

Determinants and Consequences of Nonprofit Transparency

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Abstract

Using a sample of over 14,000 industry-diverse nonprofit organizations, this study documents the key characteristics and consequences of organizations providing better and more information to stakeholders, that is, more transparent charities. In particular, we find evidence consistent with organizations that have stronger governance, better performance, and more professional staff being associated with greater transparency. In addition, we find that organizations that are more reliant on contributions, and those located in states that require public disclosure of their audited financial statements are also more transparent. After controlling for the likelihood of being transparent, we then test whether funders respond to more transparency by increasing their funding to organizations that provide more information. Here, we hypothesize and find that the level of transparency is associated with greater future contributions. Moreover, we find that organizations with better performance to report accrue incrementally more future contributions. Overall, our results support the assertion that transparency in the nonprofit sector is value added to key stakeholders.

Keywords

nonprofit, transparency, disclosure, contributions, not-for-profit

The nonprofit sector is a large and significant part of the U.S. economy with over two million charities registered with the IRS (Internal Revenue Service) contributing in excess of US\$900 billion to GDP (gross domestic product) in 2013 (McKeever, 2015). However, despite the size of the sector, financial and organizational transparency is still relatively underdeveloped compared with the for-profit capital markets (Behn, DeVries, & Lin, 2010; Hale, 2013). We posit that in a sector where oversight from residual claimants is absent and tax exemption is granted in exchange for the production of charitable goods and services, transparency and accountability are critical. As noted by the Panel on the Nonprofit Sector (2005), nonprofit organizations can only fulfill their charitable missions by

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maintaining the trust of the public; “trust that is maintained through transparency and governance.”

The purpose of this project is to study the transparency practices of nonprofits via the largest and most widely recognized depository of publicly available nonprofit information, GuideStar.org (hereafter GuideStar). Similar to the for-profit Edgar system, which libraries public company disclosures for investors, GuideStar currently stores information on over 2.4 million tax exempt organizations viewed by 6.9 million unique visitors annually (GuideStar, 2016a, 2016b). However, unlike Edgar, GuideStar provides nonprofits the ability to display information beyond required disclosures for public review. Specifically, GuideStar hosts individual online profile pages where exempt organizations can elect to supply additional organizational details, financial information, and/or impact and effectiveness information.

In analyzing this information, we first focus on the key characteristics of more transparent organizations, that is, those providing additional information on their GuideStar profile pages. Second, we study the response of funders to increased transparency, to gauge whether supporters indeed reward more transparent organizations with higher contributions. Unlike prior studies, which have investigated the role rating agencies play in the market for charitable contributions (Gordon, Knock, & Neely, 2009; Harris & Neely, 2016), we study the broader role of transparency defined by the *amount* of information made available to donors rather than the *performance* conveyed by that information. Third-party rating evaluators “score” nonprofits’ available information and assign a rating or accreditation. These ratings measure how well the organization is performing based on various dimensions of mission success, defined by the rating agency. In contrast, the GuideStar platform is an information sharing and dissemination platform, simply providing donors with access to information offered by the nonprofit organization. Furthermore, unlike the rating evaluators who typically look at a small subset of all nonprofits, every charitable nonprofit has a GuideStar profile. Thus, our measure of transparency provides a distinctive construct not considered by the third-party ratings literature.

In addressing our first question, the determinants of nonprofit transparency, we hypothesize that nonprofit transparency will be driven by five main constructs: (a) the strength of the organization’s governance and board of directors, (b) the performance of the organization, (c) the professionalism of the staff, (d) the organization’s reliance on contributions, and (e) the state regulation environment. We find support for organizations with stronger governance, better performance, and more professional staff being associated with increased levels of transparency. In addition, we find that organizations more reliant on donations and those headquartered in states that require the disclosure of audited financial statements are also more transparent.

Turning to the consequences of transparency, we hypothesize and find that both the decision to be transparent and level of transparency are associated with greater future contributions. These results are robust to including controls for the probability of choosing to be transparent in the first place, as well as third-party rating information available to donors. In addition, we find that organizations with better performance to report receive incrementally more contributions from being transparent. Overall, our results support the assertion that transparency in the nonprofit sector is value added to key stakeholders. In addition, organizations, which elect to be relatively more transparent, fall into the category of well governed, professional organizations that rely on donations and have relatively good financial performance to share. Collectively, these findings should be of interest to regulators and stakeholders who have the ability to influence transparency requirements in

the sector. The next section provides a background on nonprofit transparency and discusses nonprofit information provided to the public via GuideStar.

Background

To maintain their tax-exempt status, nonprofits are required to file IRS informational tax return Form 990 on an annual basis.¹ Beginning in 1997, the Taxpayer Bill of Rights required organizations to comply with written or in-person requests from the public to inspect an organization's Form 990. Nonprofits could avoid individual requests for inspection if they made their Form 990s publicly available. To aid organizations in this endeavor, through a partnership with the IRS, GuideStar began providing online access to Form 990s for registered charitable organizations in 1999. According to Yetman and Yetman (2013), donors' use of financial information significantly increased following the launch of GuideStar provided data in 1999.

However, while GuideStar provides donors with access to nonprofit information, it is not a charity evaluator. Rather, GuideStar is defined as a "501(c)(3) public charity that collects, organizes, and presents the information you want in an easy-to-understand format while remaining neutral" (GuideStar, 2016c). As discussed above, GuideStar provides each tax-exempt organization with their own profile page, which includes Form 990 PDFs, as well as additional information about the organization. How much additional information is included, beyond Form 990, is at the discretion of the charity organization. As a result, transparency levels vary across profiles, with some organizations including not only 990s and basic organizational information, but financial statements and detailed impact reports (including charting goals, strategies, capabilities, indicators, and progress) as well.

Beginning in June of 2013, GuideStar began tallying the amount and extent of information provided by nonprofits on their GuideStar profile page. Specifically, GuideStar assigns organizations with a transparency level of Bronze, Silver, or Gold based on the scope of information provided beyond the required Form 990. The appendix section details the requirements for receiving each disclosure level. Briefly, an organization obtains Bronze if they disclose basic information, Silver if they meet the disclosure requirements of Bronze and disclosed financial statements they confirmed were up to date, and Gold if they met the Bronze and Silver requirements and disclosed up-to-date impact information (goals, strategies, capabilities, indicators, progress). Those without any additional information are said to have a basic GuideStar profile, which indicates they have not made any additions to their profile. We utilize the variation in disclosure levels assigned by GuideStar as our proxy for transparency levels. The next section develops our hypotheses.

Hypotheses

Unlike for-profit and governmental entities, which have relatively high levels of mandatory disclosure requirements, outside of the Form 990, there are relatively few required disclosures for nonprofit organizations (Hale, 2013). As noted by Hale (2013), Form 990 has significant limitations and nonprofits often elect to be more transparent by disclosing important financial and nonfinancial information that exceeds Form 990 requirements. Indeed, in our sample of over 14,000 industry-diverse nonprofit organizations we find that over 16% chose to provide at least some additional disclosures on their GuideStar online profiles (Table 3).

Although a significant number of organizations provide additional information via GuideStar, the majority of organizations elect not to enhance their GuideStar profile.

