



The Effect of Large Corporate Donors on Non-profit Performance

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Abstract

Using a dataset of corporate philanthropic gifts of \$1 million or more, we examine the influence of corporate donors on the performance of recipient non-profit organizations (NPOs). We find that corporate donors positively influence NPO performance, specifically in the form of higher revenues per employee, program ratios, and fundraising returns. We find little evidence that large foundation or individual donors similarly enhance organizational performance. In additional analysis, we find that large corporate donations matter when the corporation is more likely to have influence over the recipient NPO. These findings suggest that corporate donors provide the monitoring and expertise needed to enhance organizational performance beyond simply providing funding to NPOs. Our results are robust to a two-stage model and propensity score matching to address endogeneity concerns. While prior research has examined the effect of corporate philanthropy on donor organization performance, we contribute to the literature by examining whether corporate philanthropy also improves recipient organization performance.

Keywords Non-profit organizations · Corporate philanthropy · Governance · Organizational performance

Introduction

This study examines the effect of corporate donations on the performance of the non-profit organizations (NPOs) receiving the donation. Interactions between corporate donors and NPOs have become more prevalent as corporations have become increasingly cognizant of social missions and values (Balmer et al. 2007; Dawkins and Lewis 2003;

Pinkston and Carroll 1996). On an inflation-adjusted basis, from 1977 to 2017, corporate charitable contributions have increased from \$6.23 billion to \$20.77 billion (Giving USA 2018), rendering corporate philanthropy an economically meaningful corporate activity. However, while prior research has documented the determinants of corporate philanthropy (e.g., Seifert et al. 2003) and explored the benefits of corporate philanthropy on donor corporations (e.g., Lev et al. 2010; Wang et al. 2008; Wang and Qian 2011; Zolotoy et al. 2019), much less is known about how corporate donations impact the NPOs that receive these donations. We believe this is an important question given that NPOs are particularly susceptible to governance weaknesses (e.g., Glaeser 2003), problems that corporate donors could help alleviate.

We argue that corporate donors have an incentive to monitor NPO recipient operations more closely because of their responsibility to shareholders demanding efficient utilization of their resources. Moreover, resource dependence theory suggests that corporate donors that make sizable gifts, defined in our sample as donations greater than \$1 million, have a better opportunity to influence NPO performance when a large portion of an NPO's revenue is derived from corporate gifts. In this way, the corporation may be able to influence recipient organizations, for example, through having a senior manager sit on its board, in the structuring of

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the gift agreement, the opportunity for repeat gifts, sharing efficient business strategies, etc. Consistent with this influence, Useem (1987) notes that “corporate sponsorship has an impact not only on the programs of non-profit organizations but on administrative structures as well. ‘Organizational isomorphism’—the tendency for organizations to acquire the attributes of other organizations upon which they depend—applies here as well as anywhere” (p. 355). Therefore, to the extent corporate donors are willing to exercise their influence to more closely monitor the NPO and recommend more efficient operational processes derived from their own business practices, we would expect large corporate donations to be positively associated with NPO performance.

At the same time, it is not clear whether corporations are interested in influencing the operational performance of the NPOs to which they donate. Furthermore, if corporate philanthropy reflects donors’ “window dressing” efforts to appear socially responsible (Frankental 2001; Amazeen 2011), rather than a concerted effort to influence social outcomes through the NPO’s operations, we would expect large corporate donations to have no effect on NPO performance.

To examine whether corporate donors influence an NPO’s performance, we make use of a dataset of philanthropic gifts of \$1 million or larger (i.e., Million Dollar List) compiled by the Indiana University School of Philanthropy and merge it to NPO data from IRS Form 990 informational tax returns. The intersection of these datasets yields 5962 industry-diverse NPO-year observations from 2008 to 2012 that have received at least one million dollar gift. Using this data, we find the presence and size of large corporate donations is positively associated with an NPO’s revenues per employee, share of spending on programs, and fundraising margins, three proxies utilized in prior literature (e.g., Desai and Yetman 2015; Newton 2015) to capture efficiencies in NPO performance. Specifically, these proxies reflect how cost-effectively NPOs deliver services, secure donations, and manage expenses. We find little evidence that large foundation or individual donors are associated with these facets of organizational performance, suggesting that corporate donors are uniquely able to positively influence the efficiency of donor recipient operations.

In additional analysis we test whether repeat corporate donors incrementally affect NPO performance, and find that the positive effect on NPO performance increases as the corporate donor-NPO relationship extends over multiple periods, consistent with recurring donors’ amplified ability to exert influence over an NPO.

We also conduct cross-sectional tests related to the corporate donor’s need/ability to monitor the NPO, finding that performance is less sensitive to the presence of a large corporate gift in NPOs that have a larger proportion of their total revenue coming from internal sources, relative

to external fundraising, as well as those that do not receive government grants. Finally, to help alleviate concerns that better performing NPOs are more likely to receive corporate donations, we test the robustness of our results to implementing a two-stage approach as well as propensity score matching. In both specifications, we continue to find that large corporate donations have a positive effect on NPO performance.

Our findings contribute to the literature by highlighting the role that corporate donors play in enhancing *NPO performance*. In doing so, we respond to the calls from van Tulder et al. (2016) for evidence of the impact of partnerships between business organizations and NPOs and Gautier and Pache (2015), who highlight a paucity of research examining the outcomes of corporate philanthropy on recipient organizations. While prior studies have focused on the determinants of corporate giving (e.g., Seifert et al. 2003) and how giving can positively affect corporate donor performance (Wang et al. 2008; Lev et al. 2010), our study uses a large sample of NPO observations to examine the benefits of corporate philanthropy on *recipient organizations*. In addition, research examining strategic partnerships between NPOs and businesses have largely focused on case studies (e.g., Austin 2000; Babiak and Thibault 2009); thus, documenting positive effects of corporate philanthropy on NPO performance in a large archival study provides more generalizable evidence of the effects suggested in prior research.

Recognizing these benefits is important to NPO and corporate stakeholders alike. First, other prospective donors, particularly those without the ability to exert influence over the NPO themselves, may feel more comfortable giving to NPOs that receive large corporate donations, under the premise that these organizations will operate more efficiently because of increased monitoring and sharing of best practices. Second, given that many NPOs are resource constrained and understaffed, NPO boards and managers may be encouraged to solicit large donations from corporate donors that are willing to not only provide financial support but also managerial expertise and monitoring. Corporations may be more receptive to these solicitations under the premise they can step into exercise influence that positively affects the efficiency of an NPO’s operations, particularly where strong monitoring mechanisms may not be in place. Lastly, corporate shareholders may encourage corporate donations, with the knowledge that their investment goes beyond the initial gift provided.

The remainder of this study is organized as follows. The next section lays out project background and hypotheses. This is followed by details of our model and data. Results are presented next, then additional analysis, and finally study conclusions.

Background and Theory Development

A key difference between NPO and for-profit organizational structure is that NPOs do not have residual claimants. While for-profit shareholders have incentives to monitor the firms they invest in, donors do not receive any monetary return for their investment and thus have little incentive to monitor the activities of non-profits (Fama and Jensen 1983). This can produce inefficiencies in NPOs' operations, such as excess spending (Fisman and Hubbard 2005), compensation (Core et al. 2006), and perquisite consumption (Newton 2015). At the extreme, the lack of monitoring and internal controls can result in heightened fraud risk at NPOs (Greenlee, Fischer, Gordon, and Keating 2007). O'Regan and Oster (2005) posit that these differences between NPO and for-profit organizations lead to governance having a heightened role in the non-profit sector, while Rivera-Santos and Rufin (2010) assert that mechanisms such as stakeholder involvement and contracts can mitigate opportunism in the NPO.

Governance research in the NPO setting has largely focused on the role of the board of directors (Cornforth 2012; Ostrower and Stone 2006), including board structure and composition (e.g., Callen, Klein, and Tinkelman 2003; Aggarwal et al. 2012; Harris 2014; O'Regan and Oster 2005) as well as board roles and performance (e.g., Brown and Guo 2010; Herman and Renz 2000). Generally, this prior research finds that NPO boards affect performance, but the relation between board characteristics and performance depends on the board member's role and the type of performance examined.

While board governance plays an important role in monitoring non-profits, the NPO governance system is broader than just the board, and includes other parties such as regulators, auditors, and donors (Cornforth 2012). In addition to gaining board representation (Callen et al. 2003), prior research suggests that donors (and potential donors) can monitor NPOs through their decision on whether and how much to donate.

While much is known about donor preferences (e.g., Okten and Weisbrod 2000; Yetman and Yetman 2013; Harris et al. 2015), much less is known about the impact donors have on the organizations they donate to. We focus on the effects of corporate donors making gifts of \$1 million or greater to an NPO in a given year. This subset of donors is increasingly important as corporate-non-profit partnerships become more commonplace (Austin and Seitandi 2012a, b). In 2017, U.S. corporations gave approximately \$20.77 billion to the non-profit sector (Giving USA 2018). Prior academic studies have examined the performance benefits of corporate philanthropy for the donor corporation (see Gautier and Pache 2015 for a thorough

review). For example, Lev et al. (2010) find that charitable contributions are significantly associated with future revenue, and that this association is most pronounced for firms that are highly sensitive to consumer perception. However, despite the popularity of corporate philanthropy, much less is known about how corporate donations influence the performance of the NPOs that receive these donations.

We expect corporate donors, relative to individuals or foundations, to be exceptionally well positioned to exert influence in a way that enhances NPO performance for at least two reasons. First, corporations must respond to pressure from profit-seeking shareholders demanding efficient utilization of their resources. In order to justify utilizing shareholder resources for philanthropic purposes, corporate management may need to demonstrate how that philanthropy adds shareholder value. Prior research posits that the business benefit of corporate philanthropy is based in enhancing the company's reputation with customers (e.g., Lev et al. 2010) and that consumers consider whether the company's giving creates societal value (Gautier and Pache 2015). If the societal value an NPO creates is partly a function of its performance, then corporate donors have an incentive to monitor their recipient NPO's performance in order to maximize the reputational benefit from their giving. For instance, one anonymous corporate giving officer we interviewed indicated that her corporation requires regular (i.e., twice a year) reports from an NPO as to how it has achieved stated objectives (e.g., increasing employment in underserved areas).

Second, corporate management can share efficient business practices with an NPO's management, thereby providing an interactive spillover effect that improves the NPO's performance. Austin and Seitandi (2012) define this interaction value of corporate-NPO partnerships in terms of intangibles such as learning, communication, and joint problem solving, which come from the processes of partners working together. Moreover, a corporate giving officer we interviewed indicated her corporation helps the NPO with leadership training and may provide in-kind managerial support. One example that she gave was that her company provided training to NPO management on 360-degree feedback evaluations.

