors had the potential to enjoy up to \$12.7 billion in tax deductions (subject to income limitations) from these charitable contributions. Additionally, donors avoid paying capital gains taxes when their charitable contributions consist of appreciated publicly traded company stock.

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