Organizations may choose not to modify their GuideStar profile for a variety of reasons. For example, many potential donors are not interested in viewing financial information about an organization via a third-party intermediary. Cnaan, Jones, Dickin, and Salomon (2011) find that about 78% of surveyed donors did not consult any third-party intermediary before contributing to an organization. It is also possible that relatively poor-performing organizations are more hesitant to enhance their profile in fear of increased scrutiny of their financial condition. Therefore, why an organization provides additional organizational information via their GuideStar profile page, is an open empirical question. One we believe is particularly interesting given the potential impact of transparency on attracting funding and ultimately fulfilling nonprofit missions.

While we study overall nonprofit transparency, we draw on prior research related to specific voluntary disclosures to aid in our hypothesis development. We differentiate transparency from voluntary disclosures in that while transparency encompasses the overall practice of providing users with multiple facets of information, and access to information in an effort to convey openness and accountability, voluntary disclosures relate to individual or specific pieces of information voluntarily provided by an organization. In addition to the voluntary disclosure literature, we also lean on signaling theory, which is based on the premise that signaling is employed to mitigate information asymmetries (Spence, 1973). This is particularly relevant in the nonprofit sector where information asymmetry is particularly high between nonprofit agencies (information senders) and donors (information receivers). Transparency can, therefore, be seen as a form of signaling, which promotes information sharing between sender and receiver designed to help develop a connection (Spence, 2002). In sum, organizations choosing to be transparent will increase the visibility of their information irrespective of whether the underlying information is required or voluntarily produced by the organization. GuideStar provides an objective measure of transparency levels that we utilize to proxy for the overall transparency of an organization's information environment.

Prior research in the for-profit sector finds a consistent link between elements of strong governance and voluntary disclosures (Ball, Jayaraman, & Shivakumar, 2012; Samaha, Khelif, & Hussainey, 2015). In a meta-analysis of 64 empirical studies, Samaha et al. (2015) find that board composition and audit committee characteristics are positively associated with voluntary disclosure, whereas CEO duality is negatively associated with voluntary disclosure. Ball et al. (2012) document that an increase in resources spent on an independent audit increases the accuracy of management forecasts and the market reaction to such forecasts. These studies rely on agency theory (Fama & Jensen, 1983), which suggests that outside monitors such as auditors and independent board members provide superior monitoring. They also build on the notion that auditors and directors validate their reputations as expert monitors by providing more voluntary disclosures (Samaha, Dahawy, Abdel-Meguid, & Abdallah, 2012).

In the nonprofit sector, we are aware of a single study, which relates disclosures and governance. Using a sample of 40 Taiwan medical institutions, Saxton, Kuo, and Ho (2012) find that electing to disclose financial statements on the Taiwanese department of health website is associated with organizations that have larger boards with less independent board members. The counterintuitive nature of their board independence finding is likely attributed to country-specific as well as sector-specific attributes. Consequently, research is both limited and mixed in the nonprofit area. In addition, as noted earlier, nonprofits may not choose to be transparent via GuideStar if they feel their donor base will not view the information, or if they have relatively poor performance information to share.

However, to the extent that nonprofit organizations follow for-profit firm findings, we anticipate better-governed organizations will be dedicated to being more transparent, and therefore, posit a positive association between governance and transparency, leading to our first formal hypothesis:

Hypothesis 1 (H1): Organizations with stronger governance will elect to be more transparent.

Voluntary disclosures are said to improve the information environment and thereby reduce information asymmetry (Cheynel, 2013; Dhaliwal, Li, Tsang, & Yang, 2011; Shroff, Sun, White, & Zhang, 2013). Signaling theory argues that signalers (nonprofit organizations in our context) communicate positive outcomes to receivers (donors in our context), for example, that the organization has been profitable and/or efficient in their operations; and in turn receivers (donors) will use the signal information to make important decisions, such as whether to contribute to the organization or not (Spence, 2002).

However, the desire for organizations to improve their information environment is expected to vary by whether the organization has relatively good or bad news to share. Literature in the for-profit sector finds a positive association between analysts' disclosure-level ratings and firm performance (Lang & Lundholm, 1993). In the nonprofit sector while our study is the first to link transparency and performance, prior literature documents that donors provide more contributions to organizations with higher operating margins and efficiency ratios (J. Parsons & Trussel, 2008; L. M. Parsons, 2003). Therefore, we expect organizations with good news to share in terms of strong financial performance to showcase this performance to prospective funders via increased transparency.

In terms of bad news, the for-profit literature includes evidence that managers accelerate the release of bad news to minimize legal liability (Baginski, Hassell, & Kimbrough, 2002; Skinner, 1997), and/or to create more valuable stock options (Aboody & Kasznik, 2000; Yermack, 1997). However, when managers are concerned about job security, they are more likely to delay the release of bad news (Kothari, Shu, & Wysocki, 2009). The nonprofit environment is a less litigious environment and executives cannot be granted stock options in a setting where there are no residual claimant rights. Nonetheless, nonprofit managers are expected to have career concerns and value job security similar to managers in the for-profit setting. In addition, nonprofit executives are compensated in part by the relative performance of the organization (Balsam & Harris, 2018; Sedatole, Swaney, Yetman, & Yetman, 2017). Therefore, also consistent with findings in the for-profit literature, we expect organizations with relatively poor performance to be associated with less transparency.

In sum, we expect nonprofit organizations to follow for-profit literature insofar as good news will be shared more readily (increasing transparency) and bad news will lessen information sharing (reducing transparency). This culminates in our second hypothesis:

Hypothesis 2 (H2): Organizations with better financial performance will elect to be more transparent.

Professional staff plays an integral role in ensuring the quality of the information environment. In the public sector, credentialed accounting staff are associated with the voluntary adoption of Generally Accepted Accounting Principles (GAAP; Khumawala, Marlowe, & Neely, 2014). In addition, governments with more professional administrators have been

found to have higher disclosure quality (Giroux & McLelland, 2003). In the nonprofit sector, the professionalism of the staff can vary dramatically across organizations. For smaller grassroots organizations, there may be one paid staff person (or none at all) and numerous volunteers supporting the organization. For the largest nonprofits, including universities and hospital systems, there are multiple layers of professional managers with compensation packages rivaling for-profit competitors. We argue that professional staff have the time and expertise necessary to provide more information to donors. As a result, we expect nonprofits with relatively more professional staff to be associated with greater levels of transparency, stated formally as:

Hypothesis 3 (H3): Organizations with more professional staff will elect to be more transparent.

The decision to fund a nonprofit organization is complex and relies on a multitude of factors including internal motivations (e.g., altruism) and external influences (e.g., personal request, tax deduction, tradition; Gordon & Khumawala, 1999). In a related, but separate context, Behn et al. (2010), using a sample of 260 nonprofits, find that nonprofit organizations were more likely to respond to a request for audited financial statements if they had a larger ratio of contributions to total revenues. That is, organizations more reliant on donor support were more likely to respond to donor inquiries for additional financial information. In the extreme, an organization that relies entirely on individual donors to fund operations is incentivized to provide as much information to donors as demanded. On the other extreme, a nonprofit that relies entirely on earned revenues will be insensitive to the information needs of individual donors. As a result, we expect organizations more reliant on donations to be more interested in transparency. Hypothesis 4 is thus stated as

Hypothesis 4 (H4): Donation-reliant organizations will elect to be more transparent.