Resource dependence theory also predicts that NPOs may be particularly receptive to corporate donor influence. In particular, this theory suggests that organizations operate within a network of interdependent organizations (Pfeffer and Slanacik 1978) and must respond to demands from the external organizations on which they depend. Thus, if a large portion of an NPO's donations come from a particular corporation, that donor is likely to be able to exert influence over the organization. For instance, it could demand board representation as a condition of a donation, enhancing its ability to monitor the NPO and implement certain

operational practices. Further, it could impose certain performance measurement and reporting requirements as a condition of making a gift. For example, a corporate giving manager that we interviewed stated that the ability to evaluate performance is a very important part of the decision to donate to an NPO.

Although corporate donors appear to have incentives and opportunities to exercise influence over the NPOs to which they donate, it is not clear whether they are interested in improving the NPO's operational performance. If corporate philanthropy reflects donors' "window dressing" efforts to appear socially responsible (Frankental 2001; Amazeen 2011), rather than a concerted effort to affect social outcomes through the NPO's operations, we would expect large corporate donations to have no effect on NPO performance.

In this study, we test whether corporate donors making large gifts influence the NPOs they donate to by examining the association between corporate donations and NPO performance. If corporate donors impact recipient NPOs through monitoring and information sharing, we expect to find a positive association between the existence and/or amount of large corporate donations and NPO performance. In additional analysis, we also test instances where corporate donors may exert greater influence.

Models and Data

The Million Dollar List

We obtain data on corporate donations from the University of Indiana's School of Philanthropy Million Dollar List, a compilation of over 70,000 publicly announced charitable gifts of \$1 million or more since 2000 given by U.S. residents, corporations, private foundations, and other grant-making organizations to domestic and international charities.¹ All corporate philanthropy datasets have limitations. As such, we acknowledge that this dataset only captures gifts of \$1 million or greater that are publicly disclosed by either the giver or the recipient. We expect coverage, however, to be most comprehensive for corporations, as this entity type has incentives to publicize charitable efforts in order to win customer approval (Lev et al. 2010). Therefore, it is less likely our analysis would misclassify corporate donor recipients or understate the magnitude of these gifts. In addition, two considerable strengths of this dataset in answering our research question relative to other datasets of corporate

philanthropy are: (1) the dataset includes information on the recipients of particular gifts, allowing us to examine outcomes for those recipients and (2) the dataset includes direct corporate giving, a meaningful source of corporate philanthropy that is typically overlooked in datasets that rely exclusively on Form 990 data from corporate foundations.

The Million Dollar List provides the donor name and type, recipient organization and subsector, as well as gift amount. Our analysis includes 22,409 gifts made from 2005 to 2012 to 501(c)(3) non-profits with Form 990 data available through the IRS Statistics of Income database. We believe we are the first, in the context of examining the effect of donations on NPO performance, to obtain and analyze such a large sample of donor types, and therefore provide full descriptive information about these gifts in Table 1, by both subsector and gift type.

From Table 1, we note that corporate gifts ($N = 2118$) represent approximately 9% of all gifts in this dataset, while foundation gifts ($N = 16,821$) represent 75%, and individual gifts ($N = 3470$) come in at 16%. Further, the average size (\$4.0 M) of corporate gifts is significantly smaller ($p < 0.01$ untabulated) than individual gifts (\$9.6 M) and similar to foundation gifts (\$3.9 M). Corporations donate disproportionately more to human services (18%) and public, society benefit (16%) NPOs relative to foundations (6% and 11%, respectively) and individuals (2% and 3%, respectively). Meanwhile corporations donate disproportionately less to higher education (33%) than foundations (42%) and individuals (77%). In untabulated analysis, we also observe donations by donor type and year. We note the size of large gifts decreased in 2008 for corporate and foundation donors and in 2009 for individual donors, consistent with the Great Recession constraining donor behavior.

The dataset includes donations to 2479 unique NPOs, representing 8267 NPO-years. The average (median) NPO-year in this dataset receives 2.7 (1) large gifts that are \$13.0 M (\$3.5 M) in cumulative magnitude from corporations, foundations, and individuals. The dataset contains 608 unique NPOs, representing 1350 NPO-years, that receive large corporate gifts. The average (median) corporate donor recipient receives 1.6 (1) gifts that total \$6.3 M (\$2.0 M) from corporations specifically. The total number of donations coming from corporations, foundations, and individuals exceeds 8267 because many NPOs receive large donations from multiple donor types.

¹ We treat gifts from other grant-making entities as foundation gifts. When donations come from a foundation identified by the Million Dollar List as a corporate foundation (e.g., AT&T Foundation), we consider that donation as coming from the corporation (e.g., AT&T). The Million Dollar list is accessible at www.milliondollarlist.org.

Table 1 Large gift descriptive statistics

Panel A: Recipient subsector by donor type (in \$)																
	All				Corporate				Foundation				Individual			
	N	Mean (\$000)	Std (\$000)	Median (\$000)	N	Mean (\$000)	Std (\$000)	Median (\$000)	N	Mean (\$000)	Std (\$000)	Median (\$000)	N	Mean (\$000)	Std (\$000)	Median (\$000)
Arts, culture, and humanities	1888	4236	13,614	1667	186	2930	3232	2000	1515	3366	7185	1500	187	12,580	37,037	4500
Education	1211	3343	7082	1600	78	1951	2072	1318	1067	2996	5901	1600	66	10,595	17,312	5000
Environment and animals	942	3912	7869	1707	89	3029	6975	1016	825	3951	8029	1760	28	5554	5172	3500
Foundations	476	5490	14,136	1974	24	5686	8043	1783	443	5218	14,065	1966	9	18,378	23,611	6300
Government	17	11,117	35,812	2500	2	2050	1344	2050	13	13,761	40,950	2500	2	3000	2828	3000
Health	1985	4829	13,719	1791	155	3816	5879	1518	1557	4136	11,745	1726	273	9356	23,243	2500
Higher education	10,490	5322	15,972	1847	702	5329	22,159	1515	7108	3845	12,324	1600	2680	9236	21,125	3000
Human services	1395	3142	4719	1555	385	3375	5613	1500	927	2923	3868	1678	83	4495	7712	1000
International	1222	6087	15,439	2016	142	4173	6982	2000	1055	5919	15,675	2042	25	24,080	26,277	12,000
Overseas	314	5995	13,630	2597	11	6477	10,479	2138	294	5826	13,813	2650	9	10,933	10,688	5000
Public, society benefit	2303	4051	13,002	1690	341	3286	10,865	1479	1860	3679	11,594	1720	102	13,384	29,818	3250
Religious organizations	160	3273	4577	1512	3	1513	889	1000	151	3318	4687	1524	6	3000	2191	3000
Various	6	12,133	8902	10,366	–	–	–	–	6	12,133	8902	10,366	–	–	–	–
Total gifts	22,409	4800	14,048	1800	2118	4027	14,087	1500	16,821	3918	11,339	1698	3470	9551	22,441	3000
Unique NPO-years	8267	13,013	34,754	3500	1350	6317	19,651	2011	6638	9928	24,729	3000	2142	15,472	36,643	5000

Recipient subsectors are defined by the Million Dollar List. Examples of NPOs in each subsector are as follows: Arts, Culture, and Humanities (e.g., Houston Museum of Natural Science), Education (e.g., Southwest Indiana Network for Education), Environment and Animals (e.g., Pittsburgh Zoo), Foundations (e.g., Bill and Melinda Gates Foundation), Government (e.g., Chicago Park District), Health (e.g., St. Jude Children's Research Hospital), Higher Education (e.g., University of Arkansas), Human Services (e.g., Habitat for Humanity), International (e.g., Jesuit Refugee Service), Overseas (e.g., South African Institute for Advancement), Public, Society Benefit (e.g., Greater Twin Cities United Way), Religious (e.g., Catholic Diocese of Toledo)

Regression Model

To address our research question, we estimate the following regression model following Newton (2015) with standard errors clustered at the NPO level:

$$\begin{aligned} \text{Performance} = & \beta_0 + \beta_1 \text{CorporateDonor} + \beta_2 \text{GovernanceIndex} + \beta_3 \text{Employees} + \beta_4 \text{Size} \\ & + \beta_5 \text{ZeroFundraising} + \beta_6 \text{GovGrants} + \beta_7 \text{Liquidity} + \beta_8 \text{Leverage} + \beta_9 \text{TangibleAssets} \\ & + \beta_{10} \text{BoardSize} + \beta_{11} \text{BoardSize}^2 + \beta_{12} \text{Age} + \beta_{13} \text{DonationGrowth} + \beta_{14} \text{Commercial} + \text{Industry FE} + \text{Year FE} + \epsilon \end{aligned}$$

We measure NPO performance using three metrics commonly used in the non-profit literature (e.g., Newton 2015; Desai and Yetman 2015) that capture organizational efficiency: revenue per employee, the program ratio, and the fundraising ratio. We measure *RevPerEmployee* as the natural log of the ratio of total revenue to total employees, *ProgramRatio* as program expenses divided by total expenses (Weisbrod and Dominguez 1986; Baber, Daniel, and Roberts 2002) and *FundraisingRatio* as fundraising revenue (i.e., total contributions) less fundraising expenses divided by fundraising revenue (Neely and Tinkelman 2013). Revenue per employee partially captures efficiency among employees, either in delivering services or securing donations. It is also an overall measure of the success of the organization in generating revenues given its size. The program ratio captures how efficiently the NPO manages its outflows, specifically its ability to minimize administrative and fundraising expenses.² The fundraising ratio more specifically captures efficiency in fundraising efforts. For each of these metrics, higher values indicate better performance. We acknowledge no single metric perfectly measures performance, but use these three because they capture varying aspects of performance, can be constructed with publicly available data, and facilitate comparison across a range of NPO types.

We define our variable of interest, *CorporateDonor*, in two separate ways and perform our analysis alternately using both specifications. *CorporateDonorInd* is an indicator variable equal to one if the NPO received a corporate gift of \$1 million or more from $t-3$ to $t-1$ and zero otherwise. We lag our test variable because we expect any influence corporate donors exert to take at least 1 year to manifest in better performance. Lagging the test variable also alleviates concerns that any relationship with the dependent variable

would be mechanical.³ Moreover, we consider a three-year window because it may take longer for this influence to manifest. To the extent there is an immediate improvement, we would expect this effect on performance to persist, such that large donations made three years ago should still impact

performance in the current year. Our results are directionally similar, but statistically weaker when examining single period measures. *CorporateDonorAmount* is the sum of all corporate gifts of \$1 million or more received by a particular NPO from $t-3$ to $t-1$ scaled by total donations to the NPO from $t-3$ to $t-1$. Higher values of *CorporateDonorAmount* indicate that a larger proportion of the NPO's total donations comes from corporate donors. Therefore, if the existence and magnitude of corporate philanthropy facilitates better NPO performance, then we expect the coefficients on *CorporateDonorInd* and *CorporateDonorAmount* will be positive and significant in their respective regressions.