Substantial variation exists in state regulation over nonprofit organizations. For example, while as many as 26 states require charity organizations to undergo a financial statement audit, only the state of California requires such statements to be publicly available. Using a sample of over 7,000 public charities, Desai and Yetman (2015) find that increased state regulation brings about more efficient operations as well as constrained managerial compensation. Furthermore, charities have been found to be more accurate in their expense reporting when located in a state with stronger charity regulation (Yetman & Yetman, 2012). Finally, nonprofits in states that require an audit and in states that require public disclosure of the audit reduce the incremental cost to organizations in disseminating the audited financial statements via GuideStar. Taken together, we expect stronger state audit and disclosure requirements will be associated with greater levels of transparency, guiding our fifth hypothesis:

Hypothesis 5 (H5): Organizations with stronger state audit and disclosure requirements will be more transparent.

Our first five hypotheses examine the determinants of nonprofit transparency; our final two hypotheses examine the consequences of transparency. Although the decision to fund an organization is complex, a subset of funders desire information about the organization they plan to fund (Buchheit & Parsons, 2006; Gordon & Khumawala, 1999). Confirming

this, Zhuang, Saxton, and Wu (2014) develop an analytical model illustrating the positive interaction between disclosure levels and donations using a sequential econometric game with one nonprofit organization and N donors. Saxton, Neely, and Guo (2014) empirically test this proposition using web-disclosed mission-related performance information for a stratified random sample of 307 organizations with web disclosures during fiscal year 2007. Using these limited data, they document a positive relationship between the level of website disclosure and future contributions.

Although Saxton et al. (2014) makes important first steps at understanding donor reactions to disclosures, several limitations exist. First, their sample is limited to 307 organizations, representing much less than 1% of the 501(c)(3) nonprofit organizations reporting to the IRS in 2007. Second, they rely on disclosures buried on individual charity websites making it costly for donors to gather an individual organization's performance information, as well as nearly impossible to access multiple organizations information for the same time frame or in the same format. The advantage of the existing study, beyond the ability to test this proposition on a large sample of industry-diverse organizations, is the opportunity for donors to gather information easily, in a single location (GuideStar.org) for over 11,000 nonprofit organizations with varying degrees of transparency. Two other factors distinguish our study. As discussed in more detail below, our multivariate models include controls for the probability of being transparent in the first place (measured using our determinants model) as well as other types of donor information available to contributors, such as third-party ratings. Finally, information disclosed on GuideStar is synthesized for donors in a format that allows users to quickly and easily gauge the amount and extent of provided information. As a result, we formally present our sixth hypothesis as follows:

Hypothesis 6 (H6): Organizations with higher levels of transparency receive more future contributions.

Our final hypothesis focuses on the underlying information reported by the organization. Specifically, we hypothesize that organizations with better results to report will be rewarded incrementally more for being transparent. We focus on two measures of nonprofit performance: the program ratio (program expenses / total expenses), and cost of fundraising (fundraising expenses / total contributions). The program ratio and cost of fundraising appear to be the two most often cited financial ratios when nonprofit financial information is evaluated. The Better Business Bureau Wise Giving Alliance (BBB) requires organizations to spend at least 65% of total expenses on programs, and to spend no more than 35% of related contributions on fundraising to be accredited. Similarly, Charity Navigator reduces an organization's score if they spend too much on fundraising and/or spend too little on program expenses. In the for-profit context, research has found that the relationship between financial disclosure and cost of capital is magnified when intellectual capital disclosures are provided (Mangena, Li, & Taurigana, 2016). In sum, we expect transparency to magnify the effects of better (worse) performance translating into more (less) in contributions as a result of being transparent. This leads to our final hypothesis:

Hypothesis 7 (H7): Transparent organizations with better (worse) reported performance receive more (less) in future contributions.

Models and Sample

Sample

With relatively few exceptions (religious organizations and organizations reporting gross receipts less than US\$200,000 and/or total assets less than US\$500,000), all 501(c)(3) non-profit organizations are required to complete the long (as opposed to EZ short form) informational tax return Form 990.² This financial information is then disseminated to the public via individual organization websites as well as IRS intermediaries including GuideStar.³ We pair the most recent 501(c)(3) Form 990 financial data available from the National Council on Charitable Statistics (NCCS) Statistics of Income file (2012) with transparency-level data purchased from GuideStar for the same time period providing for 14,217 unique firm observations usable for our first five hypotheses (determinates Model 1). For our consequences analyses, we pair disclosure data with 1-year ahead contributions data. This limits observations available to 6,309 unique firms.

Determinants Model

To test our hypotheses empirically, we employ two multivariate models. First, a logistic regression determinants model that examines our first five hypotheses related to the types of organizations that increase their transparency via GuideStar. Second, an ordinary least squares (OLS) regression model, which analyzes the impact of transparency on future donor contributions. In addition to our discussion below, all model variables are defined in Table 1.

Our first test variable, *Transparency*, is defined as an indicator variable activated for organizations providing information beyond required IRS Form 990 on their GuideStar profile page, and zero otherwise. All users can access GuideStar transparency-level information free of membership or charge, and nonprofit organizations providing information to GuideStar may do so free of charge or other constraints.⁴ In fact, participating organizations are incentivized to provide additional disclosures as noted in the benefits section of the appendix. In addition to the benefits outlined in the appendix, organizations can activate a donation button on their profile page in addition to having grant applications prepopulated with hundreds of data fields from the organization's profile page.⁵

In addition to our main transparency variable, we also test two variations. The first, *Transparency Level*, is an ordinal variable taking the values of 0, 1, 2, and 3 for no additional information (Basic), Bronze-, Silver-, and Gold-level transparency, respectively.⁶ The second, *Transparency Silver or Gold*, takes the value of one for organizations providing transparency above and beyond the basic information disclosure outlined for Bronze-level participants; and zero otherwise. See the appendix for detailed GuideStar transparency-level requirements.

Turning now to our determinants model test variables, H1 predicts a positive relationship between transparency and good governance. We use three measures to proxy for governance in our models: *Governance Index*, *Independent*, and *Audit*. We define *Governance Index* following Boland, Harris, Petrovits, and Yetman (2018) using the simple summation of nine governance policies reported on Form 990 section VI; specifically, the existence of (a) conflict of interest, (b) whistleblower, (c) document destruction, (d) CEO salary setting, (e) Form 990 review, (f) meeting minutes policies, (g) the absence of related party transactions, (h) the absence of outsourced management functions, and (i) indication that financial

Table 1. Variable Definitions.

<i>Transparency</i>	1, if the organization was assigned either a Bronze-, Silver-, or Gold-level transparency rating by GuideStar; 0 otherwise
<i>Transparency level</i>	0-3 corresponding to Basic-, Bronze-, Silver-, and Gold-level transparency rating assigned by GuideStar
<i>Transparency Silver or Gold</i>	1, if the organization was assigned either a Silver- or Gold-level transparency rating by GuideStar; 0 otherwise
<i>Governance index</i>	0-9 equal to the sum of indicator variables for the following governance variables reported on Section VI of the Form 990: conflict of interest policy, whistleblower policy, destruction of documents policy, CEO salary setting policy, no related party transactions, no outsourcing of the management function, providing Form 990 on the organizations own website, documentation of governing body meetings, and governing body review of Form 990 prefiling
<i>Independent</i>	Ratio of independent board members / total voting board members
<i>Audit</i>	1, if the organization reported having their financial statements audited by an independent auditor; 0 otherwise
<i>Operating margin</i>	(total revenues – total expenses) / total revenues
<i>Pay</i>	Total compensation of current officers, directors, etc. / total expenses
<i>Employees</i>	Log of total number of employees
<i>Donation reliance</i>	Total contributions / total revenues
<i>Public disclosure requirement</i>	1, if organization is headquartered in a state that requires audited financial statements be publicly disclosed
<i>State audit requirement</i>	1, if organization is headquartered in a state that requires audited financial statements
<i>Total assets</i>	Log of year-end total assets
<i>Total contributions</i>	Total contributions, gifts, grants, and other similar amounts
<i>Program service revenues</i>	Log of program service revenues
<i>Fundraising expenses</i>	Log of fundraising expenses
<i>Program ratio</i>	Program service expenses / total expenses
<i>Age</i>	Log of years since 501(c)(3) status was granted
<i>Third-party rated</i>	1 if organization is rated by Charity Navigator, Better Business Bureau Wise Giving Alliance, or CharityWatch following Harris and Neely (2015)
<i>Cost of fundraising</i>	Fundraising expenses / total contributions

statements are made available on the organization's website. *Independent* is defined as the ratio of independent to total voting board members. *Audit* is an indicator variable activated for organizations reporting an independent audit of the organizations' financial statements.

H2 posits a positive relation between superior financial performance and transparency. We test nonprofit financial performance in two ways, using *Operating Margin* and *Program Ratio*. *Operating Margin* is defined as total revenues less expenses scaled by total revenues, following Chang and Tuckman (1990). *Program Ratio* is defined as the ratio of program service to total expenses following Weisbrod and Dominguez (1986). Given that *Operating Margin* and *Program Ratio* are increasing in better performance, we expect positive relationships between *Transparency* and both performance metrics.

Our third hypothesis suggests a positive relationship between more professional staff and transparency. We include two variables, *Pay* and *Employees*, to proxy for the professional nature of the organizations in our sample. *Pay* represents the ratio of total officer pay to total expenses. We interpret a higher ratio of *Pay* as staff that is more highly compensated and, therefore, more developed professionally. We include *Employees* defined as the total number of employees actively working with the organization.⁷ We argue that organizations with more employees have a greater capacity to enhance transparency.

H4 states that organizations more reliant on donations have greater incentives to be transparent. We measure *Donation Reliance* as the ratio of total contributions to total revenues and expect a positive coefficient on this variable. Finally, we include two measures related to state disclosure and audit regulations. First, *Public Disclosure Requirement* is defined as an indicator variable activated for organizations headquartered in states with a requirement to publicly provide audited financial statements. Only one state, California, has such requirements in place. In particular, California Article 7 *Uniform Supervision of Trustees for Charitable Purposes Act* states: "A charity shall make its annual audited financial statements available to the public in the same manner that is prescribed for IRS Form 990."⁸ Our second variable, *State Audit Requirement*, is set to one for organizations headquartered in a state that requires audited financial statements (26 states), and zero otherwise.

In addition to these test variables, we also include controls for size and age in addition to industry-fixed effects. We control for size using *Total Assets* or the log of year-end total assets.⁹ *Age* is defined as the log of the number of years since the organization was granted 501(c)(3) tax-exempt status. This culminates in the following determinants model tested using logistic (or ordered logistic) regression:

$$\begin{aligned} Transparency_t = & \beta_1 Governance\ Index_t + \beta_2 Independent_t + \beta_3 Audit_t \\ & + \beta_4 Operating\ Margin_t + \beta_5 Program\ Ratio_t + \beta_6 Pay_t \\ & + \beta_7 Employees_t + \beta_8 Donation\ Reliance_t \\ & + \beta_9 Public\ Disclosure\ Requirement_t + \beta_{10} State\ Audit\ Requirement_t \\ & + \beta_{11} Total\ Assets_t + \beta_{12} Age_t + Industry\ fixed\ effects + \alpha \end{aligned} \quad (1)$$

where *Transparency* is alternatively defined as *Transparency Level* or *Transparency Silver or Gold*.

Consequences Model

Our consequences model is developed following the donations demand model documented by Weisbrod and Dominguez (1986) and widely used in both the accounting and economics literature. Specifically, we include our *Transparency* and *Transparency Levels* test variables into the standard donations demand model, which includes six known donation covariates, as discussed below.¹⁰ Following prior literature (J. Parsons & Trussel, 2008; Petrovits, Shakespeare, & Shih, 2011), both our test and control variables are measured with a 1-year lag to allow donors time to review and react to the information available to them.¹¹

Our response variable, *Total Contributions*, is defined as the natural log sum of total indirect and direct donations as well as government grants received by the organization.

We use total contributions rather than direct donations for data availability reasons. That is, to test the impact of 2012/2013 information on 1-year ahead donor response our models require 2013/2014 donation data only available from the NCCS Core file. Core file data do not include individual contribution components and we, therefore, study contributions in aggregate.¹²

Several financial characteristics have been found to significantly explain contributions in the nonprofit sector. Namely, organization size, efficiency, fundraising expenses, alternative revenue sources, operating margin, governance, and third-party ratings. We define organizational size, as above, using lagged logged year-end *Total Assets* and expect a positive relationship following prior literature (Krishnan & Schauer, 2000; Tinkelman, 1998).¹³ Efficiency is defined as the lagged ratio of program service to total expenses or the *Program Ratio* found to be positively related to contributions (Okten & Weisbrod, 2000; Posnett & Sandler, 1989; Tinkelman, 1999; Tinkelman, 2006; Weisbrod & Dominguez, 1986). Lagged, logged *Fundraising Expenses* are included following Tinkelman (1999) who finds that contributions are increasing in fundraising outlay.

To control for the effects of alternative revenue sources, we include lagged logged *Program Service Revenues*, however, given mixed results in this area, we do not predict the direction of this variable coefficient. As defined above, we also include lagged *Operating Margin* and *Governance Index*. Chang and Tuckman (1991) document a positive relationship between contributions and financial stability; Harris, Petrovits, and Yetman (2015) find a positive relationship between contributions and governance; as a result, we likewise expect positive coefficients on these variables. In addition, Harris and Neely (2016) find that organizations rated by third-party rating agencies accrue more in donations than their unrated counterparts. To rule out the possibility that third-party ratings are driving our results, we include an indicator variable activated for organizations rated by the three largest rating agencies: Charity Navigator, BBB Wise Giving Alliance, and CharityWatch.

Unfortunately, similar to many donor contribution studies, our project is limited by the endogenous nature of donor giving. That is, do donors give more based on levels of transparency or are transparent organizations more likely to seek and receive contributions? To address the issue of endogeneity in our study, we control for self-selection using a two-stage Heckman (1979) approach, which controls for the likelihood of being transparent using our first-stage determinants model. According to Tucker (2010), in situations where selection bias is caused by unobservable variables (such as the choice to be transparent), a two-stage Heckman inverse Mills ratio (IMR) method is most appropriate for mitigating the effects of selection bias. The benefit of the Heckman (1979) two-stage process is the ability to control for the likelihood that a nonprofit is in the practice of being transparent via GuideStar (estimated using our first-stage prediction model).¹⁴ Finally, we include industry and state-fixed effects to control for differences in both regulatory environment and economic performance.