We define model control variables as follows. *GovernanceIndex* is a measure of NPO governance quality based on the NPO's governing body, governing policies, compensation policies, and accountability and transparency. We follow Newton (2015) in defining this variable as the average of four governance sub-indices (governing body, governing policies, compensation policies, accounting and transparency), where each sub-index is defined as the ratio of the sum of the indicator variables as a proportion of the total possible responses for each firm-year observation. Each response is weighted by its annual cross-sectional standard deviation. *Employees* is the natural log of the number of employees at the NPO. *Size* is the natural log of the NPO's total assets. *ZeroFundraising* is an indicator variable coded as one if the NPO reports fundraising expense of zero with simultaneous non-zero donations during the year; coded as zero otherwise following Yetman and Yetman (2012).⁴ *GovGrants* is the total dollars of government grants received by the NPO during the year scaled by total revenue. *Liquidity* is the NPO's total cash, accounts and pledge receivables for the year divided by total expenses. *Leverage* is the NPO's total liabilities for the year scaled by total assets. *TangibleAssets* is defined as the fraction of total assets comprised

² A stream of literature examines NPOs' manipulation of the program ratio (i.e., Yetman and Yetman 2013) by understating administrative or fundraising expenses. We expect corporate donors to be better able to detect program ratio manipulation, such that corporate philanthropy recipients should be less likely to appear better performing because of a manipulated program ratio. Further, while any manipulation would impact measurement of the *ProgramRatio* and *FundraisingRatio*, it does not impact the *RevPerEmployee* metric.

³ To further alleviate concerns about a mechanical relationship, we remove any gifts included in the Million Dollar List database from our *RevPerEmployee* or *FundraisingRatio* outcome variables measured in year t . Our results are robust to this modification.

⁴ Our results are robust to excluding NPOs without fundraising expenses from the analysis.

of land and buildings. *BoardSize* is the natural log of the number of board members. To control for non-linearity in the relation between board size and NPO performance, we also include the squared term, *BoardSize*², in our model. *Age* is the natural log of the number of years since the NPO formed. *DonationGrowth* is the change in donations, scaled by total revenue, from $t-2$ to $t-1$. Consistent with Newton (2015), we exclude *ZeroFundraising* and *DonationGrowth* from the *FundraisingRatio* regression in order to avoid a potentially spurious relationship between the dependent and independent variables. *Commercial* is an indicator variable coded as one for organizations whose ratio of program service revenues to donations and program service revenues exceeds 90% (Aggarwal et al. 2012); coded as zero otherwise. We also include industry fixed effects to control for any time invariant industry-level characteristics that may be driving our results. We define industry using the National Taxonomy of Exempt Entities (NTEE) 26 major groupings. Additionally we include year fixed effects to control for macroeconomic trends present in our sample. In untabulated analysis, we also control for the strength of state-level governance in curbing managerial misbehavior, following the proxy developed by Desai and Yetman (2015), and obtain similar results.

Sample Selection

To test our models, we begin our sample selection using 7994 NPO-year observations with Form 990 data available through the IRS Statistics of Income database from 2008 to 2012 that receive at least one \$1 million donation reported in the Million Dollar List over the prior three-year period. Whereas the 8267 NPO-years from Table 1 include observations from 2005–2012 that receive a large gift in year t specifically, the 7994 NPO-years we start with here include observations from 2008 to 2012 that receive a large gift at any point between year $t-3$ and $t-1$. We limit the sample to those NPOs receiving at least one \$1 million donation over this period because there are likely systematic differences between NPOs that receive these large gifts and those that do not. We discuss alternate ways in which we address selection issues in our sample as part of our additional analysis. Since we need total contributions to measure the relative magnitude of the large donor's gift to total giving, we eliminate 816 NPO-year observations not reporting total contributions on the Form 990 for each of the prior three years. Finally, we eliminate 1184 NPO-year observations with missing data necessary to measure the control variables in the model and 32 observations from industries lacking corporate donors since we consider the likelihood of receiving a corporate donation in additional analysis. These cuts result in a final sample of 5962 NPO-year observations for testing our hypothesis.

Results

Table 2, Panel A reports the descriptive statistics for our full regression sample. Note that our Table 1 descriptives are presented for *individual gifts* received by NPOs in excess of \$1 M included in the University of Indiana's School of Philanthropy Million Dollar List between 2005 and 2012 (representing donations to 2479 unique NPOs over 8267 NPO-years where the average NPO-year receives 2.7 large gifts); while our Table 2 descriptives focus on the final sample of NPO-years from 2008 to 2012 in our sample (5962). Approximately 20% of our NPO-years receive a large corporate donation over the previous three-year period.⁵ Table 2, Panel B partitions the sample depending on whether the NPO has received a large corporate donation. Within the NPOs receiving corporate donations, we note that 9.3% of total revenues from $t-3$ to $t-1$ come from corporate gifts of \$1 million or greater. Thus, while the majority of NPOs do not have corporate influence, corporate donations make up a large portion of total donations for those NPOs that do receive large corporate gifts. Further, we note corporate donor NPOs perform significantly better in terms of *RevenuePerEmployee* (natural log of the ratio of total revenues to employees at year end), *ProgramRatio* (program expenses divided by total expenses), and *FundraisingRatio* (donation revenue less fundraising expense divided by total donation revenue), providing univariate support for our hypothesis. At the same time, these NPOs are significantly different in some of their fundamental characteristics, underscoring the importance of multivariate regression analysis to control for these features. In particular, corporate donor NPOs appear better governed, are bigger (both in total assets and board size), less levered, more likely to report fundraising expenses, less likely to derive predominantly all their revenues from programming, hold more liquid and fewer tangible assets, and generate more revenue from government grants.

We present a correlation matrix in Table 3. Our outcome variables capturing NPO performance are all significantly positively correlated with the incidence and magnitude of corporate donations. Our variables of interest are generally significantly correlated with the control variables; however, correlation coefficients on our variables of interest are never greater than 17%, suggesting that corporate philanthropy is distinct from any single NPO characteristic and multicollinearity is not a concern. Interestingly, the incidence of corporate donations is significantly positively correlated

⁵ Of the 1184 NPO-years receiving a large corporate gift, 242 do not receive large gifts from foundations or individuals, 490 receive a large gift from a foundation but not an individual, 42 receive a large gift from an individual but not a foundation, and 410 receive gifts from foundations and individuals.

Table 2 Summary statistics

<i>N</i> = 5962	Mean	Std	p5	p10	p25	p50	p75	p90	p95
<i>Panel A: Sample not Partitioned on Presence of a Corporate Donor</i>									
<i>RevPerEmployee</i> *	389,597	1,039,736	33,468	40,508	55,448	96,855	229,785	805,554	1,566,099
<i>ProgramRatio</i>	0.831	0.083	0.680	0.721	0.783	0.846	0.889	0.924	0.947
<i>FundraisingRatio</i>	0.863	0.135	0.598	0.694	0.806	0.897	0.962	0.997	1.000
<i>CorporateDonorInd</i>	0.199	0.399	0.000	0.000	0.000	0.000	0.000	1.000	1.000
<i>CorporateDonorAmount</i>	0.017	0.064	0.000	0.000	0.000	0.000	0.000	0.039	0.102
<i>GovernanceIndex</i>	0.419	0.107	0.198	0.251	0.362	0.437	0.500	0.539	0.571
<i>Employees</i> *	2014	4083	17	34	135	595	2064	4581	8663
<i>Size (in \$000)*</i>	541,093	1,145,903	23,568	38,802	81,534	177,246	462,457	1,192,274	2,188,096
<i>ZeroFundraising</i>	0.080	0.271	0.000	0.000	0.000	0.000	0.000	0.000	1.000
<i>GovGrants</i>	0.078	0.166	0.000	0.000	0.000	0.009	0.054	0.248	0.475
<i>Liquidity</i>	0.617	0.676	0.097	0.136	0.217	0.383	0.751	1.362	1.917
<i>Leverage</i>	0.286	0.213	0.017	0.035	0.120	0.251	0.412	0.578	0.702
<i>TangibleAssets</i>	0.305	0.234	0.001	0.004	0.064	0.305	0.484	0.619	0.702
<i>BoardSize</i> *	32	20	10	13	19	28	38	51	66
<i>Age</i> *	80	51	13	21	38	69	117	155	176
<i>DonationGrowth</i>	0.000	0.256	−0.245	−0.147	−0.048	−0.002	0.038	0.140	0.253
<i>Commercial</i>	0.253	0.435	0.000	0.000	0.000	0.000	1.000	1.000	1.000
	<i>CorpDonorInd</i> = 0 (<i>N</i> = 4778)				<i>CorpDonorInd</i> = 1 (<i>N</i> = 1184)			Diff in Means	
	Mean	Std	Median		Mean	Std	Median	<i>p</i> value	
<i>Panel B: Sample Partitioned on the Presence of a Corporate Donor</i>									
<i>RevPerEmployee</i>	11.665	1.162	11.346		12.277	1.329	11.932	<.0001	
<i>ProgramRatio</i>	0.829	0.082	0.844		0.839	0.085	0.854	0.000	
<i>FundraisingRatio</i>	0.855	0.139	0.888		0.892	0.113	0.921	<.0001	
<i>CorporateDonorAmount</i>	0.000	0.000	0.000		0.087	0.120	0.040	<.0001	
<i>GovernanceIndex</i>	0.413	0.108	0.433		0.442	0.098	0.454	<.0001	
<i>Employees</i>	6.204	1.856	6.461		6.214	2.062	6.049	0.867	
<i>Size</i>	18.996	1.280	18.921		19.576	1.552	19.507	<.0001	
<i>ZeroFundraising</i>	0.084	0.278	0.000		0.063	0.242	0.000	0.007	
<i>GovGrants</i>	0.072	0.166	0.008		0.099	0.164	0.018	<.0001	
<i>Liquidity</i>	0.601	0.670	0.370		0.682	0.698	0.450	0.000	
<i>Leverage</i>	0.289	0.214	0.252		0.272	0.206	0.242	0.013	
<i>TangibleAssets</i>	0.323	0.233	0.332		0.232	0.224	0.177	<.0001	
<i>BoardSize</i>	3.264	0.554	3.332		3.402	0.592	3.401	<.0001	
<i>BoardSize</i> ²	10.961	3.610	11.104		11.924	4.057	11.568	<.0001	
<i>Age</i>	4.140	0.780	4.263		4.101	0.756	4.127	0.1219	
<i>DonationGrowth</i>	−0.002	0.256	−0.002		0.008	0.257	−0.003	0.2259	
<i>Commercial</i>	0.276	0.447	0.000		0.160	0.366	0.000	<.0001	

All variables are defined in the Appendix. All continuous variables are winsorized at the 1st and 99th percentiles by year

with NPO governance and size, whereas the magnitude of corporate donations is significantly negatively correlated with these characteristics. Meanwhile, NPOs receiving large corporate donations are significantly less likely to report zero fundraising expenses, but the magnitude of corporate donations is positively correlated with NPOs reporting zero fundraising expenses.