We estimate our model using robust regression techniques (iteratively reweighted least squares), which assigns a weight to each observation with higher weights given to observations, which meet the assumptions underlying standard multiple regression.¹⁵ Robust regressions also adjust for data outliers identified as a potential problem when working with IRS Form 990 data, from which we draw our sample (Tinkelman & Neely, 2011). In sum, our consequences model is summarized as follows:

$$\begin{aligned} Total\ Contributions_{t+1} = & \beta_1 Transparency_t + \beta_2 TotalAssets_t + \beta_3 Program\ Ratio_t \\ & + \beta_4 Fundraising\ Expenses_t + \beta_5 Program\ Service\ Revenues_t \\ & + \beta_6 Operating\ Margin_t + \beta_7 Governance\ Index_t \\ & + \beta_8 Third\ Party\ Rated_t + \beta_9 IMR_t + Industry\ fixed\ effects \\ & + State\ fixed\ effects + \alpha \end{aligned} \tag{2}$$

where *Transparency* is alternatively defined as *Transparency Level*.

In addition to our main contributions model, we incorporate two alternative interaction variables to test our seventh hypothesis related to increased donor support to transparent organizations, also performing well. Specifically, we interact *Transparency* with *Program Ratio* and predict a positive coefficient consistent with our conjecture that transparent firms with more efficient operations (higher program ratios) will attract more future contributions. Alternatively, we expect transparent organizations with higher *Cost of Fundraising*, defined as the ratio of fundraising expenses to total contributions, will accrue lower amounts of 1-year ahead contributions, consistent with lower cost of fundraising indicating better performance.

Results

Descriptive Statistics

Table 2 provides industry distributions, as well as a breakdown of the transparency levels for our sample of 14,217 unique firms. Here, we show that 2,305, or approximately 16%, of sample firms provide information beyond what is required by the IRS, with 461 (3%) Bronze level, 1,809 (13%) Silver level, and 35 (less than 1%) Gold level. This compares with the results of Hyndman and McConville (2016) who find that the majority of charities do not disclosure efficiency measures across three mediums of disclosure (Trustees’ Annual Report, Website, and Annual Reviews) in a sample of 100 U.K. charities.

Turning to our industry breakdown, the largest percentage of organizations in our sample comes from the human services industry (24%), this is followed closely by hospitals (18%), health and education (14%), and mutual, public, and societal benefit firms (10%). Remaining industries include universities, arts, environmental, religious, and international

Table 2. Sample Distribution by Industry.

Industry group	Frequency	%	Basic	Bronze	Silver	Gold
Arts	823	6%	590	34	198	1
Universities	1,014	7%	874	58	82	0
Education	2,039	14%	1,828	53	154	4
Hospitals	2,580	18%	2,483	25	71	1
Environmental	379	3%	243	25	109	2
Health	2,060	14%	1,778	60	219	3
Human services	3,372	24%	2,729	138	488	17
International	252	2%	135	8	106	3
Mutual, public, and societal benefit	1,404	10%	985	54	362	3
Religion	294	2%	267	6	20	1
Total	14,217	100%	11,912	461	1,809	35

organizations of prominence. In terms of the most transparent sample industries, we find that international organizations have the largest percentage of observations providing additional disclosures (46%), whereas hospitals have the lowest (4%).

Additional sample information is included in Table 3 where we provide descriptive statistics for our model variables. Panel A provides descriptives for our full sample whereas Panel B provides means for our Basic, Bronze, Silver, and Gold subsamples. Starting first with Panel A, here we once again note that approximately 16% of our sample provides additional information to donors. Furthermore, our governance measure indicates that organizations in our sample have on average 6.9 out of nine governance policies in place, indicating a fairly high level of governance sophistication. Mean *Independence* reports that sample boards have approximately 86% independent board members. Approximately, 87% of sample organizations are audited by an independent auditor, and have operating margins of approximately 6%. Sample firms' ratio of officer pay to total expenses comes in at approximately 3% and the average number of employees is 646. We find that contributions make up approximately 31% of total revenues and mean total assets come in just over US\$155 million.

Turning to Panel B we note that, consistent with our expectations, governance is increasing in transparency level. We also find that board independence, operating margin, donation reliance, and fundraising expenses are also increasing with transparency level. Interestingly, we find that the largest organizations, as well as organizations receiving the most in contributions, on average, are those at the silver transparency level, while those same organizations report the lowest level of program service revenues. We also find that silver transparency-level organizations are most often rated by third-party ratings agencies.

Table 4 presents a correlation matrix of our model variables. Here, we note that our highest correlation coefficient (.85) is between *Program Service Revenues* and *Employees* indicating that organizations more focused on generating program revenues have, in general, a larger employee base with which to provide services and generate revenues. Similarly, we note high correlations between *Program Service Revenues* and *Total Assets* (.69) as well as between *Total Assets* and *Employees* (.68). Despite these large coefficients, all variance inflation factors (VIFs) are less than two, indicating that multicollinearity is not an issue in our sample. Interestingly, the correlations between transparency and other model variables are all below .30 suggesting that our transparency construct provides distinct information above and beyond *Governance Index*, *Operating Margin*, *Third-Party Rated*, as well as other factors controlled for in Model 2.

Determinants Results

Table 5 presents the results of our determinants model. Beginning with H1, we find that organizations with better governance choose to be more transparent. In particular, we find significant positive relationships between *Transparency* and *Governance Index*, *Independence*, and *Audit*. That is, organizations with more governance policies in place, those with more independent boards, and those contracting an independent auditor are found to be more transparent via GuideStar. These relationships are consistent across all three specifications of our test variable: *Transparency*, *Transparency Level*, and *Transparency Silver or Gold*.

Related to H2 and the operating performance of the organizations in our sample, we find a positive relationship between both *Operating Margin* and *Program Ratio* and all three variations of our test variable. We interpret this to mean that organizations that are

Table 3. Descriptive Statistics.

Panel A: Full sample.

<i>n</i> = 14,217	<i>M</i>	Median	<i>SD</i>	Minimum	Maximum
<i>Transparency_t</i>	0.162	0.000	0.369	0.000	1.000
<i>Governance index_t</i>	6.859	7.000	1.562	0.000	9.000
<i>Independent_t</i>	0.862	1.000	0.245	0.000	1.000
<i>Audit_t</i>	0.869	1.000	0.337	0.000	1.000
<i>Operating margin_t</i>	0.060	0.042	0.353	-1.829	0.968
<i>Pay_t</i>	0.033	0.015	0.054	0	0.333
<i>Employees_t</i>	646	110	1,425	0	9,288
<i>Donation reliance_t</i>	0.314	0.120	0.360	0.000	1.000
<i>Public disclosure requirement_t</i>	0.095	0.000	0.294	0.000	1.000
<i>State audit requirement_t</i>	0.700	1.000	0.458	0.000	1.000
<i>Total assets_t</i>	155,617,539	46,692,084	366,311,493	38,366	2,587,518,208
<i>Total contributions_t</i>	10,424,768	1,064,493	32,582,040	0	246,824,224
<i>Program service revenues_t</i>	60,333,982	4,636,596	163,374,831	0	1,107,509,504
<i>Fundraising expenses_t</i>	575,822	709	1,635,017	0	11,713,809
<i>Program ratio_t</i>	0.826	0.856	0.154	0.000	1.000
<i>Age_t</i>	35.840	31.000	23.070	0.000	110.000
<i>Third-party rated_t</i>	0.066	0.000	0.249	0.000	1.000
<i>Cost of fundraising_t</i>	0.098	0.001	-0.215	0.000	1.532

Panel B: Means by transparency levels.