We report the results of the test of corporate influence on NPO performance in Table 4. The dependent variables in these tests are *RevenuePerEmployee*, *ProgramRatio*, and *FundraisingRatio* in columns (i), (ii), and (iii), respectively. Panel A presents the results when testing whether the existence of a large corporate donor affects NPO performance. The coefficient on *CorporateDonorInd* is positive and

Table 3 Correlation matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 <i>RevPerEmployee</i>																		
2 <i>ProgramRatio</i>	0.143																	
3 <i>FundraisingRatio</i>	0.190	0.335																
4 <i>CorporateDonorInd</i>	0.108	0.049	0.200															
5 <i>CorporateDonorAmount</i>	0.108	0.057	0.063	0.063														
6 <i>GovernanceIndex</i>	0.108	0.057	0.063	0.063	0.063													
7 <i>Employees</i>	0.108	0.057	0.063	0.063	0.063	0.063												
8 <i>Size</i>	0.108	0.057	0.063	0.063	0.063	0.063	0.063											
9 <i>ZeroFundraising</i>	0.108	0.057	0.063	0.063	0.063	0.063	0.063	0.063										
10 <i>GovGrants</i>	0.108	0.057	0.063	0.063	0.063	0.063	0.063	0.063	0.063									
11 <i>Liquidity</i>	0.108	0.057	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063								
12 <i>Leverage</i>	0.108	0.057	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063							
13 <i>TangibleAssets</i>	0.108	0.057	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063						
14 <i>BoardSize</i>	0.108	0.057	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063					
15 <i>BoardSize²</i>	0.108	0.057	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063				
16 <i>Age</i>	0.108	0.057	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063			
17 <i>DonationGrowth</i>	0.108	0.057	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063		
18 <i>Commercial</i>	0.108	0.057	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	

N = 5962. Coefficients in **bold** are statistically significant ($p < 0.05$). All variables are defined in the Appendix. All continuous variables are winsorized at the 1st and 99th percentiles by year

Table 4 Main regression results

Dependent variable	(i) <i>RevPerEmployee</i>	(ii) <i>ProgramRatio</i>	(iii) <i>FundraisingRatio</i>
<i>Panel A: Indicator Variable for Corporate Donor NPOs</i>			
<i>CorporateDonorInd</i>	0.230*** (7.433)	0.003 (0.607)	0.012** (2.159)
<i>GovernanceIndex</i>	0.441*** (3.313)	−0.018 (−0.953)	−0.101*** (−3.697)
<i>Employees</i>	−0.641*** (−39.577)	0.006*** (3.058)	0.000 (0.118)
<i>Size</i>	0.553*** (34.576)	0.009*** (4.362)	0.016*** (5.995)
<i>ZeroFundraising</i>	0.059 (1.034)	0.026*** (3.308)	
<i>GovGrants</i>	0.402*** (4.458)	0.014 (1.157)	0.174*** (14.537)
<i>Liquidity</i>	−0.094*** (−3.669)	−0.020*** (−5.810)	0.009** (2.443)
<i>Leverage</i>	0.603*** (7.936)	0.008 (0.818)	0.020 (1.494)
<i>TangibleAssets</i>	−0.622*** (−8.186)	−0.044*** (−4.112)	−0.019 (−1.423)
<i>BoardSize</i>	−0.614*** (−3.109)	−0.018 (−0.672)	−0.128*** (−4.337)
<i>BoardSize</i> ²	0.089*** (3.039)	0.002 (0.546)	0.018*** (4.143)
<i>Age</i>	−0.095*** (−4.561)	−0.005 (−1.475)	−0.015*** (−3.655)
<i>DonationGrowth</i>	−0.056** (−2.109)	−0.002 (−0.573)	
<i>Commercial</i>	0.244*** (8.798)	0.023*** (5.096)	−0.087*** (−10.334)
<i>Constant</i>	5.930*** (14.300)	0.670*** (11.743)	0.857*** (12.425)
Observations	5962	5962	5962
Fixed Effects	Ind&Yr	Ind&Yr	Ind&Yr
Clustered SE	NPO	NPO	NPO
Adjusted R ²	0.822	0.190	0.307
<i>Panel B: Continuous Variable</i>			
<i>CorporateDonorAmount</i>	0.413*** (2.655)	0.055** (2.134)	0.068** (1.977)
Observations	5962	5962	5962
Controls	Yes	Yes	Yes
Fixed Effects	Ind&Yr	Ind&Yr	Ind&Yr
Clustered SE	NPO	NPO	NPO
Adjusted R ²	0.817	0.192	0.306

Panel A presents results where the indicator variable, *CorporateDonorInd*, is the test variable. Panel B presents results where the continuous variable, *CorporateDonorAmount*, is the test variable. All variables are defined in the Appendix. All continuous variables are winsorized at the 1st and 99th percentiles by year. T-statistics are presented below each coefficient. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively, using two-tailed *p*-values

statistically significant when evaluating performance with respect to *RevenuePerEmployee* and *FundraisingRatio*, but is not significant with respect to *ProgramRatio*.

Panel B presents the results of our test variable when considering how the magnitude of large corporate donations affects NPO performance. The coefficient on *CorporateDonorAmount* is positive and statistically significant in all three of our performance outcomes, supporting our hypothesis that NPOs with higher levels of corporate donor influence experience superior subsequent performance. Economically, a one standard deviation in the fraction of gifts coming from corporate donors translates to a subsequent \$10,298 increase in revenue per employee and retention of \$291,606 fundraising revenues for the average NPO.⁶

To help ensure our results are attributable to corporate philanthropy, rather than large donors in general, we repeat our analysis using large gifts from foundations or individuals as our test variable. Panel A of Table 5 reflects that approximately 86 (34)% of the NPO-years in our sample receive a large donation from a foundation (individual) in the previous three years. The total percent exceeds 100 because many NPOs receive large donations from multiple donor types. Further, we note that large foundation (individual) gifts represent 20.6 (7.9)% of NPOs' revenues from $t-3$ to $t-1$.

Panel B reflects that the presence of large foundation donors, *FoundationDonorInd*, is insignificantly related to future performance with respect to *RevenuePerEmployee* and *ProgramRatio*, though is positively associated with *FundraisingRatio*. The results are similar when considering the magnitude of large foundation gifts, *FoundationDonorAmount*, in Panel C, except that the relation is significantly negative with respect to *RevenuePerEmployee*. Overall, we conclude there is very little evidence that large foundation donors positively impact NPO performance. Panels D and E report the results for the presence and magnitude of large individual gifts, respectively. The coefficients on *IndividualDonorInd* and *IndividualDonorAmount* are consistently either statistically insignificant or negatively associated with future performance, furthering our inferences that corporate donors are unique in their ability to positively influence

NPOs' subsequent operations. Further, our inferences are similar when we include the continuous variable specification for all three donor types in one model. We also consider whether receiving large foundation and/or individual gifts in addition to corporate gifts incrementally improves NPO performance, but find little evidence of this (untabulated).

Additional Analysis

Channels Through which Corporate Donors Improve NPO Performance

In our primary analysis, we highlight that corporate philanthropy benefits recipient NPOs' operational efficiencies. In additional analysis, we consider how this influence may manifest. Specifically, we expect corporate donors can enhance NPO operations in the following ways: (1) imposing performance requirements conditional to receiving the donation (or subsequent donations), (2) obtaining board representation and implementing better monitoring mechanisms, and/or (3) informally sharing best business practices the NPO voluntarily adopts. These mechanisms are consistent with resource dependency and the interviews of non-profit fundraisers and a corporate giving officer we conducted. However, it is difficult to empirically disentangle these channels and it is likely that they are not mutually exclusive.⁷

Repeat Donor Relationships

In any of the above cases, however, we would expect corporations more familiar with the NPO in a donor context would wield more influence. Seitanidi and Crane (2009) note that familiarity between an NPO and corporation can help with advice solicitation and encouragement of new ideas and assistance with implementation, while Murphy et al. (2015) suggest prior experience can aid in value creation. To proxy for corporate donor-NPO familiarity, we examine NPOs that repeatedly receive large corporate donations from the same corporation over our sample period. We conjecture that these organizations are even more likely to reap the benefits of corporate donor involvement as the implementation of monitoring mechanisms and/or adoption of more

⁶ Multiplying the coefficient estimate of 0.413 in the *RevPerEmployee* specification by the standard deviation of *CorporateDonorAmount* (0.064) indicates a 2.7 percent increase in revenue per employee. We then multiply this percentage by the average unlogged revenue per employee in our sample, \$389,597, to derive the \$10,298 increase for the average NPO. For the *FundraisingRatio* specification, multiplying the coefficient estimate of 0.068 by the standard deviation of *CorporateDonorAmount* yields a 0.004 increase in the *FundraisingRatio*, which represents a 0.5 percent increase for the average NPO with an 86.3 percent fundraising ratio. We then multiply this percent increase by the average fundraising revenue in our sample, \$57.8 M, to derive how much more fundraising revenue the average NPO retains.

⁷ We attempt to identify whether officers or directors from the corporate donor obtain seats on the NPOs board, but are not able to find sufficient matches using BoardEX to identify corporate officer and director names and data from Guidestar to identify NPO board members. When we regress *BoardSize* on corporate philanthropy and the controls from our model, excluding *BoardSize*², we note that NPOs receiving large corporate gifts have 12.4 percent larger boards, suggesting that NPOs may create additional board seats corporate donors fill to better oversee NPO operations.

Table 5 Regression results for large foundation and individuals

	Mean	Std	p5	p10	p25	p50	p75	p90	p95
Panel A: Foundation and Individual Donor Descriptives									
FoundationDonorInd	0.856	0.351	0.000	0.000	1.000	1.000	1.000	1.000	1.000
FoundationDonorAmount	0.200	0.242	0.000	0.000	0.036	0.110	0.267	0.532	0.802
IndividualDonor Ind	0.336	0.472	0.000	0.000	0.000	0.000	1.000	1.000	1.000
IndividualDonorAmount	0.079	0.179	0.000	0.000	0.000	0.000	0.063	0.261	0.460
Dependent variable	(i) RevPerEmployee		(ii) ProgramRatio			(iii) FundraisingRatio			
Panel B: Presence of a Large Foundation Donor									
FoundationDonorInd	−0.007 (−0.235)		−0.005 (−0.924)			0.019** (2.472)			
Observations	5962		5962			5962			
Controls	Yes		Yes			Yes			
Fixed Effects	Ind&Yr		Ind&Yr			Ind&Yr			
Clustered SE	NPO		NPO			NPO			
Adjusted R ²	0.816		0.190			0.308			
Panel C: Magnitude of Large Foundation Donors									
FoundationDonorAmount	−0.281*** (−5.148)		0.007 (0.938)			0.044*** (4.330)			
Observations	5962		5962			5962			
Controls	Yes		Yes			Yes			
Fixed Effects	Ind&Yr		Ind&Yr			Ind&Yr			
Clustered SE	NPO		NPO			NPO			
Adjusted R ²	0.819		0.190			0.311			
Panel D: Presence of a LargeIndividualDonor									
IndividualDonorInd	−0.006 (−0.266)		0.005 (1.254)			−0.010* (−1.825)			
Observations	5962		5962			5962			
Controls	Yes		Yes			Yes			
Fixed Effects	Ind&Yr		Ind&Yr			Ind&Yr			
Clustered SE	NPO		NPO			NPO			
Adjusted R ²	0.816		0.190			0.307			
Panel E: Magnitude of LargeIndividualDonors									
IndividualDonorAmount	−0.130** (−2.094)		0.008 (0.919)			−0.010 (−0.664)			
Observations	5962		5962			5962			
Controls	Yes		Yes			Yes			
Fixed effects	Ind&Yr		Ind&Yr			Ind&Yr			
Clustered SE	NPO		NPO			NPO			
Adjusted R ²	0.817		0.190			0.306			