Subsample means	Basic <i>n</i> = 11,912	Bronze <i>n</i> = 461	Silver <i>n</i> = 1,809	Gold <i>n</i> = 35
<i>Transparency_t</i>	0.000	1.000	1.000	1.000
<i>Governance Index_t</i>	6.702	7.440	7.730	7.800
<i>Independent_t</i>	0.847	0.929	0.944	0.968
<i>Audit_t</i>	0.852	0.922	0.967	0.943
<i>Operating margin_t</i>	0.054	0.071	0.095	0.123
<i>Pay_t</i>	0.032	0.045	0.040	0.043
<i>Employees_t</i>	649	740	601	620
<i>Donation reliance_t</i>	0.272	0.460	0.549	0.574
<i>Public disclosure requirement_t</i>	0.090	0.124	0.124	0.086
<i>State audit requirement_t</i>	0.697	0.694	0.716	0.629
<i>Total assets_t</i>	151,782,239	157,773,063	180,749,273	133,591,470
<i>Total contributions_t</i>	7,744,022	15,229,555	26,572,250	24,917,304
<i>Program service revenues_t</i>	64,419,275	54,540,722	35,151,135	47,832,837
<i>Fundraising expenses_t</i>	432,813	930,928	1,410,777	1,415,627
<i>Program ratio_t</i>	0.826	0.820	0.828	0.840
<i>Age_t</i>	35.080	38.930	40.090	35.140
<i>Third-party rated_t</i>	0.036	0.102	0.256	0.143
<i>Cost of fundraising_t</i>	0.094	0.133	0.123	0.071

Note. See Table 1 for variable definitions. All continuous variables are winsorized at the 1 and 99 percentiles to mitigate the influence of outliers. While *Employees*, *Total Assets*, *Total Contributions*, *Program Service Revenues*, *Fundraising Expenses*, and *Age* are all logged in our multivariate analyses, we present the unlogged values here for ease of interpretation. [†]These indicate the timing of the variables (also noted in the models).

performing better in terms of operating profits and organizational efficiency are more transparent in nature. With respect to our third hypothesis, which tests the professional nature of sample employees, we find that both a higher percentage of expenses dedicated toward

Table 4. Correlation Table.

<i>n</i> = 14,217	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. <i>Transparency_t</i>	1.00																	
2. <i>Government index_t</i>	.23	1.00																
3. <i>Independent_t</i>	.14	.14	1.00															
4. <i>Audit_t</i>	.12	.45	.09	1.00														
5. <i>Operating margin_t</i>	.04	-.01	.01	.01	1.00													
6. <i>Pay_t</i>	.06	.00	.02	-.14	.02	1.00												
7. <i>Employees_t</i>	-.01	.15	-.09	.15	-.02	-.15	1.00											
8. <i>Donation reliance_t</i>	.27	-.02	.17	-.11	.12	.15	-.24	1.00										
9. <i>Public disclosure required_t</i>	.04	-.01	-.03	-.04	-.01	.02	-.02	.06	1.00									
10. <i>State audit requirement_t</i>	.01	.03	-.02	.03	-.03	.01	.02	-.02	.21	1.00								
11. <i>Total assets_t</i>	.02	.11	-.09	.13	.04	-.11	.68	-.13	.00	.00	1.00							
12. <i>Total contributions_t</i>	.19	.13	.02	.10	.07	-.09	.29	.29	.02	-.02	.45	1.00						
13. <i>Program service revisions_t</i>	-.06	.11	-.16	.13	-.01	-.15	.85	-.27	.00	.02	.69	.19	1.00					
14. <i>Fundraising expenses_t</i>	.20	.17	.06	.13	.03	-.07	.34	.14	.01	.02	.45	.61	.21	1.00				
15. <i>Program ratio_t</i>	.00	-.01	-.04	.00	-.16	-.17	.08	-.08	.01	-.02	.05	.07	.08	-.02	1.00			
16. <i>Age</i>	.05	.10	.08	.08	-.06	.04	.05	-.12	.02	.04	.01	-.06	.00	.16	-.14	1.00		
17. <i>Third-party rated</i>	.09	.22	.11	.21	.01	-.06	.17	-.12	-.02	.03	.11	.06	.11	.16	.00	.14	1.00	
18. <i>Cost of fundraising_t</i>	.28	.18	.10	.09	.00	.03	-.03	.25	.02	.02	.01	.20	-.07	.28	-.01	.04	.11	1.00

Note. See Table 1 for variable definitions. Bolded coefficients have significant *p* values at 10% level (two tailed).

Table 5. Determinants of Transparency.

Dependent variable:	Hypothesis / Predicted direction	I	II	III
		Transparency _t Coefficient p value	Transparency level _t Coefficient p value	Transparency Silver or Gold _t Coefficient p value
<i>Governance index_t</i>	H1 / +	.376*** .000	.380*** .000	.384*** .000
<i>Independent_t</i>	H1 / +	1.188*** .000	1.213*** .000	1.294*** .000
<i>Audit_t</i>	H1 / +	.418*** .001	.420*** .001	.556*** .000
<i>Operating margin_t</i>	H2 / +	.226** .010	.240*** .005	.276*** .005
<i>Program ratio_t</i>	H2 / +	.445** .036	.479** .023	.526** .029
<i>Pay_t</i>	H3 / +	2.808*** .000	2.760*** .000	2.382*** .000
<i>Employees_t</i>	H3 / +	.176*** .000	.178*** .000	.182*** .000
<i>Donation reliance_t</i>	H4 / +	1.784*** .000	1.779*** .000	1.772*** .000
<i>Public disclosure requirement_t</i>	H5 / +	.281*** .001	.263*** .001	.249*** .006
<i>State audit requirement_t</i>	H5 / +	.007 .901	.018 .752	.045 .489
<i>Total assets_t</i>	Control / +	.122*** .000	.126*** .000	.143*** .000
<i>Age_t</i>	Control / +	.200*** .000	.196*** .000	.206*** .000
<i>Constant</i>	NA	-10.696*** .000 Yes	-10.114*** .000 Yes	-10.995*** .000 Yes
Industry fixed effects				
<i>n</i>		14,217	14,217	14,217
Pseudo R ²		.2291	.1948	.2385
Model p value		.000***	.000***	.000***

Note. See Table 1 for variable definitions.

*Significant at 10% level. **Significant at 5% level. ***Significant at 1% level (two tailed).

paying officers as well as a larger work force are positively associated with transparency. This is consistent with more professional staff providing both the wherewithal and time needed to prepare transparent information. Once again, these results are consistent across all three specifications of our dependent variable.

Results for our fourth hypothesis indicate that indeed organizations most reliant on donations to support themselves are more likely to be transparent. We interpret this finding

to mean that organizations most dependent on donor support are those most interested in providing value-relevant information to donors to aid in their donation decision. Results for our final determinants hypothesis are also presented in Table 5. Here we find, consistent with our conjectures, that organizations subject to a public disclosure requirement are also those more likely to be transparent. However, we find no evidence that organizations required to file audited financial statements with their respective state are more transparent. Both of these results are once again consistent across all three specifications of our transparency variable.

Consequences Results

Turning now to our consequences model and H6, Table 6 columns 1 and 2 present results for the donations demand model augmented to include our *Transparency* and *Transparency Level* test variables. In both specifications, we find that transparency is associated with higher levels of 1-year ahead contributions. That is, transparent organizations accrue more in contributions in the year following the information disclosure than organizations delivering only basic information. Specifically, we find that going from not being transparent to being transparent results in a 53.27% increase in contributions.¹⁶ Furthermore, a one-unit increase in transparency (e.g., moving from Bronze to Silver) results on average in a 25.61% increase in contributions. This is consistent with the models developed by Zhuang et al. (2014) as well as small sample results documented by Saxton et al. (2014).

Model control variables are also consistent with prior literature. That is, contributions are increasing with *Total Assets*, *Program Ratio*, *Fundraising Expenses*, *Operating Margin*, and *Third-Party Rated* while decreasing with *Program Service Revenues*. In addition, we note that our IMR control variable is significantly different from zero indicating that our first-stage determinants model is functioning to mitigate the endogenous nature of transparency in our second-stage models. Finally, we note that our *Governance Index* coefficient is negative, which is not consistent with prior literature; however, when we exclude IMR from our model, *Governance Index* is positive and significantly different from zero consistent with our expectations.

Columns 3 and 4 of Table 6 present our tests of H7. Here, we find that more transparent organizations also reporting more efficient operations (higher program ratios) and lower cost of fundraising, as reflected in our interacted variables (*Transparency* \times *Program Ratio* and *Transparency* \times *Cost of Fundraising*), are rewarded with higher future contributions. We interpret this to mean that the rewards for being transparent are highest for organizations with better financial and nonfinancial information to share.

Additional Analyses

Determinants Model

In addition to our main determinants models presented in Table 5, to test the robustness of our specifications, we specify several alternative variable definitions. First, we incorporate three variations of our H1, governance measures. Following Harris et al. (2015), we construct composite factor analysis governance variables. Specifically, using principal component factor analysis with promax rotation, we define seven factor variables representing organizational policies, compensation practices, audit functions, board minutes, board duties, management duties, and absence of asset misappropriations. In untabulated analyses, we find that the first five of these measures are positively related to *Transparency*,

consistent with our main analyses. All other model signs and significance are also consistent with our Table 5 analyses.

Next, following Boland et al. (2018), we alternatively define a five variable governance index made up of audit committee, CEO salary setting, majority independent board, no outsourced management duties, and applicable forms disclosed on the organization's own website.¹⁷ Once again in untabulated analyses, we continue to find that governance is positively related to *Transparency* and all other model signs and significance are also consistent with our Table 5 analyses.

Our third governance variation includes board size in our determinants analyses. Here, we find evidence that larger boards are associated with more transparency. That is, in additional untabulated determinants analyses, we document a positive coefficient on *Board Size*, while all other model signs and significance are consistent with our Table 5 analyses. This is in line with findings from Aggarwal, Evans, and Nanda (2012), which indicate that larger boards are positively associated with fundraising performance, and therefore, suggest that organizations that are more focused on fundraising are also most transparent in their operations. This is especially interesting given the paucity of research, which relates the impact of nonprofit board characteristics on organizational performance.

Related to our state audit and disclosure requirements, in additional untabulated analyses, we replace our *Public Disclosure* and *State Audit Requirement* test variables with the ordinal state regulation measure proposed by Desai and Yetman (2015). Specifically, our alternative measure, *State Regulation*, ranges between 3 and 16 in our sample, where higher levels represent more imposed state regulation requirements. Alternatively, we replace our two state regulation variables with state-fixed effects. In both of these variations of Model 1, we consistently find that *Transparency* is positively related to *State Regulation*. All other model signs and significance are also consistent with our Table 5 analyses.

Finally, some organizations may face larger contractual agreements from lenders or granting institutions, which require the preparation and dissemination of additional financial disclosures. These required disclosures reduce the incremental costs of satisfying the GuideStar transparency-level requirements. To control for this possibility, we incorporate indicator variables for organizations receiving bond financing and those required to complete an OMB Circular A-133 ("Single Audit"). In untabulated analyses, neither of these indicator variables are found to be significantly related to our transparency test variables and given their high correlations with our *Audit* and *State Audit* variables are excluded from our main analyses.

Consequences Model

To rule out the possibility that donor type plays a role in our consequences findings, we also partition our Table 6 results between sophisticated and unsophisticated donors (Amin & Harris, 2017). We define donor sophistication following Yetman and Yetman (2013) as an indicator variable equal to one for organizations with nonzero permanently or temporarily restricted net assets. Untabulated results indicate that both donor types are positively related to transparency. That is, we continue to find significant coefficients on our *Transparency* and *Transparency Level* test variables; all other model signs and significance are consistent with our Table 6 analyses.

To test the robustness of our results to state public disclosure requirements (i.e., headquartered in the state of California), we partition Model 2 between organizations headquartered in the state of California versus all other states. In both segments of our sample, we

Table 6. Consequences of Disclosure.

Dependent variable: Total contributions _{t + 1}	Hypothesis / Predicted direction	I	II	III	IV
		Coefficient p value	Coefficient p value	Coefficient p value	Coefficient p value
Transparency _t	H6 / +	.427*** .000		-.429 .260	.484*** .000
Transparency level _t	H6 / +		.228*** .000		
Transparency × Program ratio _t	H7 / +			1.040** .022	
Transparency × Cost of fundraising _t	H7 / +				-.540*** .000
Total assets _t	Control / +	.292*** .000	.292*** .000	.292*** .000	.291*** .000
Program ratio _t	Control / +	1.257*** .000	1.257*** .000	1.152*** .000	1.319*** .000
Fundraising expenses _t	Control / +	.061*** .000	.061*** .000	.061*** .000	.063*** .000
Program service revenues _t	Control / ?	-.025*** .000	-.025*** .000	-.025*** .000	-.019*** .000
Operating margin _t	Control / +	.029*** .000	.029*** .000	.030*** .000	.101*** .000
Governance index _t	Control / +	-.513*** .001	-.514*** .000	-.513*** .000	-.513*** .000
Third-party rated _t	Control / +	.598*** .000	.585*** .000	.590*** .000	.585*** .000
IMR _t	Control / ?	-1.365*** .000	-1.366*** .000	-1.364 *** .000	-1.373*** .000
Cost of fundraising _t	Control / +				.001 .450
Constant	NA	16.379*** .000	16.391*** .000	16.482*** .000	16.266*** .000
Industry fixed effects		Yes	Yes	Yes	Yes
State fixed effects		Yes	Yes	Yes	Yes
n		6,309	6,309	6,309	6,309
Adjusted R ²		.3342	.3340	.3346	.4835
Model p value		.000***	.000***	.000***	.000***

Note. See Table 1 for variable definitions. IMR = inverse Mills ratio.

*Significant at 10% level. **Significant at 5% level. ***Significant at 1% level (two tailed).

Control / + & Control / ? = These indicate that prior literature is mixed and we do not have a prediction for this variable (common in the literature).

continue to find that transparency is positively related to future contributions, indicating that state disclosure requirements are not driving our results. All other model signs and significance are also consistent with our Table 6 analyses.

In addition to our full sample analyses, we also test the robustness of our consequences results to a matched sample design. Specifically, we employ propensity scores to match treatment and control organizations based on the variables outlined in our determinants Model 1. Once treatment and control firms are identified, we rerun our consequences analyses using a pooled sample of treatment and control firms. In this untabulated analyses, we

reliably find that *Transparency* and *Transparency Level* are once again positively related to future contributions, consistent with our main analyses.

Determinants and Consequences Models

Our final sensitivity analyses include both our determinants and consequences models simultaneously using two-stage least squares regressions (2SLS) specification. In this untabulated analyses, we continue to find a positive relationship between *Transparency* (and *Transparency Levels*) and future contributions. In addition, we find consistent results when we run both our primary determinants and consequences analyses separately by the 12 main NTEE (National Taxonomy of Exempt Entities) industries.