Notes: Panel A presents descriptive statistics of the indicator variables *FoundationDonorInd* and *IndividualDonorInd* along with the continuous variables *FoundationDonorAmount* and *IndividualDonorAmount*. Panel B presents results where *FoundationDonorInd* is the test variable. Panel C presents results where *FoundationDonorAmount* is the test variable. Panel D presents results where *IndividualDonorInd* is the test variable. Panel E presents results where *IndividualDonorAmount* is the test variable. All variables are defined in the Appendix. All continuous variables are winsorized at the 1st and 99th percentiles by year. T-statistics are presented below each coefficient. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively, using two-tailed *p*-values

efficient processes are more influential over multiple periods. Moreover, NPOs are likely more receptive to corporate influence when it depends on the corporate donor for funding over multiple periods. We capture the effects of multi-year

corporate donations in two ways. First, we create a variable, *CorporateRepeatTotal*, which represents the number of years over the last seven-year period the most frequent corporate donor has made a contribution of at least \$1M

Table 6 Repeat donor results

Dependent variable	(i) <i>RevPerEmployee</i>	(ii) <i>ProgramRatio</i>	(iii) <i>FundraisingRatio</i>
<i>Panel A: CorporateRepeatTotal</i>			
<i>CorporateRepeatTotal</i>	0.127*** (8.508)	0.005*** (2.823)	0.005** (2.089)
Observations	5962	5962	5962
Controls	Yes	Yes	Yes
Fixed Effects	Ind&Yr	Ind&Yr	Ind&Yr
Clustered SE	NPO	NPO	NPO
Adjusted R ²	0.824	0.193	0.306
<i>Panel B: CorporateDonorAmount interacted with RepeatDonor</i>			
<i>CorporateDonorAmount</i>	0.010 (0.054)	0.008 (0.224)	0.044 (0.872)
<i>CorporateDonorAmount*RepeatDonor</i>	0.809*** (2.818)	0.095** (2.372)	0.048 (0.788)
Observations	5962	5962	5962
Controls	Yes	Yes	Yes
Fixed effects	Ind&Yr	Ind&Yr	Ind&Yr
Clustered SE	NPO	NPO	NPO
Adjusted R ²	0.817	0.193	0.307

Notes: Panel A presents a modification of our model using a count variable, *CorporateRepeatTotal*, as the variable of interest. Panel B interacts *CorporateDonorAmount* with an indicator variable, *RepeatDonor*, equal to one if the NPO has received multiple donations from a large corporate donor over the recent seven-year period. All continuous variables are winsorized at the 1st and 99th percentiles by year. T-statistics are presented below each coefficient. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively, using two-tailed p-values

to the NPO.⁸ Second, we interact *CorporateDonorAmount* with an indicator variable, *RepeatDonor*, activated for organizations that have received multiple large donations from a specific corporation over the last seven years. Of the 1184 corporate donor recipients in our sample, 486 (39%) have received multiple gifts from the same corporate donor over the last seven-year period (untabulated). Further, more than 10% have received contributions in at least four different years from the same donor. We also note that *CorporateDonorAmount* is, on average, higher among corporate donor recipients who receive multiple large donations from a specific corporation relative to those who do not (untabulated). Our test is designed to capture whether the incidence of multiple donations incrementally impacts the association between corporate philanthropy and NPO performance. We

modify our primary model to include these variables and present the results in Table 6.

In Panel A, the coefficient on *CorporateRepeatTotal* is positive and statistically significant in all three performance models. This evidence is consistent with our conjecture that organizations with longer corporate donor relationships are better performing. In Panel B, the main effect on *CorporateDonorAmount*, capturing non-recurring corporate philanthropy, is statistically insignificant in all three models. We cannot include the *RepeatDonor* variable as a main effect in the regression because it is undefined for NPOs lacking corporate donors. Meanwhile, the interaction term, capturing recurring corporate philanthropy, is positive across all three models and statistically significant in the *RevenuePerEmployee* and *ProgramRatio* regressions. This result supports our inference that corporations become more vested in the NPO when donating on repeated occasions and are therefore more likely to improve the NPO's performance. Also, consistent with resource dependency, NPOs may be more willing to listen to corporate donors that give on repeated occasions. Relatedly, although we cannot observe donor agreements, it is plausible repeat corporate philanthropy is particularly effective because the subsequent gifts are conditional on the NPO achieving certain benchmarks. Corporate donors

⁸ For example, assume over the seven-year period that an NPO has received \$1 M donations from three different corporate donors. Donor one has donated once in the seven-year period. Donor two has donated three times in the seven-year period. Donor three has donated five times in the seven-year period. In this example, *CorporateRepeatTotal* will take the value of five (i.e., the number of times the most frequent donor has donated in the seven-year period). A limitation of this approach is that we do not have matched pairs of corporate donors and NPO recipients prior to 2005 to assess relationship durability over an even longer span.

Table 7 Donor reliant partition

Dependent variable	(i) <i>RevPer Employee</i>		(ii) <i>Program Ratio</i>		(iii) <i>FundraisingRatio</i>	
	Donor reliant	Non-donor reliant	Donor reliant	Non-donor reliant	Donor reliant	Non-donor reliant
<i>Panel A: Indicator Variable for Corporate Donor NPOs</i>						
<i>CorporateDonorInd</i>	0.300*** (7.007)	0.092*** (2.804)	0.009* (1.733)	− 0.008 (− 1.275)	0.004 (0.865)	0.017 (1.645)
χ^2 statistic for difference in donor reliance	15.71***		4.68**		1.33	
Observations	2980	2982	2980	2982	2980	2982
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind&Yr	Ind&Yr	Ind&Yr	Ind&Yr	Ind&Yr	Ind&Yr
Clustered SE	NPO	NPO	NPO	NPO	NPO	NPO
Adjusted R ²	0.796	0.754	0.233	0.146	0.213	0.292
<i>Panel B: Continuous Variable</i>						
<i>CorporateDonorAmount</i>	0.562** (2.434)	0.286 (1.496)	0.070** (2.160)	0.039 (1.024)	0.036 (1.311)	0.058 (0.946)
χ^2 statistic for difference in donor reliance	0.90		0.39		0.12	
Observations	2980	2982	2980	2982	2980	2982
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind&Yr	Ind&Yr	Ind&Yr	Ind&Yr	Ind&Yr	Ind&Yr
Clustered SE	NPO	NPO	NPO	NPO	NPO	NPO
Adjusted R ²	0.788	0.752	0.234	0.145	0.214	0.291

may be wise, therefore, to structure their donations incrementally over time.

In additional untabulated analysis, we observe a significantly positive association between the number of unique corporate donors and NPO performance, suggesting additional corporate donors facilitate, rather than hinder, improved NPO performance.

Overall Donor Reliance as a Funding Source

To further test the manifestation of resource dependency in our setting, we test whether variation in an NPO's reliance on donations as a funding source affects the relation between corporate philanthropy and NPO performance. Specifically, resource dependence theory predicts that corporations will be better able to influence an NPO when that NPO derives a larger share of its overall revenue base from donations. Lacking internally generated program revenue or investment income as the principal revenue sources, donor reliant NPOs are more likely to be receptive to donor preferences in order to sustain their operations. Consequently, corporate donors may have more success installing efficient business strategies in this context. To test this proposition, Table 7 partitions our sample between NPOs above and below the median with respect to total revenue derived from donations and

estimates our primary model for both sub-samples.⁹ We note that the median portion of revenue from donations among NPOs in our sample is 24.03%. Consistent with the influence of corporate philanthropy exacerbated among donor-dependent NPOs, we find that the coefficients on *CorporationDonorInd* and *CorporationDonorAmount* are generally larger and more statistically significant among donor-reliant NPOs when measuring performance as *RevPerEmployee* and *ProgramRatio*. Chi-squared statistics confirm these differences for our *CorporationDonorInd* test variable (Panel A); however, they fail to find differences for our *CorporationDonorAmount* test variable (Panel B). The coefficients are not significantly different when measuring performance as *FundraisingRatio* in either Panel A or B. Overall, these results provide greater credibility that resource dependency provides corporate donors an opportunity to influence NPOs' operations.

Government Grants as a Substitute Monitoring Mechanism

In addition to sharing business strategies that can improve an NPO's performance, we expect corporate donors to influence

⁹ We note that our results are robust to alternatively specifying a fully interacted model.

Table 8 Government grant partition

Dependent variable	(i) <i>RevPer Employee</i>		(ii) <i>Program Ratio</i>		(iii) <i>FundraisingRatio</i>	
	No Govt. Grants	Govt. Grants	No Govt. Grants	Govt. Grants	No Govt. Grants	Govt. Grants
<i>Panel A: Indicator Variable for Corporate Donor NPOs</i>						
<i>CorporateDonorInd</i>	0.322*** (4.648)	0.182*** (5.956)	0.021*** (2.789)	−0.004 (−0.825)	0.019* (1.897)	0.014** (2.056)
χ^2 statistic for difference in donor reliance	3.54**		8.26***		0.17	
Observations	1944	4018	1944	4018	1944	4018
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind&Yr	Ind&Yr	Ind&Yr	Ind&Yr	Ind&Yr	Ind&Yr
Clustered SE	NPO	NPO	NPO	NPO	NPO	NPO
Adjusted R ²	0.820	0.774	0.248	0.187	0.293	0.288
<i>Panel B: Continuous Variable</i>						
<i>CorporateDonorInd</i>	0.561* (1.666)	0.367** (2.192)	0.138*** (3.617)	0.019 (0.634)	0.134** (2.273)	0.044 (1.153)
χ^2 statistic for difference in donor reliance	0.28		6.93***		1.75	
Observations	1944	4018	1944	4018	1944	4018
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind&Yr	Ind&Yr	Ind&Yr	Ind&Yr	Ind&Yr	Ind&Yr
Clustered SE	NPO	NPO	NPO	NPO	NPO	NPO
Adjusted R ²	0.815	0.769	0.251	0.187	0.294	0.287

recipient NPOs by monitoring their operational efficiency. We expect corporate monitoring to be most impactful in settings where the NPO is not already subject to external scrutiny.