Conclusion

Using a sample of over 14,000 industry-diverse nonprofit organizations, this study documents first the key characteristics of organizations providing enhanced disclosure and thus greater transparency to information users. In particular, we find evidence consistent with organizations that have stronger governance, better performance, and more professional staffs being associated with greater transparency. In addition, we find that organizations that are more reliant on contributions, and those located in states that require public disclosure of their audited financial statements are more transparent.

Second, we test whether funders respond to increased transparency by increasing their funding to organizations with greater disclosures. Here, we hypothesize and find that the level of transparency is associated with greater future contributions received by the organization. In addition, we find that transparent organizations with better (worse) performance in terms of organizational efficiency (cost of fundraising), accrue higher (lower) future contributions. Overall, our results support the assertion that transparency in the nonprofit sector is value added to key stakeholders. In addition, organizations that choose to be relatively more transparent fall into the category of well-governed, professional organizations, that rely on contributions for funding, and who have relatively good financial performance to share. However, not all nonprofit organizations are rewarded for their transparency efforts. Organizations with relatively worse performance receive less in contributions relative to their higher performing peers. Greater transparency appears to be particularly important for relatively poorer performing organizations that are not well governed or managed.

This study is not without limitations. We are careful to point out that we are unable to draw causal inferences between governance and transparency. Like other governance studies, we must acknowledge that board composition is itself an endogenous choice, and, therefore, both governance and transparency may be driven by a correlated omitted variable not considered in this study. In addition, the information on the GuideStar profile page is self-reported. Therefore, it is possible that organizations are inflating the positive impacts they are making to receive more contributions. That is, the nonprofit information environment is a low risk/cost environment, which may result in the nonprofit providing overly rosy financial and/or impact information. In addition, the fact that the majority of the sample organizations do not participate in the GuideStar program in our sample period suggests nonprofits are either unaware of the program or do not feel the benefits outweigh the costs. However, it should be noted that since the time of our study, participation has increased significantly with over 500 additional sample organizations now providing additional information, with close to 200 charities achieving Gold-level status.




Overall, the findings from this study should be of interest to regulators and stakeholders who have the ability to influence transparency levels in the sector. The GuideStar program is an increasing popular distribution channel for nonprofits to share information about their organization to millions of current and potential stakeholders. Recently, GuideStar has introduced a fourth level of transparency, the platinum level. Organizations obtain platinum status by reporting quantifiable measures of results that they use when evaluating their progress. Future research can study the types of metrics organizations rely on to evaluate performance. Furthermore, studies can attempt to quantifiably measure outcomes rather than focus on how successful organizations are at raising funds, or how efficiently funds are spent. The current study marks an important first step at understanding the importance of the most visible distribution channel of nonprofit information. However, important questions remain related to nonprofit transparency that future scholars can and should address.

Appendix

GuideStar.org Exchange Criteria

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GuideStar Exchange Requirements and Benefits

Participation Level	Description	Requirements	Benefits
	Impact and effectiveness information	<ul style="list-style-type: none"> • Charting Impact report (goals, strategies, capabilities, indicators, progress) • Nonprofit's confirmation that Charting Impact information is up to date and accurate • Silver level requirements • Bronze level requirements 	<ul style="list-style-type: none"> • Widget to add Gold Participation Logo to organization's Web site • Silver benefits • Bronze benefits • 1 free seat (annual subscription) of GuideStar Premium, a \$1,500 value • 20% off PhilanTrack for Grantseekers (new customers only)
	Financial information	<ul style="list-style-type: none"> • Audited financial report OR GuideStar Basic Financial Statement • Nonprofit's confirmation that financial information is up to date and accurate • Bronze level requirements 	<ul style="list-style-type: none"> • Widget to add Silver Participation Logo to organization's Web site • Bronze benefits • 10% off Foundation Center's Foundation Directory Online Professional (new subscriptions only) • 20% off Foundation Center's in-person grant seeker training • Access to GrassrootsLog's exclusive 4technology tools • Free Premium Recruitment Tools from VolunteerMatch • 10% off PhilanTrack for Grantseekers (new customers only)
	Basic information	<ul style="list-style-type: none"> • Organization address • Nonprofit contact first name, last name, e-mail • Mission statement • Geographic area served • Organization leader first name, last name • Board chair first name, last name • Program name • Acceptance of Terms and Conditions • Authorization to update the form • Nonprofit's confirmation that information in organization's profile is up to date and accurate 	<ul style="list-style-type: none"> • Widget to add Bronze Participation Logo to organization's Web site • Bronze Participation Logo available for print materials • E-mail alerts about your organization's status with the IRS and when GuideStar receives a new 990 upload from the IRS • Access to GuideStar promotional tool kit • First access to registration for GuideStar webinars

GuideStar exchange requirements and benefits.

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Notes

1. IRS (Internal Revenue Service) informational tax return Form 990 is required of all 501(c)(3) public charities with the exception of organizations with less than US\$50,000 in gross receipts and religious organizations.
2. Organizations with gross receipts less than or equal to US\$50,000 may file the 990-N, while organizations with gross receipts less than US\$200,000 and total assets less than US\$500,000 may file the 990 EZ.
3. <https://www.irs.gov/charities-non-profits/copies-of-scanned-eo-returns-available>
4. In addition to GuideStar, nonprofits can also elect to disclose information on their individual organization website; information about the organization can also be found on charity evaluator sites including Charity Navigator, BBB (Better Business Bureau) Wise Giving Alliance, and/or CharityWatch. It should be noted, however, that charity evaluators review only a fraction of the total number of nonprofits represented on GuideStar. Nonetheless, to the extent that stakeholders are accessing information about the nonprofit from sources other than GuideStar, our tests are not capturing all sources of transparency, and are, therefore, biased against finding significant associations.
5. We have contacted GuideStar in an attempt to gather giving information from the “donate now” button, but unfortunately, they are not currently tracking this information.
6. Please note when we use our *Transparency Level* test variable, we employ an ordered logit model.
7. Our results are identical if we scale *Employees* by either Total Assets or Total Revenues.
8. http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV§ionNum=12586
9. Our results are robust to using Total Revenues in place of Total Assets to control for firm size.
10. Our consequences model results are substantially the same when we include *Transparency Silver* or *Gold* as our test variable, for brevity we do not table this third test variable.
11. Our results are robust to a contemporaneous model specification.
12. We acknowledge that government-granting organizations have the ability to dictate the level of transparency as a condition of grant funding. However, insofar as organizations with substantial government grants exist in our sample that do not participate in the GuideStar program, this limitation biases against our models finding results.
13. Our results are robust to using Total Revenues in place of Total Assets to control for firm size.

14. Similar to findings in the for-profit literature that disclosure levels tend to be sticky year over year (Lang & Lundholm, 1993), disclosure levels at nonprofit organizations in our sample do not vary widely year to year. As a result, alternative methods for mitigating the problem of endogeneity, such as a first difference specification, would not be appropriate in our setting.
15. UCLA Institute for Digital Research and Education (<http://www.ats.ucla.edu/stat/stata/webbooks/reg/chapter4/statareg4.htm>).
16. The economic interpretation of the transparency indicator variable when the dependent variable is logged is derived as follows: $100[\exp(c) - 1]$ where C is the coefficient estimate. See Halvorsen and Palmquist (1980) for a complete explanation.
17. We find similar results when we define our governance test variable as each individual governance variable separately, as well as various combinations of 4, 6, 7, and 8 governance variable indexes.

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