NPO recipients of government grants face additional external scrutiny from public agencies that could substitute for the monitoring function corporate donors serve. For instance, NPOs receiving more than \$500,000 in federal funds must undergo an A-133 audit to ensure they are complying with the granting agency's requirements. To the extent corporate donors exercise less of an oversight function in such an environment, we expect corporate philanthropy to be less effective in improving an NPO's performance. To test this proposition, Table 8 partitions our sample based on the presence of government funding to the NPO and estimates our primary model for both sub-samples.¹⁰ Approximately two-thirds of our sample receives government grants. Consistent with government agencies serving as the principal monitor in the NPOs it supports, we observe the coefficients on *CorporationDonorInd* and *CorporationDonorAmount* are generally larger and more statistically significant among

NPOs lacking government funding for each of our performance measures. Chi-squared statistics confirm these differences in our *CorporateDonorInd* *RevPerEmployee* and *ProgramRatio* models, but fail to find significant differences in our *FundraisingRatio* model. With respect to our *CorporateDonorAmount* test variable we only find significant Chi-squared statistics between the sub-samples in our *RevPerEmployee* models. We infer from these results that corporate philanthropy is most valuable in NPOs lacking an established monitoring mechanism. One implication of this finding is that corporate donors looking to provide a benefit to an NPO beyond purely donating money can do so by donating to smaller NPOs, which are less likely to receive government grants or have other types of monitoring mechanisms in place.

Endogeneity in the Relation Between NPO Performance and Corporate Donations

A potential concern with our analysis is that better performing NPOs may be more likely to receive large corporate donations in the first place. Although we might expect NPO performance to also influence foundation and individual philanthropy, where we do not observe any relation in subsequent performance, we nevertheless undertake various

¹⁰ Once again, we note that our results are robust to alternatively specifying a fully interacted model.

approaches to rule out this explanation. In an effort to mitigate potential endogeneity, we perform a two-stage analysis, first modeling the likelihood of receiving a large corporate donation (from $t-3$ to $t-1$). To implement this test, we relax our sample restriction that the NPO received a donation from the Million Dollar List, but retain our other sample requirements. We drop NPOs without at least \$1 million in donations in any year from $t-3$ to $t-1$ so that this sample does not include very small NPOs. This generates a sample of 21,332 observations. Our independent variables, derived from the Petrovits et al. (2011) donations determinants model, are measured in year $t-4$ for this analysis, except for age, which is measured at year $t-1$. We expect variables capturing the magnitude of fundraising expenses, government grants, program revenue, and donations from 4 years ago to impact the likelihood of receiving a large corporate donation during our testing window, but should not impact current year performance.

Panel A of Table 9 presents results for this model which indicates that organizations receiving more government grants and private donations have a higher likelihood of receiving large corporate donations. These results are consistent with the crowding-in effect of these alternative funding sources found in prior literature (Okten and Weisbrod 2000; Petrovits, et al. 2011). Meanwhile, we find that older organizations and those generating higher levels of program revenues are less likely to receive large corporate donations, perhaps as a representation of the type of organization soliciting and receiving corporate donations (i.e., organizations focused on program revenue generation are less apt to pursue corporate donations). Remaining donation model covariates (*LogFundraisingExpenses* and *ProgramRatio*) are insignificant.

We use this first stage model to calculate the inverse mills ratio (*IMR*) following Heckman (1979). Specifically *IMR* is calculated as the ratio of the standard normal probability density function (p.d.f.) over standard normal cumulative density function (c.d.f.). The resulting *IMR* variable is then included in the second-stage regression as a bias correction term in addition to other model control variables. We present results of these second-stage models using the indicator *CorporateDonorInd* as the test variable in Panel B of Table 9 and the continuous *CorporateDonorAmount* as the test variable in Panel C. Both sets of results demonstrate that even after controlling for the likelihood of receiving a large corporate donation, NPOs receiving these gifts perform better subsequently across each of our metrics, although the coefficient in the *ProgramRatio* model is only statistically significant using a one-tailed test.

While the Heckman (1979) approach controls for unobservable factors believed to influence both the likelihood of receiving large corporate philanthropy and subsequent performance, we alternatively implement a propensity score

matching approach to control for observable differences between corporate and non-corporate philanthropy recipients. Panel A of Table 10 presents the coefficients on the covariates from our main model that we use to match corporate and non-corporate NPO recipients. The variables with significant coefficients in this model are generally the same as those with significant differences from Table 2, Panel B.

We match each corporate donor recipient to the non-corporate donor recipient with the nearest propensity score, imposing a caliper width of 0.02. This procedure allows us to match 1180 of the 1184 corporate donor recipients in our sample. Panel B illustrates that the NPOs are not significantly different across any of the observed dimensions after the matching procedure. In Panel C, we observe that corporate donor recipients continue to demonstrate higher performance with respect to *RevPerEmployee*, *ProgramRatio*, and *FundraisingRatio* after matching. Overall, these results strengthen our inferences that corporate philanthropy is a mechanism that can improve NPO performance.

Additional Sensitivity Tests

We conduct a battery of tests to examine whether certain corporate donor or other recipient characteristics are associated with the improved performance we document in our main tests. From the donor perspective, we consider how corporate performance (i.e., ROA), governance (i.e., EIndex from Bebchuk et al. 2009), social responsibility (i.e., KLD index), donor concentration (i.e., number of unique NPOs a corporation donates to), or relative gift size (i.e., donation scaled by corporate assets) impacts the relation between corporate philanthropy and NPO performance. We find some evidence (untabulated) that *RevPerEmployee* is subsequently higher among better performing corporate donors and that the *ProgramRatio* is subsequently higher when the gift comprises a larger share of the corporation's assets.¹¹

Further, we consider whether NPOs in industries subject to greater market pressures have less to gain from the monitoring and advice of a large corporate donor. Prior research has noted the heightened level of competition between non-profit and for-profit hospitals (e.g., Keeler et al. 1999) and between non-profit and for-profit higher education providers (e.g., Pucciarelli and Kaplan 2016), suggesting NPOs in these industries may already be operating efficiently because of external market pressures. In untabulated analysis, we

¹¹ We remove corporate donor recipients from the sample where the underlying information necessary to compute the donor characteristic is not available. Drawing inferences from these tests is difficult because many NPOs receive gifts from multiple corporations during the corporate philanthropy measurement window. Where this occurs, our proxy for each of our cross-sectional tests is an average of the various corporate donors, weighted by the gift amount.

Table 9 Two stage model results

Dependent variable	CorporateDonorInd (i)		
Panel A: Determinants Model			
LogFundraisingExpenses			0.0065 (0.8665)
ProgramRatio			0.0803 (0.2853)
LogGovGrants			0.0237*** (5.2158)
LogProgramRevenue			− 0.0092* (− 1.7577)
LogPrivateDonations			0.4123*** (15.0377)
Age			− 0.0007 (− 1.0664)
Constant			− 8.3363*** (− 18.3722)
Observations			21,332
Fixed Effects			Ind&Yr
Clustered SE			NPO
Pseudo R ²			0.235
Dependent variable	(i) RevPerEmployee	(ii) ProgramRatio	(iii) FundraisingRatio
Panel B: Corporate DonorInd Consequences			
CorporateDonorInd	0.229*** (8.128)	0.006 (1.396)	0.023*** (3.983)
GovernanceIndex	0.337*** (6.240)	− 0.034*** (− 3.452)	− 0.115*** (− 7.107)
Employees	− 0.564*** (− 69.750)	0.007*** (5.406)	0.006*** (3.480)
Size	0.431*** (54.799)	0.005*** (3.896)	0.013*** (6.637)
ZeroFundraising	0.142*** (7.144)	0.015*** (4.254)	
GovGrants	0.305*** (6.892)	0.045*** (6.570)	0.175*** (25.453)
Liquidity	− 0.051*** (− 3.476)	− 0.015*** (− 6.786)	0.010*** (3.590)
Leverage	0.463*** (14.562)	0.007 (1.211)	0.024*** (2.673)
TangibleAssets	− 0.522*** (− 14.257)	− 0.010* (− 1.716)	− 0.013 (− 1.509)
BoardSize	− 0.222** (− 2.335)	− 0.044*** (− 2.984)	− 0.166*** (− 8.054)
BoardSize ²	0.029* (1.930)	0.007*** (2.873)	0.024*** (7.449)
Age	− 0.067*** (− 6.837)	− 0.003* (− 1.823)	− 0.010*** (− 3.520)
DonationGrowth	− 0.044*** (− 3.073)	− 0.003 (− 1.378)	

Table 9 (continued)

Dependent variable	(i) <i>RevPerEmployee</i>	(ii) <i>ProgramRatio</i>	(iii) <i>FundraisingRatio</i>
<i>Commercial</i>	0.269*** (16.789)	0.024*** (8.141)	− 0.099*** (− 17.379)
<i>IMR</i>	− 0.238*** (− 17.113)	− 0.010*** (− 4.646)	0.009** (2.541)
<i>Constant</i>	7.433*** (36.986)	0.762*** (23.087)	0.894*** (18.725)
Observations	21,332	21,332	21,332
Fixed Effects	Ind&Yr	Ind&Yr	Ind&Yr
Clustered SE	NPO	NPO	NPO
Adjusted R ²	0.786	0.157	0.224
Panel C: <i>CorporateDonorAmount</i> Consequences			
<i>CorporateDonorAmount</i>	1.078*** (3.594)	0.067 (1.449)	0.163** (2.309)
Observations	21,332	21,332	21,332
Controls	Yes	Yes	Yes
Fixed Effects	Ind&Yr	Ind&Yr	Ind&Yr
Clustered SE	NPO	NPO	NPO
Adjusted R ²	0.784	0.157	0.223

Notes: Panel A presents the determinants of receiving a large corporate donation from $t-3$ to $t-1$. Panel B presents results of the second-stage model where the indicator variable, *CorporateDonorInd*, is the test variable. Panel C presents results of the second-stage model where the continuous variable, *CorporateDonorAmount*, is the test variable. All continuous variables are winsorized at the 1st and 99th percentiles by year. Z-statistics (T-statistics) are presented below each coefficient. ***, **, and * indicate significance at the 1%, 5%, and 10% level respectively using two-tailed p -values in Panel A (Panels B and C)

partition our sample between hospital and higher education NPOs and all other NPO industries and estimate our main model on these two sub-samples. The results (untabulated) provide some evidence that corporate philanthropy is associated with higher subsequent *RevPerEmployee* and *ProgramRatio* only in the less competitive NPO industries (i.e., NPOs excluding hospitals and universities) where corporations may have greater opportunity to improve operational efficiency. We acknowledge an alternative explanation is that corporate donors to hospitals and higher education may be less likely to exert influence in these types of NPOs or be less concerned with operational efficiency outcomes; nonetheless we believe these results provide additional support for the ability of corporate donors to impact the performance of NPOs where corporations have the most to gain from corporate monitoring.

It is also possible that corporate donors, through their visibility, can explicitly or implicitly encourage other parties, including their employees and consumers, to subsequently donate (i.e., crowding-in effect). This, in turn, would enhance the NPO's *RevenuePerEmployee* and *FundraisingRatio* metrics. In untabulated analysis, we regress an NPO's change in donations from year $t-1$ to t on our test variables and controls borrowed from the donations determinants

model in Petrovits et al. (2011). We observe that when measuring corporate philanthropy using the continuous *CorporateDonorAmount* specification, the coefficient on our test variable is positive and statistically significant; however, when using the *CorporateDonorInd* specification, the test variable is statistically insignificant. Therefore, we are reluctant to draw any inferences whether the improved performance metrics we observe manifest through a crowding-in effect following large corporate donations.

Lastly, we decompose the components from the governance index control variable—governing body, governing policies, compensation policies, and accountability and transparency—and include them as outcome variables in our model. Our findings (untabulated) suggest both the incidence and magnitude of large corporate philanthropy is associated with better subsequent accountability and transparency policies at the NPO. These policies include making tax forms publicly available on the NPO's website, having audited financial statements, and having an audit committee to oversee the audit. It is possible corporate donors demand transparency, which in turn encourages other potential non-corporate donors to contribute to the NPO, thus increasing the NPO's *RevPerEmployee* and *FundraisingRatio* metrics (Harris and Neely 2018). Relatedly, corporations subject to

Table 10 Propensity score matching Results

<i>Dependent variable</i>	(i) <i>CorporateDonorInd</i>		
<i>Panel A: Coefficient on Model Covariates</i>			
<i>GovernanceIndex</i>			2.265*** (6.24)
<i>Employees</i>			0.016 (0.49)
<i>Size</i>			0.745*** (20.14)
<i>ZeroFundraising</i>			− 0.165 (− 1.12)
<i>GovGrants</i>			1.080*** (5.26)
<i>Liquidity</i>			− 0.035 (− 0.68)
<i>Leverage</i>			0.026 (0.15)
<i>TangibleAssets</i>			− 1.282*** (− 6.42)
<i>BoardSize</i>			1.133*** (2.34)
<i>BoardSize</i> ²			− 0.067 (− 0.92)
<i>Age</i>			− 0.282*** (− 5.21)
<i>DonationGrowth</i>			− 0.007 (− 0.06)
<i>Commercial</i>			− 0.843*** (− 7.61)
<i>Constant</i>			− 19.009 (− 17.88)
<i>Observations</i>			21,332
<i>Fixed Effects</i>			Ind&Yr
<i>Pseudo R</i> ²			0.2352
<i>Covariate Balance</i>	<i>CorporateDonorInd</i> = 1	<i>CorporateDonorInd</i> = 0	Difference in Means t-test
<i>Panel B: Covariate Balance after matching</i>			
<i>GovernanceIndex</i>	0.442	0.447	− 1.24
<i>Employees</i>	6.183	6.209	− 0.32
<i>Size</i>	19.522	19.499	0.4
<i>ZeroFundraising</i>	0.063	0.075	− 1.22
<i>GovGrants</i>	0.098	0.099	− 0.04
<i>Liquidity</i>	0.681	0.706	− 0.83
<i>Leverage</i>	0.274	0.283	− 1.01
<i>TangibleAssets</i>	0.232	0.226	0.68
<i>BoardSize</i>	3.389	3.395	− 0.25
<i>BoardSize</i> ²	11.815	11.860	− 0.29
<i>Age</i>	4.098	4.130	− 1.03
<i>DonationGrowth</i>	0.009	− 0.002	0.94
<i>Commercial</i>	0.160	0.169	− 0.61

Table 10 (continued)

<i>Covariate Balance</i>	<i>CorporateDonorInd = 1</i>	<i>CorporateDonorInd = 0</i>	Difference in Means t-test
<i>Panel C: Differences in Performance</i>			
<i>RevPerEmployee</i>	12.257	11.946	5.57***
<i>ProgramRatio</i>	0.839	0.830	2.31**
<i>FundraisingRatio</i>	0.891	0.873	3.07***

Panel A presents the determinants of receiving a large corporate donation from $t-3$ to $t-1$. Panel B presents the differences in means of the covariates for corporate and non-corporate philanthropy recipients after the matching is applied. Panel C presents the differences in means of the outcome variables for corporate and non-corporate philanthropy recipients after the matching is applied. All continuous variables are winsorized at the 1st and 99th percentiles by year. Z-statistics (T-statistics) are presented below each coefficient. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively, using two-tailed p -values in Panel A (Panels B and C)

We also consider imposing NPO fixed effects or implementing a changes model to address endogeneity; however, because our test variable is measured cumulatively over a three-year period, there is not much year-over-year variation in this variable. Moreover, because there are at most five observations per NPO in our sample, a firm fixed effects model substantially reduces the degrees of freedom in the model. We also consider whether NPOs that operate in the same city or industry as at least one of their corporate donors exhibit incrementally better performance, but do not find any evidence supporting this proposition. We caution, however, that we are only able to identify three observations where a large corporate donor operates in the same industry as the recipient NPO

external monitoring by an independent auditor may require recipients of their philanthropy to undergo similar scrutiny. The increased scrutiny surrounding tax returns and financial statements by the public and independent external auditor, respectively, might hold the NPO more accountable for its expenditures, thus improving the program ratio. We do not find any evidence suggesting corporate philanthropy is associated with differential governing bodies, governing policies, or compensation policies. We also consider whether corporate philanthropy is associated with subsequent improved internal control quality and alternatively compensation for the highest paid officer, but find no evidence that either is the case.

Conclusion

Using a dataset of corporate philanthropic gifts of \$1 million or larger compiled by the Indiana University School of Philanthropy, we find that the presence of corporate donors and the magnitude of their contributions positively influence NPO performance, specifically, higher revenues per employee, a higher ratio of spending on programs, and superior fundraising efficiency. We fail to find evidence that large foundation or individual donors have a similar impact. Our results are concentrated in NPOs where the corporate philanthropist is likely to have the most influence over recipient NPOs. We find that our positive effect of large corporate donations is stronger when the corporate donor appears to be more familiar with the organization to which it donates, and when the NPO is more reliant on funding from donations compared to internally generated revenue, both of which are consistent with resource dependence theory. We also find the effect of corporate donations is stronger among NPOs

lacking government grants, suggesting that large corporate donations have the greatest impact in settings without structured alternate external monitoring already in place. Our findings contribute to the literature by highlighting the role that corporate donors play in enhancing non-profit performance. Prior studies have shown that corporate philanthropy can have positive impacts on corporate donor performance (Wang et al. 2008; Lev et al. 2010). To our knowledge, this study is the first to examine the benefits of corporate philanthropy on NPO recipients.

We derive three important managerial implications from our findings. First, our evidence that corporate philanthropy facilitates improved efficiencies in NPO operations can encourage other prospective philanthropists to donate, producing a crowding-in effect. While our additional analysis provides only some evidence of a crowding-in effect during our sample period, we believe that NPOs and corporate donors that highlight the positive effects of their relationship can appeal to a broader non-corporate donor base.

Second, NPOs may benefit by courting large gifts from corporate donors, as the benefits of these donations appear to extend beyond the funds provided. Interviews with corporate donors and academic research (Andreasen 1996; Porter and Kramer 2002) alike suggest that corporate donors are looking to donate to causes that align with their mission and values. Andreasen 1996 highlights that NPOs can benefit from corporations that are looking for a marketing boost, and that corporate donors view philanthropy as part of their marketing strategy. Porter and Kramer (2002) extend this thinking by arguing that the value of corporate philanthropy can go beyond publicity and create social value through partnering with NPOs with shared values. Echoing this sentiment, the Council of Non-profits (<https://www.councilofnonprofits.org/>) underscores that the keys to attracting

corporate partners are to identify corporations with shared missions and values, clearly state the benefits of a donation to the corporate partner, and specify the expectations and outcomes of the donation. Our study can inform NPOs in their solicitation efforts by providing evidence that corporate philanthropy positively influences NPO performance. Importantly, our findings also suggest NPO boards and management should be receptive to influence corporate donors seek to exercise.

Finally, our findings should at least partly alleviate corporate shareholders' concerns that their resources are being deployed as artificial efforts to appear socially responsible. Masulis and Reza (2015) document that shareholders discount the value of cash holdings for firms that engage in higher levels of corporate philanthropy, suggesting some shareholder misgivings towards philanthropic endeavors. To the extent investors recognize corporate gifts produce efficiencies at the recipient NPOs, they may be more tolerant of such philanthropy.

We acknowledge at least two limitations to our study. First, by design, we focus on a broad sample of NPOs and use measures of performance that capture comparable performance within the data. Thus, it is beyond the scope of our study to examine how different types of corporate partnerships may influence performance measures that are more specific to the type of NPO. Future research may examine more narrow settings, such as arts or education, to identify how corporate donations impact more specific measures of performance. Second, our sample of large donations only includes those that are publicly disclosed. Although we do not believe this produces any systematic misclassification or bias in our sample, we acknowledge our findings may not generalize in settings where donors do not disclose their philanthropic gift. We encourage future research to examine disclosure decisions related to philanthropy.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Appendix: Variable Definitions

Performance metrics	
<i>RevenuePerEmployee</i>	Natural log of the ratio of total revenues to total employees at year end
<i>ProgramRatio</i>	Program expenses divided by total expenses
<i>FundraisingRatio</i>	Revenue from donations less fundraising expenses, scaled by revenue from donations
Test variables	
<i>CorporateDonorInd</i>	Indicator variable equal to one if the NPO received a corporate gift of \$1 million or more from $t-3$ to $t-1$, and zero otherwise
<i>CorporateDonorAmount</i>	Sum of all corporate gifts of \$1 million or more to the NPO from $t-3$ to $t-1$, scaled by total private donations from $t-3$ to $t-1$
<i>FoundationDonorInd</i>	Indicator variable equal to one if the NPO received a gift from a foundation of \$1 million or more from $t-3$ to $t-1$, and zero otherwise
<i>FoundationDonorAmount</i>	Sum of all foundation gifts of \$1 million or more to the NPO from $t-3$ to $t-1$, scaled by total private donations from $t-3$ to $t-1$
<i>IndividualDonorInd</i>	Indicator variable equal to one if the NPO received a gift from an individual of \$1 million or more from $t-3$ to $t-1$, and zero otherwise
<i>IndividualDonorAmount</i>	Sum of all individual gifts of \$1 million or more to the NPO from $t-3$ to $t-1$, scaled by total private donations from $t-3$ to $t-1$
<i>CorporateRepeatTotal</i>	Number of years over the last seven-year period the most frequent corporate donor has contributed at least \$1 million to the NPO
<i>RepeatDonor</i>	Indicator variable equal to one for NPOs that receive multiple large donations from a specific corporation over the last seven years, and zero otherwise
Control and other variables	

<i>GovernanceIndex</i>	Average of four governance sub-indices (governing body, governing policies, compensation policies, accounting and transparency, where each sub-index is defined as the ratio of the sum of the indicator variables as a proportion of the total number of possible responses for each NPO-year observation where each response is weighted by its annual cross-sectional standard deviation (see Newton (2015) for additional detail on construction of this variable)
<i>Employees</i>	Natural log of the number of employees at the NPO at year end
<i>Size</i>	Natural log of total assets of the NPO at year end
<i>ZeroFundraising</i>	Indicator variable coded as one if the NPO does not report any fundraising expenses with simultaneous non-zero donations during the year, and zero otherwise
<i>GovGrants</i>	Total donations from government grants scaled by total revenue
<i>Liquidity</i>	Sum of cash, savings and temporary cash investments, accounts and pledge receivables, divided by total expenses
<i>Leverage</i>	Total liabilities divided by total assets
<i>TangibleAssets</i>	Land and buildings divided by total assets
<i>BoardSize</i>	Natural log of the number of members on the board of directors
<i>DonationGrowth</i>	Change in the ratio of private donations to total revenues from $t-2$ to $t-1$
<i>Commercial</i>	Indicator variable equal to one if the ratio of program revenues to program revenues and private donations exceeds 90%, and zero otherwise
<i>LogFundraisingExpenses</i>	Natural log of one plus fundraising expenses
<i>LogGovGrants</i>	Natural log of one plus government grants
<i>LogProgramRevenue</i>	Natural log of one plus program services revenue
<i>LogPrivateDonations</i>	Natural log of one plus private donations
<i>Age</i>	Number of years since formation

References

- Aggarwal, R. K., Evans, M. E., & Nanda, D. (2012). Nonprofit boards: Size, performance and managerial incentives. *Journal of Accounting and Economics*, 53(1–2), 466–487.
- Amazeen, M. (2011). Gap (RED): Social responsibility campaign or window dressing? *Journal of Business Ethics*, 99(2), 167–182.
- Andreasen, A. R. (1996). Profits for nonprofits: Find a corporate partner. *Harvard Business Review*, 74(6), 47–50.
- Austin, J. E. (2000). Strategic collaboration between nonprofits and businesses. *Nonprofit and Voluntary Sector Quarterly*, 29(1 suppl), 69–97.
- Austin, J. E., & Seitanidi, M. M. (2012a). Collaborative value creation: A review of partnering between nonprofits and businesses: Part I. Value creation spectrum and collaboration stages. *Nonprofit and Voluntary Sector Quarterly*, 41(5), 726–758.
- Austin, J. E., & Seitanidi, M. M. (2012b). Collaborative value creation: A review of partnering between nonprofits and businesses. Part 2: Partnership processes and outcomes. *Nonprofit and Voluntary Sector Quarterly*, 41(6), 929–968.
- Baber, W. R., Daniel, P. L., & Roberts, A. A. (2002). Compensation to managers of charitable organizations: An empirical study of the role of accounting measures of program activities. *The Accounting Review*, 77(3), 679–693.
- Babiak, K., & Thibault, L. (2009). Challenges in multiple cross-sector partnerships. *Nonprofit and Voluntary Sector Quarterly*, 38(1), 117–143.
- Balmer, J., Fukukawa, K., & Gray, E. (2007). The Nature and Management of Ethical Corporate Identify: A Commentary on Corporate Identify, Corporate Social Responsibility and Ethics. *Journal of Business Ethics*, 76(1), 7–15.
- Bebchuk, L., Cohen, A., & Ferrell, A. (2009). What matters in corporate governance? *Review of Financial Studies*, 22(2), 783–827.
- Brown, W. A., & Guo, C. (2010). Exploring the key roles for nonprofit boards. *Nonprofit and Voluntary Sector Quarterly*, 39(3), 536–546.
- Callen, J. L., Klein, A., & Tinkelman, D. (2003). Board composition, committees, and organizational efficiency: The case of nonprofits. *Nonprofit and Voluntary Sector Quarterly*, 32(4), 493–520.
- Core, J. E., Guay, W. R., & Verdi, R. S. (2006). Agency problems of excess endowment holdings in not-for-profit firms. *Journal of Accounting and Economics*, 41(3), 307–333.
- Cornforth, C. (2012). Nonprofit governance research: Limitations of the focus on boards and suggestions for new directions. *Nonprofit and Voluntary Sector Quarterly*, 41(6), 1116–1135.
- Dawkins, J., & Lewis, S. (2003). CSR in stakeholder expectations: And their implication for company strategy. *Journal of Business Ethics*, 44(2–3), 185–193.
- Desai, M. A., & Yetman, R. J. (2015). Constraining managers without owners: Governance of the not-for-profit enterprise. *Journal of Government & Nonprofit Accounting*, 4(1), 53–72.
- Fama, E., & Jensen, M. (1983). Separation of ownership and control. *Journal of Law and Economics*, 26(2), 301–325.
- Fisman, R., & Glenn Hubbard, R. (2005). Precautionary savings and the governance of nonprofit organizations. *Journal of Public Economics*, 89(11–12), 2231–2243.
- Frankental, P. (2001). Corporate social responsibility—A PR invention? *Corporate Communications: An International Journal*, 6(1), 18–23.
- Gautier, A., & Pache, A. (2015). Research on corporate philanthropy: a review and assessment. *Journal of Business Ethics*, 126(3), 343–369.
- Giving USA Foundation. (2018). *Giving USA 2018: The annual report of philanthropy for the Year 2017*. Indianapolis, IN: The Center on Philanthropy at Indiana University.

- Glaeser, E. L. (2003). Introduction. In E. L. Glaeser (Ed.), *The governance of not-for-profit firms*. Chicago: University of Chicago Press.
- Greenlee, J., Fischer, M., Gordon, T., & Keating, E. (2007). An investigation of fraud in nonprofit organizations: Occurrences and deterrents. *Nonprofit and Voluntary Sector Quarterly*, 36(4), 676–694.
- Harris, E. E. (2014). The impact of board diversity and expertise on nonprofit performance. *Nonprofit Management and Leadership*, 25(2), 113–130.
- Harris, E. E., & Neely, D. (2018). Determinants and consequences of nonprofit transparency. *Journal of Accounting, Auditing, and Finance*. Forthcoming.
- Harris, E., Petrovits, C. M., & Yetman, M. H. (2015). The effect of nonprofit governance on donations: Evidence from the revised form 990. *The Accounting Review*, 90(2), 579–610.
- Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica*, 47(1), 153–161.
- Herman, R. D., & Renz, D. O. (2000). Board practices of especially effective and less effective local nonprofit organizations. *The American Review of Public Administration*, 30(2), 146–160.
- Keeler, E. B., Melnick, G., & Zwanzinger, J. (1999). The changing effects of competition on non-profit and for-profit hospital pricing behavior. *Journal of Health Economics*, 18(1), 69–86.
- Lev, B., Petrovits, C., & Radhakrishnan, S. (2010). Is doing good good for you? How corporate charitable contributions enhance revenue growth. *Strategic Management Journal*, 31(2), 182–200.
- Masulis, R. W., & Reza, S. W. (2015). Agency problems of corporate philanthropy. *Review of Financial Studies*, 28(2), 592–636.
- Murphy, M., Arenas, D., & Batista, J. M. (2015). Value creation in cross-sector collaborations: the roles of experience and alignment. *Journal of Business Ethics*, 130, 145–162.
- Neely, D. G., & Tinkelman, D. (2013). The Whip Cancer Walk: A case of real earnings management in the nonprofit sector. *Journal of Accounting Education*, 31(3), 294–309.
- Newton, A. N. (2015). Executive compensation, organizational performance, and governance quality in the absence of owners. *Journal of Corporate Finance*, 30, 195–222.
- Okten, C., & Weisbrod, B. A. (2000). Determinants of donations in private nonprofit markets. *Journal of Public Economics*, 75(2), 255–272.
- O'Regan, K., & Oster, S. M. (2005). Does the structure and composition of the board matter? The case of nonprofit organizations. *Journal of Law Economics and Organization*, 21(1), 205–227.
- Ostrower, F., & Stone, M. (2006). Boards of nonprofit organizations: Research trends, findings, and prospects for the future. In W. Powell & R. Steinberg (Eds.), *The nonprofit sector: A research handbook* (2nd ed.). New Haven, CT: Yale University Press.
- Petrovits, C., Shakespeare, C., & Shih, A. (2011). The causes and consequences of internal control problems in nonprofit organizations. *The Accounting Review*, 86(1), 325–357.
- Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective*. New York: Harper & Row Publishers.
- Pinkston, T., & Carroll, A. (1996). A retrospective examination of CSR orientations: Have they changed? *Journal of Business Ethics*, 15(2), 199–206.
- Porter, M. E., & Kramer, M. R. (2002). The competitive advantage of corporate philanthropy. *Harvard Business Review*, 80(12), 56–68.
- Pucciarelli, F., & Kaplan, A. (2016). Competition and strategy in higher education: Managing complexity and uncertainty. *Business Horizons*, 59(3), 311–320.
- Rivera-Santos, M., & Rufin, C. (2010). Odd couples: understanding the governance of firm-NGO alliances. *Journal of Business Ethics*, 94, 55–70.
- Seifert, B., Morris, S. A., & Bartkus, B. R. (2003). Comparing big givers and small givers: Financial correlates of corporate philanthropy. *Journal of Business Ethics*, 45(3), 195–211.
- Seitanidi, M. M., & Crane, A. (2009). Implementing CSR through partnerships: Understanding the selection, design, and institutionalization of nonprofit-business partnerships. *Journal of Business Ethics*, 85, 413–429.
- Useem, M. (1987). Corporate philanthropy. In W. Powell (Ed.), *The nonprofit sector: A research handbook*. New Haven, CT: Yale University Press.
- Van Tulder, R., Seitandidi, M. M., Crane, A., & Brammer, S. (2016). Enhancing the impact of cross-sector partnerships. *Journal of Business Ethics*, 135, 1–17.
- Wang, H., Choi, J., & Li, J. (2008). Too little or too much? Untangling the relationship between corporate philanthropy and firm financial performance. *Organization Science*, 19(1), 143–159.
- Wang, H., & Qian, C. (2011). Corporate philanthropy and corporate financial performance: The roles of stakeholder response and political access. *Academy of Management Journal*, 54(6), 1159–1181.
- Weisbrod, B. A., & Dominguez, N. D. (1986). Demand for collective goods in private nonprofit markets: Can fundraising expenditures help overcome free-rider behavior? *Journal of Public Economics*, 30(1), 83–96.
- Yetman, M. H., & Yetman, R. J. (2012). The effects of governance on the accuracy of charitable expenses reported by nonprofit organizations. *Contemporary Accounting Research*, 29(3), 738–767.
- Yetman, M. H., & Yetman, R. J. (2013). Do donors discount low-quality accounting information? *The Accounting Review*, 88(3), 1041–1067.
- Zolotoy, L., O'Sullivan, D., & Klein, J. (2019). Character cues and contracting costs: The relationship between philanthropy and the cost of capital. *Journal of Business Ethics*, 154(2), 497–515.

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